



SUSTAINABLE DESIGN OPTION STUDIO 1

2026 FALL TERM

Course lead: Prof. Khoo Peng Beng

Moderators: Prof. Thomas Schroepfer, Associate Prof. Stylianos Dritsas

Studio Instructors:

1. Associate Professor of Practice - Timothy Collins
2. Associate Professor of Practice - Calvin Chua
3. Adjunct Associate Professor - Jackson Tan
4. SUTD Faculty Fellow - Daryl Ho
5. Associate Professor - Peter Ortner

1. Introduction

1.1 Course Description

Option Studio 1 builds upon the foundational principles established in Core Studio 3 on urban design, extending the scope of architectural inquiry into the international realm. This studio invites students to critically engage with urbanism beyond the local context, fostering a comparative and experiential understanding of sustainable design across diverse cultural and spatial settings.

This year, the studio focuses on five globally significant cities — Vienna, Bangkok, Tokyo, Shanghai, and Seoul — each offering unique urban typologies, historical layers, and sustainability paradigms. Through a structured research process initiated in Singapore, students will investigate the urban conditions of these cities, followed by immersive travel to encounter, experience, and document their spatial and temporal dynamics.

The studio encourages students to compare and contrast these international urban environments with the Singaporean context. Using methods such as mapping, overlay analysis, and diagrammatic studies, students will extract insights that inform new design propositions. These proposals aim to generate innovative spatial-temporal interventions that respond to contemporary challenges in urban sustainability, while reflecting the nuanced interplay between global precedents and local conditions.

By synthesising cross-cultural urban experiences, Option Studio 1 cultivates a critical design approach that is both globally informed and locally responsive, preparing students to contribute meaningfully to the evolving discourse on sustainable architecture and urbanism.

1.2 Design Projects

The precise operational directives, briefs and specific sites, will be defined by the individual design critics in separate yet interconnected studio options. Each of these individual studio options will be led by ASD faculty and/or visiting professors and culminate in a speculative final project that will articulate architecturally specific positions regarding sustainable design in real world projects. The descriptions of the individual studio options for Fall 2026 are listed in Section 5.

1.3 Learning Objectives

At the end of the course, students will be able to:

- Identify issues of sustainable design in relation to socioeconomic, demographic and cultural trends, through the analysis of literature and review of architectural precedents
- Perform rigorous site analysis and map the site conditions
- Critique a project brief and develop strong, generative sustainable design concepts
- Translate design concepts into meaningful architectural and/or urban propositions at appropriate scales and levels of granularity
- Create convincing arguments for the design propositions and persuasive visual and tangible evidence

1.4 Measurable Outcomes

- Interpret the sustainable parameters and other issues of relevance to the project using drawings and diagrams
- Respond to a specific project brief and a specific context with a meaningful design concept
- Produce coherent architectural representations and models at sufficient levels of detail
- Communicate convincingly sustainable design propositions in the form of renderings, drawings, simulations, models

2. Course Schedule

Studio is based on a 14-week schedule, from 15 September 2026 to 17 December 2026. Lessons held weekly except Week 7, Recess from 25 October 2026 to 1 November 2026. Each project identifies its particular meeting schedule and work requirements. Ordinarily, there will be at least 2 formal reviews that cut across all studio options: an intermediate (mid-term) design review, and a final review.

Weekly lessons

Tuesday 2pm-6pm, Architecture Studio 3/4

Thursday 2pm-6pm, Architecture Studio 3/4

***Prof Timothy Collins Studio Session:**

Tuesday: 2pm to 6.30pm

Thursday: 3.30pm to 7pm

Mid-term review

Thursday, 22 October 2026, 2pm – 6pm

Final review

Thursday, 17 December 2026, 9am – 6pm

3. Assessment

Components	Percentage	Remarks
Class Participation	10%	Assessed on lesson attendance, quality of peer review feedback, and completion of course survey
Mid-term review submission	30%	Assessed on timely submission and project assessment criteria. Refer to notes below
Final term review submission	60%	Assessed on timely submission and project assessment criteria. Refer to notes below

Projects will be reviewed and assessed based on 4 criteria:

- their conceptual strength,
- the coherence of their architectural translation,
- their representative clarity and expressive power,
- and the persuasiveness of their communication, both orally, and through the physical and digital artefacts

Moderation will be held to ensure parity in grading across studios.

Letter grading is used for assessment.

Letter Grade	Grade Point	Explanation
A+	5.3	Exceptional performance
A	5.0	Excellent performance
A-	4.5	Excellent performance in most aspects
B+	4.0	Very good performance
B	3.5	Very good performance in most aspects
B-	3.0	Good performance
C+	2.5	Fairly good performance

C	2.0	Satisfactory Performance
D+	1.5	Improvement Needed
D	1.0	Minimally acceptable performance with much improvement needed
F	0.0	Fail

4. Submission Requirements

Digital submission is expected as well as a physical presentation. Instructors to provide students with an online link to collect online submissions.

4.1 Online submission specifications

- Original plans and boards in *.pdf file format; settings printing quality, but not larger than 50MB per file
- Slides in *.pdf file format where applicable
- Other files such as movies, animations where applicable

4.2 Physical model submission

- Details on model submission will be shared nearer review dates. Ordinarily, students are expected to make a submission the day before actual review. Submissions will be tagged for assessment purpose.
- Where applicable, selected models will be kept by pillar after review for accreditation purpose. Students will be informed if their models are selected.

4.3 InDesign file submission

- Using the InDesign template to document your Option Studio 2 works for the ASD Annual Publication.

5. Option Studios

There are 5 studio options for Fall 2026.

Instructor	Studio Title	City	Work Mode
Timothy M. Collins	Archi-Textual Excavations of Vienna	Vienna	Individual
Calvin Chua	Collective Increments: Alternative Development Frameworks for Bangkok's Chinatown	Bangkok	Pair Work (2 students)
Jackson Tan	Tokyo: The City Between	Tokyo	Pair Work (2 students)
Daryl Ho	The End of the Line: Rethinking the Megacity, An Almost Transparent Blue	Shanghai	Group Work (3–4 students)
Peter Ortner	Seoul Studio	Seoul	Group (2-3) (paired with MArch)

Refer to Annexes for studio briefs and instructors' profiles.

Summary Page for Students

Vienna

Instructor: Timothy M. Collins

Format: Individual

Study Trip: Vienna, Austria

Students explore architecture, literature, urban history and memory through architectural interventions situated within Vienna's urban fabric.

Bangkok Chinatown

Instructor: Calvin Chua

Format: Pair Work (2-person teams)

Study Trip: Bangkok, Thailand

Students investigate collective ownership, family-held property and incremental urban transformation as alternatives to large-scale redevelopment.

Tokyo: The City Between

Instructor: Jackson Tan

Format: Pair Work (2-person teams)

Study Trip: Tokyo, Japan

Students identify and intervene within Tokyo's "in-between" urban spaces through regenerative, ecological and salutogenic design approaches.

The End of the Line

Instructor: Daryl Ho

Format: Group Work (3–4 students)

Study Trip: Shanghai, China

Students explore Nanhui New City through landscape urbanism, hydrological systems and speculative design methodologies.

Seoul Studio

Instructor: Peter Ortner

Format: Group Work (2-3) (paired with MArch)

Study Trip: Seoul, South Korea

This is a research studio that is focused on protecting and enhancing liveability in the very densest urban contexts.

6. Important Notices

6.1 Plagiarism

Students are reminded that plagiarism is not acceptable at SUTD, all works should be original with proper credits given where applicable.

6.2 Originality of work

The work must represent the student's own effort. Work cannot be substantively done by another including outsourcing.

6.3 Submissions and presentations

All submissions and presentations are compulsory for all students; unless prior excuse with valid reason has been sought and approved by studio lead. Failure to meet any required items will result in grade penalty.

6.4 Warning Letters

In the case where someone is underperforming, students will be issued with a formal warning letter. These are taken seriously with the intent not to be overly punitive but to give students timely warning, so they may seek support and resolve the issues and graduate successfully.

6.5 Studio Attendance

Attendance for studio sessions are vital for the successful completion of the course as discussion and desk critiques are an essential part of the studio experience. In the event that a student is absent for more than 4 studio sessions without valid reasons, the studio instructor reserves the right to award a grade F or Incomplete at the end of term. A warning letter will be issued to students when he/she missed 2 studio sessions. Students are reminded to inform faculty in advance of any absences and to submit any valid reasons of absence thereafter.

6.6 Extension

Under exceptional circumstances, as assessed by individual studio instructor and course lead, a student may be granted an extension for the completion of the course. Three conditions for granting an extension are noted:

1. Request by student due to reasons (non-medical). Up to maximum 3 weeks. Final grade is capped at B maximum.
2. Request by student due to medical reason with supporting documentation. If the medical certificate states the period of rest, the same period of extension shall be granted without cap of grade.
3. If documented medical condition is chronic, 3 weeks extension can be given without a cap on grade. Further extension shall be subject to case-by-case evaluation.

6.7 Selected Works

Selected models and other materials may be retained by the school for use in accreditation and moderation, and also for display as representations of option studio's work.

6.8 Studio Use

Students are responsible for the orderly and tidy use of the studio spaces. This includes dedicated times at the end for cleaning up which must be attended by all. Any infringement or disturbance to the space of others may be subjected to punitive action.

7. Other Matters

For curriculum matters, please approach your respective studio instructors or studio TA - Adelin Telegram at @lynojo

For administrative assistance, please approach ASD office:

Ivy Tam wingyan_tam@sutd.edu.sg

Ng Wee Yi weeyi_ng@sutd.edu.sg

Kathy Sim aileng_sim@sutd.edu.sg

Lee Kah Wee kahwee_lee@sutd.edu.sg (Studios and Materials)

Annex A: Studio Instructors' Profiles

Timothy Matthew Collins

Associate Professor of Practice — Archi-Textual Excavations of Vienna



Timothy Matthew Collins embraces an interdisciplinary practice connecting architecture with visual art. He believes in the importance of creating healthy and supportive studio cultures in order to pursue design excellence, working the last twenty years to improve architecture education. In tandem with academic responsibilities, Timothy professionally specialises in residential renovations, with an emphasis on concept modelling, custom detailing and conscientious construction administration.

Timothy is also a mixed media visual artist focusing on the eschatological implications of collage. His current research explores architectural model-making using found objects to capture interstitial spaces created through the operations of scale. Timothy's essays and design projects have appeared in several publications including *Architects Draw: Freehand Fundamentals* by Sue Ferguson Gussow (Princeton Architectural Press, 2008) and *Open City: Existential Urbanity* by Diane Lewis (Charta, 2015). His artwork has been exhibited in numerous galleries in the United States and forms part of several museums' permanent collections.

Timothy obtained his post-professional Master of Architecture degree from Syracuse University's Graduate School of Architecture in Florence, Italy, and received a professional Bachelor of Architecture degree from the Cooper Union for the Advancement of Science and Art in New York.

Jackson Tan

Adjunct Associate Professor — Tokyo: The City Between



Jackson Tan is an Adjunct Associate Professor at Architecture and Sustainable Design, SUTD, and founded SPORES_Studio in 2013. He is recognised for his work in architecture, interior design and interactive design. Jackson adopts strategic design thinking to explore how time-based design can be developed to construct new physical and emotional experiences, blurring the world of speculation with reality. His research and works have been published and funded by the UK Arts Council, UK National Lottery Fund and UK Arts and Humanities Research Council, and have been widely exhibited around Europe, North America and China. Since 2008, Jackson has been a registered architect with the UK Architects Registration Board.

SPORES_Studio's portfolio includes a number of significant projects in Asia and Europe, including exhibition design at the London Science Museum, the Fraunhofer Institute in Munich, RIXC Gallery in Latvia and the National Art Museum of China. Other notable works include the reception for the London headquarters of China Central Television, concept cafés for Hong Kong's Sir Hudson Group and a pop-up store for UK retailer Harvey Nichols (Knightsbridge).

Calvin Chua

Associate Professor of Practice — Collective Increments: Bangkok's Chinatown



Calvin Chua is an architect and urban strategist working at the intersection of sustainable design, planning and advocacy. He is the founder of Spatial Anatomy, a strategic design practice working on projects across scales, cultures and geographies, with an interest in urban adaptation and transformation. The firm has developed regeneration masterplans in Southeast Asia, activated a heritage district through an architectural festival in Singapore, and developed an adaptive reuse framework for ageing malls.

Complementing his practice, Calvin engages the wider design community through writing op-eds for various magazines and exhibiting at festivals, including directing the Singapore Archifest (2023) and exhibiting at the Singapore Light to Night Festival (2022), the Hong Kong Centre for Heritage, Arts and Textile (2022), the Seoul Biennale (2017, 2019, 2023) and the Venice Biennale (2021, 2023). In parallel, Calvin serves as an Associate Professor of Practice at SUTD, and in 2022 he was a Visiting Professor at the Korea National University of Arts.

Recognised for his approach towards design practice and social causes, Calvin is an Asia 21 Next Generation Fellow (Class of 2022) and a global finalist for the Lisbon Triennale Millennium bcp Debut Award (2022). His projects and opinions have been featured in news media including CNA, CNN, Zaobao and Monocle. Prior to founding his own practice, Calvin worked with leading architecture and urban planning firms in Europe. A registered architect in the United Kingdom, Calvin graduated from the Architectural Association School of Architecture.

HO Jin Teck, Daryl

SUTD Faculty Fellow — The End of the Line: Nanhui New City, Shanghai



Daryl Ho is a Faculty Early Career Award (FECA) Fellow in Architecture and Sustainable Design (ASD) at the Singapore University of Technology and Design (SUTD). Daryl's research operates at the intersection of extended reality (XR), artificial intelligence (AI) and philosophy, exploring how immersive technologies and spatial media can open new paradigms of cultural and epistemic praxis. His current work explores the development of XR platforms as critical design instruments that engage with discourse surrounding spatial experience and technological mediation, bringing philosophy of technology and media theory into productive dialogue with design research and creative practice at a moment when XR and AI are fundamentally reshaping the conditions of embodied

practice and epistemic access.

Daryl received his PhD from SUTD, where he was awarded the President's Graduate Fellowship. As part of his broader engagement with computational approaches to territorial and environmental design, Daryl has held a visiting research position at Aalto University under the Computational Methodologies in Landscape Architecture and Urbanism department. In

parallel, he is actively involved in teaching and conducting workshops that critically examine the role of digital media and emerging technologies in design practice and pedagogy.

ORTNER Frederick Peter

Associate Professor - Hyper Dense Liveability, Seoul



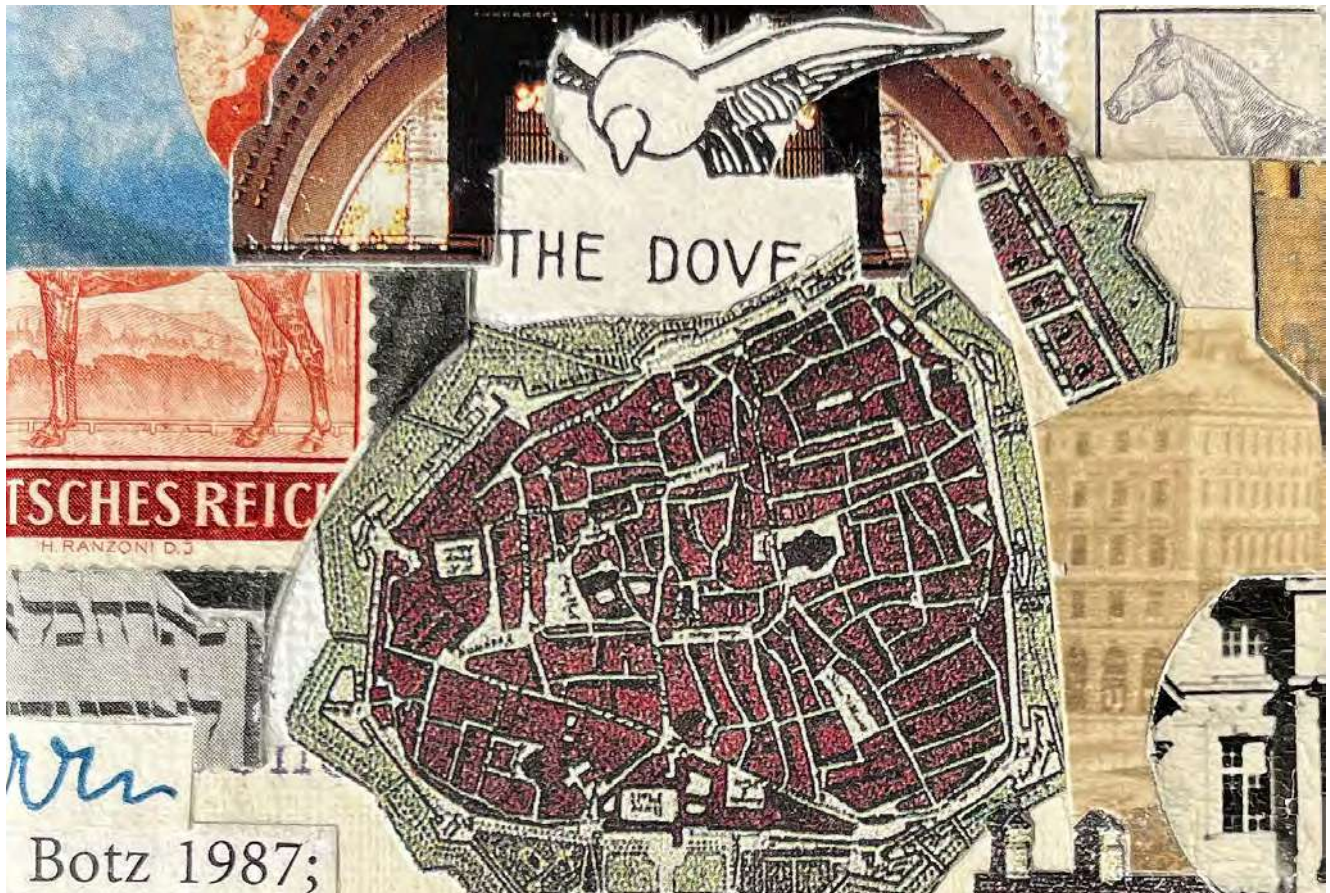
Peter Ortner is Associate Professor and MArch and PhD Coordinator for Architecture and Sustainable Design at the Singapore University of Technology and Design. Peter's research leverages computational techniques to create sustainable architecture and urban design. His current research introduces optimization into the process of design for circularity, augmenting the ability of the architect to contribute to zero-waste, carbon neutral cities. Predicting urban metabolism data for urban design scenarios is another ongoing research pursuit. In recent research Peter has applied computational design to challenges of urban resilience and automated mobility. His doctoral research built on insights from critical data studies and computational design to elucidate the changing role of architecture and architect in complex, data-

driven urban systems.

Peter received a PhD from EPFL where his doctoral thesis was nominated for the EPFL and City of Lausanne prizes. At EPFL Peter was a collaborator with Media x Design Lab, a cross-disciplinary team of designers and computer scientists. He holds a Master's in Architecture from Harvard University where he was recipient of the Faculty Design Award, and a Bachelor of Arts cum laude with distinction in architecture from Yale University. Peter has practiced architecture in the United States and Switzerland.

Annex B : Studio Briefs

Instructor	Studio Title	City	Work Mode
Timothy M. Collins	Archi-Textual Excavations of Vienna	Vienna	Individual
Calvin Chua	Collective Increments: Alternative Development Frameworks for Bangkok's Chinatown	Bangkok	Pair Work (2 students)
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In Wien, collage on 70 x 70 mm canvas with Map of Vienna's Innere Stadt (1830), "Grosser Deutsches Reich" Stamps (Nazi Annexation, 1943), textual fragments from Austrian Contemporary Historian Gerhard Botz (1987), and Christian religious iconography of the Paraclete (Holy Spirit).

ARCHI-TEXTUAL EXCAVATIONS OF VIENNA

"The pace of cultural development suffers from stragglers. I may be living in 1912, but my neighbour is living in around 1900, and that man over there in 1880. It is unfortunate for a state if the culture of its inhabitants extends over too long a period of time. The Tyrolean peasant lives in the twelfth century."

- Adolf Loos, *Ornament and Crime* (1908)

STUDIO OVERVIEW

Does architecture really matter in the face of political corruption, war, and genocide? *Fin de siècle* Vienna was an epicenter of music, philosophy, politics, architecture, and applied design, yet two world wars and the exile and annihilation of Vienna's Jewish population devastated the last vestiges of its cultural apogee. Among the societal symptoms preceding these calamities were the manipulation of journalistic language, the abrogation of institutions, and political anti-Semitism.

Students will encounter these alarming precedents through an investigation of Vienna's urban fabric along with the exploration of texts and essays written by Austrian thinkers, artists, and historians: offering insights into the complex emotional terrain of Austrian culture. These texts will serve as the primary research apparatus to engage Vienna and its history with our creative faculties. Literature will be used not only to enthrall the imagination, but to inspire our design process as well.

The studio will architectonically engage these texts using unconventional model making and “thick” representational techniques in order to explore literary space and the psychogeography of the city. Readings will be developed into conceptual programs for architectural interventions into the fabric of Vienna.

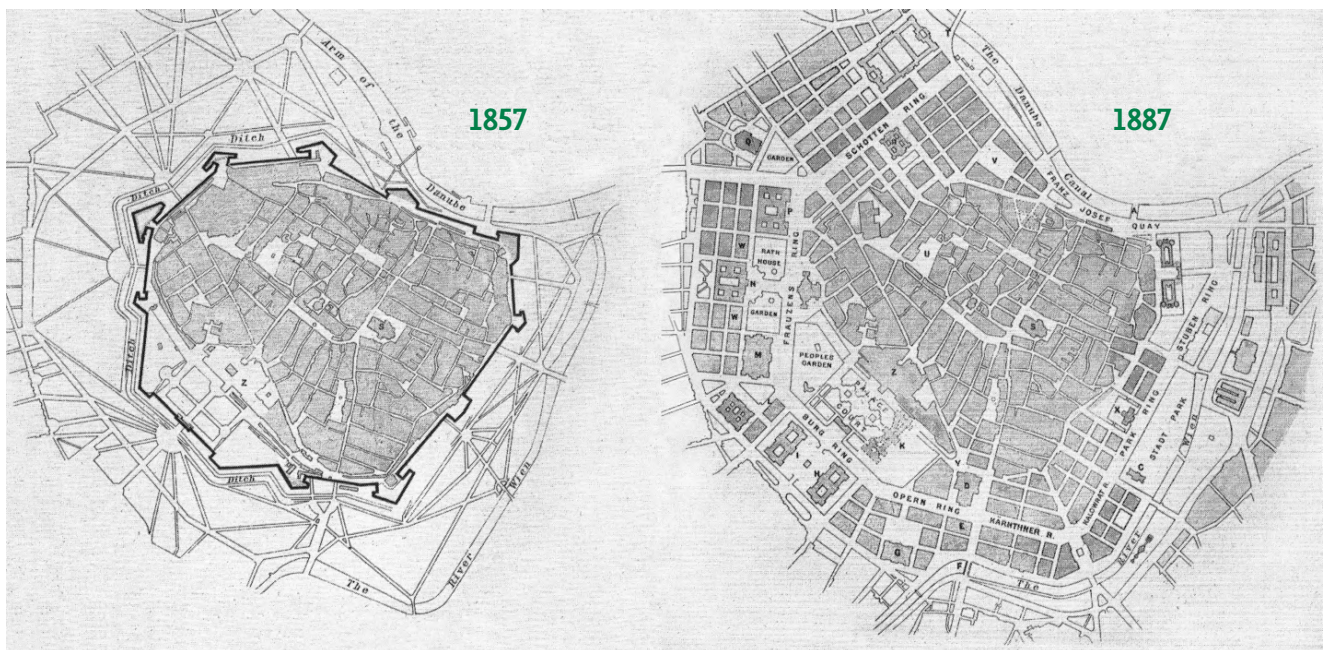
By treating Vienna as a laboratory to think through historical questions larger than design—but entwined with architectural and decorative polemics—we can confront the wicked enfeeblement of language, seen especially in the syntax of propaganda and ideological mobilization. The studio proposes to confront and critique the subversion of language itself through an architectural response, developing a tectonic vocabulary of line, form, color, surface, projection, solid and void in order to capture and diagnose our contemporary metropolitan crisis.

METHODOLOGY

The primary objective of the studio is for each student to intersect a Viennese urban site with a work of Austrian literature, using the text as a conceptual program in dialogue with the city to create an architectural intervention. **Each project should be an encounter between two texts: the lineaments of the city’s morphology and the literature of a particular author.**

Excerpts from several Austrian authors, artists, poets, philosophers, historians, polemicists, and designers—such as Karl Kraus’ *The Last Days of Mankind*, a textual and archaeological collage of Vienna’s milieu during the First World War—will be treated as the primary research apparatus for the studio, discussing the political and sociological climate of Vienna. Students will be encouraged to identify a Viennese or Austrian text that “speaks” to them and inspires their imagination, developing a critical awareness of Austrian culture in order to broaden the scope of questions the studio can ask through project forms.

In tandem with reading discussions, students will investigate the urban morphology of Vienna as another kind of “text.” We will focus in particular on the development of the city (seen especially in the architecture of the Ringstrasse) and the memorialization of political violence in urban space.



The Inner City of Vienna, 1857 and 1887, in Donald J. Olsen, *The City as a Work of Art: London, Paris, Vienna* (New Haven, CT and London: Yale University Press, 1986), 59.

Deliverables:

The overall trajectory of the studio can be defined through the following exercises:

- **Vienna Urban Syntactic Analysis:**
Each student will creatively select a site in Vienna, identifying a unique building or urban enclave to research and draw over the city's history. This "reading" will highlight the formal grammar of the city and its intersection with architectural design.
- **Collaboration with the Past:**
Through reading assignments and class discussions, each student will identify a Viennese author or text for their proposal. A brief 300–500 word composition written by the student should accompany each project.
- **'Archifecture' Model:**
Each student will generate an architectonic response to the selected Austrian text and Viennese site using collage and assemblage practices derived from Modern Art techniques.
- **Design Proposal:**
Each student's project will combine their site analysis in Vienna with an interpretation of a personally meaningful Austrian writing. Interventions shall creatively negotiate between site and text, challenging assumptions about programmatic determinism and tectonic form.

RESEARCH AND REPRESENTATIONAL APPROACH

Literature, drama, and critical theory will serve as the conceptual instruments to engage Vienna's cultural and sociological fault-lines. We will use Austrian texts not only to research and perceive the largely invisible milieu of the city's culture, but to inspire possible programmatic interventions into the contemporary urban fabric. By reading the city through its literature, we will attempt to inscribe these texts back into the urban morphology, creating a site of remembrance, encounter, or confrontation.

Core bibliographical resources will be provided in studio, however independent research of additional texts beyond the initial scope of the syllabus is necessary. Students are encouraged to explore the broad literary and artistic talents found in Vienna and identify a particular author or artist to study in-depth, such as:

Literature / Drama:

Rainer Maria Rilke
Thomas Bernhard
Ilse Aichinger
Georg Trakl

Philosophy / Religion:

Sigmund Freud
Ludwig Wittgenstein
Franz Cardinal König
Friedrich Heer

Architecture / Art:

Gustav Klimt
Adolf Loos
Otto Wagner
Raimund Abraham

In addition to investigating textual references, we will explore the "love-language" of design itself. Students will be introduced to alternate model-making practices that are inspired by modernist collage precedents as a mechanism to translate textual space into architectural space.

We will introduce an exploratory model making exercise intended to disrupt linear design thinking and support creative discovery. Students will be encouraged to create "artifacts" capable of communicating more than just geometric ideas. The goal will be to make things that have presence, while drawing in a way that reveals the weight of that presence: including light, shadow, scale, and texture. Architectural artifacts can include models, maps, sculptures, costumes, manifestos, fixtures, and performances. How can you speak, sing, or think through architectural processes and find your own voice using the discipline?

A CAUTIONARY NOTE

This studio will deal with the city of Vienna, its political history, and Austrian culture more broadly. As such, many controversial movements will be discussed. It is possible that students will encounter hate speech, racial or religious epitaphs, and other dangerous language that impoverishes our innate human dignity. The studio does not condone such language or its attendant behavior—quite the opposite—but it is not possible to confront history or to define positive moral values without addressing our all-too-human capacity for sin and corruption. It is expected that each student will exercise maturity and discretion when addressing these historical phenomena, as well as supporting fellow classmates in their investigations and discoveries.

The studio is structured to “agitate,” encouraging each student to discern their own outlook and design approach in response to the curriculum. Students are asked to take tentative positions in regard to these contentious ideas and historical events that continue to influence the present. It is from these positions that architectural designs will emanate.

Die Stadt ohne Juden (The City Without Jews) by Hugo Bettauer (published 1922); film adaptation by Hans Karl Breslauer (1924).



GUIDING PEDAGOGICAL PRINCIPLES

- **Empathy:** Through conscientious class discussion, students will be encouraged to sympathetically address divisive discriminatory attitudes, exclusionary practices, and respond to Austria’s fraught socio-political landscape during the twentieth century.
- **Reading as a Drawing Method:** Student engagement with essential texts should result in significant marginalia that can be used to direct design. Notes, diagrams, and sketches should emerge in the margins of the selected book or extract as a creative reading response.
- **Literary Dimension of the City:** Urban form will be treated as a palimpsest of intersecting “texts” (social, economic, political, and mythological). Projects will be tasked not only to generate formal structures, but also critique socio-institutional assumptions about building program. The city can be understood and interpreted through its tectonic fabric: architectural transformations of discreet buildings over time register and retain historical developments of the city and its culture.
- **Architectural Syntax:** Design performance (both physical and virtual) can be “read” in the lineaments of building form, often revealed through orthographic projection (Plan, Section, and Elevation). Analysis will be required to isolate and highlight these formal maneuvers and refine their language.
- **Representation as the driver of Architectural Ideas:** The critical use of multi-modal analogue drawing and “thick” physical modeling techniques along with A.I. softwares and digital fabrication will be used to question form-making processes and expand design visualization.



Austrian Chancellor Engelbert Dollfuss with Theodor Cardinal Innitzer, 1933. Dollfuss was later assassinated by Austrian Nazis in an attempted coup d'état in 1934. Original photo in Friedrich Heer and Olinda Pawek, *Katholiken sehen dich an* (Styria, Austria: Verlag Styria, Graz, Wien, Köln, 1969), 131.

ESSENTIAL READING

Each student will select one Primary Reading for use in their project. This can be a historical, philosophical, fictional, poetic, or polemical tract, among many other options. A reference to assist in “active reading” is Josh Kun’s “Studies in Classic American Literature by Rita Kamins.” *Cabinet* 31 (Fall 2008): 21–26. <https://www.cabinetmagazine.org/issues/31/kun.php>.

SUGGESTED TEXTS

Aichinger, Ilse. *Bad Words*. Translated by Uljana Wolf and Christian Hawkey. London, New York, Calcutta: Seagull Books, 2018.

Aichinger, Ilse. *Squandered Advice*. Translated by Steph Morris. London, New York, Calcutta: Seagull Books, 2022.

Bock, Ralf. *Adolf Loos: Works and Projects*. Italy: Skira Editore S.p.A., 2007. Drawings by Irene Ciampi and Thijs Pulles.

Bourke, Eoin. *The Austrian Anschluss in History and Literature*. Galway, Ireland: Arlen House, 2000.

Cacciari, Massimo. *Posthumous People: Vienna at the Turning Point*. Translated by Rodger Friedman. Stanford, CA: Stanford University Press, 1996.

Colomina, Beatriz. “The Split Wall: Domestic Voyeurism.” In *Sexuality & Space*, 72–128. Edited by Beatriz Colomina. New York: Princeton Architectural Press, 1992.

Heer, Friedrich. *God’s First Love: Christians and Jews over Two Thousand Years*. Translated by Geoffrey Skelton. London: Phoenix Giant, 1999.

Hollein, Hans, and Catherine Cooke, eds. *Vienna Dream & Reality*. *Architectural Design* 55, no. 11/12 (1986).

Kraus, Karl. *The Last Days of Mankind: A Tragedy in Five Acts with a Prologue and an Epilogue*. Translated by Patrick Healy. Amsterdam: November Editions, 2016.

Kuttenberg, Eva. “Austria’s Topography of Memory: Heldenplatz, Albertinaplatz, Judenplatz, and Beyond.” *The German Quarterly* 80, no. 4 (2007): 468–91. <https://www.jstor.org/stable/27676107>.

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Pauley, Bruce F. *From Prejudice to Persecution: A History of Austrian Anti-Semitism*. Chapel Hill, NC: The University of North Carolina Press, 1992.

Perloff, Marjorie. “Avant-Garde in a Different Key: Karl Kraus’s *The Last Days of Mankind*.” *Critical Inquiry* 40, no. 2 (Winter 2014): 311–338. DOI: <https://doi.org/10.1086/674117>.

Rilke, Rainer Maria. *Duino Elegies*. Translated by Vita Sackville-West and Edward Sackville-West. London: Pushkin Press, 2024.

Schnitzler, Arthur. *The Road into the Open (Der Weg ins Freie)*. Translated by Roger Byers. Berkeley, CA: University of California Press, 1992.

Werfel, Franz. *Cella, or, The Survivors*. Translated by Joachim Neugroschel. New York: Henry Holt, 1989.

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- Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye*. Berkeley, CA: University of California Press, 2004.
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- Benjamin, Walter. "Theses on the Philosophy of History." In *Illuminations: Essays and Reflections*, 253–264. Translated by Harry Zohn. New York: Schocken Books, 2007.
- Benjamin, Walter. "The Task of the Translator: An Introduction to the Translation of Baudelaire's *TABLEAUX PARISIENS*." In *Illuminations: Essays and Reflections*, 69–82. Translated by Harry Zohn. New York: Schocken Books, 1969.
- Deleuze, Gilles. "Painting Forces." In *Francis Bacon: The Logic of Sensation*, 48–54. Translated by Daniel W. Smith. Minneapolis, MN: University of Minnesota Press, 2005.
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View of Vienna's Innere Stadt (Inner City) looking West from inside Stephansdom's South Tower (June 2019).



Institut Für Judaistik (Institute for Jewish Studies), collage detail with coin, brick, paper ephemera, and graphite (2019).

PROPOSED TERM SCHEDULE

The studio will focus on Experimentation and Inquiry, encouraging students to discover the intent for their design projects through the process of making. It is important that we become comfortable with not-knowing and uncertainty, as this will enable us to treat Space, Time, and Materials as ingredients for Research. Students should continually be making at every stage of the term, and it is expected that the studio will have a Pin-Up Every Week.

Please document your process on a regular basis and include your progress work (such as scans of marginalia, provisional sketches, test models, etc.) together with more refined investigations and artifacts as part of your Midterm and Final Presentations.

The general expectation for total production accumulated over the course of the entire term is the equivalent of (8–12) A1 drawings sheets and at least (2) physical models (including process work, Midterm, and Final Reviews). The outline below is intended as a general guide for the term and may be subject to change based on student direction and administrative requirements:

WEEK	TOPIC	DESIGN PROCESS
WEEK 1 15–19 Sept.	Cut Out Urban Frames: Starting at a scale of 1:400, “cut out” numerous 20 x 20cm square frames from different areas of Vienna’s urban plan based on historical significance, spatial readings, formal interest, intuition, or random chance.	- Use https://m.wien.gv.at/stadtplan/ as an initial resource, but the frames can also be created out of maps collected from different historical periods. - Consider rotating the square at multiple angles to reframe the same area into different spatial compositions. - Deliverables: +/- (5) <u>20 x 20cm drawings</u> framing Vienna’s urban composition at 1:400 scale.

WEEK 2

20–26 Sept.

Research Vienna's Morphology:

Select no more than (3) candidate sites and conduct preliminary research in order to confirm primary project site.

- Students are encourage to consult multiple resources for historical context, including “Wien Geschichte Wiki” an online resource of the City of Vienna with extensive historical data: <https://www.geschichtewiki.wien.gv.at>.
- **Deliverable:**
(1) A2 drawing sheet composed of Preliminary Research Process.

WEEK 3

27–03 Oct.

Syntactic Erasure Analysis:

Finalize site selection for project and perform plan analysis of Vienna map, moving from 1:400 into 1:200 scale, creating 40 x 40cm square drawings.

- Treat the urban site as a collective work of architecture, noting formal qualities of space, structure, section, and materiality.
- Use historical maps, GIS data, archival materials / photographs, and other techniques to “pull apart” and selectively erase the urban syntax.
- **Deliverables:**
+/- (3) 40 x 40cm drawings of Syntactic Erasure Analysis for site at 1:200 scale.
(1) A2 drawing sheet of Site Research and Historical Information, continued from Week 2.

WEEK 4

04–10 Oct.

Physical Analysis Model:

Continue Syntactic Erasure Analysis and begin constructing a 40 x 40cm tectonic model of chosen urban site at 1:200 scale.

- What materials should be used to construct the model (Lasercutting, 3D Printed, Hand-Cut, or a combination of all three)?
- If the model is fabricated in pieces, develop a strategy to manage the placement of seams. A physical seam can be used spatially, for example indicating a desired section cut.
- Determine the level of detail required to convey architectonic spaces. Consider adding more specificity to areas of importance in the project (for example, traces in the ground or a particularly significant building facade).
- **Deliverable:**
(1) 40 x 40cm physical model at 1:200 scale due by Midterm in Week 6.

WEEK 5

11–17 Oct.

Reading Marginalia:

After surveying Austrian readings—reviewing at least two pages from each sample text multiple times to develop comprehension—finalize selection of primary text and cultivate “active reading” using Marginalia techniques.

- Select one Austrian author or text to act as a programmatic armature for your selected Vienna site. Consult the studio OneDrive folder for various digital samples and in-studio for physical books.
- **Deliverable:**
(1) A1 drawing sheet to include scans of original text with Marginalia: readings, mark-ups, highlighting, sketches, and original thoughts/perspective in response to the text.

WEEK 6

18–24 Oct.

Midterm Review:

Thursday, October 22, 2026
from 2:00–6:00pm.

- Deliverables:

Unique Submission Requirements will be defined closer to the date of the review, but will include cumulative deliverables from Weeks 1–6. In addition, each presentation should contain:

A Tentative Project Title

A "Textual" Reading of Vienna

An Issue, Problem, or Theme that will be addressed by the Project

Next Steps or Questions to be pursued in the second half of the term

WEEK 7

25–31 Oct.

International Class Trip:

Travel to Vienna, Austria during mid-term recess break. The Class will visit various landmarks and discuss important cultural and urban phenomena that form part of Vienna's complex history.

- Students will be tasked with individually visiting their chosen project sites multiple times, photographing the existing city, confirming important as-built conditions, verifying readings from Syntactic Erasure Analysis, and performing behavioural site analysis using various mapping techniques. What was previously invisible in your analysis that can now be detected on-site?

- Students to collect local ephemera such as souvenirs, single-use containers from food and beverage purchases, used U-Bahn tickets, etc. for incorporation into a design model upon returning to Singapore.

Note: students must be respectful guests of our host city and DO NOT REMOVE OR DEFACE anything that is the property of the city or its residents. For example, surface rubbings taken from local buildings or streets are not permitted and can be considered illegal property damage. Please use responsible discretion.

- Deliverables:

(1) A1 drawing sheet of Field Mappings from project site documenting physical conditions, such as traces of time and removal in the city (seen for example in the scars or repairs on buildings and streets).

WEEK 8

01–07 Nov.

'Archifecture' Model Charette:

Create an intuitive and experimental design artifact of proposed final project using scraps collected from Vienna during the international field trip combined with textual investigations from Marginalia.

- Incorporate found objects as "foil" or armature attached to Viennese site, allowing textual, pictorial, sculptural, and architectural languages to intersect.

- Modelling materials can also include objects from the SUTD FABLAB Scrapyard and other recovered artifacts from within Singapore.

- Deliverable:

(1) 'Archifecture' Model collaged three-dimensionally, scale adjustable.

WEEK 9

08–14 Nov.

Palimpsest Plan:

Create a planimetric palimpsest by collaging a plan cut of the 'Archifecture' Model into a 40 x 40cm Syntactic Erasure Analysis drawing.

+

Pre-Final Review:

Thursday, November 12, 2026
from 3:30–7:00pm.

- Students can adjust the scale of their 'Archifecture' artifact when reconciling the model with the urban plan.
- The orthographic plan of the 'Archifecture' Model negotiated with the urban syntax is a first-step to defining the final Architectural Intervention.
- The Syntactic Erasure Analysis should also continue developing in response to Field Mappings / on-site observations discovered during the overseas trip, registering the physical complexity of the site (such as discreet edge conditions, benches, barriers, pavings, pedestrian behaviour, etc.).
- **Deliverable:**
(1) 40 x 40cm drawing combining the 'Archifecture' plan with Syntactic Erasure Analysis at 1:200 scale.

WEEK 10

15–21 Nov.

Invention of Urban Program:

Through collaboration with the previously selected Viennese Author or Text—and deepening the interpretive readings developed earlier in the term—each student will propose a conceptual program for their Final Intervention.

- Define uses for spaces created in the Palimpsest Plan using the selected Austrian text as a guide or framework.
- Develop the Intervention's "Program" as the reinterpretation of a traditional function or the invention of a new civic typology.
- **Deliverable:**
(1) A4 document listing proposed programmatic spaces in the Final Intervention.

WEEKS 11–13

22 Nov.–12 Dec.

Final Architectural Proposal:

Refine process work and reconcile all three elements of the Syntactic Urban Analysis, the 'Archifecture' form, and the programmatically interpreted Text / Marginalia into an architectonic ensemble.

- In addition to scripting parametric forms and digitally fabricating proposals, students are encouraged to think two-dimensionally and represent their designs through Plans, Sections, and Elevations at a schematic level of resolution and detail.
- **Deliverables:**
(1) Physical Model of Intervention at 1:200 scale that fits into the previous 40 x 40cm Syntactic Analysis Model from Midterm.
(1) Architectural Floor Plan, including surrounding urban context at 1:100 scale or larger.
(1) Architectural Section, including surrounding urban context at 1:100 scale or larger.
(1) A4 document with a brief 300–500 word reflection written by the student.
(1) A4 document with a "Cartoon Sketch" of the Final Presentation including all drawings and models.
- *Optional (1) Sectional Model detailing an important space in the project at 1:50 scale or larger.

WEEK 14

13–17 Dec.

Final Review:

Thursday, December 17, 2026
from 9:00am–6:00pm.

- Deliverables:

Final Submission Requirements will be defined closer to the date of the review, but should assemble cumulative work from the Entire Term.



Historical development of the Federal Chancellery of Austria (located in Ballhausplatz, Vienna) as recorded in the building's syntax. Found at <https://www.bundeskanzleramt.gv.at/en/federal-chancellery/visit-us/history.html>.

STUDIO CULTURE AND PARTICIPATION RUBRIC

Each student is encouraged to treat the Design Studio as a sanctuary for learning and personal growth. The following outline is not meant to punitively measure performance, but rather motivate important working habits that will facilitate success throughout the course. Your Classmates are also a design resource, and we can mutually inspire and support one another through our behavior and shared commitment to excellence.

PARTICIPATION	EXCELLENT	CAPABLE	NEEDS WORK
In Classroom			
	Student always on-time to class	Student sometimes late or absent to class	Student consistently late or absent
	Student consistently prepared with work	Student only sometimes has work to show	Student never prepared with work
	Student is attentive / asks questions	Student listens, but does not ask questions	Student does not participate in studio
	Student uses class time productively	Student uses class time inefficiently	Student does not work in class
Outside Classroom			
	Student does independent research and brings resources to discuss with class	Student rarely exhibits research, but shows broader understanding in work	Student does not do any additional background research on project
	Student communicates and coordinates assignments with class expectations	Student misses some class deadlines, but keeps up with overall pace of the studio	Student does not keep pace with class schedule or due dates for assignments
	Student engages in design dialogue with other classmates and studios	Student references multiple perspectives, but is unable to respond or incorporate	Student designs without any input or suggestions from other classmates
	Student uses and translates research / analysis into design solutions for project	Student is aware of applicable analysis, but does not fully utilize in design	Student does not use analysis, only seeing project through surface understanding
Development			
	Student works on own initiative / Student is responsible for their project	Student is diligent with work, but treats project only as an assignment	Student does not engage with work or complete assignments by due dates
	Student is self-critical / Student is able to evaluate own work	Student is engaged in the critique process, but still requires outside reinforcement	Student needs constant evaluation from professor in order to proceed
	Student becomes an expert in what they are studying; can educate the rest of class	Student understands basic / fundamental premises with ideas for advanced research	Student has only superficial understanding of project issues
	Student uses iterations of physical models to design project, not just for critiques	Student thoughtfully produces work, but only treats models as "finished" objects	Student only produces models to show at critique, not used in the design process
Production			
	Student thinks through their hands	Student tries to merge language and form	Student only designs with words
	Student makes process models / drawings	Student only makes "finished" work	Student only produces when asked
	Student designs using different mediums	Student occasionally sketches on print-outs	Student only works on the computer
	Student shows visual evidence of growth	Student's work shows unresolved struggle	No physical evidence of learning

SYNTACTIC ERASURE ANALYSIS

Architecture “talks,” it encapsulates a “language-game.” In Ludwig Wittgenstein’s definition of a “Sprachspiel,” the meaning of words are to be found in their functions. Words have uses like forks and knives, hammers and nails. Similarly, Architecture can be read through its syntax, understood as the formal relationship or “grammar” between tectonic elements like columns and walls.

Treating the city of Vienna as a collective work of architecture embedded with multiple temporalities, each student will select an urban site that contains at least one significant building or structure and create analysis drawings highlighting the area’s operative syntax (the unique and intentional arrangement of columns, walls, spacings between openings, etc. that produce legible formal patterns). We will focus on how the deployment of architectural elements create “readings” that critique typological conventions and traditional understandings of program.

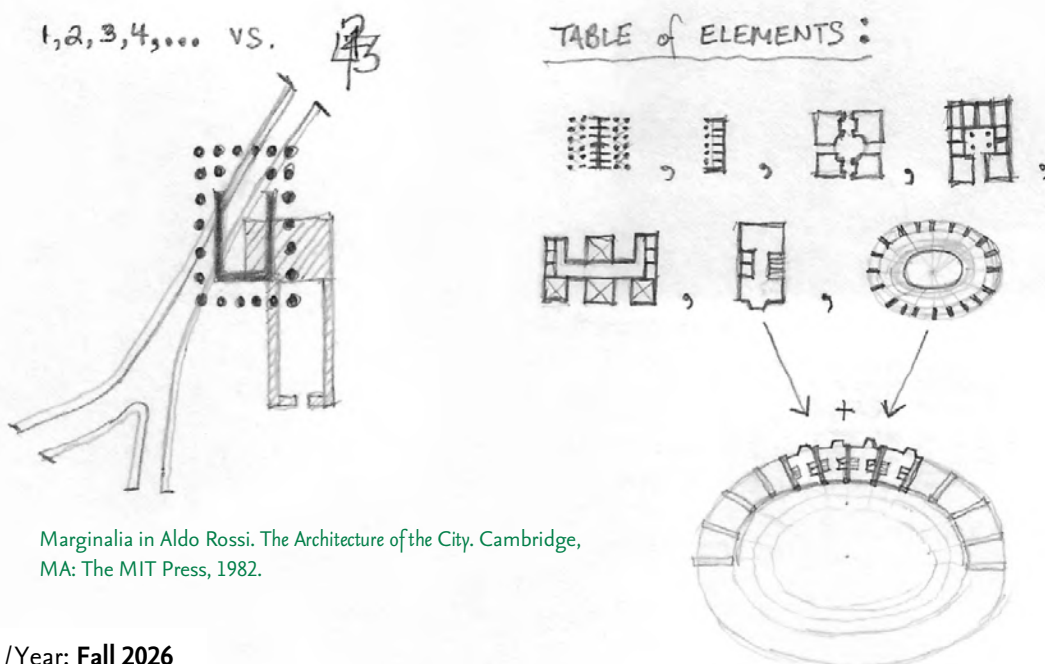
Suggested deliverables:

- “Erasure” Analysis (isolating important architectural features such as columns, walls, and stairs)
- Public-Private “Nolli Plan” (private spaces in black / indoor public programs + outdoor public spaces in white)

Potential Locations for Research and Analysis:

- Stephansplatz, with the historically layered facade of Stephansdom, 1160–1511 and optical reflections through the postmodern Haas-Haus, designed by Hans Hollein, 1990.
- Judenplatz, with the archaeological remains of a medieval synagogue burned during the Viennese Gesera of 1420 underneath the Nameless Library by Rachel Whiteread, 2000.
- Michaelerplatz, with the decorative confrontation between the baroque Hofburg Palace and the “Looshaus” by Adolf Loos, 1910, along with traces of Roman structures, ca. 100s–400s.
- The Austrian Parliament Building (Reichsrats) with circulation compressed behind the semicircular assembly hall by Theophil Hansen, 1883 (along with the Jabornegg & Pálffy redevelopment, 2022).
- The Secession Building contemporary art exhibition hall designed by Joseph Maria Olbrich, 1898 with the reconstruction of Gustav Klimt’s Beethovenfries from 1902.
- Karl-Marx-Hof, a prototype of collective urban housing by Karl Ehn, 1930.
- Hundertwasserhaus, by Friedensreich Hundertwasser (with Josef Krawina and Peter Pelikan), 1985.

(This list is not exhaustive, and students are encouraged to select other appropriate sites)



ANALYSIS TIPS

Analysis is pulling apart architecture to understand its “syntax” (the signature of architectural thought: the form / structure through which architecture communicates ideas). Analysis is a method of discovering and extracting design strategies that can be deployed in your own projects.

- Take a position in your analysis beyond pure research that speculates on architectural form.
- “Even in analysis, you have to find a narrative.” – Erik Kath (academic colleague)

Become a “detective” looking for “clues” left in the urban syntax, and even an “architectural philologist:” a lover of the formal particularities in plans and sections along with their historical connection to other works of architecture.

- Analysis creates a conversation with buildings, architects, and entire cities that can be written onto your heart, carrying its lessons with you for the rest of your professional life.
- Interiorizing another architect’s works not only helps make you a better designer, but also unlocks essential intangibles at the core of our discipline.

Analysis can be performed through **Overlay** and **Erasure** (visual examples below):

- **Overlay:** place tracing paper over an existing plan or section and draw selectively.
- **Erasure:** take an existing plan or section and erase selectively.
- When using either analysis method, the essential task is to be selective.
- **Successful analysis isolates or highlights the inherent complexity of building form.**

Treat the site as a text. Each analysis is a reading of local history with layering, erasures, important buildings or landmarks, and developments across time.

- Urban artifacts are part of the collective unconscious of the city, while the porosity of urban architecture (seen in-between courtyards, arcades, and stairways) allow for new, unforeseen constellations of activity.

Each drawing should ask a question. Design, including analysis, discovers tectonic forms by asking questions in the process of making. These questions can even be physically written onto the drawing sheets themselves.

- Test hypotheses through the drawings: Discover through making.
- Don’t simply “show” the city in your drawings, create a design method through drawing.
- Provide a detailed Title / Key for each map: list data sources, scales of measurement, line styles and graphic conventions, north indication, etc. as appropriate on each sheet.

The graphic lexicon of your analysis (whether drawn with different line weights, line styles, tones, etc.) informs the territories that can be made visible in the drawing, conditioning our thinking about architecture. The drawing method is not neutral, but will influence your design thinking.

- By restricting the visual coding of your analysis, each difference can become legible and meaningful. For example, if limited to only lines of one lineweight, the placement of each line becomes significant.

“Render the Visible” vs. “To Render Visible”¹:

- In analysis, one may selectively draw the actual physical city or document phenomena / virtual actions generated by the city using a vocabulary of lines, poché, shapes, or colors as the recording device.

¹ For this translation of Paul Klee’s aphorism, “Kunst gibt nicht das Sichtbare wieder, sondern macht sichtbar,” see Gilles Deleuze, “Painting Forces,” in Francis Bacon: The Logic of Sensation, trans. Daniel W. Smith (Minneapolis, MN: University of Minnesota Press, 2005), 48–54. Originally published as Paul Klee, “Schöpferische Konfession,” in *Tribüne der Kunst und Zeit: Eine Schriftensammlung*, Vol. 13, ed. Kasimir Edschmid (Berlin: Erich Reiß, 1920).

Draw iterations of “the same plan” over and over with meaningful variations to refine your analysis. You will not be able to fully digest or articulate all the complexities of a site in a single drawing.

- Create iterative readings of the site and the urban architecture by visually isolating distinct elements and comparing them across multiple drawings.
- Pattern and visual repetition highlight meaningful differences.

Don’t be concerned about understanding the full complexity of your chosen site or the totality of Viennese history. “Historians invariably involve themselves in the business of oversimplification.” – William Stueck, “In Search of Essences: Labeling the Korean War,” in *Remembering the Forgotten War: The Korean War through Literature and Art*, ed. Philip West and Suh Ji- Moon (Armonk, NY: East Gate Book, 2000), 187.

We act upon and actively challenge the past precisely by engaging tradition. See T.S. Eliot, “Tradition and the Individual Talent” (1919). <https://www.bartleby.com/200/sw4.html>.

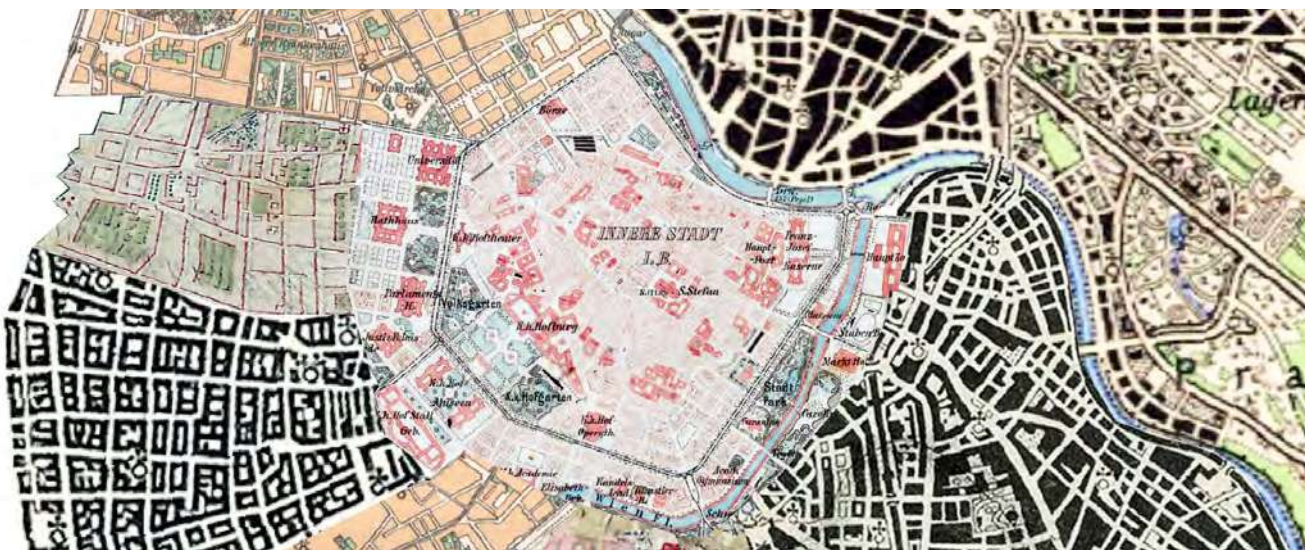
Excerpts from Tufte, Edward R. *Beautiful Evidence*. Cheshire, CT: Graphics Press LLC, 2006:

“Science and art have in common intense seeing, the wide-eyed observing that generates empirical information.” pg. 9
(*Syntactic Analysis shows the results of intense seeing.*)

“Sameness of a visual element implies sameness of what the visual element represents,...” pg. 70
(*Ensure consistency in the drawing language.*)

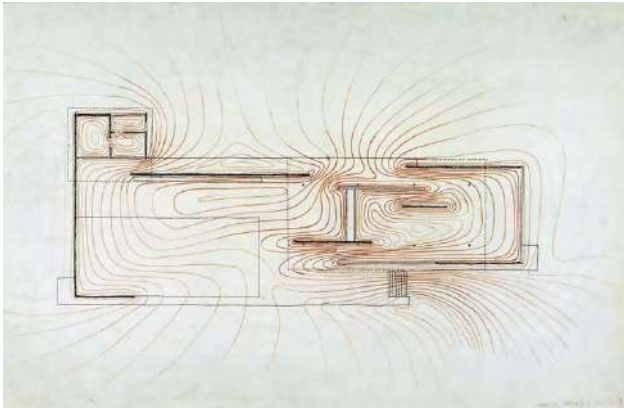
“Most techniques for displaying evidence are inherently multimodal, bringing verbal, visual, and quantitative elements together.” pg. 83
(*We create design proposals through words [sentences, paragraphs], numbers [dimension, quantity], scale [distance, relativity], graphs [comparison, causality], diagrams [interrelationship], and images [nuance, tactility].*)

“The evidence doesn’t care what it is—whether word, number, image.” pg. 130
(*Present all relevant evidence regardless of mode.*)

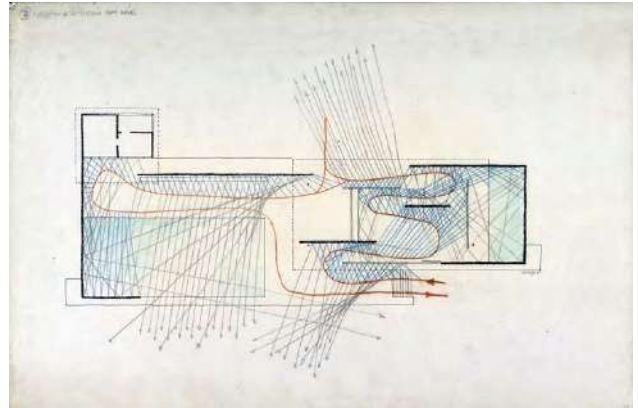


Class Collage-Map of Vienna Precincts at different time periods, Advanced Studio, The City College of New York, Spring 2020 (Students: Mahdi Alkaifi, Anisha Ashraf, Alexandra Checa, Silas Drewchin, Jeremy Edwards, Juan Isaza-Urbie, Mario Joya, Dariel Levan, Jacqueline Love, Mehrose Naeem, Santiago Neville, Alicia Niebrzydowski, and Evana Said).

Overlay Analysis: registering the phenomena generated by architectural form

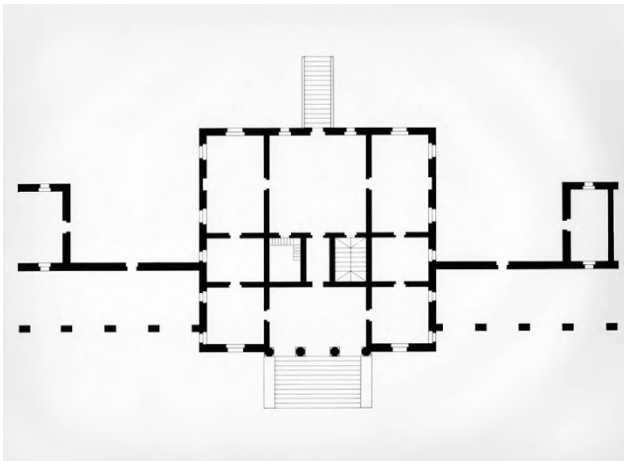


Ludwig Mies van der Rohe, Barcelona Pavilion
Analysis: Paul Rudolph, 'Density & Flowing Of Space.'
Archives of The Paul Rudolph Institute for Modern Architecture

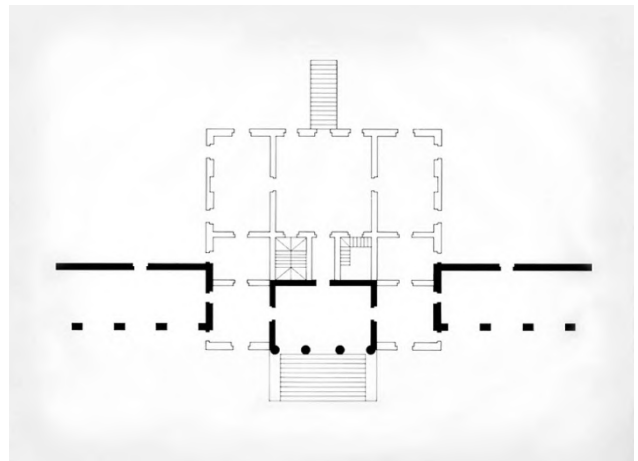


Ludwig Mies van der Rohe, Barcelona Pavilion
Analysis: Paul Rudolph, 'Circulation & Reflection From Walls.'
Archives of The Paul Rudolph Institute for Modern Architecture

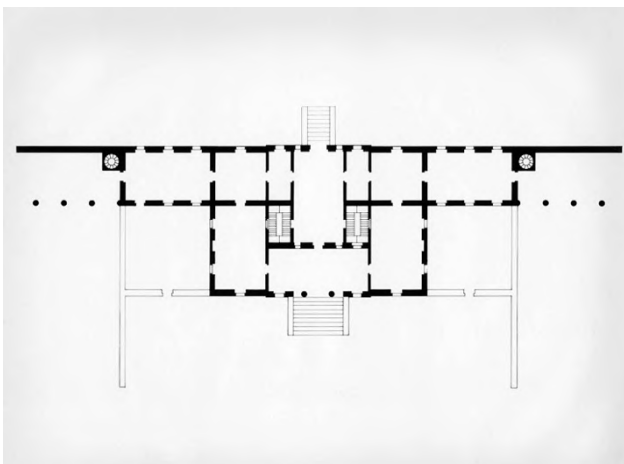
Erasure Analysis: isolating the distinct tectonic elements that direct architectural form



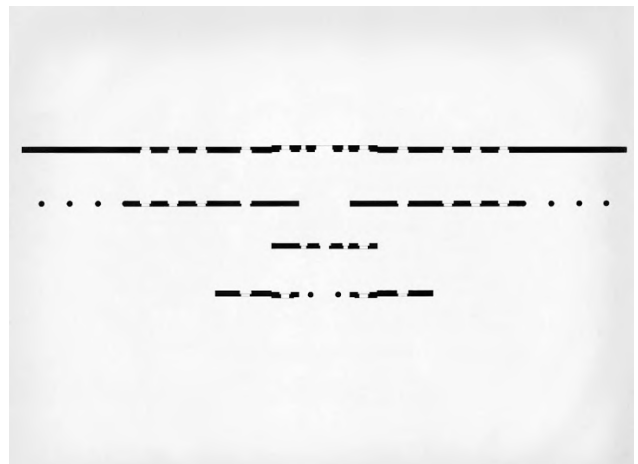
The Cooper Union, Design II, 1999–00, Andrea Palladio, Villa Erno
Student Analysis: Sotirios Kotoulas and John Shimkus
Faculty: Peter Eisenman, Francesco Mancini, and Guido Zuliani



Selective *poché* of colonnaded spaces highlights a virtual shift at the building's entrance.



The Cooper Union, Design II, 1999–00, Andrea Palladio, Villa Poiana
Student Analysis: Carlton Keyser and Timothy Collins
Faculty: Peter Eisenman, Francesco Mancini, and Guido Zuliani



Selective erasure of perpendicular building walls highlights sequence of transverse layering.

MARGINALIA

During the course of the term students will engage with different cultural and historical experiences of Vienna through guided discussions and the development of creative responses to student-selected texts. Through focused “active reading,” we will be tasked to generate our own diagrams, sketches, and figures. Reading will be treated as a drawing method. We will interrogate writings and excavate possible design ideas from them; engaging texts visually in the margins as a first step in the design process.

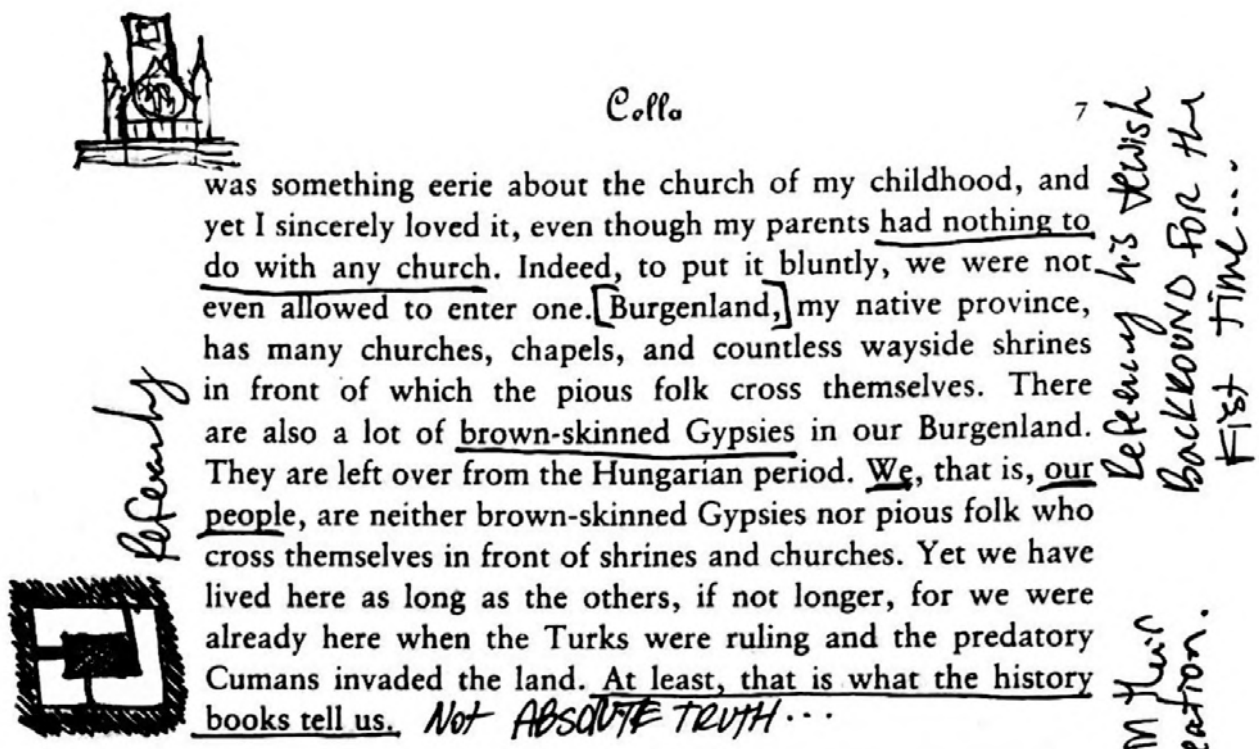
JOSH KUN: “STUDIES IN CLASSIC AMERICAN LITERATURE BY RITA KAMINS”

- This article is a primer on the value of “active reading” with a pencil or pen, as well as how marginalia can speak through time—connecting our past selves with the present—even addressing larger socio-cultural issues inflected through the process of reading.

While reading their chosen Austrian texts, students are to construct “marginalia” (literally writing / drawing in the margins of their books). These marginalia can be developed through a variety of methods, from traditional pencil and paper to using a PDF reader with comments and freeform drawing tools enabled, or reading on an iPad with ProCreate and a stylus. Another option is to create marginalia in a separate document, such as a sketchbook, capturing notes and diagrams in tandem with your reading of the text.

In addition to our focus on self-created marginalia, some experimentation can be attempted using an AI software (for example inputting a particular passage from a book into an LLM to extract themes, emotion, or tone and critique potential ethical issues of tool bias and “hallucinations”; or utilizing an image-generator such as Midjourney and creating alternate visualizations of the text).

These marginalia should be treated as drawings and will be presented for discussion and review in studio. The Marginalia are potential design documents that can develop into projects. Additional iterations of marginalia refining initial reading observations are recommended to help yield greater complexity and design potential for use in the final project.



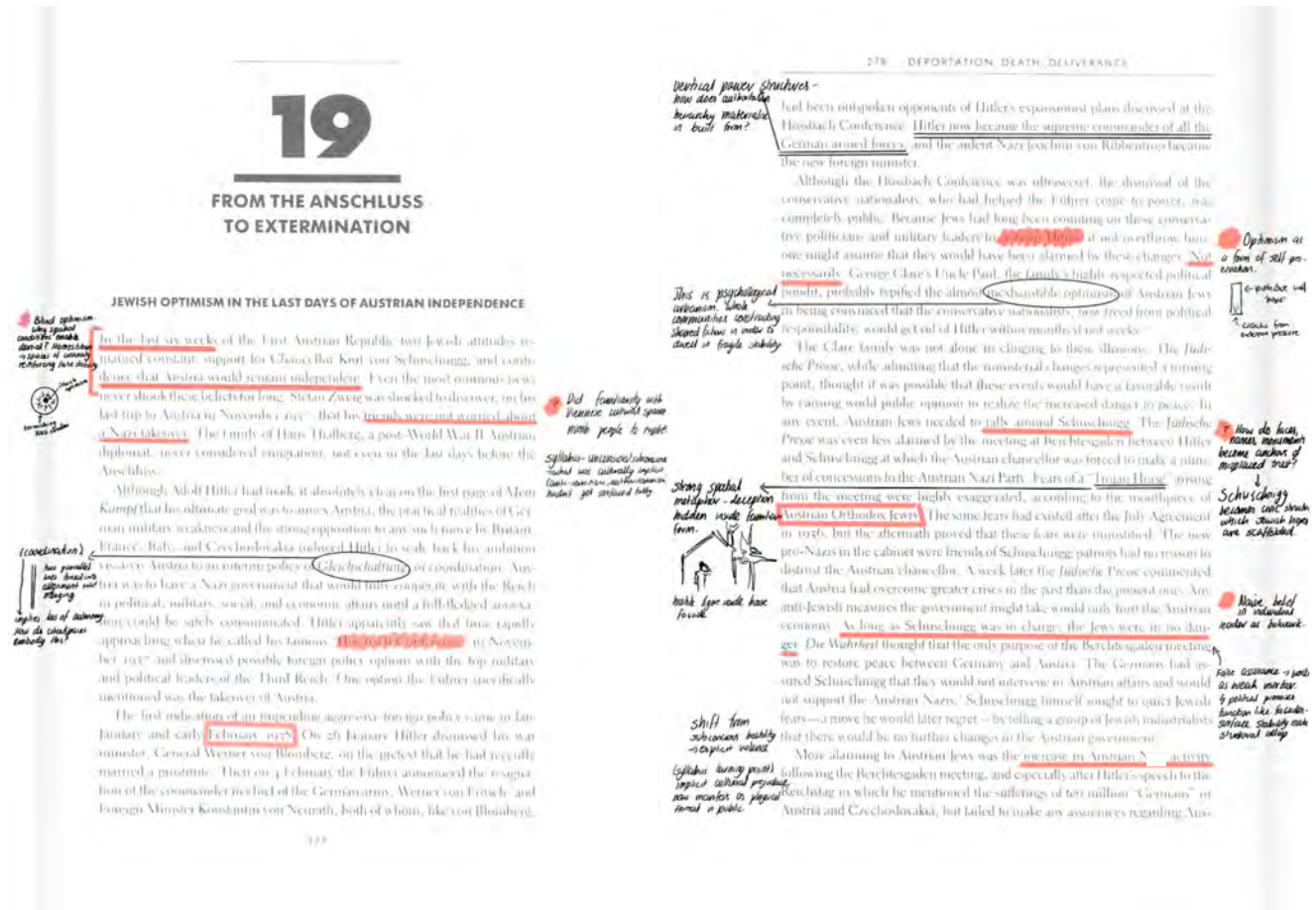
Marginalia in Franz Werfel's *Cello, Or, The Survivors*, pg. 7, by Brendan Murphy, Advanced Studio, The City College of New York, Summer 2021.

“We, as we read, must become Greeks, Romans, Turks, priest and king, martyr and executioner; must fasten these images to some reality in our secret experience, or we shall learn nothing rightly.”²

Reading literary works by Viennese authors (whether as poetry, prose, drama, or rhetoric), students will be exposed to new perspectives on history, culture, language, time and space. Even our confusions with a text can be beneficial, developing into unique ideas through in-text notations. Some strategies that can be used are listed below.

Taxonomy of Marginalia Types:

- Clear underlining, **highlighting**, or emphasizing of existing text (focusing on phrases or ideas)
- Symbolic notations as a “halo” around the text prioritizing text blocks (marks such as * + ●)
- Writing textual notes or re-writing the source text in your own words
- Sketch scenarios or spaces discussed in the text
- Sketch relationships described by the text using diagrams
- Extract textual fragments (from different passages or even chapters) and assemble into spatial constellations (as seen in the poetry of Mallarmé and Apollinaire)



Marginalia in Bruce F. Pauley's *From Prejudice to Persecution: A History of Austrian Anti-Semitism*, pg. 277–278, by Mackenzie Katherine Mcdermott, Option Studio I, Singapore University of Technology and Design, Fall 2025.

² Ralph Waldo Emerson, “History,” in *Selected Essays*, ed. Larzer Ziff (New York: Penguin Books, 1982), 152.



Vienna from a Bird's-Eye View, excerpt of Sepia drawing by Gustav Veith, 1873, in Hannah Schweizer, *Historic Maps and Views of Vienna* (Potsdam, Germany: h.f.fullmann, 2010).

PRELIMINARY ITINERARY

***APPOINTMENTS REQUIRED** (Please arrive 5 Minutes early)

The studio will travel to Vienna, Austria and directly engage with the cultural and architectonic fabric of the city. It is expected that each student will behave professionally while overseas as a representative of the SUTD community. Important destinations will be visited during the class trip including Stephansdom, Looshaus, and several public Memorials. Free time will be allocated each day for students to enjoy the rich menagerie of the city and document their individual project sites.

As we travel, students are encouraged to practice contemplation: being present in your bodies and attentive to your senses while encountering Vienna, trying to avoid the myriad distractions that pervade every major metropolis. The itinerary below is intended as a preliminary guide for the class trip with approximate times and may be subject to change based on venue availability:

SATURDAY OCT 24, 2026	Full Day	Flight from Changi Airport, Singapore to Vienna Airport, Austria and check-in at local hotel	- Scheduling of airline and hotel accommodations at the discretion of individual students.
SUNDAY OCT 25, 2026	Full Day	Free time for students to explore the city and map / document their project sites	- Please adopt a respectful attitude when inside places of active worship. Avoid disrupting the local community.
	10:00 AM – 7:00 PM	Optional “Desk Crit” consultations with Students at individual project sites by appointment arranged in advance with the Professor	- Students should visit their project sites multiple times throughout the week to develop their observations.
MONDAY OCT 26, 2026	*10:00 AM	Orientation at Prater Park	- Students are requested to arrive at each location on-time and come prepared with a Sketchbook, Writing Implement (pencil or pen), and Phone (with camera feature) for documenting sites of interest. 
	10:30 AM	Buy tickets and wait in-line for Wiener Riesenrad (Ferris Wheel) to provide panoramic view of city	
	12:00 PM	Break for Lunch in area	
	1:30 PM	Travel by U-Bahn or Bus to Stephansplatz and the Innere Stadt	
	2:00 PM	Orientation at Stephansdom with discussion of architectural history, materiality, and urban form	
	5:00 PM	Free time after tour for students to explore the city and map / document their project sites	

TUESDAY OCT 27, 2026 Each Student must present a Valid ID for entry to venue	9:30 AM	Orientation at Michaelerplatz to discuss historical palimpsest of the area and study “Looshaus” exterior	Students will need to bring their IDs. The Landesgericht (Penal Court) for Vienna is also a destination we may discuss with Christoph Konrath. 
	*12:00 PM	Break for Group Lunch at Café Central. (Reservation for 2 Tables)	
	*2:30 PM	Tour with discussion of Parliament, Hofburg, Kanzleramt, and Supreme Court hosted by Christoph Konrath, Austrian Parliamentary Administration	
	5:00 PM	Free time after tour for students to explore the city and map / document their project sites	
WEDNESDAY OCT 28, 2026	9:30 AM	Orientation at Judenplatz with discussion of Rachel Whiteread’s Holocaust Memorial Sculpture	- Students to exercise extreme care while exploring the archaeological remains of the medieval synagogue inside Judenplatz Museum. - During our travel to Albertinaplatz, we will encounter many additional points of interest that students may want to visit separately. 
	*10:30 AM	Entry into Judenplatz Museum (storage of bags / jackets required in museum lockers)	
	1:00 PM	Break for Lunch in area	
	2:00 PM	Travel to Dorotheergasse 11 to visit Jewish Museum Vienna (admission included with ticket from Judenplatz)	
	3:30 PM	Travel by U-Bahn or by foot to Alfred Hrdlicka’s Memorial against War and Fascism at Albertinaplatz	
	5:00 PM	Free time after tour for students to explore the city and map / document their project sites	
THURSDAY OCT 29, 2026	Full Day	Free time for students to explore the city and map / document their project sites	Students should visit their project sites multiple times throughout the week to develop their observations. 
	10:00 AM –7:00 PM	Optional “Desk Crit” consultations with Students at individual project sites by appointment arranged in advance with the Professor	
FRIDAY OCT 30, 2026	Full Day	Free time for students to explore the city and map / document their project sites	
	10:00 AM –7:00 PM	Optional “Desk Crit” consultations with Students at individual project sites by appointment arranged in advance with the Professor	
SATURDAY OCT 31, 2026	Full Day	Return flight from Vienna Airport, Austria back to Changi Airport, Singapore	Flight arrangements and travel itinerary at the discretion of individual students.

FIELD MAPPING IN VIENNA

Each student should use the Vienna trip as an opportunity to document and develop on-site readings of their individual project sites. It is recommended that students bring the following supplies:

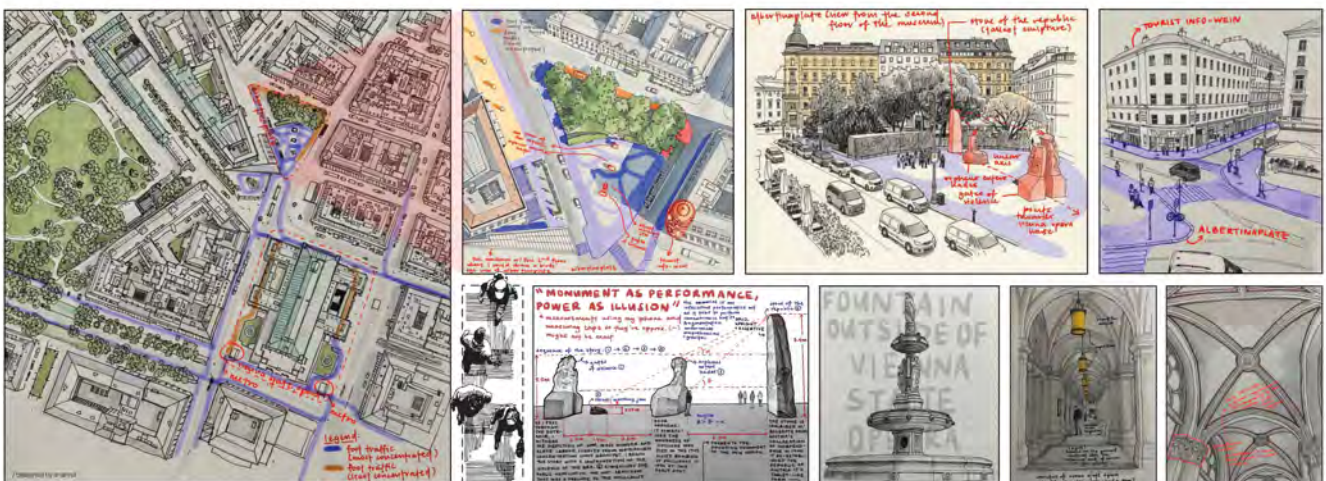
- Multiple black & white copies of different project plans or maps scaled to A4 or folded A3 paper
- Blank sheets of A4 paper
- Red and Black Pens for note taking and field observations
- A clipboard or rigid drawing surface
- Notebook or journal

The suggested Operations to engage your sites include (but are not limited to) the following:

- **Photograph the Site**
 - Capture overall views of the area (including backgrounds for future renderings of the final project).
 - Identify unique details or traces that reveal the site's history.
 - Document impermanent evidence of human occupation (trash, graffiti, traffic, etc.).
- **Map Site Observations**
 - Use Red pen over black & white copies of plans from the Midterm Review.
 - Notate traces, street conditions, or significant architectural features previously invisible in your analysis.
 - Consider analyzing and "rendering visible" virtual phenomena such as pedestrian movement, sound intensity, or other performative aspects of the site.
- **Sketch and Take Notes**
 - Use blank sheets of paper as a supplement to the plans.
 - Draw vignettes of interesting spaces discovered on the site.
 - Catalogue personal observations, discoveries, or anything else that appears relevant.

Students are also encouraged to allow time for "being present": experiencing the sights, smells, sounds, and feelings of their sites at different times of the day and/or different days of the week.

Assemble Field Notes / Field Mappings onto one A1 sheet of paper to present during class on **Thursday, November 12, 2026**.



Field Mapping of Project Site at Albertinaplatz in Vienna during International Class Trip by Nor Hidayah Arianna Ariffin, Option Studio I, Singapore University of Technology and Design, Fall 2025.

'ARCHIFACTURE' MODEL

Choose a quotation, scenario, or theme extracted from the selected Viennese Author or Artist and create a response to the text. Use the model to ask questions of the text and take risks in formulating a position. The primary device for this investigation will be the architectural model, here considered within the expanded definition of an 'Archifecture': a three dimensional construction combining various scopic regimes and material practices synthesized through the operation of scale.³ These 'Archifecture' Models are multi-modal assemblies of found objects and scrap materials that can generate new conceptions of architecture, rather than merely illustrating pre-existing ideas about architecture applied onto mute substrates. For a broader theoretical discussion see Matthew Mindrup, "The Merz Mill and the Cathedral of the Future," *Interstices: Journal of Architecture and Related Arts* 14 (2013): 49–58.

Students should work iteratively, back-and-forth between thinking and acting, remembering that design is a heuristic practice of trial-and-error inquiry open to unintended discoveries and realizations in the process of creation. The model's success will be measured through the accretion and negotiation of material artifacts over time, rather than some pre-conceived intellectual criteria. It is important to embrace the unforeseen throughout this design exercise: the sketches, patterns, and failed attempts uncovered during your process should be retained for future study and use. Try not to over-rationalize the model: use all the tools, knowledge, and operations you have learned without excessively analyzing or questioning each decision.

Models not only act as surrogate sites, reproducing the real yet often invisible qualities of a place at a smaller scale. They also perform as data collection devices, containing the potential to become new stages for emergent spaces. In this way, the translation between concept, mapping, and model can be thought of as one sinuous contour of continuous discovery, creating a feedback loop within the project. It is essential to suspend your pre-conceptions about what these forms may ultimately look like, however, as that would prematurely close opportunities for speculation embodied in the investigation. Don't hesitate to take risks in the creation of your 'Archifecture' Models and embrace the unexpected: remember you do not need to have an idea, you need to produce a thing.

Main Questions:

What creative barriers do we erect between our thoughts and architecture?

How do you measure a story through architectural methods?

1. Students will select a passage or scene from their chosen Austrian text and create a response combining found objects with collage and spatial practices.
2. The 'Archifecture' Model should challenge pre-conceived ideas about appropriate project forms and manufacturing techniques.
3. After creating the 'Archifact,' draw a section cut through the model. Explore possible drawing methods (such as hand drafting, AutoCAD, Rhinoceros 3D, and AI-assisted tools).
4. Assign a scale to the section (define the size of a human figure—cosmic scale, room scale, intestinal scale). Once a scale is determined, draw a plan cutting through the generated spaces.

³ **Archifecture** \ˈär-kə-,fak-chər\

- I. Artifact(s) and materials used as generative devices in the construction and visualization of tectonic spaces; not purely orthographic or parametric in method and intent.
- II. Fecture: the manner in which something is made, as in a painting or artwork.
- III. The synergistic juxtaposition of object and scale, the contradiction of which produces new spatial understandings - see for example the book *Alice's Adventures in Wonderland*, by Lewis Carroll (Charles Lutwidge Dodgson, London: Macmillan and Co., 1865).
- IV. Ἐν ἀρχῇ ἦν ὁ Λόγος (En archē ēn o logos): "In the beginning/command was the Word" – see Giorgio Agamben's interpretation of the Gospel of John 1:1 in *The Archaeology of Commandment*, 2011, <https://www.youtube.com/watch?v=JV94Fi5ChI>.

'ARCHIFACTURE' DESIGN PROCESS

The fabrication procedure will exert a large influence over the final form, even if we don't know what the model should "look like." Restrictive Assembly Rules can act as a type of "measure" to direct the design of the model, such as the following:

- Use only folding and tearing to create the shapes
- Use only linear cutting
- Use only whole objects without any physical cutting
- Respond to the "Fittedness" of materials (the inherent complementarity of certain shapes)
- Limit the types of connections (screwing or fastening instead of gluing for example)

- The tectonic possibilities of the model may be defined by the curation of incorporated materials (for example, using only scrap metal sheets will condition the model's final shape).

- Define a strategy for the collection of objects. Should you preserve the original items in the model? Or defamiliarize the objects by cutting, changing their orientation, or combining with other objects?

- Question the ground plane in the model.

- **Question the edges of the found materials. Geometry has its own genealogy / history:**
 - Consumer products formed through manufacturing often have smooth geometric edges.
 - Organic objects formed through natural processes often produce rough, uneven surfaces.
 - Scraps left over from modeling may be rough or smooth depending on the tool and substrate.

- **The 'Archifecture' Model is like "designing" Umpire Rock at Central Park, located in New York City:**
 - Humans create programs through encountering matter, using their bodies to measure shapes.
 - Identify formal differences that can "make a difference" either programmatically or spatially.
 - The "programs" in the 'Archifecture' model will emerge with the application of scale.



Views taken of humans "programming" Umpire Rock in Central Park, New York City, April 23, 2011.

THE PSYCHOGEOGRAPHY OF MATERIALS

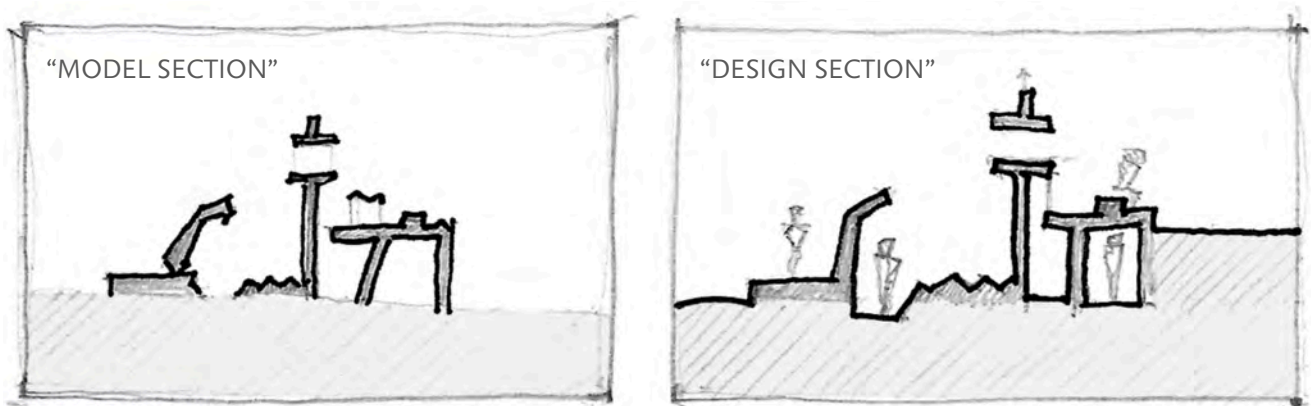
Besides the practical steps necessary for the collection, processing, and assembly of the ‘Archifact,’ each student is encouraged to use this Charette as a means of speculating on the translation of text into architectural space by means of various collaging techniques. Cut-out texts can also be included. The rich psychological and haptic sensations created by incorporating unusual materials or objects is very important to the meaning of the model. The construction should allow for idiosyncratic gestures to challenge our assumptions about tectonic space and the nature of building. Programming can be discovered through the design process itself, identifying experientially meaningful “actions” in the emergent forms, rather than applying generic functions onto the model.

Suggested Design Steps:

- “Listen” to the model assembly process
- Read / Discover** architectonic principles + operations in the model
- Test** those principles + operations through diagrams and refine the model
- Draw** a section through the developed ‘Archifecture’ Model
- Assign** a scale to the section and identify “programs” or potential human occupation
- Draw** a plan of the ‘Archifecture’ Model in scale
- Insert** the scaled plan of the ‘Archifecture’ Model into the Vienna location
- Draw** a section through the city with the ‘Archifecture’ Model

Suggested Deliverables:

- Model Photographs (“plan” view, side “elevation” view, and three-quarters “axonometric” view minimum)⁴
- Process Model Photos (highlighting curation of individual objects and their assembly method)
- Performative Diagrams (potentially drawn over black + white Model Photos)
- Section Drawing of ‘Archifecture’ Model
- Plan Drawing of ‘Archifecture’ Model
- Scaled Plan Drawing of model inserted into Vienna project site
- Scaled Section Drawing of modified ‘Archifecture’ design in Vienna project site

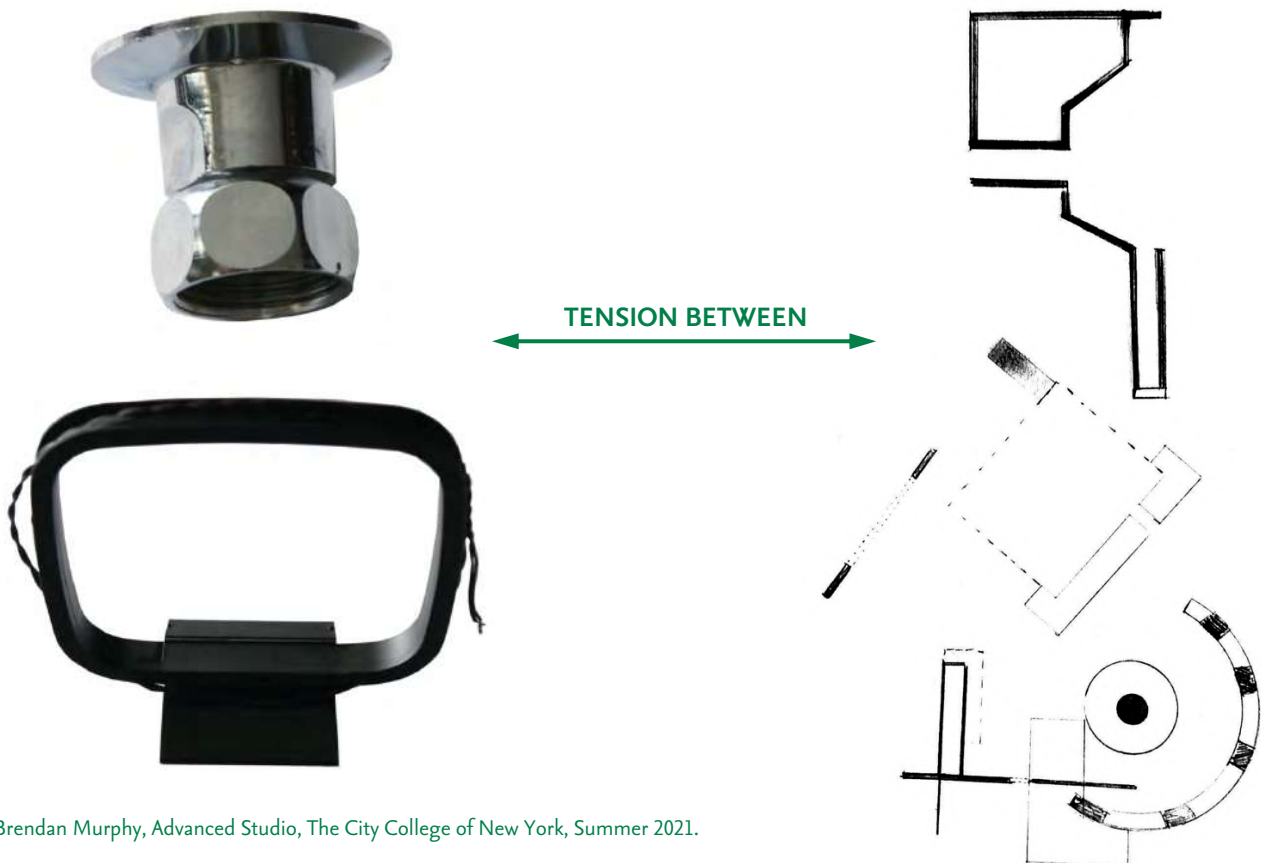


Advanced Studio Teaching Sketch comparing a hypothetical ‘Archifecture’ Model Section to the development and programming of a Design Section based on the model, The City College of New York, Summer 2021.

⁴ Note: When documenting physical models, use the photographic frame to create a focused visual narrative of the design. It is strongly recommended to take photos in natural sunlight, ensuring clear and consistent lighting and shadows with images captured against a solid color backdrop (black or white preferred). Although digital manipulation can fix many visual issues, clear original photographs will save time on correcting errors.

THE 'ARCHIFACTURE' MODEL AND HISTORY

- There is no pre-determined form or *Parti* to the construction. The model “emerges” from a direct and creative engagement with the stubborn particularities of the fragments themselves.
- The ‘archifact’ is born from the architect’s struggle with material remains over time. You are subject to the same temporal forces as the assembled fragments you employ.
- Make work that affirms its own materiality and mortality (or potential for ruination).
- The curated selection of included objects may define a “cultural ecosystem” or an archaeology of a specific historical event in Vienna, creating social or symbolic associations.
- Once the model is assembled, applying a new Scale through drawing transforms the fragments into “pure” design forms with syntax that can be sited in your Analysis Plans and Mappings.
- This change of Scale—which converts found objects into potential design forms—is analogous to Kurt Schwitters’ use of MERZ to “dematerialize” the “*eigengift*” (inner poison) of everyday objects (like buttons and bus tickets) into “pure” pictorial and painterly elements (such as triangles, squares, and abstract colors).
- **BUT**, this process can also be interpreted as “ANTI-MERZ” because the “*eigengift*” of the object is precisely its HISTORY: the chronology of its previous function is part of the very substance of the fragment, “washed” by aging and its endurance through time.
- The ‘Archifecture’ Model therefore exists in tension between time and syntax: the material “*eigengift*” confronts its formal translation through orthographic visualization.



Brendan Murphy, Advanced Studio, The City College of New York, Summer 2021.

ARCHITECTURAL INTERVENTION

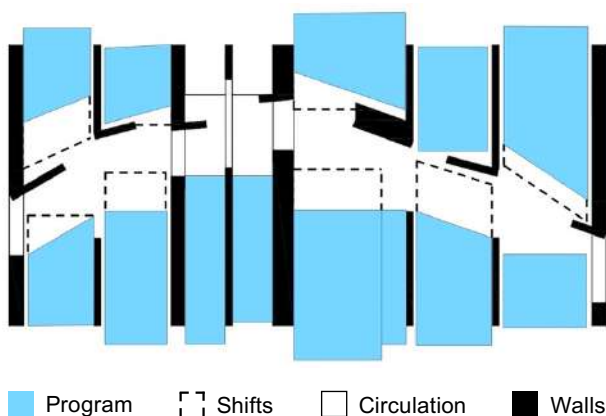
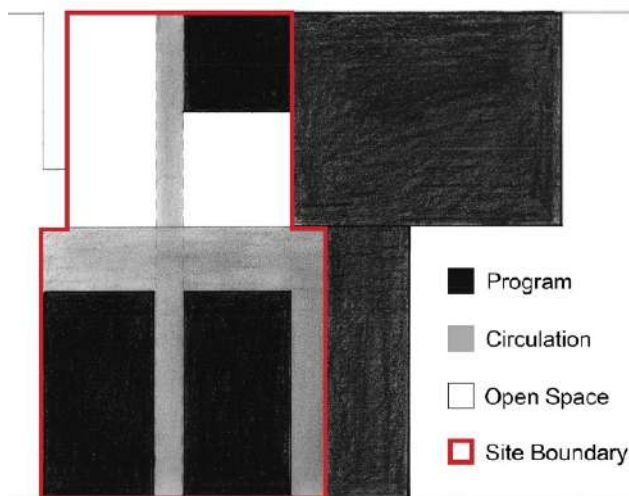
Create a **Parti** (organizing principle) in either plan or section as a design strategy to negotiate between the previous Syntactic Urban Analysis, textual notations of the Marginalia, and formal inventions from the ‘Archifecture’ Model. This Parti will act as a scaffold to develop the program for your intervention. The “Program” does not have to be limited to a standard typological function (such as a library or museum). Instead, consider programming as the aspirational agenda for your architecture:

- **What questions are you asking through your architecture?**
- What effect(s) would you like to achieve? or What do you care about?
- Is your project for residents, tourists, children, adults, animals, angels, fictional characters?

“**parti pris**” (French)

- a position taken in advance
- a preconceived opinion; bias
- organizing thought or decision behind an architectural design

Examples of Parti Plans / Diagrams



(top) Helen Levin, Parti Diagram, CCNY, Spring 2009

(bottom) Muhammad Raziq B. Ramlan, Parti Diagram, NUS, 2023

Examples of Parti Models



(top) Timothy M. Collins, Parti Model, CCNY, Fall 2014

(bottom) Muhammad Raziq B. Ramlan, Parti Model, NUS, 2023

SUTD ASD
Option Studio 1 - Fall 2026

Instructor
Calvin Chua

COLLECTIVE INCREMENTS

Alternative Development Frameworks for Bangkok's Chinatown



Bangkok's Chinatown – Yaowarat Road, Song Wat, Talat Noi, Pom Prap, and Sampheng – is a live testing ground for two colliding development logics. On one side, family- and community-scale actors are incrementally transforming shophouses, warehouses, and street-facing plots into new cultural, commercial and residential uses. On the other, the district faces mounting pressure from mega-scale real estate development.

This studio asks whether an alternative development framework – built on family ownership, associational governance and collective land instruments rather than single-owner consolidation – can be designed as a viable alternative to mega-capital redevelopment.

Background

Bangkok is a city of two development speeds. The first is top-down: from One Bangkok's mixed-use development, to Central Embassy's planned Phase 2, to Woeng Nakhon Kasem Yaowaraj at the edge of Chinatown, these projects are part of a single masterplan.

Against this stands a different, slower kind of ownership: a family that adds a floor to its shophouse when it can afford to; a merchant collective that rebrands a street; a sports club that grows into a lifestyle precinct. This model has produced real, valuable transformation in various parts of Bangkok, but at a fraction of the scale, speed and capital of a mega-developer. The question this studio asks is whether this incremental model can be organised into something with enough scale and financial logic to provide a genuine alternative to mega development capital. More importantly, it asks what kinds of urban transformation, new architectural typologies and programmatic spaces this model could bring about as the city continues to grow and evolve.

Thailand's current legal and financial apparatus does not enable collective intensification at this scale: no mechanism comparable to a collective sale, no functioning transfer-of-development-rights market, no cooperative land instrument tested on formally-titled urban fabric. This studio looks at this gap as its design problem: can an alternative development framework - combining family ownership, associational governance and collective land instruments – be built to evolve the urban fabric and its community?

The studio will test this question against Bangkok's Chinatown, a historically rich neighbourhood that fell into decline in the 1990s and has only re-emerged as a cultural hotspot over the past decade. Chinatown comprises five overlapping areas – the river-facing trading edge of Song Wat, the residential-creative fabric of Talat Noi, the family-heritage core of Pom Prap, the original settlement core of Sampheng and the mega-development edge of Yaowarat/Samyot. Each will serve as the starting point for one of five project pairs, while the studio collectively builds a shared research base on ownership, typology, risk and policy.

This inquiry extends the Spatial Policy Lab's current M.Arch thesis agenda on "Risk." Where the Lab's thesis projects address risks of natural disaster, brain drain, financial instability and exploitation, this option studio, focused on Bangkok's Chinatown, focuses on another dimension of "Risk", cultural, capital and gentrification.

The outcome of the studio will be a speculative urban and architectural vision – comprising spatial form, ownership structure, governance model and phasing – for the collective intensification of a historic neighbourhood.

Brief 1: Glossary

Week 1-3

Defined as a glossary, Brief 1 builds the shared analytical base the whole studio will carry forward - historical, risk-based, institutional, policy and typological. Its task is to establish a common language and context for the entire studio, one that will ground each pair's later site analysis and proposal. For Brief 1, each pair takes ownership of one district-wide lens, producing research that applies to all of Bangkok Chinatown:

- A. Context & History
- B. Risks Facing Bangkok's Chinatown
- C. Ownership & Institutional Ecosystem
- D. Legal & Policy Instruments
- E. Typological Comparison

Deliverables for this brief should be produced as a series of diagrams, slides and posters, to be compiled into a studio book.

1A. Context & History (Group 1)

A condensed, district-wide timeline and map covering: from the 1782 relocation of Chinese settlement from the Grand Palace site to Sampheng; the construction of Yaowarat Road (1891–1900); the river-port trade economy and gold trade; temple and shrine infrastructure (Wat Traimit, Wat Mangkon Kamalawat, Wat Pathum Khong Kha); and the arrival of the MRT Blue Line extension and its associated development pressure. Complementing the historical research will be cultural references: Marc Askew, *Bangkok: Place, Practice and Representation* (Routledge, 2002), Arnika Fuhrmann, *In the Mood for Texture: The Revival of Bangkok as a Chinese City* (Duke University Press, 2025). Produce a set of drawings and diagrams that captures the context and history of Chinatown.

1B. Risks Facing Bangkok's Chinatown (Group 2)

Analyse a series of “risks” facing Bangkok’s Chinatown grounded in a specific, documented condition in a specific zone. This will provide the “risk profile” in Brief 2.

Risk Vector	Area	Grounding
Capital (land consolidation)	Song Wat	AWC's RiverJourney portfolio includes plots directly on Song Wat Road (Lhong 1919 / Ritz-Carlton project) consolidation pressure already landed on this street
Environmental (flood / subsidence)	Talat Noi	Riverside, low-lying position directly fronting the Chao Phraya; compounded by citywide subsidence and sea-level pressure on the drainage system
Regulatory (legal paralysis)	Pom Prap	The Condominium Act's unanimous-consent deadlock and the decade-long limbo of the TDR proposal leave family-scale intensification with no purpose-built legal instrument
Demographic (occupancy hollowing)	Sampheng	Documented pattern of families retaining ownership but relocating to condos/suburbs since the 1990s, leaving buildings under-occupied even where title is secure
Representation (heritage-washing)	Yaowarat / Samyot	AWC's own "Legacy of the Past, Inspiration of Tomorrow" branding and 8-storey "Chinese Pavilion" — capital manufacturing cultural legitimacy at a scale that competes directly with grassroots legitimacy-building (e.g. Charoen Chai's community museum)

1C. Ownership & Institutional Ecosystem (Group 3)

Map the full ecosystem of actors holding land, capital, cultural legitimacy or policy leverage in Chinatown. A diagrammatic actor map identifying what each actor holds (land, capital, legitimacy, authority), their scale of operation, and points of overlap or conflict.

Actors	Description
Landholders & Developers	Family freeholders (e.g. Baan Trok Tua Ngork; shophouse-owning families along Song Wat, Sampheng, and Pom Prap), Conglomerate-family cultural patrons (e.g. Bangkok Kunsthalle, Dib Bangkok), Large capital consolidators (TCC Assets, Asset World Corp, Central Group), Institutional landowners (Crown Property Bureau)
Association & Civic Groups	Made in Song Wat - merchant/tenant branding collective, est. 2022, Charoen Chai Conservation and Rehabilitation Group - community museum and heritage advocacy, Chumchon Khon Rak Talat Noi ("People Who Love Talat Noi") - civic group, public realm negotiation, Samphanthawong Business Community
State & Quasi-State Institutions	Creative Economy Agency (CEA) - Bangkok Design Week, Charoenkrung-Talat Noi Creative District programming, Bangkok Metropolitan Administration (BMA) - Bangkok Comprehensive Plan, Committee on Conservation of Rattanakosin and Old Towns - TDR policy proposal, Community Organization Development Institute (CODI) - Baan Mankong cooperative housing programme

1D. Legal & Policy Instruments (Group 4)

Research the legal and financial instruments available to collective, family and associational development in Thailand, benchmarked against comparable instruments elsewhere.

Instrument	Thailand / Bangkok Status	Comparable Precedent
Collective / en-bloc sale	Not available - Condominium Act requires unanimous owner consent to redevelop; no registered condo has ever been redeveloped	Singapore: Collective Sale Act
Transfer of Development Rights (TDR)	Proposed since 2016 for Rattanakosin conservation areas; pending in 4th Comprehensive Plan revision	Tokyo: Special FAR District (e.g. Tokyo Station)
Land sharing	Bangkok-originated 1980s practice (Angel & Boonyabancha); applied to informal	N/A. a Thai export to global slum-upgrading practice
Cooperative land tenure / CLT-equivalent	Baan Mankong / CODI — cooperative land ownership secured participating households; almost entirely applied to informal settlements	US/UK Community Land Trusts
Small-business rent protection	No equivalent mechanism identified	Seoul: Commercial Area Protection Zone; NYC: Small Business Job Survival Act

1E. Typological / Grain Analysis (Group 5)

Mega-Development	Shophouse-Incremental
AWC Ritz-Carlton / Lhong 1919 (Song Wat plots)	Song Wat shophouse / café cluster
AWC Woeng Nakhon Kasem	Talat Noi merchant house cluster
One Bangkok	Sampheng shophouse / wholesale market cluster

Brief 2: Atlas

Week 3-5

After a collective research, each pair will now pivot from district-wide lens to site-specific area, carrying their Brief 1 findings forward with a focus on their own area's condition.

Area	Condition
Group 1: Song Wat	River-facing trading edge; café/gallery conversion of former shophouses
Group 2: Talat Noi	Residential-creative fabric; street art, workshops, mixed formal/informal tenure
Group 3: Pom Prap	Family-heritage core; multi-generational shophouse ownership
Group 4: Sampheng	Original 1782 settlement core; densest lane geometry, wholesale/retail market
Group 5: Yaowarat / Samyot	Mega-development edge, AWC's Woeng Nakhon Kasem construction perimeter

2A. Urban Fragment (Analysis Model + Interpretive Model)

Select a minimum of two key or representative urban fragments of your site – comprising street frontage, urban interface, and elements such as stairs, windows, doors and frames – using Google Street View as your source material. Use AI tools to generate and produce a 3D-printed analysis model: Gemini to interpret and describe the fragment's massing and surface qualities from street-view imagery, and Meshy to convert that interpretation into a 3D model suitable for printing. This analysis model should be produced before visiting the site and will later be used to compose the combined analogous drawing in Brief 2B.

- 1:100 analysis model: 3D-printed massing of the urban fragment, generated via Gemini and Meshy from Google Street View imagery
- 1:25 interpretive model of an urban interface, in any physical material (concrete, wood, metal, etc.)
Try to avoid using 3D-printed material for this model

2B. Analogous Drawing

Produce **1x analogous drawing (1 grey board – 1600mm x 1600mm)** of your project area (measuring 600m x 600m). The drawing should be composed of a series of drawings at multiple scales, revealing the urban, architectural and material qualities of your site, to construct a narrative response. Actual drawing scale to be discussed collectively within studio.

- 1:1000 plan (urban grain, circulation, administrative boundaries, land use / program, ownership where identifiable, transportation, production / consumption network).
- 1:200 axo of one representative building or cluster, with massing, entry-exit, circulation.
- 1:100 axo-section / perspective drawing of a representative street / urban interface
- 1:25 axo / perspective of a specific detail, texture and material for a specific building / urban interface. It may or may not be a replica of your 1:25 interpretive physical model
- Found photos (from google street views and uploaded user photos)

2C. Ethnographic Method Design

Design your ethnographic approach to be carried out during the Week 7 study trip.

- Draft an interview targeted at your area's stakeholders
- Identify and, where possible, make initial contact with your zone's local partner
- Prepare found-photo and short-video documentation plans for the area

Brief 3: Framework

Week 5-8

3A. Framework Hypothesis (Week 5-6, pre-trip)

Building on the analysis carried out in Brief 2: Atlas, we will define a collective design framework for the five areas within Bangkok's Chinatown. Intensification for each area should be defined according to its respective socio-economic and cultural profile, alongside its accompanying architectural typologies, urban form and density. Each pair drafts a provisional narrative and development framework for their zone, a working hypothesis for who develops, how and under what ownership or governance model.

As part of the study trip to Bangkok, you will also compile your analysis and initial proposals into a presentation deck and a book. This is to facilitate meaningful discussions with partner host organisations in Bangkok.

Deliverables (as a project pair):

- Text and Diagrams defining new socio-economic profile and development framework for the area
- 1:1000 Urban Plan (circulation + massing, socio-economic networks and flows)
- 1:200 Axo (initial schematic massing)
- 2x images / collages
- 500-word text summarising proposal

Deliverables (as a studio):

- 3km x 3km collective axo masterplan drawing (overlying circulation, connections, intervention)
- Book Compilation
- Presentation Slides

Study Trip (Week 7)

A study trip to Bangkok will be conducted during the Week 7 recess week. The focus will be on executing each pair's ethnographic protocol on-site with their assigned local partner, testing the Brief 3A framework hypothesis against actual site conditions and context. The studio will engage local architecture offices whose work directly informs this brief's typological and material thinking and take part in a joint workshop with CU INDA (Chulalongkorn University's International Program in Design and Architecture). The trip will also include visits to adaptive reuse cultural transformation and incremental development spaces including: Baan Trok Tua Ngork, Bangkok Kunsthalle, Sala Saneha, RQ49. Take site photos of each pair's urban fragment for AI reconstruction of its massing and context, capturing angles and detail unavailable on Google Street View, to compare against and refine the pre-trip analysis model from Brief 2A.

3B. Framework Revision and Post Trip Review (Week 8, post-trip)

Frameworks are revised based on actual site context in Bangkok. Revise / adjust framework (as a discussion with tutor)

Deliverables (as a project pair):

- 3-5 min film summarising site analysis, observations, interviews, material site conditions and initial vision and framework for the site
- Revised set of drawings, images and project thesis.

Brief 4: Design & Finalisation

Week 9-14

Refine your project thesis based on site observations, stakeholder conversations and feedback from the study trip and mid-term pin-up. Every project must resolve two linked strategies, a socio-economic/governance strategy and a spatial strategy and demonstrate how the two depend on one another.

4A. Socio-Economic Strategy

Define the overall vision for the zone's transformation. Ownership and governance structure: is this family-held, cooperatively held, associationally managed, or a hybrid? Real estate / financing mechanism: how is the project funded/supported? Institutional and stakeholder roles: which existing actors does this project depend on, ally with, or negotiate against? Phasing: how does the project sequence over time, plot by plot?

Deliverables (as a project pair):

- **Diagram on urban axo/plan drawing:** 1:1000 urban axo drawing with overlay diagrams showing the socio-economic strategy

4B. Spatial Strategy

Consider how adaptive reuse and collective increment can generate enough new floor area and revenue for existing owners to hold their ground against acquisition. Strategies may include splitting, infilling, amalgamating across adjacent shop lots, vertical addition, rear-yard/courtyard intensification, or shared-wall consolidation. The detailed design phase is dedicated to the technical articulation of the project, where the environmental, structural and material aspects of your proposal need to be integrated within the overall thesis and argument of the project. In addition, you should revise your initial set of deliverables (drawings, images) with more precision and resolution. The concluding phase of the project is dedicated to the finalisation of drawings, images, physical model and presentation. In addition, a collective site axo and book will be produced to conclude our project,

Deliverables (as a project pair):

- **Plan drawings:** 1:1000, 1:500, 1:100 circulation (public / service / residential), public and "third space" programme, shop/unit classification
- **Section-perspective drawings:** 1:500, 1:100 revised sectional and typological logic
- **Axonometric drawings:** 1:100 spatial operations, structural operations, new street/shopfront connections, phasing sequence
- **Physical model:** 1:200 urban model
- **Images:** street, exterior, interior
- **Video:** Revise / update 3-5min video in Brief 3B

Deliverables (as a studio):

- Collective axonometric drawing of all five final proposals
- Revised book, compiled for exhibition after final review

4C. Urban Fragment (Re-Design)

Rethink an fragment that defines, regulates and enable the collective increment of the site. For example, a party wall, a stair case, a plinth, an entryway, a window, etc. Design that fragment

Deliverables (as a project pair):

- **Axo drawings:** 1:50 drawing
- **Physical model:** 1:50 component model

Appendix

Course Schedule

Wk	Focus
1-3	Brief 1: Glossary
3-5	Brief 2: Atlas
5-6	Brief 3: Framework (hypothesis)
6	Mid-term Presentation
7	Study Trip
8	Brief 3: Framework (revision)
9-14	Brief 4: Design and Finalisation
14	Final Presentation

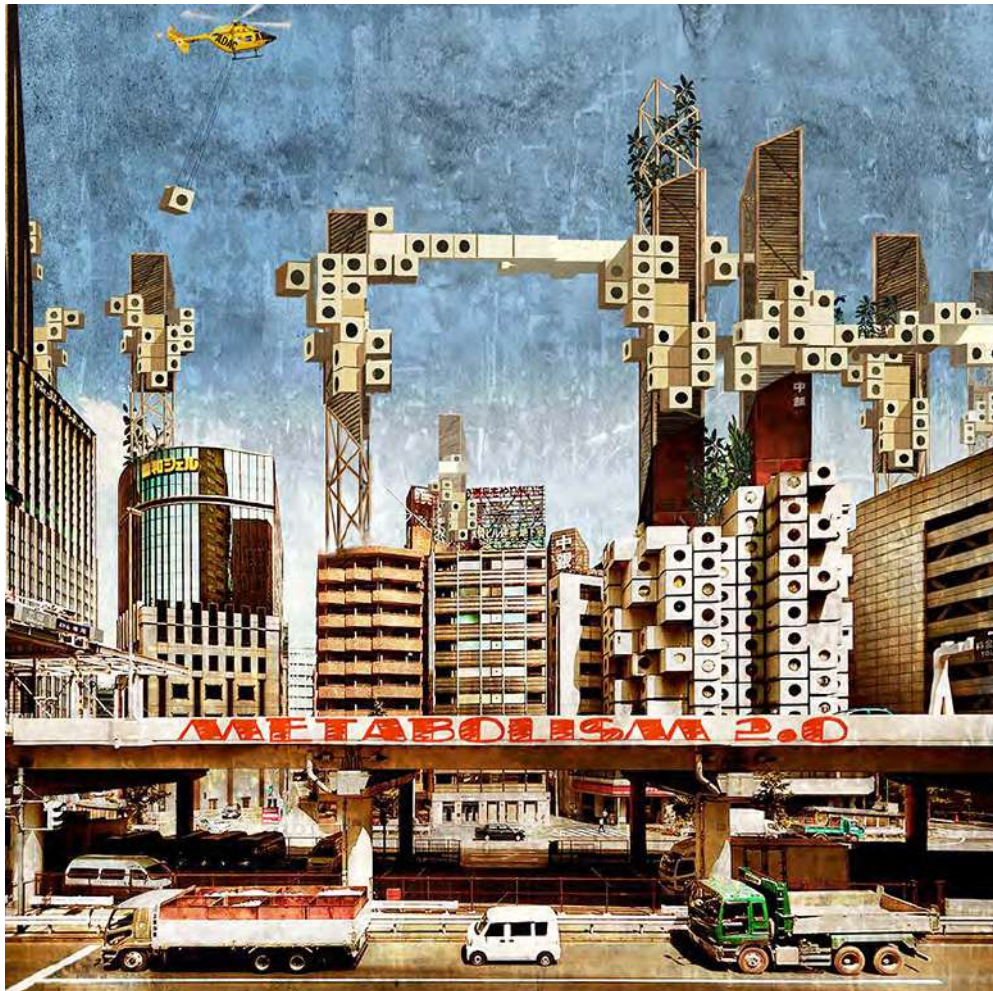
Learning Objectives

- Recognise and critically compare mega-developer and family/associational-incremental models of urban transformation.
- Understand the financial, policy and institutional instruments that enable or constrain collective and incremental development in Bangkok, benchmarked against comparable global examples.
- Develop the capacity to read ownership and governance structure as a design variable, on par with programme, section and material.
- Use AI-assisted image-to-3D workflows (e.g. Gemini and Meshy) as a method of remote site analysis - translating street-view imagery into physical massing models that can be interrogated and verified before and against, direct site visitation
- Synthesise ethnographic, typological and policy research into an architectural proposal that is explicit about who develops it, how it is financed, and how it is phased.

Measurable Outcomes

- Overlay a socio-economic and governance proposal directly onto urban-scale drawing, using plan, section and axo to make ownership structure, phasing legible as spatial and graphic information, not as text appended to a drawing.
- Design an intensification strategy through splitting, infilling, amalgamating across adjacent shoplots, vertical addition, rear-yard or courtyard densification, shared-wall consolidation, without requiring full-site demolition or single-owner consolidation.
- Transform a single architectural fragment (e.g a party wall, staircase, plinth, entryway, or window) into a component that actively regulates and enables collective increment, tested at both urban scale (how it repeats or varies across a block) and detail scale (1:50 drawing and model).
- Sequence a design proposal in distinct, buildable phases, each legible on its own as a viable increment of construction and occupation, rather than as a single completed masterplan.
- Produce a design proposal in which every drawing (urban plan, section, axonometric, or fragment) can be read simultaneously as an architectural, ownership and economic argument.

TOKYO: THE CITY BETWEEN - METABOLIC ALCHEMY



© klaudio muça and ani safaryan

THE PROPOSITION: FROM GROWTH TO ADAPTATION

In 1960, a group of young Japanese architects proposed a radical idea: what if a city could behave like a living organism?

At the 1960 World Design Conference in Tokyo, architects including Kisho Kurokawa, Kiyonori Kikutake, and Fumihiko Maki introduced what became known as Metabolism. They imagined architecture not as a finished object, but as a system capable of growth, replacement, and transformation. The city could have a life cycle where new cells could be attached and old cells could disappear.

Tokyo in 1960s was asking: *How can we build enough city, fast enough, for a rapidly growing population?* Today, Tokyo's demographic reality has changed. The population is aging. Instead of a shortage of buildings, Tokyo increasingly faces vacancy and

underuse. The pertinent question now becomes *how can an enormous, mature city adapt, reuse, and remain socially alive as its population ages, households shrink, and parts of the city become obsolete?*

This studio focuses on creating a new *City Between*: architecture that occupies the gaps, tensions, and unfinished relationships within an already enormous city—using them as opportunities for adaptation, transformation, and regeneration.



© yoshiaki miura

SITE & 3 SCALES

To provide a clear pedagogical structure, every project will develop across three nested scales:

- **SCALE 01 — THE PHENOMENON (Territory):** The urban laboratory. Students will investigate an area of **Musashi Koyama**, mapping its social, cultural, material and infrastructural conflicts.
- **SCALE 02 — THE INTERVENTION:** The spatial project. Each team of 2 students will locate an urban gap (such as under croft, alley, vacant buildings, air space etc) and design a targeted architectural intervention.
- **SCALE 03 — THE DETAIL (1:20 / 1:10 Fragment):** The human and material scale. You will zoom into a critical junction to detail material jointing, structural logic, and environmental performance.

3-SYSTEM GENERATOR

Every project must actively connect, repair, and regenerate at least three overlapping urban systems. Choose one of the following experimental frameworks to drive your team's design:

- **Option A: The Symbiont (Beneficial Exchange):** Tap into existing urban flows that weren't originally meant to meet, creating a mutually beneficial metabolic relationship. Example -Taking a waste product from one system and turn it into fuel for another, while simultaneously giving structural or programmatic support back to the host.
- **Option B: The Collider (Productive Juxtaposition)** Position 3 distinct urban communities/ ecologies within a shared spatial field, allowing difference to foster new relationships. Through the deliberate juxtaposition of programs, cultures, scales, and patterns of use, the intervention creates moments of overlap where the expected boundaries between activities begin to dissolve and conditions for community possibility starts.
- **Option C: The Catalyst (Unlocking Value):** Turn urban scarcity into spatial abundance. Identify 3 distinct deficits on your site and propose intervention where solving one automatically fixes the other two.

To ensure your project remains grounded in tectonic and physical reality, at least *one* of your chosen systems must be a hard, quantifiable existing municipal infrastructure of Musashi Koyama. Your team must physically intercept something real—such as an active HVAC exhaust, a waste collection route, train vibration, municipal water runoff etc.

Architecture thrives when it either reinforces or challenges the status quo. Each team must define their architecture's agency in a single sentence: *"This architecture intervenes in the territory by [resisting / accelerating / protecting / subverting / mediating ...] the current urban trajectory through [specific spatial action]."*

STUDIO CULTURE: THE METHODOLOGY OF FAILURE

In this studio, we treat architecture as a speculative science where physical making is used to discover the project, not just representing it.

- **Collaborative Rigor (No Silos):** You are working in teams of two, but you are not to divide yourselves into the "Thinker/Draftsperson" and the "Maker/Technician" mentality. The physical model and drawings must inform one another with *both* partners physically working, presenting and defending the experiments.

- **The Weekly Autopsy:** The first 10 minutes of every tutorial is an autopsy. Each team to present the moment your previous idea hit a wall, highlighting your intention, why the experiment fails and the proposed revision to guide your progress in design development.
- **The Sacrificial Artifact:** Previous week's failed models and drawings are celebrated in this studio. To progress, we will physically draw on, cut, and map failures directly onto this artifact.
- **The Design Ledger:** Your portfolio is a running document updated weekly. You must track your design iterations using a rigid loop: **[Intention → Method → Discovery → FAILURE → Revision]**.

THE 14-WEEK SCHEDULE

PHASE 1: SITE ANALYSIS & PHYSICAL PROTOTYPING

- **WEEK 01 — Territorial Mapping & The AI Mirror:** Dive directly into the given Musashi Koyama territory. Execute rapid remote mapping of critical information . Identify the clash between the massive corporate redevelopments and the fine-grain residential fabric. Use the AI Hallucination Test to expose generative biases regarding Tokyo's urbanism.
- **WEEK 02 — The Gap, The Engine & The Stance:** Identify specific urban gaps, vacant properties, and infrastructural fractures. Select your 3-System approach (Symbiont, Collider, Catalyst), lock in your "Hard Anchor" infrastructure, and draft your initial Socio-Political Stance.
- **WEEK 03 — Data to Form:** Translate mapping data into abstract spatial concepts. Construct quick physical models exploring spatial conditions (such as compression, porosity etc). *First Sacrificial Artifacts generated.*
- **WEEK 04 — The Model Challenge (Pre-Trip Testing):** Physically construct, alter, cut, or stress-test the spatial prototype of your system. You are building the physical hypothesis that you will take to Tokyo.
- **WEEK 05 — Temporal Mapping & Synthesis:** Map how your intervention shifts across 24 hours (07:00/15:00/23:00). Synthesize your territorial analysis and physical prototype into a clear, unified hypothesis.

PHASE 2: FIELDWORK & TRANSLATION

- **WEEK 06 — Pre-Trip Review:** Present territory hypothesis, comprehensive site analysis, and the physical prototypes your team has developed. **Deliverable: 6 × A1 Boards** documenting your territorial data, AI criticality, and physical hypothesis. Define the primary 'Architectural Mystery' that must be solved on-site.
- **WEEK 07 — Tokyo Field Laboratory (Active Deployment):** Solve your Architectural Mystery. Ground-truth your mappings. Deploy your physical hardware/spatial prototype on-site in Musashi Koyama to measure its scale and friction against the real environment.
- **WEEK 08 — Building Integration:** Lock the primary design direction. Begin formal 1:50 site and building model, testing spatial organization and circulation.

PHASE 3: ARCHITECTURAL PRODUCTION

- **WEEK 09 — Post-Trip Sprint/ Pre- Final Review:** Establish translation rules based on what your on-site testing revealed (what have succeeded and what have failed?). Present the finalized spatial strategy.
- **WEEK 10 — Tectonic Resolution:** Detail the design for disassembly, material jointing, and environmental performance. Begin framing towards final drawing set.
- **WEEK 11 — Territorial Transformation:** Map how the proposed intervention impacts the surrounding network (e.g., pedestrian flow, cooling). Resolve key junction at 1:10 or 1:20 scale.
- **WEEK 12 — Final Consolidation:** Complete the 1:50 model and 1:20 tectonic fragment.
- **WEEK 13 — Process Documentation:** Finalize your **12 × A1 boards**. Consolidate your weekly *Design Ledger* into a final portfolio, documenting the complete history of your Sacrificial Artifacts.
- **WEEK 14 — Final Review:** Present proposal along with Sacrificial Artifacts.

DELIVERABLES & ASSESSMENT

Final Presentations requirement will be **12 × A1 Boards** (building upon the 6 generated for Pre-Trip Review), a continuously developed 1:50 site model, a 1:20/1:10 tectonic fragment, and the completed Design Ledger portfolio.

- **20% - Research, Observation & Criticality:** Depth of site analysis, territorial mapping, and AI critique.
- **25% - Architectural Proposition:** Strength of the 3-System Engine, Hard Anchor integration, and the defined Socio-Political Stance.
- **25% - Experimentation & Making:** Collaborative rigor, Model development, Sacrificial Artifacts, and rigorously documented failure.
- **15% - Architectural Resolution:** Spatial, structural, tectonic, and environmental detailing.
- **15% - Representation & Communication:** Coherence of the final 12-board presentation and narrative clarity.

OPTION STUDIO I

The End of the Line

Rethinking the Megacity; An Almost Transparent Blue



In depriving itself of the film transparent to the real that is its discourse, philosophy prepares to make itself fiction, a fiction which is not a distancing from reality but a passage from one point of reality to another, during which all colors may flood into philosophical writing.

Anne-Françoise Schmid

这里关注的不是造型,不是功能确认,而是观照着城市建筑本身的可能性及其在义上的含混与开放。

We are not concerned with the form or function identification. Instead, we show much concern for the possibility of urban architecture its own and the ambiguity and openness of its language.

Wang Shu (王澐)

夫借景,林園之最要者也。如遠借,隣借,仰借,俯借,應時而借。

So, the landscape that lends is the most important factor for a garden; according to what the distant landscape lends, the nearby, the above, the below landscape, and what it lends responding to time.

Ji Cheng (计成) (trans. Stanislaus Fung)

01 STUDIO STATEMENT

In this studio we will apprehend the concept of the city on two levels – first in relation to lines, and the second in relation to color. Contextualized within the Nanhui New City development in Shanghai, both are critiques related to cities as objects of design and speculation in relation to their environments.

The notion of the line (and its end) rests upon several layers:

- I) The idea of the “coastline” as a fixed delineation between land and water
- II) The Yangtze River as a subject of inquiry, particularly as it cuts across the Nanhui New City and opens towards the East China Sea
- III) Lines as the representational *de rigueur* to which conditions, thresholds, and flows are imposed as an authoritative schema that borders towards quasi-reality

It is thus necessary to acknowledge the line as both as a poverty to the designer/planner and to reality itself, but to grasp from this insufficiency the possibility to *speculate* upon the city as constitutive to its environment. The studio takes this position to formulate a design approach that integrates landscape urbanism methodologies with a Laruellean understanding of color. This notion of color is employed as a catalyst to radically rethink architecture and the city’s relationship with blue – one that taps into a long-standing understanding of water and hydrological systems as a standing reserve that becomes complicit with the design of infrastructures that exploit it (while mitigating its ‘detrimental effects’).

Instead of seeing and designing around blue, how can we instead *think blue*, to embrace water in all its dimensions, not as bodies or boundaries but as a point of exteriority to reconceptualize architecture, cities, and infrastructures that *consists*; mediating between anthropocentric necessity and a radically withdrawn nature.

02 SITE CONTEXT

In 2001, the Shanghai Municipal Planning Bureau launched the *One City, Nine Towns* initiative to establish Shanghai’s identity as a global megacity. In an attempt to establish unique identities for each town (特色风貌), a majority of these developments adopted western vernaculars and models of urbanism, turning the act of city-making (if one could even attempt at such an endeavor) into an exercise in pastiche. Nanhui New City (南汇新城, formerly known as Lingang New City) stands as one of such towns – a winning proposal by German firm von Gerkan, Marg and Partners extends the modernist tradition with a radial plan built from land dredged from the Yangtze estuary, conformed to a seemingly circuit-like layout centered upon the artificially constructed Dishui Lake.

Yet as this imposed ground gradually comes into being, an air of uncertainty settles over what we can only see from the outside. What this studio attempts to apprehend are the contested identities

found within Nanhui: a port town turned AI innovation hub at odds with claims of under-occupancy; concentric grids of new developments intersect with preexisting agri/aquaculture formations; a former wetland undergoing urbanization while its coast is actively extended as ecological recompensation; and a subsiding landmass confronting the present threats of climate change, sea-level rise, and extreme weather.

This studio takes these simultaneities not as something to be engineered or resolved, but as opportunistic frames in which the design of cities can be rethought. It is this refusal to fit into any kind of singular identity nor problematic that makes Nanhui emblematic of the studio's own agenda: to question the assumptions of the city as a stable construct but rather a flux of forces in which the act of design can compose vis-a-vis a future that is never settled.

03 METHOD

Landscape Urbanism – We shall read the territory through the lens of Landscape Urbanism as the core structure of the studio. Through *indexing*, *prototyping*, and *meshing*, we will foster a critical engagement with the challenges and opportunities of the site, as well as develop a design language to which we are able to (in)sufficiently speculate upon the possible futures of Nanhui as a blue city. (*QGIS > Rhino/Grasshopper*)

Blue Manifesto – The guiding vector of the studio is the desire to rethink our relationship with blue; one not limited by a simple delineating of water boundaries but as a immanent condition that can only ever be partially accessed (i.e. hydrological transformation, transpiration, condensation, climatic events, standing-reserve). Through the studio, the development of this manifesto serves as the vector in which we explore how the act of architecting operate alongside these partialities towards holistic and regenerative futures that remain unthought. (*Speculative workshops + Diagramming*)

Transect – Each group will identify a transect to develop a critique and design agenda around throughout the duration of the studio. The transect is chosen as a thick ecological section that hosts a specific arrangement of flows to which we can apprehend through design. Through this, we will define a scale (somewhere in between the building and geospatial abstraction) where the formal iterations produced through prototyping become enmeshed within the landscape as blue processors (through which metabolic flows are aggregated, captured, redirected, and transformed).

Countermodels – Lastly, we shall approach mapping / indexing as an expressive act, where data and its representations are to be apprehended not as “ground truths”, but rather through the position of “lack” where the confrontations between different datasets can realized productively. This act of counter-modelling is to be explored both physically and digitally, where what is “given” of the landscape is continuously questioned and reinscribed. (*Model-making + Blender/Unreal Engine*)

04 OUTCOMES

- As a section, student will conduct comprehensive research and spatial analysis of Nanhui to produce both a digital and physical atlas (to work with acrylic and translucency to embed analytical/indexical layers)
- As a group (3-4 pax), students will identify a transect that frames a localized reading of Nanhui in relation to different fields of interest (environmental, ecological, capital, social, etc.). Each group will extend the research within each transect to shape their own design agenda for the transect in the form of a blue manifesto
- Each group will produce a body of work stemming from the core Landscape Urbanism methodology (Indexing, Prototyping, Meshing), progressively extroverting their blue manifesto within the transect as a set of spatiotemporal interventions.
- The groups will also explore the representations of their research and design through countermodels (in both their physical and digital iterations). The development of these countermodels seeks to mark the critical re-interpretation of the city-landscape by means of design speculation and will serve as the final deliverables of the studio.

05 STRUCTURE

Week 1: Reading the territory I

[section-wide]

- Preliminary contextual research / Begin base atlas mapping / elaborate a critique of the existing masterplan

Preparing the atlas · research and gather data on Nanhui through its different scales and dimensions. Certain aspects of interest to get started:
estuarine mechanics, sediment movement and reclamation history of Yangtze; topography and bathymetry, sea-level rise and typhoon-risk; ecology and natural systems; landuse plans and forecasted development, demographic and occupancy; material flows, tensions and confrontations between productive actors; data centers and AI innovation hub development

Workshop on QGIS · introduction to QGIS as a tool to compose data + pipeline to Rhino

Week 2: Reading the territory II

[section-wide]

- Interim presentation of research and mapping, move towards refinement
- Begin identifying actors and flows of interest surrounding the territory. Extend research towards the spatiotemporal dimension to set in motion the design agenda of the studio

Workshop on Indexical Analysis with Grasshopper · Make use of existing + found spatial data to produce indexes as new readings of the territory

Week 3: Indexing the Territory > Cutting the Transect

[section-wide > groups]

- Milestone presentation of research and mapping + macro-indexes
- **Move to transect development** (in groups of 3-4 depending on size):

Working with transects · Each group will adopt a single transect as the “site” of their research and design development. Each transect should be understood **ecologically** both XY and Z axis – begin by charting the **metabolic flows** (actors + vectors + relations) through diagramming; to establish the configuration in which each group can articulate their own design agenda

Transects will serve as distinct frames in which the contesting identities of Nanhui will be explored. Necessarily, there will be some overlapping of themes, but each cut should provide a specific configuration of actors to respond towards

[incoming deliverable – section-wide]

Get started on development of atlas model (base scale 1:15,000, roughly 1.3 x 1.3m / transects to be scaled up after consultation); due **midterms**

Week 4: Indexing the Transect > Towards a Blue Manifesto

[groups]

- Check-in on indexical drawings + transect development (mapping + metabolic diagram)
- Consolidate ongoing research into Blue Manifesto (facilitated by workshop)

Workshop on designing around color (a blue manifesto) · To engage with blue not as a threshold (i.e. coastline / water body) but as a radically diffused field (transpiration of plants, air moisture, water-processing machines, weather events). Through the theory established by Francois Laruelle, how can this color move from a static, decisional “reality” towards a space of thought; to think through water as a paradigm shift across scales of infrastructure and the city in relation to nature

Week 5: Iterate Indexes and Manifesto > Prototypical Studies

[section-wide]

Check-in on atlas model development

[groups]

- Check-in on indexical drawings + transect development + blue manifesto
- Relate aspects of blue manifesto to infrastructural research, identify characteristics (formal/relational/spatial) to explore through prototyping

Prototypical studies · Establish an architectural language to engage with the site and design agenda. If cities are considered machines (to extend the modernist dogma), what are the infrastructures that consist the city, and how might we rethink them through design to produce new frames of blue?

To apprehend infrastructures not limited to coastal adaptation, reclamation, sensing, AI and “smart” city applications and its associated data infrastructure, habitation + publics, productive systems like agriculture + aquaculture. Some can be engaged with their spatial specificity, while others in relation to each other (tapping into metabolic circuits of the transect)

Week 6 – Mid Term Reviews (22nd Oct)

[section-wide]

Coordinate presentation of studio agenda + atlas and general research + introduction of transects + physical scale model of site

[groups]

Presentation of transect development (powerpoint + 3 A0 boards) that represent:

- Transect baselines – site condition, sectional analysis, nodes of interest
- Blue manifesto – design agenda for the transect, represented through transect-scale drawing with metabolic diagram embedded
- Critical layers of engagement – indexical development and prototypical studies
- Additional avenues of representation and process documentation (research, sketches, diagrams, collages, material tests, etc.)
- Moving forward – synthesize findings into set of inquiries for second half of the term

Week 7 – Field Trip

[section-wide]

Field trip to Shanghai (proposed to take place on 25th to 31st Oct / details TBC)

- **(Day 1) Fly into Shanghai**
- **(Day 2-3) Site visit to Nanhui – *chart encounters, confront with the subjective; faced with the actual local conditions, we shall explore different modes of re-capturing, re-evaluating, and re-thinking the grounds that we've defined in abstraction thusfar. Possible methods: 3D scanning (FARO scanner, phone capture) as a mode of reconstructing the transect, site surveys to cross-validate research, field recordings, interviews with residents, photo-collages and video journaling to capture the "lived experience"***
- **(Day 4-6) Return back to Shanghai – meet with our collaborators with Tongji, consolidate findings and iterate upon design agenda through a series of presentations, workshops, and site visits.**
- **(Day 7) Fly back to Singapore**

Trip Purpose • *To approach from a position of "lack", acknowledge assumptions and decisions while integrating observations and data captures only possible onsite. Treat mapping as an explicit act of composition rather than objective drawing. A series of workshops and sharings will also help open the inquiry surrounding the site and each group's design agenda*

Week 8, 9, 10 – Prototypical Development > Digital Countermodelling

[incoming deliverable – Week 9 Pre-Final Review on 12th Nov]

Informal sharing between each group of their synthesis of the trip and the development of their project's agenda and process from their findings and experience.

[groups]

- Develop on prototypical catalogue, move from mono-functional to integrated systems (blue processors)
- Consolidate findings and data from the field trip, reiterate on existing digital atlas (both Nanhui and transect scale) through countermodelling (adding new spatial layers, contrasting different data types, reindex and speculate new flows as reshaped by

Countermodels · *The active re-drawing of the map to not only uncover unseen metabolic flows, but also to orchestrate a confrontation between seemingly disparate elements (i.e. publicly available data in relation to found data / indexes / metabolic reconfigurations enacted by prototypes). It is the spatialization, thickening, and iterating of each group's manifesto in apprehending the impossibility of representation (through lines)*

Week 11,12, 13 – Meshing and Physical Countermodelling**[incoming deliverable – groups]**

Both digital and physical countermodels are to be represented as final deliverables of this studio. The former will be integrated into a consolidated 2A0 transect drawing + possible to explore other models of presentation (VR/video/webapp). Materiality and scale of physical countermodel to be discussed, with possibility of integration back into the digital model or vice-versa

[groups]

- To iterate upon integration of design prototypes back into the landscape, informed also by the renewed topology/topography of the digital countermodel. Explore new co-constitutions between landscape and prototypes in line with manifesto
- Begin planning the composition and approach for the physical countermodel, ideally responding / embedded within the physical atlas while maintaining legible scale.

Meshing · *To understand landscape-as-infrastructure, the act of meshing aims to work with the ground not as a definite substrate but rather as an interface that organizes and channels flows. The mesh itself adopts the prototypical language set out by the previous exercise, reinscribing the landscape with a certain productive “thickness” at a formal massing level*

Week 14 – Final Review**[Final Deliverables]**

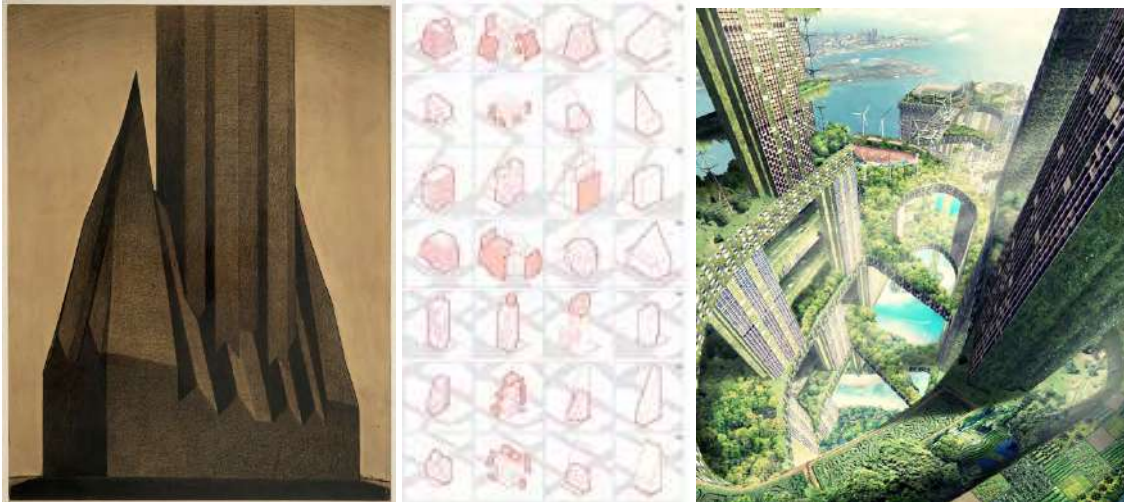
- 6 A0 Boards – 3 for Blue Manifesto drawing from Midterms with necessary updates, 3 for transect scale drawing (representative of final design assemblage + digital countermodel – integrating indexicals, spatiotemporal strategy, prototypical design development with relevant sections, and site-implemented mesh), with embedded process documentation (research, trip material, other related design explorations/output)
- Presentation slides (establish context of the site and the respective group's critical position and design process)
- Digital and physical countermodels (abstracted composition from digital model and design output)
- Documentation booklet (template to be provided) that consolidates research, process, trip material, and design outputs

06 READINGS

- Anne-Françoise Schmid, "Lost Films as Philosophical Fiction" (2016)
- Bernard Stiegler, "Nanjing Lectures" (2016-2019)
- Bruno Latour, "Facing Gaia" (2017)
- Design Earth, "Climate Inheritance" (2023)
- Françoise Laruelle, "Universe Black in the Human Foundations of Color" (2012)
- Yuk Hui, "The Question Concerning Technology in China" (2016)
- Yuk Hui, "Cosmotechnics as Cosmopolitics" (2017)

07 NOTES ON AI

Students should engage critically with AI (both LLMs and generative models), and attribute where appropriate. Beyond using AI tools for research, students are encouraged to use AI workflows to go beyond their designerly capabilities (i.e. developing speculative web tools for environmental design). Potentially, some workflows will be introduced over the course of the studio, but students should consult on the extent of AI use if they deem it relevant to their design exploration and representation.



Hyper Dense Liveability

SUTD ASD options studio 1 fall 2026 – Assoc Prof Peter Ortner

<Introduction>

This is a research studio that is focused on protecting and enhancing liveability in the very densest urban contexts. Density brings real benefits to cities, especially economic and cultural vibrancy, but it also has serious downsides if it is not managed properly. We experience this in many cities most directly through traffic congestion, but it is also experienced more subtly (and pervasively) in congestion of the built environment: fewer views, fewer open green spaces, tight public and personal spaces. In this studio we are going far beyond the densities that you are accustomed to (~GPR2.8 in Singapore's mature housing estates) with the goal to attain GPR of at least 5. This density is so much higher than what we are used to that it profoundly changes the way we live, and, as a consequence, how we define (and defend) liveability. So, what can designers do to make dense cities liveable, and what will we learn from this 'research' studio?

< How designers protect liveability in dense cities (planners, urban designers, architects) >

We will be taking on two personas in this studio: first persona is city planner / urban designer; the second is architect. Planners define *development controls*, which provide proscriptions and incentives to steer urban form toward healthier, more liveable outcomes. Some of the first urban zoning regulations were developed to preserve public health: delivering light and air, for example, in the tenement housing of New York City (Riis, 1890). At the architectural scale, in contrast, we navigate within development controls: working to meet their proscriptions, achieve GFA bonuses, deliver liveable, desirable spaces and experiences. Often the architect has to look for unexpected opportunities between the envelope defined by development controls and the constraints of programme and building structure.

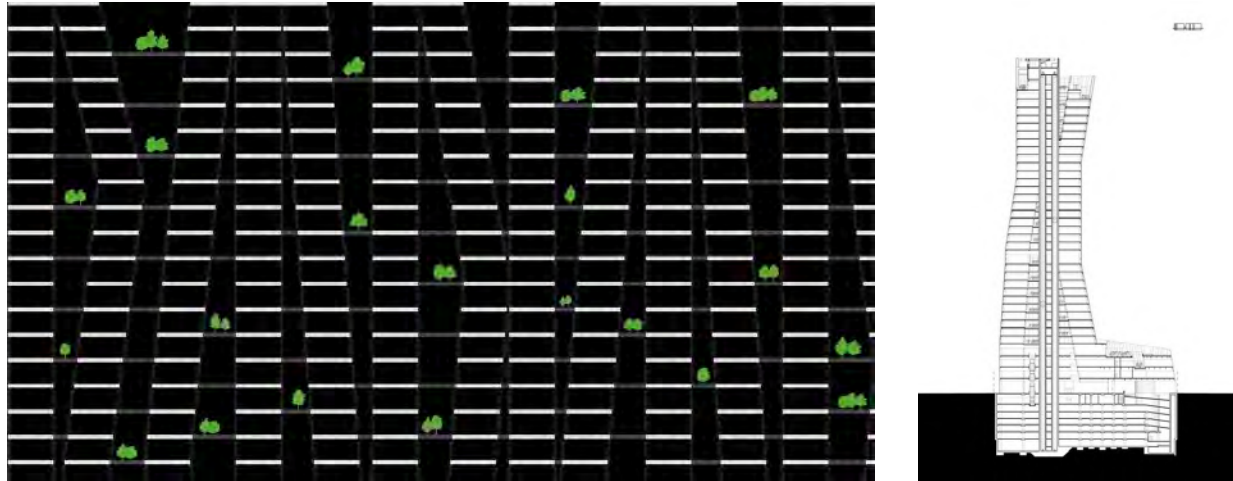


Figure 1: Mass Studies: S-Trenue Tower, Seoul

< What will we learn from this research studio? >

This studio is paired with an ongoing research project on liveability assessment for dense districts that is focused on Singapore, it is also paired with a group of MArch students in a vertical studio format.

The studio is conceived as a counterpart to formal research, with the outcomes of the design process providing additional evidence to suggest how novel development controls can influence liveability outcomes and building form.

MArch students will be taking on the persona of planner and urban designer in this studio, crafting a series of development controls during the first weeks of the term, and providing an 'envelope' to small groups of the UG students within the studio. Each MArch student will be developing a novel performance assessment method for their development team e.g. skyview factor or green view factor.

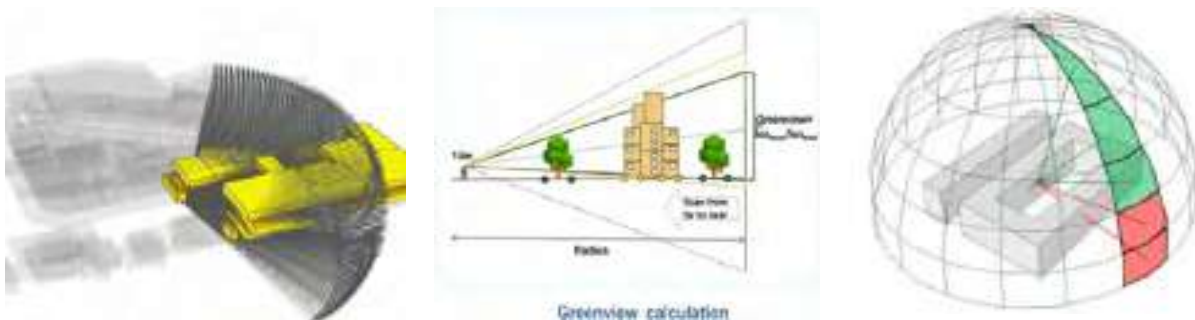


Figure 2: 3D Isovist (decodingspaces.net Reinhard Koenig; Green View Index (GVI) (Yeyu et al., 2025; Sky View Factor (SVF) (Trigaux et al., 2015)

UG students will be taking on the role of architect, creating designs for mixed-use development within the envelope defined by the planners, but also working achieve their own goals for liveable spaces and experiences through form, spatial sequencing, programme, connectivity/configuration. As the 'architects' of liveability, the UG students will also be crafting the experiential images that convey what 'liveability' has been delivered by their designs. This requires the creation of a series of alternative designs that demonstrate how a good design delivers more liveable results.

A process of iterative discussion, design, review and redesign will link the MArch and UG projects, allowing both groups to learn from each other and improve their respective projects.

The research outcomes from the studio are not only the development controls, but also the architectural projects with act as 'evidence' that demonstrate a designer's interpretation of the development controls and their capacity to protect liveability (or afford more liveable outcomes).

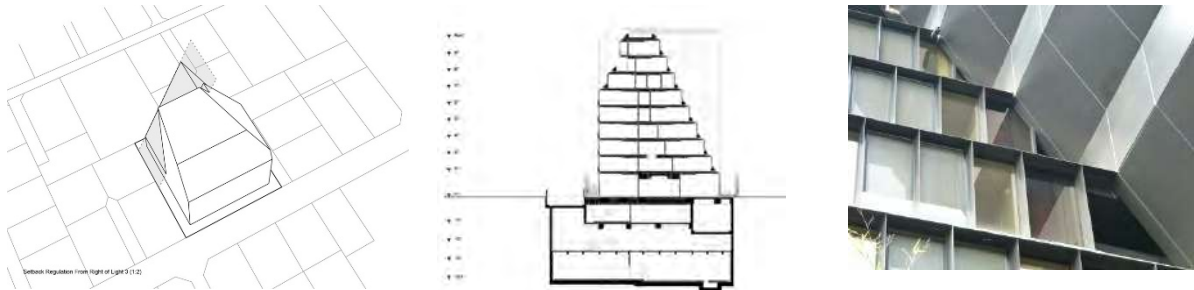


Figure 3: Mass Studies (Cho Minsuk) stocky bundle matrix: EG

<Why Seoul?>

Seoul represents one of the most profoundly dense cities in the world. Housing about 10million people in an area of 605 km², it has twice the density (16,461 inhabitants/km²) of Singapore (8,290/km²) and approaches the remarkable density of Manhattan Island (28,873/km²). (Population data from Wikipedia). Seoul has developed a unique means of controlling development using solar envelopes (Solar Rights Slant Line Restrictions (일조사선 제한) from the South Korean Building Act.) These development controls in turn have driven a number of innovations among Korean architects seeking to maximise both saleable areas, but also interstitial spaces that provide benefits back to residents including public space. The 2016 Venice biennale, entitled FAR Game, documented how a variety of architects have worked with these development controls as design constraints and drivers for innovation.

Although this studio seeks to create and test development controls that go beyond solar envelopes and setbacks, it does so in the context of learning from the history of reciprocal evolution between architecture and development controls, in this case in Seoul. These learnings are expected to be transferable to Singapore, especially for high density redevelopment areas, although they would be adapted to the differing climatic and cultural conditions.

<Programme>

On an approximately 3ha (30,000 m²) site, tentatively located at Hannam Zone 2, students will develop a GPR 5 mixed-use development massing scenario (150,000m²). The massing will include a minimum of 70% residential (1000 DU), and a maximum of 30% additional programmes. It will respect the proscriptive (envelope) and performance standards defined by the MArch students, while aiming for the liveability goals defined by each group and the studio overall. Students are expected to work initially from a *tabula rasa* condition as depicted in the Seoul Metropolitan Government's planning Fig. 4 (right), although this may be renegotiated as part of the site masterplanning process.



Figure 4: Studio site at Hannam Redevelopment Zone 2. On right is a rendering of the Hannam 2 redevelopment zone in Bogwang-dong, Yongsan-gu, Seoul. (1,300 dwelling units) Photo courtesy of Seoul Metropolitan Government. Note Itaewon metro station to the north and to the East the Hannam District 3, which has recently been cleared for redevelopment.

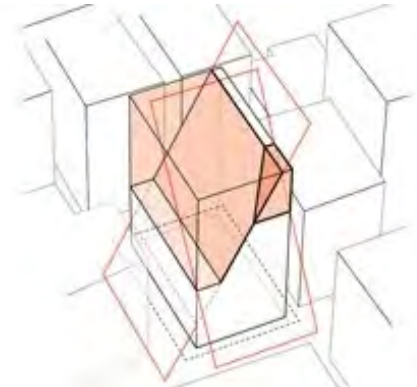


Figure 5: SsD Architects, Songpa Microhousing

<Fabrication>

The Studio emphasizes model building as a key component of the assessment of urban design. A studio site model at 1:1000 will be constructed in the first 3 weeks of the studio. The study site will be removable. All students will produce multiple 1:1000 massing variations to be tested with the site model. A final 1:200 model will be constructed by each student at the end of the term.

<Studio Objectives>

The studio will prepare students to practice both architecture and urban design by:

1. Requiring students to develop a nuanced understanding of liveability through the development and testing of quantitative metrics of liveability proxies/
2. Supporting students to appropriate/ develop computational techniques to generate urban and architectural form and assess their performance.
3. Supporting students to assess the experience of designed spaces through computational visualization as an objective tool of evaluation, and not only as a subjective tool of persuasion, narrative crafting.
4. Requiring students to articulate how their design has delivered liveability in contrast to an alternative design outcome. (Comparison of multiple design variants across multiple modes of evaluation.)
5. Requiring students to articulate a personal stance on the drawbacks, benefits and aesthetics of density.

<Studio Expectations>

Students will engage in computational design in a Rhino/Grasshopper platform supported by python scripting. Students will create beautifully crafted urban and architectural models using digital fabrication tools in the SUTD FabLab. Students will produce exquisite technical and presentation drawings of their designs. Students will articulate in written texts and verbal presentations the goals, methods and value of their designs with evaluation at mid and final review. Students will produce their own designs but will work together initially in small mixed teams including UG and PG students, supporting each other to take on well-defined liveability challenges. Studio evaluation will consider individual contributions as well as each student's effort to support the larger team.

<Studio Modules>

1. PRECEDENT STUDY & SITE STUDY(weeks 1-2)

Students select a Seoul/ South Korean architecture project (chosen from the assigned list, see pg.8-9) and recreate it as a model and drawing. Site model construction. Diagrams are produced in the booklet dimensions for compilation and midreview presentation.

2. MODULES (OBLIQUE) (weeks 3-4)

Students create a parametric model borrowing from their precedent and modify it to emphasize the features which permit slippage of light, air, views and human movement. Curved, diagonal, oblique, surfaces are expected to be judiciously implemented, articulated and made parametrically responsive to varying contextual conditions. The module should be roughly 10x10x10m and primarily provide housing units. Modules are documented in the booklet dimensions for compilation and mid-review presentation.

3. MASSING OPTIONS & SEOUL BOOKLET (weeks 5-6)

Each student produces 3 massing variants corresponding to the development controls determined for their group. Modules to be aggregated to produce the overall massing to the extent possible, additional massing / typological elements (e.g. podium) may be included as needed. Massing variants are displayed as 1:1000 models for insertion into the site model. Each variant is diagrammed for compilation in the booklet and in the midreview presentation.

MIDREVIEW/ COMPETITION JURY (October 22)

4. (RE)AGGREGATION (weeks 8-9)

Feedback session with faculty, MArch students and UG students defines any updates to development controls and desired changes to the massings. Students update their modules and aggregation process to produce updated massings.

5. EXPERIENTIAL REDESIGN (weeks 10-11)

Development of 1 experiential section and 3 key images for the selected final massing. Contrasting design variant is documented in identical manner for comparison during review.

6. MODEL CONSTRUCTION & REPRESENTATION (weeks 12-13)

Students fabricate final design model at 1:200 with massing model updated at 1:1000 + contrasting design variant massing at 1:1000. Posters document full design process and are compiled into the studio booklet.

FINAL REVIEW + GALLERY (DATE TBD)

Jury joins to view the final massing designs. Students share updated design posters in a gallery. Photography session.

<Readings>

SEOUL FAR GAME:

<https://sema.seoul.go.kr/semaaa/data/upload/attach/10000/17804/20190329143515735.pdf>

Maas, W., MVRDV, 2006. **FARMAX**: excursions on density, [Third ed.]. ed. 010 Publishers, Rotterdam.

Beyond Critical Regionalism (Ratti, Picon, Haw and Claudel)

<https://www.architectural-review.com/essays/the-power-of-networks-beyond-critical-regionalism>

Ralph Knowles : The Solar Envelope

[https://doi.org/10.1016/S0378-7788\(02\)00076-2](https://doi.org/10.1016/S0378-7788(02)00076-2)

Riis, J.A., n.d. How the Other Half Lives: Studies Among the Tenements of New York. Project Gutenberg.

<Studio Calendar>

	Tuesday	UG Module	PG Module
1	15.09	LOTTERY	DEFINE LIVEABLE (QUANT)
2	22.09	PRECEDENT STUDY	DEFINE DEV CONTROL
3	29.09	MODULE (OBLIQUE)	DEFINE DEV ENVELOPE
4	06.10_	MODULE (OBLIQUE)	THESIS SITE, DEV CONTROL
5	13.10_	MASSING OPTIONS	THESIS SITE MASSING STUDY
6	20.10_	SEOUL BOOKLET Review	MIDTERM, SEOUL BOOKLET Review
7		VISIT SEOUL	VISIT SEOUL
8	03.11_	(RE)AGGREGATION	MASSING AGGREGATION
9	10.11_	Week 9 Review*	Week 9 Review*
10	17.11_	EXPERIENTIAL REDESIGN	MASSING AGGREGATION
11	24.11_	EXPERIENTIAL REDESIGN	SOLUTION EXPLORATION
12	01.12_	MODEL CONSTRUCTION	REPRESENTATION
13	08.12_	REPRESENTATION	REPRESENTATION
14	15.12_	FINAL REVIEW AND EXHIBIT	

*In conformity to SUTD SDOS1 shared schedule.

<Selected Case Studies>

	Sequential Framing Leehong Kim Architects 2018 598m ²		Crossing Bricks Joho Architecture 2015 859 m ²
	S-Trenue Tower Mass Studies 2006 2931m ²		Flower Kindergarten OA Lab, Jungmin Nam 2016 XXm ²
	Songpa Microhousing SsD Architecture 2014 1000m ²		Haus Nowhere The System Lab 2021 30,000m ²
	Stocky Bundle Matrix Mass Studies 2013 6000m ²		Boutique Monaco Mass Studies 2008 55,000m ²

		Hapjeong Artplex NOTNOT Architects 2024 1802m2			Seoul Film Centre Mass Studios 2025 4,800m2
		D Building Joho Architecture 2021 4,547m2			EMK Musical Company HQ d-worker architects 2021 2898m2

Preliminary Trip Planning for SUTD SDOS 1 'Hyper Dense Liveability' 25-30 October 2026

	Sunday 25	Monday 26	Tuesday 27	Wednesday 28	Thursday 29	Friday 30	Saturday 31
Morning 10am-12noon	Arrive in Seoul	VISIT TBD	VISIT TBD	FREE VISIT OF CASE STUDIES	VISIT TBD	Wrap up Meeting Seoullo7017 & Lunch (Szimpatikus Seoul Station)	Return To Singapore
Neighbourhood Visit	Euljiro	Itaewon & Hannam	Gangnam	Jamsil & Songpa	Seongsu		
Afternoon 1pm – 4pm	Meet at Cheonggye Plaza , Walk Cheonggyecheon to Nagwon-Dong Makercity Sewoon Dinner at Myeongdong Korean BBQ Mongvely	Meet at Itaewon Metro Station : Site Visit Hannam Zone 2	Meet at Gangnam Metro Station : Visit MassStudies Boutique Monaco , Stocky Bundle Matrix ; Joho's Crossing Bricks ;	Meet at Jamsil Station , walk to Songpa Microhousing	Meet at Seongsu Metro Station . Walk to Haus Nowhere .	Optional: Travel to Suseong Biennale	
Suggested Additional Visits (nearby)	Seoul Film Centre , Dongdaemun Design Plaza ;	Leeum Museum of Art	D Building (Joho)	Songpa Book Museum ; Seoul Seokchon-dong Ancient Tombs ;	Seoul Forest;		
Alternate visit in case of rain	Dongdaemun Design Plaza	Leeum Museum of Art / National Museum of Korea	National Museum of Modern and Contemporary Art, Seoul	Songpa Book Museum	Haus Nowhere .		