

# The Making of Cities

MIT SA+P. Course 4.241 J / 11.330 J. Spring 2022

Instructor: Roi Salgueiro Barrio (rsalguei@mit.edu)

TAs: Xuan Luo (PhD candidate, HTC; xuanluo@mit.edu)

Joel Austin Cunningham (SMarchS AD '22; joelaust@mit.edu)

Time: Wednesdays 5-8. Room 5-233

Units: 3-0-9 H; 3-0-6 H



Paul Pfinzing. Methodus Geometricus. 1598

## Course Description

Whether planned or unplanned, guided by theory or by ‘organic growth,’ making cities is one of the biggest and most consistent of all collective human enterprises. Our chief interest is in studying the history of how major cities and urban systems are made, remade, and at points have become ‘unmade.’ With that purpose, the class sessions will study and debate a set of historic cases, from the very beginning of cities in the Bronze Age, to the 21<sup>st</sup> century. These studies will allow us to interrogate, analyze, and differentiate the links between historic and contemporary urban forms.

In the past century—and more so in the past decades—the understanding of the city as a bounded entity has been radically challenged. In many cases the city has expanded so much that it can never be conceived, viewed, or experienced in its totality. Likewise, the urban and the city are no longer one and the same. If the city remains an articulation of a form—a physical entity—, the urban can be understood as a condition; a state-of-affairs or alignment of factors which enables urban-life. Such a condition emerges when a series of elements or forces exist simultaneously within a specific relation to each other. Understanding such factors will be one of our goals. We cannot and should not rely on existing models of understanding urbanism through forms alone. In this sense, our historical analyses seek mostly to investigate a set of concepts that create urban conditions and provide a better point of departure for rethinking urban life. This investigation enables us to re-think certain conceptions of what the city is and establishes a productive foundation for creating other forms of urbanism.

Our study of cities builds upon four main theoretical assumptions. The first is that cities are always shaped by and in turn influence five driving forces: 1) environmental, 2) economic/social, 3) technological/formal, 4) symbolic and spiritual, and 5) political ones. We view these forces as a causal superstructure and frame for considering how cities develop, and through these lenses we seek to better understand the history of urban form and urbanization. We will dedicate an entire seminar session to discuss them, and will see how all or some of them have been crucial to shape city forms at diverse geographies and times.

Our second thesis is that cities and urban systems can only be properly understood when considered territorially. That is, even if the city and the non-city realms have been historically differentiated in contrasting categories (such as urban/rural, or urban/hinterland), these different realms have always maintained a constant interplay. Cities help articulating broader territorial systems, and in turn their functional, formal, and social conditions result from the regime of relations between the urban and non-urban dimensions characterizing that territory. Treating cities and territories as co-constitutive elements allows us better understanding which types of functions, buildings, and structures, a particular city form contains. It also helps us analyzing the relation between cities and material, energetic, and ecological flows, and the challenges these factors imposed on the persistence of urban systems.

The third thesis insists on the singularity of each urban form as a specific way of articulating socio-spatial relations. Every case we will consider represents a particular attempt to explore how humans (and often also non-humans) can live together. Even if we will explore the historical continuities or relations between different city forms, our focus will be on detecting the singularities, the unique contributions that each city represents. Throughout history,

city building has been a tremendously imaginative enterprise, characterized by changes and drastic discontinuities in what different social groups considered a city was. Acknowledging that richness is a way of keep imagining what cities can be.

Our final thesis dialogues with the aforementioned notion of urban forces. Thinking about environmental, material, or economic forces allows us understanding the systemic factors contributing to city formation. However, cities are not only the result of systemic processes. They are the consequence of specific decisions and interventions, carried out by agents who contribute to shaping urban space. Cities are the object of actions of (often privileged) social or political groups. They are the realm of intervention of particular domains of knowledge and disciplines. Our analyses will insist on the importance of those agents in order to highlight that every city has been the result of choices, and that these choices both entail and give form to a vision of social relations.

## Course Format

Most classes will consist of two parts. The first one will be a lecture examining targeted cities throughout history and across the globe. The lectures will draw attention to the forces that have shaped urban form, providing an historical account integrated together with an analysis of various physical changes that have taken place in the city. As such the lectures aid in establishing a conceptual-analytic framework for how to approach, understand, and make use of information and data that concerns urban form. The second part of the class will be a student-led reading discussion. The goal of the discussion is to better unpack the concepts treated in the lecture, and building bridges between those concepts and some of our contemporary urban questions.

Student participation is thus a crucial component of the course. Participants in the class will divide themselves in groups. Each of these groups will be responsible for 1) Presenting a set of forces; 2) Leading one reading discussion; 3) Working on a semester-long research project, to be presented in our last class. This research project should explore how one of the urban concepts the group brought forward during their presentation illuminates a contemporary urban question. Additionally, every student should actively participate in the reading discussions.

Outside of classroom hours, students should expect to devote time to reading texts and preparing their final research project.

## Course Requirements and Grading

The class has several interrelated requirements. In particular, group work should constitute a continuous exploration, going from the theme presented in the class to the final, semester long research project.

### 1) Attendance, participation, and leading of reading discussions (total 40%)

We will devote a substantial amount of time to discussion.

As an individual, you are expected to come to every class with thoughtful questions and well-reasoned arguments based upon the assigned readings, and to participate fully in the discussion.

As a member of a group, you are expected to present the readings on forces on Week 3, and later, with a different group, to present the readings assigned to your group, structuring and leading the conversations about them. Attendance in class is mandatory, and your participation mark will be impacted if you fail to actively participate in class.

Please note that greater than two absences from class without medical excuse supported by a doctor's note or verifiable personal emergency could result in a failing grade or a NE for the course; those missing more than 3 classes during the semester will receive a fail or NE. Persistent lateness will also contribute to a lowered grade for participation.

## **2) Semester long research project (total 40%)**

Every group will develop a semester long research project, based on one of the themes they explored when presenting the weekly readings on historical cases. The goal is to associate the studied historic theme to an existing, contemporary urban form, and to interrogate the problems and possibilities of development that form entails. The final format of the project is a pdf booklet consisting in 15 visualizations, each accompanied by a 300-500 words text. The instructors will provide an InDesign template for the pdf. The students will present their project the last day of class.

The project will be developed sequentially and debated with the instructors.

This work has three milestones:

- 03.09. Submission and presentation in class of research proposal. This will have a preliminary abstract (300-500 words), at least 10 bibliographic sources, and 3 to 5 visualizations. Each of the visualizations will be accompanied by a 300-500 words text.
- 04.20. Submission and presentation in class of research project. Revised abstract and bibliography, and 10 visualizations, each accompanied by a 300-500 words text.
- 05.05. Presentation in class of final research project. 15 visualizations, each accompanied by a 300-500 words. Submit pdf according to the template provider by the instructors, and ppt or pdf slides.

We will have two workshops on the projects (03.16, and 04.27). Still, students are encouraged to discuss their projects during office hours, especially in advance to the presentation of the first research proposal.

## **3) Two Quizzes (approx. 30 minutes each, total 20%)**

There will be two quizzes, one on March 9 and the other on April 20. The quizzes will ask students to reflect on the material under discussion, including the readings, in creative ways, rather than demonstrate knowledge through rote memorization. You will be well served by keeping on top of all the readings.

## Course Schedule and Reading Assignments

- W1 Feb 2**      **Part 1. Class Presentation.**  
**Part 2. Lecture: The origins of cities.**  
 Background Readings:
- Lewis Mumford, “The Crystallization of the City,” in *The City in History. Its Origins, Transformations, and its Prospects* (New York, NY: Harcourt, Brace, and World Inc, 1961), 29-54
  - David Graber and David Wengrow, “Imaginary Cities. Eurasia’s first urbanites – in Mesopotamia, the Indus Valley, Ukraine, and China- and how they built cities without kings,” *The Dawn of Everything. A New History of Humanity* (New York, NY: Farrar, Straus and Giroux, 2021), 276-328.
- W2 Feb 9**      **Part 1. Lecture: Polis and demos. The autonomous Greek city.**  
**Part 2. Student presentation of readings and discussion.**  
 Readings:
- Aristotle, *Politics*. Book 7, chapters 4 to 7
  - Noel Robertson, *Festival and Legends. The Formation of Greek Cities in the Light of Public Ritual* (Toronto: University of Toronto Press, 1992), 90-119.
  - H.D.F. Kitto, “The Polis,” in *Urban Politics*, Jonathan S. Davies and David L. Imbroscio ed. (Los Angeles: SAGE, 2010), 1-12.
- W3 Feb 16**      **Dialogues with presentation of readings on the forces shaping urban development.**
- Dialogue 1**
- 1) Group 1. Environmental forces.
    - William Cronon, *Nature’s Metropolis* (New York, W.W. Norton: 1991), 23-54, and 63-74.
  - 2) Group 2. Symbolic and Spiritual forces.
    - Joseph Rykwert, “City and Site,” and “The Parallels,” in *The Idea of A Town: The Anthropology of Urban Form in Rome, Italy and the Ancient World* (Princeton: Princeton University Press, 1976), 41-71, and 163-187.
- Dialogue 2**
- 3) Group 3. Economic forces.
    - David Harvey, “The Urbanization of Capital,” in *The Urban Experience* (Baltimore: John Hopkins University Press, 1989).
  - 4) Group 4. Social forces.

- Louis Wirth, “Urbanism as a Way of Life,” *The American Journal of Sociology* 44, No. 1 (Jul., 1938), pp. 1-24
- Louis Wirth, “Rural-Urban Differences,” in *Community Life and Social Life. Selected Papers by Louis Wirth*, Elizabeth Wirth Marvick and Albert j. Reiss, Jr. ed (Chicago, IL: The University of Chicago Press, 1956), 172-176.

### Dialogue 3

- 5) Group 5. Formal forces.
  - Aldo Rossi, “The Structure of Urban Artifacts,” in *The Architecture of the City* (Cambridge, MA: The MIT Press, 1982), 29-61.
- 6) Group 6. Technological forces.
  - Maria Kaika and Eric Swyngedouw, "Fetishizing the Modern city: The Phantasmagoria of Urban Technological Networks," *International Journal of Urban and Regional Research* 24, no.1 (2000): 120-139.
  - Erik Swyngedouw, "Metabolic urbanization. The Making of Cyborg Cities," in *In the Nature of Cities. Urban Political Ecology and the Politics of Urban Metabolism*, Nik Heynen, Maria Kaika, and Erik Swyngedouw ed. (London: Routledge, ) 21-40.

### Dialogue 4

- 7) Group 7. Political forces 1: Class.
  - Henri Lefebvre, “The Production of Space,” in *Architectural Theory since 1968*, Karl Michael Hays ed. (Cambridge, MA: The MIT Press, 1998), 174-190.
  - Henri Lefebvre, “Toward an Urban Strategy,” in *The Urban Revolution* (Minneapolis, MN: University of Minnesota Press, 2003), 135-150.
- 8) Group 8. Political forces 2: Gender.
  - Dolores Hayden, “What Would a Non-Sexist City Be Like? Speculations on Housing, Urban Design, and Human Work” *Signs* 5, no. 3 Women and the American City (1980): 170-187.
  - Dolores Hayden, “Sitcom Suburbs,” in *Building Suburbia: Green Fields and Urban Growth, 1820-2000* (New York, NY: Pantheon Books, 2003), 128-153.
- 9) Group 9. Political forces 3: Race.
  - Marcus Anthony Hunter, "Black Philly After The Philadelphia Negro," *Contexts* 13, no.1 (2014): 26-31.
  - Marcus Anthony Hunter and Zandria F. Robinson, "The Sociology of Urban Black America," *Annual Review of Sociology* 42, no,1 (2016): 385-405.

W4 Feb 23

**Part 1. Lecture: Urbs, civitas, empire. Roman urbanism.**

**Part 2. Student presentation of readings and discussion.**

Readings:

- Vitruvius, *Ten Books on Architecture* (Cambridge: Harvard University Press, 1914), 17-35.

- Christian Norberg-Schulz, *Meaning in Western Architecture* (New York: Praeger, 1975), 81-88.
- Aldo Rossi, “The Roman Forum,” in *The Architecture of the City* (Cambridge, MA: The MIT Press, 1982), 119-126.
- Greg Woolf, “Beyond Romans and Natives,” *World Archaeology* 28, no.3 (1997): 339-350.
- Massimo Cacciari, “The Myth of the Growing City,” in *Europe and Empire. The Political Forms of Globalization* (New York, NY: Fordham University Press, 2016), 101-110.

**W5 March 2      Part 1. Lecture: Commerce and utopia. Cities in the Hanseatic League and the Italian Renaissance.**

**Part 2. Student presentation of readings and discussion.**

Readings:

- Tomas More, *Utopia*, excerpts.
- W.A. Eden, “Studies in Urban History: The De Re Aedificatoria of Leon Battista Albert,” *Town Planning Review* 19, no.1 (1943): 10-28
- Manfredo Tafuri, “Science, Politics, and Architecture. Advancements and Resistance in Venice During the Sixteenth Century,” in *Venice and the Renaissance* (Cambridge, MA: MIT Press, 1995), 103-139.
- Anngret Simms, “Urban Corporate Governance and the Shaping of Medieval Towns,” in Peter J. Larkhan and Michael P. Conzen ed., *Shapers of Urban Form. Explorations in Morphological Agency*, (New York: Routledge, 2014) 63-80.

**W6 March 9      Part 1. Quiz**

**Part 2. Lecture: Cairo: The Premodern Islamic Metropolis. Guest lecturer: Nasser Rabbat.**

**Part 3. Student presentation of readings and discussion.**

Readings:

- Doris Behrens-Abouseif, “The Fatimid Dream of a New Capital: Dynastic Patronage and its Imprint on the Architectural Setting,” in *The World of the Fatimid Assadullah Souren Melikian-Chirvani* ed. (Toronto: Aga Khan Museum, 2018), 44-67.
- Nasser Rabbat, “Brotherhood of the Towers: On the Spatiality of the Mamluk Caste,” *Thresholds* 48 (2020): 116-21.
- John Alden Williams, “Urbanization and Monument Construction in Mamluk Cairo,” *Muqarnas* 2 (1984): 33-45.
- Jean-Claude Garcin, “Outsiders in the City,” in *The Cairo Heritage: Essays in Honor of Laila Ali Ibrahim* edited by Doris Behrens-Abouseif (Cairo: The American University in Cairo Press, 2000), 7-15.
- Sylvie Denoix, “A Mamluk Institution for Urbanization: The Waqf,” *The Cairo Heritage*, 191-202

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- W7 March 16**    **Part 1. Lecture: All that is solid: A Brief history of China's work unit in the second half of the 20th Century. Lecturers: Xuan Luo and Feiyue Chen (SMarchS '22)**  
**Part 2. Student presentation of readings and discussion.**  
Readings:
- Duanfang Lu, “Work Unit Urbanism,” in *Remaking Chinese Urban Form: Modernity, Scarcity and Space, 1949-2005* (Routledge, 2006), 47-79.
  - E. M Bjorklund, “The Danwei: Socio-Spatial Characteristics of Work Units in China’s Urban Society,” *Economic Geography* 62, no. 1 (1986): 19–29.
  - Elizabeth J. Perry, “From Native Place to Workplace: Labor Origins and Outcomes of China's Danwei System,” in Lü, Xiaobo, and E. J. Perry, *Danwei: The Changing Chinese Workplace in Historical and Comparative Perspective* (Armonk, N.Y: M. E. Sharpe, 1997), 42-55.
- W8 March 23**    **NO CLASS – Spring Break**
- W9 March 30**    **Part 1. Lecture: What is it to “have” a continent? City building and the colonization of America.**  
**Part 2. Student presentation of readings and discussion.**  
Readings:
- Daniel Stanislawski, “Early Spanish Town Planning in the New World,” *Geographical Review* 37, no.1 (1947): 94-105.
  - Setha M. Low, “Indigenous Architecture and the Spanish American Plaza in Mesoamerica and the Caribbean,” *American Anthropologist* 97, no. 4( 1995): 748-762.
  - Constanza Castro Benavides, “The Enclosure of the Ejidos of Bogota: Imperial Wars and the End of Common Lands in Colonial New Granada,” *Journal of Urban History* (2021): 1-22.
  - Walter D. Mignolo, “The Many Faces of Cosmo-polis: Border Thinking and Critical Cosmopolitanism,” *Public Culture* 12 no.3 (2000): 721-748
- W10 April 6**    **Part 1. Lecture. The medicalization of the city. 18<sup>th</sup> and 19<sup>th</sup> century Paris.**  
**Part 2. Student presentation of readings and discussion.**  
Readings:
- Antoine Picon, “Nineteenth-century Urban Cartography and the Scientific Ideal: The Case of Paris,” *Osiris* (2003): 135–149.
  - Matthew Gandy, “Rethinking Urban Metabolism: Water, Space, and the Modern City,” *City* 8, no.3 (2004): 363-379.
  - Sabine Barles, “The Nitrogen Question. Urbanization, Industrialization, and River Quality in Paris 1830-1939,” *Journal of Urban History* 33, no. 5 ( 2007): 794-812.
- W11 April 13**    **Part 1. Lecture: Metropolitanization and urban science. 19<sup>th</sup> century Barcelona.**  
**Part 2. Student presentation of readings and discussion.**



## Readings:

- Ross Exo Adams, "Natura Urbans, Natura Urbanata: Ecological Urbanism, Circulation, and the Immunization of Nature," *Environment and Planning D: Society and Space* 32 (2014): 12-29.
- Ludwig Hilberseimer, *Metropolis Architecture and Selected Essays* (New York, NY: GSAPP BOOKS, 2012), 84-134.
- Constantinos Doxiadis, "Man's Movement and His Settlements," *Ekistics* 2, no. 174 (1970): 296-321.
- Constantinos Doxiadis, "Anthropocosmos Model," *Ekistics* 72 (2005): 430-435.

W12 April 20

**Part 1. Quiz**

**Part 2. Lecture: Stockholm's City-Region: Suburbanization and the Welfare State. Guest lecturer: Adrià Carbonell (KTH Stockholm)**

**Part 3. Student presentation of readings and discussion.**

## Readings:

- Helena Mattsson, "Where the Motorways Meet: Architecture and Corporativism in Sweden 1968," in *Architecture and the Welfare State*, ed. Mark Swenarton, Tom Avermaete, and Dirk van den Heuvel, 155–75 (New York: Routledge, 2015), 156–175.
- Helena Mattsson and Sven-Olov Wallenstein, *Swedish Modernism: Architecture, Consumption and the Welfare State* (London: Black Dog Publishing, 2010).
- Lucy Creagh, 'From acceptera to Vällingby: The discourse of individuality and community in Sweden (1931–1954)', *Footprint*, vol. 4, no. 2, 2012, p. 18.
- Signe Sophie Bøggild, "Too Bad to be True or Too Good to Be Credible – A Tale of Two Towns", in *New Towns on the Cold War Frontier*, ed. Crimson Historians and Urbanists (Forthcoming), 66-273.

W13 April 27

**Part 1. Lecture: The Neo-Feudalism of global infrastructure. Guest lecturer: Arindam Dutta.**

**Part 2. Student presentation of readings and discussion.**

## Readings:

- Patrick Heller, Partha Mukhopadhyay and Michael Walton, "Cabul City: Regime Theory and Indian Urbanization." The Watson Institute for International and Public Affairs at Brown University. Working Paper No. 2016-32.
- Sai Balakrishnan, "From Sugar to Real Estate," *Shareholder Cities* (Philadelphia: University of Pennsylvania Press, 2019).
- Sai Balakrishnan and Arindam Dutta, "Manikpur Railway Junction: the Geography of Uneven Development," *The Hindu Business Line*, August 20, 2020. <https://www.pressreader.com/india/the-hindu-business-line/20200820/281706912051642>.

- Arindam Dutta, “Architects ‘Getting Real’: On Present-Day Professional Fictions,” in Swati Chattopadhyay and Jeremy White, eds., *The Routledge Companion to Critical Approaches in Contemporary Architecture* (New York: Routledge, 2020).

W14 May 4      **Last class Presentations.**

## **Land Acknowledgement Statement**

We acknowledge Indigenous Peoples as the traditional stewards of the land, and the enduring relationship that exists between them and their traditional territories. The lands which MIT occupies are the traditional unceded territories of the Wampanoag Nation and the Massachusetts Peoples. We acknowledge the painful history of genocide and forced occupation of these territories, as well as the ongoing processes of colonialism and dispossession in which we and our institution are implicated. Beyond the stolen territory which we physically occupy, MIT has long profited from the sale of federal lands granted by the Morrill Act, territories stolen from 82 Tribes including the Greater and Little Osage, Chippewa, and Omaha Peoples. As we honor and respect the many diverse Indigenous people connected to this land from time immemorial, we seek to Indigenize our institution and the field of planning, offer Space, and leave Indigenous peoples in more empowered positions.

## **Inclusive Class and Classroom**

MIT values an inclusive environment. I hope to foster a sense of community in this classroom and consider this classroom to be a place where you will be treated with respect. I welcome individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. If this standard is not being upheld, please feel free to speak with me.

## **Special Accommodations**

MIT is committed to the principle of equal access. Students who need disability accommodations are encouraged to speak with Disability and Access Services (DAS), prior to or early in the semester so that accommodation requests can be evaluated and addressed in a timely fashion. If you have a disability and are not planning to use accommodations, it is still recommended that you meet with DAS staff to familiarize yourself with their services and resources. Please visit the DAS website for contact information. If you have already been approved for accommodations, class staff are ready to assist with implementation. Please inform Professor Ryan at [bdr@mit.edu](mailto:bdr@mit.edu) who will oversee accommodation implementation for this course.

## Schedule Summary

Week	Topic	In Class	For Class
W01. 02.02	Class Presentation and The Origins of Cities	Lecture	
W02. 02.09	Polis and Demos. The Autonomous Greek city.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W03. 02.16	Urban Forces.	Dialogues on Urban Forces	Read and prepare presentation and discussion.
W04. 02.23	Urbs, Civitas, Empire. Roman Urbanism.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W05. 03.02	Commerce and Utopia. Cities in the Hanseatic League and the Italian Renaissance.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W06. 03.09	Cairo. The Premodern Islamic Metropolis.	Quiz Guest Lecture Presentation of research proposals	Remember there is a quiz. Read the texts selected by the lecturer and prepare questions. Submit first research proposal.: 3 to 5 visualizations accompanied by text and bibliography.
W07. 03.16	China's Work Unit in the Second Half of the 20th Century.	Guest Lecture Workshop on research proposals	Read the texts selected by the lecturer and prepare questions.
W08. 03.23	No CLAS	NO CLASS	NO CLASS
W09. 03.30	City Building and the Colonization of America.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W10. 04.06	The Medicalization of the City.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W11. 04.13	Metropolitanization and Urban Science.	Lecture Reading Discussion	Read and prepare discussion. Responsible group: presentation.
W12. 04.20	Suburbanization and the construction of the Welfare State.	Quiz Guest Lecture Presentation of research	Remember there is a quiz. Read the texts selected by the lecturer and prepare questions. Submit 10 visualizations plus accompanying text.
W13. 04.27	The Neo-Feudalism of Global infrastructure.	Guest Lecture Workshop on the research projects	Read and prepare discussion. Responsible group: presentation.
W14. 05.04		Final Presentation	Submit final project. Booklet with fifteen visualizations accompanied by text, and ppt or pdf presentation for class.

## Grading definition

A. Exceptionally good performance demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.

B. Good performance demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.

C. Adequate performance demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.

D. Minimally acceptable performance demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.

F. Failed. This grade also signifies that the student must repeat the subject to receive credit.

NE. No record will appear on the external transcript.

## Academic Integrity and Honesty

MIT's expectations and policies regarding academic integrity should be read carefully and adhered to diligently. Plagiarism is a major academic offense. Read: <http://integrity.mit.edu>.

## Writing and Communication Resources

The WCC at MIT (Writing and Communication Center) offers *free* one-on-one professional advice from communication experts. The WCC is staffed completely by MIT lecturers. All have advanced degrees. All are experienced college classroom teachers of communication. All are all are published scholars and writers. The WCC helps you strategize about all types of academic and professional writing as well as about all aspects of oral presentations (including practicing classroom presentations & conference talks as well as designing slides). No matter what department or discipline you are in, the WCC helps you think your way more deeply into your topic, helps you see new implications in your data, research, and ideas. The WCC also helps with all English as Second Language issues, from To register with our online scheduler and to make appointments, go to <https://mit.mywconline.com/>. To access the WCC's many pages of advice about writing and oral presentations, go to <http://cmsw.mit.edu/writing-and-communication-center/>. Check the online scheduler for up-to-date hours and available appointments.

## Student Performance Criteria. NAAB

Realm A: Critical Thinking and Representation

- A1. Communication Skills: Ability to read, write, speak and listen effectively.
- A2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
- A3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.
- A5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

## Communication with the instructor

I will reply to your emails promptly, usually within 24-48 hours, excluding weekends. Office hours are by appointment.