

THE IRWIN S. CHANIN SCHOOL OF ARCHITECTURE OF THE COOPER UNION  
M.S. Arch Schedule  
Spring 2023

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>9AM</b>		<b>Grad Thesis Tutorial</b> ARCH 402 9-11:50AM Vidler Rm 712F 2 credits	<b>GradSemThHistCrit</b> ARCH 485.60 Gersten 10-11:50AM Rm 712F 2 credits	<b>GradSemThHistCrit</b> ARCH 485.61 Rowen 10-11:50AM Rm 712F 2 credits	<b>Grad Sem Tech</b> ARCH 482.25 Morrow, Wu 10-11:50AM Rm 712F 2 credits
			<b>Grad Sem Tech</b> ARCH 482.42 Cohen, Tyler 10AM-12:50PM Rm 400F (802CS***) 2 credits	<b>GradSemThHistCrit</b> ARCH 485.62 Young 12-1:50PM Rm 712F 2 credits	<b>GradSemThHistCrit</b> ARCH 485.36 Kogod 10AM-12:50PM Rm 315F 2 credits
			<b>Grad Sem Tech</b> ARCH 482.32 Aranda, Keene 10AM-12:50PM Rm 502CS*** 3 credits		
	<b>GradSemUrbanStu</b> ARCH 483.29 Vidler 1-2:50PM Rm 712F 2 credits		<b>Grad Sem Tech</b> ARCH 482.29 Baglione, Cabrera, Palacio, Tzavelis, Wootton 12-12:50PM +1 hr TBD Rm LL210CS*** 2 credits		<b>Shop Tech</b> FA 100RB Cetera, Cohen, Hutchings, Leonard, Monasterio, Russakis 1-2:50PM Rm 430F 1 credit
<b>2PM</b>	<b>GradSemUrbanStu</b> ARCH 483.32 Ebo 3-4:50PM Rm 712F 2 credits	<b>Grad Design</b> ARCH 412 Agrest 2-5:50PM Rm 313F 6 credits	<b>Grad Design</b> ARCH 412 Agrest 2-5:50PM Rm 313F	<b>Grad Design</b> ARCH 412 Agrest 2-5:50PM Rm 313F	***Room located in 41 Cooper Square

**THE IRWIN S. CHANIN SCHOOL OF ARCHITECTURE OF THE COOPER UNION**  
**SPRING 2023 GRADUATE SEMINARS**

<b>ARCH 482.25 GRADUATE SEMINAR IN TECHNOLOGY</b> Gina Morrow, Xiaoxiao Wu Friday 10-11:50AM
<b>ARCH 482.29 GRADUATE SEMINAR IN TECHNOLOGY</b> Melody Baglione, Pamela Cabrera, Julian Palacio, Cosmas Tzavelis, David Wooton Wednesday 12-12:50PM + 1 hr TBD
<b>ARCH 482.32 GRADUATE SEMINAR IN TECHNOLOGY</b> Ben Aranda, Sam Keene Wednesday 10AM-12:50PM
<b>ARCH 482.42 GRADUATE SEMINAR IN TECHNOLOGY</b> Zach Cohen, Harrison Tyler Wednesday 10AM-12:50PM
<b>ARCH 483.29 GRADUATE SEMINAR IN URBAN STUDIES</b> Anthony Vidler Monday 1-2:50PM
<b>ARCH 483.32 GRADUATE SEMINAR IN URBAN STUDIES</b> Ifeoma Ebo Monday 3-4:50PM
<b>ARCH 485.36 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM</b> Lauren Kogod Friday 10AM-12:50PM
<b>ARCH 485.60 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM</b> David Gersten Wednesday 10-11:50AM
<b>ARCH 485.61 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM</b> Jonah Rowen Thursday 10-11:50AM
<b>ARCH 485.62 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM</b> Michael Young Thursday 12-1:50PM
<b>ARCH 499 ARCHITECTURE INDEPENDENT STUDY</b> TBD TBD

**THE IRWIN S. CHANIN SCHOOL OF ARCHITECTURE OF THE COOPER UNION**  
**Spring 2023 Graduate Seminar Descriptions**

**ARCH 482.29 GRADUATE SEMINAR IN TECHNOLOGY**

Melody Baglione (MechE), Pamela Cabrera (Arch), Julian Palacio (Arch), Cosmas Tzavelis (CivE), David Wootton (MechE)

Wednesday 12-12:50PM + 1 hr TBD

Room LL201CS

2 credits

**SOLAR DECATHALON**

The project continues via the VIP (Vertically Integrated Projects) undergraduate research initiative in which students work in multidisciplinary teams led by faculty, contributing to their research, innovation, and/or design efforts. Students earn 1 credit each semester, with three semesters minimum "adding up" to a typical 3-credit hour course. Students are encouraged to participate for at least 3 semesters and up to 6 semesters, providing deeper learning experiences and leadership opportunities. The long-term nature of VIP creates an environment of mentorship, with faculty and graduate students mentoring teams, experienced students.

"The U.S. Department of Energy Solar Decathlon® is a collegiate competition, initiated in 2002, that has grown to showcase much more than solar technologies. Today, the 10 contests that are the foundation of Solar Decathlon inspire student teams to design and build highly efficient buildings powered by renewables, while optimizing for key considerations including affordability, resilience, and occupant health. The winners are those teams that best blend architectural and engineering excellence with innovation in how their building interacts with the world around it. Simply put, there's nothing else like it." For more info: <https://www.solardecathlon.gov/>

More information about Professor Baglione

<https://cooper.edu/academics/people/melody-baglione>

More about Professor Cabrera

<https://cooper.edu/architecture/people/pamela-cabrera>

More information about Professor Palacio

<https://cooper.edu/architecture/people/julian-palacio>

More information about Professor Tzavelis

<https://cooper.edu/academics/people/cosmas-tzavelis>

More information about Professor Wootton

<https://cooper.edu/academics/people/david-m-wootton>

**ARCH 482.25 GRADUATE SEMINAR IN TECHNOLOGY**

Gina Morrow, Xiaoxiao Wu

Friday 10-11:50AM

Room 712F

2 credits

Structural drawings have a distinct set of graphic conventions that show the way loads travel through a building from the roof to the ground, and how different structural materials (wood, concrete, and steel) resist these loads through their connections and framing strategies. The legibility of this technical language can reveal the clarity (or lack thereof) in the geometry and material systems of buildings. In this class we seek to explore the meanings and connotations that plan, elevation, and section take on in the discipline of structural engineering. We will study engineering concepts through the reading and making of structural drawings, proceeding thematically with primary structural systems and their accompanying drawing forms. Through a sequence of drawing and analysis exercises, students will work in groups to develop a structural design and set of drawings. In the second half of the semester a series of advanced, discrete topics will be introduced including structural detailing and material systems. Concurrent with the lectures on advanced topics, students will research the original drawings for a structure of their choosing and develop an interpretive drawing that describes a particular behavior or feature of the structural system discovered in the source material. Through this collective research we hope to probe the conventions and the history of structural drawings to better understand this form of technical language that plays a critical role in the design of buildings.

More information about Professor Morrow

<https://cooper.edu/architecture/academics/people/gina-morrow>

More information about Professor Wu

<https://cooper.edu/architecture/academics/people/xiaoxiao-wu>

**ARCH 482.32 GRADUATE SEMINAR IN TECHNOLOGY**

Ben Aranda, Sam Keene

Wednesday 10AM-12:50PM

Room 502CS

2 credits

Generative Algorithms For Art & Architecture is part of an ongoing series of interdisciplinary seminars and studios exploring generative and machine learning approaches to art and architecture. Machine Learning refers to algorithms that learn and make predictions from large sources of data. Generative Algorithms refers to the use of a system, procedure or rules that "generate," or set into motion, a result with varying degrees of autonomy and discovery to the author. In this class, students are challenged to create multiple projects with generative and machine learning algorithms to explore the conceptual boundaries of their discipline. They do this within a collaborative framework of architecture, engineering and art students working together as a group. Fundamental to this kind of exploration is a constant questioning of the nature of authorship. In

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Machine Learning students analyze and output results from large datasets that act as the raw material in the so-called learning process; they steer the predictive results and frustrate conventional ideas of authorship. In generative algorithms, students craft their own projects with a degree of control and discovery that are specific to their concepts. How architects, engineers and artists speculate on these two related techniques for experimentation, and how these two approaches can yield visual, material and spatial results, is the focus of the class. Registration with permission of instructors, [benjamin.aranda@cooper.edu](mailto:benjamin.aranda@cooper.edu), [sam.keene@cooper.edu](mailto:sam.keene@cooper.edu).

More information about Professor Aranda

<https://cooper.edu/architecture/people/benjamin-aranda>

More information about Professor Keene

<https://cooper.edu/academics/people/sam-keene>

### ARCH 482.42 GRADUATE SEMINAR IN TECHNOLOGY

Zach Cohen, Harrison Tyler

Wednesday 10AM-12:50PM

Room 400F

2 credits

#### ROBOTIC FABRICATION I: THE ROBOTS ARE COMING

Popular technological trends like automation and artificial intelligence seem to forecast a future in which robots will take over every job, including those of creative practitioners. A complete robotic takeover is a long way off. But what has already begun is the indefinite transitional phase—in which we learn to live and work alongside automated counterparts. The transition to automation manifests in our very own School, in which a brand new lab provides students with access to fire-breathing automata that churn out ready-to-assemble kits of parts and buzzing multi-axis machines that materialize entire objects from nothing but a single plastic thread. The nature of creative work has changed. It is critical that we now not only collectively take stock of our new roles in creative processes, but also speculate on what the future of creative work—on what the future creator—looks like. As the late philosopher of science Kenneth A. Taylor writes in a posthumously published essay, entitled “The Robots are Coming” (and, so, playing on our tendency to apocalyptic predictions): “The most urgent question is what we humans would become in the process of substituting machine labor for human labor.” Will we be programmers? Troubleshooters? Repairpeople? Clerks? Tamers? Retirees? How will the introduction of robots into our creative practices augment both our creativity and the things we create? In this course, we will learn how robots work in order to learn how to design, think, and work with them. More specifically, we will unpack the material, mechanical, and computational parameters within these “black-boxed” automata and develop an instrumental understanding of their innerworkings. Further, we will critically situate robotic machines within contemporary discourses on labor and posthumanism. We will then strive to combine our nascent technical and theoretical knowledge to develop novel robotic fabrication methodologies (e.g., constructing, sculpting, depositing, etc.) and/or human-robot interaction workflows. The course will center on the use of the AACE Lab’s 6-axis robotic arm. Students will use the robotic arm to conduct both technical exercises and “material-thought experiments” that will help them to speculate on how this emergent tool can, or should, be used within their respective disciplines. The course will culminate in group research projects that realize this speculation.

Students should be comfortable working with CAD and CAM softwares and have experience working with a variety of machines in the AACE Lab – or permission of the instructors. If you are unsure if you have the right experience for this course, please reach out to either Zach, [zach.cohen@cooper.edu](mailto:zach.cohen@cooper.edu), or Harrison, [harrison.tyler@cooper.edu](mailto:harrison.tyler@cooper.edu), to discuss. The course is open to Art, Architecture, and Engineering students as an elective. Maximum enrollment of 12 students.

More information about Professor Cohen

<https://cooper.edu/architecture/people/zach-cohen>

More information about Professor Tyler

<https://cooper.edu/academics/people/harrison-tyler>

### ARCH 483.29 GRADUATE SEMINAR IN URBAN STUDIES

Anthony Vidler

Monday 1-2:50PM

Room 712F

2 credits

#### ECOLOGY BEFORE AND AFTER ECOLOGY: NARRATIVES AND ENVIRONMENTAL VIOLENCE

Taking our cue from the title of Hippocrates’ treatise on “Air, Waters, and Sites,” we will examine a series of texts and environments from antiquity to the present, utopian, dystopian and nostalgic, that exemplify the ideality, but also the potential toxicity, of inhabitation. These texts, while not in the mainstream of “ecological” thought, nevertheless pose questions, develop narratives, and map environments that have been at risk since pre-history. Writing the environment, and reading its texts, will lead to the participants in the seminar to write their own maps of present environmental conditions, urban, rural and global.

Engagement: You have the responsibility to engage in class discussion, both during and following presentations – ask questions and don’t hesitate to interrupt!

Readings: Each week you will come to class with one question based on the week’s reading. You will send your question in a single sentence at least one day before the seminar. These questions will furnish the material for the discussion session in class and will represent 20% of the final grade.

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Term Project: You will select an area of interest – a moment in history, an object or objects, a process in design, a site – for investigation through the term. This can change as your experience of architecture and its history changes, but should be based on your special interest in an aspect of architecture.

Final Presentation and Term Paper: You will craft a short presentation of your project to the class which you will then submit as a term paper.

Grading: Attendance: 10%; Weekly Questions and Class Participation: 20%; Mid-Term Presentation: (5 minutes) 15%; End of Term

Presentation: (5-8 minutes) 25%; Term Paper: (10-15 pages plus illustrations) 30%

More information about Professor Vidler

<https://cooper.edu/architecture/people/anthony-vidler>

### ARCH 483.32 GRADUATE SEMINAR IN URBAN STUDIES

Ifeoma Ebo

Monday 3-4:50PM

Room 712F

2 credits



#### PRINCIPLES & PRAXIS OF DESIGN & SPATIAL JUSTICE

There is incredible diversity in the ways we experience and use spaces and places. However, historically the urban landscape has been used as a tool to establish inequitable power/social relationships resulting in an exclusive and disempowering spatial experience for some. As architects and designers, how can we ensure that we are creating equitable spaces and infrastructure that are inclusive to all? This seminar will explore various principles and practice of using design to address equitable access, and environments of safety and well-being particularly for communities of color. This work takes place through critical understandings of historical contexts, the development of new forms of knowledge and practice in our present, and speculating on future radical efforts of racial, social, and cultural reparation, through the process and outcomes of design. Students will be introduced to the practice of Design and Spatial Justice by building a shared foundation of anti-racist forms of communal knowledge and spatial practices, grounded in lived experiences. The course will begin with a collective understanding of the concept and principles of Design/Spatial Justice - its historical underpinnings rooted in an ideology of environmental justice and its connection to the history of injustice in the New York City built environment. In this seminar we will explore together some key questions: What are the physical manifestations of institutional racist practice and how have the urban landscapes of New York been shaped by them? How might we design for intersectionality and inclusion of communities of color? How might we better reckon with the past and manifest a future centered in a design /spatial justice praxis in the urban milieu? Throughout six themes, students will participate in weekly discussions, listen to guest lecturers and



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contribute reading reflections, module projects, and a final concept design or research project. Topics include design justice principles, community work and power building, infrastructure and neighborhood systems, the social and political dimensions of housing, environmental justice and spatial activism. Students will hear from various guest speakers with expertise in each module topic. Case studies in NYC will be analyzed physically, historically and metaphorically to uncover their contributions to or retractions from a Just New York City.

More information about Professor Ebo

<https://cuadesign.com/>

### ARCH 485.36 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM

Lauren Kogod

Friday 10AM-12:50PM

Room 315F

2 credits

Graduate seminar exploring concepts and methodologies of pedagogical practices specifically pertaining to the History of Architecture, 1950-2000.

Open to M.S.Arch students only with permission of instructor, [lauren.kogod@cooper.edu](mailto:lauren.kogod@cooper.edu).

More information about Professor Kogod

<https://cooper.edu/architecture/people/lauren-kogod>

### ARCH 485.60 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM

David Gersten

Wednesday 10-11:50AM

Room 712F

2 credits

#### NEW YORK CITY: A 5000 YEAR HISTORY

"New York City, a 5000 Year History" begins with the idea that New York City can be understood as a microcosm of world cultures, a living ecosystem of cultural diversity in a state of continuous transformation. With as many as 800 spoken languages, New York City is arguably the most linguistically diverse city on earth, containing a multitude of human, spatial, temporal, material, systemic and structural elements interacting in multiple time frames. This creates a living laboratory to explore and develop new questions that address the challenges of our increasingly complex world. Within this context of cultural diversity, New York City is understood as being constructed and transforming through the intersection of the Arts, Architecture, Engineering, and the Humanities, each with their long histories linked to and emerging from world cultures. With examples from over 5,000 years of art, architecture, engineering, science, technology, biology, finance, industry, politics, poetry, film, music, theater, religion and literature, the course is a close examination of New York City and the nature of transformation. Much of the discussions will focus on turning points or hinges in these histories. These include: the invention of the elevator, train, telegraph and water infrastructures, the invention of modern incorporations and modern banking, the Atlantic Slave Trade, Jim Crow, redlining, and mass incarceration, the carbon economy and the climate crises, the transformations of Yoruba polytheism in music, literature and the visual arts, the birth of the Greek theatre and the emergence of photography and film, the advent of 'the Nuclear'. From the Cave Drawings to the dawn of Blockchain, the conversations will explore many forms of knowledge, agency, action and transformation that create and move through New York City. Today, the world is facing significant crises, with billions of people at risk, we are in the midst of re-alignments and re-articulations of every aspect of our lives. There are people, communities, and institutions across all disciplines and across the globe that are increasingly confronted by the need for new models of asking the extraordinarily complex questions of our time. The need for social movements, for civic engagement, and exploratory works of empathy and ethics are as urgent as they have ever been. The very tangible potential to transform the lives of the most vulnerable creates an urgent call for spaces of communication and reciprocity where people can develop new understandings, perceptions and practices that respond to the scope of our challenges.

The class will engage the United Nations Sustainable Development Goals (SDG's). These provide a shared framework of questions that is both specific in their challenges and offer a wide range of issues to be engaged. The class will include a collaborative research project focused on the linkages between New York City and the United Nations Sustainable Development Goals (SDGs), the disciplines of Arts, Architecture, Engineering, the Humanities and the students' personal experiences and interests. These projects will take many forms of manifestation. "New York City, a 5000 Year History" covers a large arc of content, asks questions of our city, our disciplines and our humanity, and searches for new modes of creating the transformations that embody our best hopes and aspirations.

More information about Professor Gersten

<https://cooper.edu/architecture/people/david-gersten>

**ARCH 485.61 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM**

Jonah Rowen

Thursday 10-11:50AM

Room 712F

2 credits

**CONSTRUCTION AND SLAVERY: THE ARCHITECTURE OF THE BLACK ATLANTIC**



William Clark, "Planting the Sugar Cane," from Clark, Ten Views on the Island of Antigua (London, 1823)



William Clark, "Court House, Saint John's, Antigua," from Clark, Ten Views on the Island of Antigua (London, 1823)

Architecture requires labor. Black enslaved people worked to construct buildings for the entire period of Atlantic slavery. Enslaved builders contributed to producing every significant constructed environment of the Americas and the Caribbean during those territories' colonial eras and after. These range from governmental-administrative spaces and monuments down to agricultural facilities. They include White slaveholders' lavish dwellings, enslaved people's houses, and urban buildings. Enslaved workers dredged land to build Washington, D.C., and transformed barren landscapes into productive plantations. As skilled joiners, masons, and unskilled laborers, enslaved people constructed the landscapes of enslavement in Africa, the Americas, and Europe. They cut down trees for export to Europe as building materials in the triangular trade, and created wealth for absentee landowners to spend on building estates and mansions. This course will analyze such projects by asking who built them, where their construction materials came from, trace the sources of capital expended on those materials, and consider the land on which they are sited. Taking a comparative approach, this course will span in geography across four continents. We will consider traditional African construction techniques and their adaptations in the Americas, in addition to slave castles on the West African Coast. We will study labor camps, as well as enslaved people's urban dwellings in Latin America, the Caribbean, and North America. Comparing European enslavers' country houses to their counterparts on plantations in the Americas, we will chart the capital that financed such construction. Finally, we will turn to urban projects built by Black enslaved people, or for formerly enslaved people. How do we confront archival absences that omit the identities of the people who built these buildings? Where people appear only incidentally, can architecture's materiality provide alternative forms of evidence? Questions like these will prompt interdisciplinary inquiry across histories of race, economics, environments, and aesthetics.

More information about Professor Rowen

<https://cooper.edu/architecture/people/jonah-rowen>

**ARCH 485.62 GRADUATE SEMINAR IN THEORY, HISTORY, CRITICISM**

Michael Young

Thursday 12-1:50PM

Room 712F

2 credits

1,2,3,4,5... (EPISTEMOLOGIES OF AESTHETICS)

This seminar will look at theoretical formats for aesthetic judgement, or in other words, how we make sense of our senses. The articulation of distinctions between different qualities in art and the environment requires the construction of aesthetic discourse; models for how attention, consciousness, knowledge, and sensation interrelate. There have been several different methods for evaluating appearances within human culture, some have been abandoned over time, but many still thrive in various manifestations. It is important as architects to understand not only how we are evaluating the aesthetics of our designs, but to also understand the lineage of different arguments and to follow how they relate to other cultural practices both in the past and in contemporary work. This seminar will explore five different structures for aesthetic judgement.

1. Those that compare appearances to a singular ideal – ex. beauty, truth, ...
2. Those that use a pairing of differences or negations – ex. sublime, ugly, ...
3. Those that structure judgment synthetically or in dialectical triads – ex. picturesque, uncanny, ...
4. Those that are found use a quad four-part structure – ex. melancholic, grotesque, ...
5. Those that work in serial comparisons of five or more – ex. interesting, zany, cute, ...

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The seminar will be organized in roughly two-week modules around these five structures. Class sessions will consist of discussions of readings, artworks, films, media, architecture, and landscapes. Each student will be expected to participate in all discussions. The required work is a single page of writing and three questions for discussion every week.

More information about Professor Young

<https://cooper.edu/architecture/people/michael-young>

### ARCH 499 ARCHITECTURE INDEPENDENT STUDY

Faculty TBD

Schedule TBD

Room TBD

2 credits

**OBJECTIVE:** The purpose of this Independent Study is to allow students to pursue an independent study or research project outside their regular coursework, in order to delve more deeply into a specific topic of interest. An independent study may be taken under the supervision of a member of the resident faculty (defined as full-time or proportional-time faculty members) or adjunct faculty members who have taught at the School of Architecture for at least 6 semesters. The faculty member -- who becomes the advisor for the independent course -- must approve the proposed study and agree to provide continuing supervision of the work.

**ELIGIBILITY:** Only graduate students in good academic standing (defined as having earned a minimum 3.25 G.P.A. overall for the previous semester) are eligible for independent study (which means that graduate students become eligible for Independent Study starting in their second semester of study). Independent study may be taken only once during a semester in an advanced subject for two (2) credits. One (1) credit of independent study represents a minimum of three (3) hours of work during each week of a 15-week semester.

**APPLICATION PROCEDURE:** The major consideration in approving proposals for independent study is the educational value of the study project within the structure of the degree requirements as well as the student having successfully completed any relevant introductory coursework in the topic proposed. Before applying for an independent study, eligible students should contact the faculty they wish to consider as an advisor to discuss their proposal.

1. The selected faculty advisor must be teaching in the School of Architecture during the semester in which you wish to enroll (a professor on leave may not supervise an independent study).
2. The student writes a one-page proposal for the course including a concise description, deliverables, workplan, schedule and preliminary bibliography and describe previous coursework in the proposed topic as well as the educational value of the selected topic of interest.
3. The student selects a faculty adviser who must sign off on the proposal
4. The student submits the signed proposal to the Dean for review in consultation with the faculty member.
5. Approval of the Independent Study based on merits of proposal and availability of funds to compensate faculty member in compliance with CUFC/CUOP contract.
6. Once approved, student will receive permission to register for ARCH 499.