Type of Course:	**ARCH 51000 Advanced Studio**
Class Meetings:	**M/TH 2:00-5:20pm**
Office Hours:	**2 hours per week, by appointment**
Instructor:	**Professor Jeremy Edmiston**
Location:	**317**
Semester/Year	**Fall 2024**

BRICKWORKS

OVERVIEW

'For architecture… there is one unfailing communicant, and that is the drawing… [But] not all things architectural can be arrived at through drawing.' - Robin Evans, Translations from Drawing to Building

Brickworks is a studio focused on the reciprocal relationship of drawings and models in support of the design and material detailing of a large cultural project – approximately 50,000 square feet. Students are expected to develop and critique the presented program and tailor it to their interests. The site and program may vary from semester to semester, but the focus remains on the critical engagement with culture, and the reciprocal nature of architectural Work. The studio engages with the techniques of architectural drawing and the influences of gravity and environment to develop the studio's collective sensibility for space and specificity. An important theme of the course is the development of a close association between the interior environment, the building's materials and systems and the site's existing ecology. Expressing these relationships within the context of current cultural, economic and social biases will be the challenge of the studio's projects.

The design process is research-based, where experimentation is encouraged. Two key areas of exploration in the studio are observation and technology. The use of brick in the design and construction of architecture directly engages issues of material detailing and repetition, and the studio will focus on the use of technologies that engage this and challenge directly the conventional use of brickwork.

Our power to observe what is around us is fundamental to developing a practice in architecture. Students will be encouraged to document their daily observations through photography, sketches and note taking in their semester sketchbook and in class discussions. Observation also includes the internalizing of another's view — Design is a conversation. It might be a conversation with the past, a historic body of work, a particular architect, a group of architects, a set of ideas – it might be a conversation with contemporary works and adjacent figures, or even a conversation with ideas of the future. A single work may converse with all these. In the studio, we model this conversation, verbally using our words to begin, but then with our drawings and models. Pin-ups will be frequent to promote this culture. The richer the conversation, the more compelling the work. Students will work with each other in pairs, but later will have the opportunity to develop a project of their own or with others.

The studio is where we construct this conversation. All bodies in the space contribute to the ideas, whether there is verbal participation or not. The physical presence of a body – one's breath, attention, or eye – changes the room. Therefore we acknowledge all bodies in the space, with respect and generosity. Obviously we want all to participate actively, and this practice is important because it formalizes one's contribution. We all need to learn how to be heard. As architects, we believe that the space impacts the conversation, so it is the responsibility of the students to plan the space in anticipation for the conversation they intend, making necessary adjustments, and laying out the possibilities for design.

RESEARCH

'Architecture starts when you carefully put two bricks together. There it begins'. - Ludwig Mies van der Rohe

"Carefully" is the important idea behind this statement. In our studio, *Brickworks*, we will analyze the intentions and techniques behind the positioning of these two bricks throughout the millennia of human brick-use, leading to the construction of our own rules for placement. Arraying bricks in plane creates a bond. Agitating the bond produces textures that may create spatial patterns for occupation—each brick corbelled, carefully.

Does architectural detail contain meaning? If it does, let's start here in constructing spaces that contain our contemporary anxieties and imaginings—making space, by studying the material we make it from.

The brick is a unit, manufactured in multiples to be aggregated into structures. How it relates and connects to another (brick and others) becomes a question of detail (re-iteration), in large scale, and a question of repetition, in small scale. It is both rigid and adaptable. There are two organizational systems. One is a rigid geometry that repeats and rotates the unit, a rectangular prism whose placement may be controlled by faces, planes, and points. The other is liquid, an infill of mortar bonding the bricks together, an equally important part in the arrangement of the units.

Brickworks will use both of these systems to produce spatial and inhabited textures whose aim is to generate architectural beginnings for each of the students. Theorizing the potentials of materials and their relations, experimenting with yet to be known forms for measurement, proposing new repetitions, will guide the studio in the production of meaningful works. The essential qualities that Mies van der Rohe and others have ascribed to brick make it a valuable tool for the young architect to explore questions of place, material and identity.

PROGRAM & SITE

'What interests me is the opportunity for all of us to become something different from what we are, by constructing spaces that contribute something to the experience of who we are.' – Richard Serra

Brickworks will look at the program of the Embassy, historically the built representative of one nation on another's soil – a country within a country, rooted in one place but belonging to another. Students in the studio will be encouraged to develop their own understanding of and responses to concepts such as "identity", 'home', 'exile', 'belonging', "migration" – contemporary questions projected onto an ancient material, in order to propose a new building typology and program, reflective of the present.

Mostly, it's a community center: a public, social, formal space for folk who are from elsewhere, to meet.
The sites are in Havana, Cuba on the land of existing embassies, and the buildings will be developed around the vernacular ventilated-block typology. Lectures and writings from John Loomis and Belmont Freeman will be part of the studio, as will the five brick buildings that make up National Arts Schools that, for a time, attempted to contain the identity and ambitions of a young regime.

METHODOLOGY

In the works that we will study and visit, pattern is not only deployed as a smooth and flat surface but in three dimensions—bonding. Brick bonds take the wet, brittle material and give it structural, weather and acoustic protection qualities. Brick corbelling, once typically used as a method of detailing an element—to articulate a cornice, a windowsill or head, a pilaster, or a rain dripping edge— is now also deployed across an entire plane to animate the form. In these examples, pattern has become texture, and in some cases moves beyond decoration to influence how a space is used.

These are ancient techniques, still being used and being adapted and manipulated for current times. They are a way of conversing with the past, not only through the ideas of surface, structure, pattern and texture, but with the human hands that laid the bricks. The imprint of the labor is in the production of brick construction, the minute variations of each brick

being laid in the mortar, straight and in line but not quite, as it has been for centuries. The brick is a unit, a code, a measurement that can be read through time. Today each brick may be scripted and written out, pre-laid out in the digital model and manipulated with precision to create a new, diverse range of effects. From there the work of execution can be commissioned to today's bricklayers, both human and robotic.

Between intention and execution lies the template—a device that extends the power of the drawing and the model, so they become tools for production. The template is able to transpose the data from our working documents and deploy it directly into three-dimensional space at large scale. It implies repetition and labor and expands the operations of our human and other-than-human material tools. Our abilities to effectively manipulate the material of our constructions are transformed when the template is used not only as a device to broadcast our intentions, but as a tool for design and thought. In the studio, the template will be part of our design activities and expand our repertoire of modeling techniques and materials.

Brick is a material that survives change, adapts to new circumstances, and weathers the unknown. It not only signals solidity but is also a low-maintenance durable building system. And this might be its most significant attribute in the search for sustainable methods of building. Despite the energy costs of firing the clay, once in place, bricks' permanence promotes building use and re-use for innumerable future generations.

Why did Mies use bricks with students? I think it's because it's the most difficult material to use. If we use brick in the studio, we can use any material in the future. Perhaps it's because it's small, one can hold it in one hand, yet it's been used to build some of the largest constructions on the planet. Or maybe it's because it's adaptable, yet unyielding in its nature. Either way, while our expertise will develop with brickwork, the studio is fundamentally about the search for meaning within architectural detail, and hence the advancement of contemporary spatial propositions.

READINGS

1. Tehrani, Nader. Brick and the Mono-Medium Ethic in Materiality 2024
2. Evans, Robin. "The Developed Surface: An Enquiry into the Brief Life of an Eighteenth-Century Drawing Technique," "The Rights of Retreat and the Rites of Exclusion: Notes Towards the Definition of Wall," and "Figures Doors and Passages," in Translations from Drawing to Building and Other Essays (Architectural Association Publications, 1997).
3. Allen, Stan. 2000. Practice: Architecture, Technique and Representation, "Mapping the Unmappable: On Notation" p. 30-45.
4. https://oboculturalheritage.state.gov/milan-new-consulate-compound/

BIBLIOGRAPHY

1. Spuybroek, Lars. Grace and Gravity: Architectures of the Figure (London: Bloomsbury, 2020)
2. Spiro, Annette and David Ganzoni. Working Drawing: The Architects Tool. 2013.
3. Carpo, Mario. "Digital Darwinism: Mass Collaboration, Form-Finding, and The Dissolution of Authorship." Log, no. 26 (2012): 97–105. http://www.jstor.org/stable/41765764.
4. Cohen, Jeffrey Jerome, and Lawrence Buell. 2013. Prismatic ecology: ecotheory beyond green.
5. Miralles, Enric and Eva Prats. 1991. How to Lay out a Croissant. El Croquis 49/50: p. 240-241.
6. Young, Michael. Natural is Not in It. 2014.

REFERENCES

Case Studies:
1. Ningbo Historic Museum, 2008 Ningbo, China, Wang Shu
2. National Art Schools, 1961-1965, Havana, Cuba, (a five school building complex built on the site of an existing golf course) by architects Ricardo Porro, Roberto Gottardi, and Vittorio Garatti.
3. Cristo Obrero, 1960, Uruguay, Eladio Dieste
4. Dr Chau Chak Wing Building, 2015, Sydney Australia, Frank Gehry
5. Indian Institute of Management, Ahmedabad, India, Louis Kahn – completed posthumously
6. AT&T Long Distance Building, 1932, NYC, Ralph Walker
7. Tate Modern, 2016, London UK, Herzog & de Meuron

Precedents—To be compiled:
1. St Peter's Church, 1962-66 Klippan, Sweden, Sigurd Lewerentz
2. Flower Kiosk, Eastern Cemetery, Malmo, Sweden, Sigurd Lewerentz
3. Grundtvig's Church, 1913-1940, Copenhagen, Denmark, Peder Vilhelm Jensen-Klint
4. Gunnar Asplund
5. Bracho Capilla del panteón de Jungapeo, 1950, Mexico City, Carlos Mijares
6. Steinberg Herrmann & Co. Hat Factory, 1923, Erich Mendelsohn
7. Saynatsalo Town Hall, 1949, Finland, Alvar Aalto
8. Robert F. Carr Memorial Chapel of St, Savoir, IIT Chicago, Mies van der Rohe – 1950
9. MIT Chapel, 1955, Eero Saarinen

Course Requirements:
- Students will progressively develop physical models at a detail scale of key moments of their projects. Physical and digitally produced elements will converge. Materiality will be a core part of the student's position on the *Brick-works* theme.
- Students will be required to periodically photograph their working models.
- Students will be encouraged to script portions of their projects.
- Students are encouraged to use analog techniques – or to find digital equivalents to sketching – to communicate their ideas efficiently.
- Students will work in pairs for a portion of the semester, with the option to work individually or in teams for the final project.

- The final studio deliverables will include but are not limited to the following:
  - Documentation of working brick models throughout the semester.
  - Documentation and presentation of templates, working drawings, and tools of measurement developed or engaged in the development of the work.
  - Contextualizing (site) drawings of the project.
  - Axonometric drawings of the project massing.
  - Critical plans, sections, and/or elevations of the project that elaborate or demonstrate the ideas in the work.
  - Drawings and working models of at least four key detail moments in the brick works: a corner, an opening, a surface, and a programmatic element. Models may be present in the room or well documented if materials are recycled to produce the variations.
  - A final physical massing model that articulates brick coursework. 1:2
  - A final physical detail model of a key moment in the project. 3/16" = 1'-0"
  - Key images and/or an animation – produced through physical or digital models – demonstrating environmental effect and affects of the work.

WEEKLY SCHEDULE, M/TH 2:00-5:20pm
Note: schedule below is subject to revision through the duration of the semester.

W1
Th   08.29   **Convocation @ 2:00pm, rm. 107**
                    Advanced Studio Lottery @ 3:00pm, Aaron Davis Hall
                    Introduction to Lines, Bonds and Case Studies
W2
Mon 09.02   College Closed (Labor Day), no classes
Th   09.05   **Hour SSA/JEDI Climate Survey (in studio) 2-3pm**
                    Pin-up Lines and Bonds
                    Introduction to Profiles and the Other (or not)
                    Sciame Lecture: Maria Carrizosa

W3
Mon 09.09   Studio, Pin-up Profiles and Bonds
                    Introduction to Textures and Templates
Th   09.12   Studio, Pin-up Textures
                    Sciame Lecture: Lawrence Vale
W4
Mon 09.16   Studio, Introduction to programed Profiles and Micro-Programs
Th   09.19   Studio, Pin-up Inhabited Textures
                    Introduction to Transitions
                    Rudin Lecture: Alan Hantman

W5
Mon 09.23   Studio, Pin-up Textures and Transitions
                    Introduction to Wall/Corner/Roof
Th   09.26   Studio, Case Study presentations

W6
Mon 09.30   Studio, Pin-up Wall/Corner/Roof
Th   10.03   No Classes

W7
Mon 10.07   Studio, Pin-up Wall/Corner/Roof
Th   10.10   Studio, Work on Texture and Wall/Corner/Roof
                    Sciame Lecture: Anna Pashynska & Tania Pashynska
W8
Mon 10.14   College Closed (Columbus/Indigenous Peoples' Day), no classes
Tu   10.15   Studio (Classes for a Monday schedule) (JE to re-schedule)
Th   10.17   Studio, Prep. for Midterm
                    Sciame Lecture: Jon Michael Schwarting & Frances Campani
W9
Mon 10.21   Studio, Prep for Midterm
Th   10.24   Studio - Midterm Reviews
                    Sciame Lecture: Nora Akawi

W10
Mon 10.28   Studio, Review Midterm Models and Drawings
                    Introduction to the Ventilated Typology
Th   10.31   **Mid-semester assessments**
                    Pin-up Ventilated Typology
                    Sciame Lecture: TBD

W11
Mon 11.04   Studio, Work on Ventilated Typology
                    Choose interior and exterior space

Th	11.07		Studio, Work on interior and exterior space Sciame Lecture: Sabine Malebranche	

W12

Mon	11.11	Studio, Pin-up Typology and Spaces
Th	11.14	Studio, Work on Milled Model

Sciame Lecture: TBD

W13

Mon	11.18	Studio, Work on Milled Model
Th	11.21	Studio, Pin-up work for Final Review

W14

Mon	11.25	Studio, Prep for Final Review
Th	11.28	College Closed (Thanksgiving), no classes

W15

Mon	12.02	Studio, Prep for Final Review
Th	12.05	Studio, Prep for Final Review

FINAL REVIEWS, Dec 9-13

Mon 9 Dec	Tues 10 Dec	Wed 11 Dec	Th 12 Dec	Fri 13 Dec
Advanced	**Core Studio 1**	**Advanced**	**Core Studio 3**	**Core Studio 5**
Stigsgaard, Brahmbhatt, Hackett Keramati	Horn (coord)	Edmiston, Bolhassani, Gebert	Wainer (coord)	Volkmann (coord)

Mon	12.16	Clean-up Day (all materials, projects, and any other items must be removed from studio)
Tu	12.17	End of Semester Assessment (faculty only)

FINALS

Tu	12.17	Student Portfolios due for: SSA/CCNY Archive, etc. as directed by instructor
Fr	12.27	Final Grade Submission Deadline

GRADING/ATTENDANCE POLICIES AND STUDIO CULTURE

Course Expectations:
- That students will develop a high level of independent thought and rigor and a willingness to go beyond both basic project requirements and their own perceived limits and abilities.
- That students will successfully complete all project requirements. No make-up or postponed project submissions will be accepted except in the case of documented medical emergencies or other extraordinary circumstances. Excused absences and project delays must be officially cleared by the professor in advance to be considered valid.

Community Agreement:
- During the first full studio meeting, the professor will make time for an *Hour SSA* session for the JEDI Climate Survey.
- Studio members will work *together* to create a community agreement for interacting together over the semester. Definition: "A consensus on what every person in our group needs from each other and commits to each other in order to feel safe, supported, open, productive and trusting… so that we can do our best work." https://www.nationalequityproject.org/tools/developing-community-agreements

Methods of Assessment:
- Attendance and participation in class discussions and other activities: 10%

- Project development in response to semester schedule: 60%

Lines and Blocks	5%
Texture	5%
Programed Texture	5%
Transitions	5%
Case Study	10%
Model 1:2,	10%
Model 3/16" = 1'-0",	10%
Digital Portfolio Presentation	
	10%

- Project presentation, level of completion and resolution: 30%

MIDTERM	15%
FINAL REVIEW	15%

Grading Assessment & Learning Outcomes:
- Students demonstrate the ability to respond to studio discourse and feedback in a consistent and clear manner throughout the semester as demonstrated in the evolution and development of design work.
- Students demonstrate the ability to utilize both digital and manual drawing and model-making techniques to precisely and creatively represent architectural ideas.
- Students demonstrate an understanding of the theoretical and applied research methodologies and practices used during the design process, and test and evaluate recent innovations in the field of architecture.
- Students demonstrate the ability to prepare a comprehensive program for an architectural project that includes such tasks as: an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.
- Students demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project, in different settings and scales of development, from buildings to cities. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.
- Attendance: Consistent level of preparation and on-time presence for each studio class and scheduled evening lectures.
- Portfolio: Completion of final portfolio or collection of studio work as directed by instructor and/or coordinator and attendance at all scheduled portfolio related events.

Grading Criteria:

A (+/-) Work meets all requirements and exceeds them. Presentations are virtually flawless, complete, and finely detailed. Work exhibits professional, "museum quality" level of craft. Student has developed an individual design process that shows a high level of independent thought and rigor. Work shows evidence of intense ambition and effort to go beyond expectations, and beyond the student's own perceived limits of their abilities.

B (+/-) Work meets all requirements. Presentations are complete and finely detailed. Work exhibits professional level of craft. Student has developed an individual design process that shows a high level of independent thought and rigor.

C (+/-) Work meets minimum requirements. Deadlines are missed. While presentations may be somewhat

complete, student has struggled to develop an individual design process and/or is lacking in craft or design resolution.

D Work is below minimum requirements. Presentations are incomplete, student has struggled to develop an individual design process and/or is lacking in craft or design resolution.

F Work is well below minimum requirements. Student does not develop adequate design process, and/or does not finish work.

INC Grades of "incomplete" are not given under any circumstances unless there is evidence of a medical or personal emergency. In such cases, instructor and student develop a contract to complete work by a specified date, as per CCNY policy. Classes and/or work missed due to illness must be explained with a physician's note.

Notes:
D is the lowest passing grade for B. Arch students. Working in teams does not guarantee the same grade for each team member; grades are based on a range of criteria for each individual student.

For more information on grading guidelines and other CCNY policies and procedures, consult the current CCNY academic bulletins: https://www.ccny.cuny.edu/registrar/bulletins

Office Hours:
Each studio faculty member schedules 30 regular office hours over the semester, as posted at the top of the syllabus. If a student needs to speak in private with a studio critic, they should ask or email in advance to request a specific meeting time. Students may seek office hour appointments to discuss any matters of concern including personal, private matters and general inquiries about course related work, grading, assessment and content.

Probation & Dismissal: for program specific information related to grades, academic standing, probation and dismissal, please see your program academic advisors:
Undergrad: Amy Daniel adaniel@ccny.cuny.edu
                        Tony Bowles abowles@ccny.cuny.edu

Studio Culture:
Working collaboratively and respectfully on studio assignments, with and alongside others, is an expectation in studio. Studio culture is an important part of an architectural education, and it extends to expectations for Faculty and the School's Administration as well. Please see the Spitzer School of Architecture Studio Culture Policy, which can be accessed on the SSA website here: https://ssa.ccny.cuny.edu/about/policies/.

Absence & Lateness:
Arriving more than ten minutes late to class will constitute an absence. Two unexcused absences will result in a whole letter grade deduction from a final grade; more than four will result in a failing grade. It is expected that all students will participate in all scheduled working, midterm and final reviews and contribute constructively to the discussions.

Absences due to Religious Observances:
Students who will miss any class sessions, exams, presentations, trips, or the like due to a religious observance should notify the instructor at the beginning of the semester so that appropriate adjustments for observance needs can be implemented. This could include an opportunity to make up any examination, study, or work requirement that is missed because of an absence due to a religious observance on any particular day or days.

Readings & Journals:
Students are expected to keep a journal or sketchbook throughout the duration of studio to document their thought process & take notes of any texts, books, terms or references that are mentioned by either the studio critic or fellow classmates and to selectively follow up on these and any other assigned readings before the next class.

Academic Integrity:
As a student you are expected to conduct yourself in a manner that reflects the ethical ideas of the profession of architecture. Any act of academic dishonesty not only raises questions about an individual's fitness to practice

architecture, but also demeans the academic environment in which it occurred. Giving or receiving aid in examinations, and plagiarism are a violation of an assumed trust between the school and the student.

Plagiarism, i.e. the presentation as one's own work of words, drawings, ideas and opinions of someone else, is as serious an instance of academic dishonesty in this context as cheating on examinations. The submission of any piece of work (written, drawn, built, or photocopied) is assumed by the school to guarantee that the thoughts and expressions in it are literally the student's own, executed by the student. All assignments must be the student's original work. Any copying, even short excerpts, from another book, article, or Internet source, published or unpublished, without proper attribution will result in automatic failure of the entire course.

The CCNY Academic Integrity Policy: https://www.ccny.cuny.edu/about/integrity

For citations, the Chicago Manual of Style is recommended:
http://www.chicagomanualofstyle.org/tools_citationguide.html

AccessAbility Center (Student Disability Services):
The AccessAbility center (AAC) facilitates equal access and coordinates reasonable accommodations, academic adjustments, and support services for City College students with disabilities while preserving the integrity of academic standards. Students who have self-identified with AAC to receive accommodations should inform the instructor at the beginning of the semester. (North Academic Center 1/218; 212-650-5913 or 212-650-6910 for TTY/TTD). For further information, go to http://www.ccny.cuny.edu/accessability/ or email disabilityservices@ccny.cuny.edu

Health And Wellness Support:
City College's Office of Health and Wellness Services offers free and confidential counseling. Contact: Health and Wellness Services, Marshak Science Building, room J-15: counseling@ccny.cuny.edu.

Gender Based Violence Resources
City College has resources to support you if you have experienced sexual violence, intimate partner/domestic violence, gender-based discrimination, harassment or stalking. For confidential support, you can contact the Student Psychological Counselor: Confidential Advocate at (212) 650-8905 or the Gender Resources Program at (212) 650-8222. If you would like to report sexual misconduct, you can contact the Chief Diversity Officer and Title IX Coordinator, Sheryl Konigsberg, Esq., at (212) 650-6310 or skonigsberg@ccny.cuny.edu. If there is an emergency on campus, you can call Public Safety at 212-650-777 and off campus call 911. For more information, see: https://www.ccny.cuny.edu/affirmativeaction

Library:
The school's library is a shared resource that is necessary supplement to all research and design work. Please direct questions to the library staff or the Architecture Librarian Nilda Sanchez-Rodriguez: nsanchez@ccny.cuny.edu

NAAB (National Architectural Accrediting Board):
The following criteria from the 2020 NAAB Conditions are addressed in this course:

Program Criteria (PC) These criteria seek to evaluate the outcomes of architecture programs and student work within their unique institutional, regional, national, international, and professional contexts, while encouraging innovative approaches to architecture education and professional preparation.

> **PC.2 Design:** How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.

> **PC.5 Research and Innovation**—How the program prepares students to engage and participate in architectural research to test and evaluate innovations in the field.

Students should consult the NAAB website www.naab.org for additional information regarding student performance criteria and all other conditions for accreditation.

CONTACT INFORMATION:

jedmiston@ccny.cuny.edu
9176227560