A. STUDIO DESCRIPTION

Iztapalapa, Mexico City

Design III will discuss architecture’s role in the construction of communities, considering both the shared management of resources and the shaping of collective attachments and affiliations in Mexico City. The hypothesis of the course is that infrastructures provide a way of channeling both those material and affective processes and consequently shape the ways in which we live together.

We will investigate how networks, systems of organization, patterned arrangements of constructions, and all the realities constituting the underlying structure of the city provide possibilities of use, create spatial dispositions and affordances, channel performances, and ultimately load with meaning the spaces of the city. While infrastructures are conventionally considered to precede architecture, to make it possible, we will work to enhance the infrastructural capacity of underserviced consolidated areas of the city, with the goal of reimagining them as increasingly inclusive communities. This will require that we re-think the relation of architecture and infrastructure or, alternatively, consider architecture as infrastructure. We will be concerned with the material structures and technologies needed to provide those infrastructural additions as well as with their accompanying regulations, policies, logics, and logistics. Thus, Common Infrastructures is not looking away from architecture, but is reframing our way of thinking about architecture, building on a number of genealogies that we will discuss in the class.
We will be particularly concerned with the ways in which infrastructures mediate relationships between different agents and create spaces of inclusion and exclusion. Throughout the world, states are increasingly abandoning their commitment to provide infrastructural support and public services to their citizens (some times claiming their inability to do it while others referring to the benefits of private management), and infrastructures are increasingly being controlled by private corporations. As a result of being subject to the logics of private profit, infrastructures are increasingly less a system of inclusion and more a technique of control of populations. In response to this changing context, we will consider the agents involved in building infrastructures, those effected by their operations, and those benefiting from their performance. We will re-think those relations and will draw alternatives to diminishing state intervention, to the expanding role of private corporations, and to the increasingly celebrated individual entrepreneurial solutions. Common Infrastructures is an invitation to participate in the ways in which the built environment might result from and in new coalitions, new distributions of resources, and more inclusive descriptions of citizenry.

Continuing with the work developed last year, Common Infrastructures will take Mexico City as a case study for our work. We will particularly consider the boroughs of Iztapalapa and Tláhuac, which are the most populated sectors of the city, largely resulting from the arrival of migration and constituted through processes of rapid urbanization in the last decades. These boroughs have high level of socioeconomic marginalization and are largely underserviced. The implementation of new water infrastructures is particularly important in the areas under consideration, which have big sectors of the population lacking access to potable water. Water tracks, bottled water, and other informal networks supplement the limited reach of piped water. This situation calls for a new way of thinking about water management, which we will consider in relation to other infrastructural interventions.

In addressing these questions, we will continue the work of Water Communities, studying Mexico City’s controversial relation to water, and addressing the relation between city planning, geology, and hydrology at the core of our speculations. Water management in Mexico City has been a matter of great relevance ever since the city was established. A territory that was once regulated by the implementation of canals and ditches is today managed through pipes and tubes. However, this has shown to be the wrong solution, as continuous floods and water scarcity are recurrent problems. Historical multipurpose canals have become underground sewers above which modern speedways run; the former lakebed is either dense urban fabric or desiccated land; the permeable hillside has been irregularly urbanized, promoting fast runoffs that cause flash floods.
Our work in these neighborhoods will offer a critical case study to address essential questions relevant to the design of contemporary cities and territories, understood as a complex articulation of physical and political forces, cultural and material networks, and social arrangements, in which architecture participates. Through our projects, we will develop new ways of thinking about architecture’s relations to socio-spatial transformations, we will question the proper scale of architectural interventions, as well as the management and temporalities involved in these interventions. Through multi-layered and multi-scalar interventions, we will aim to operate in contemporary urban transformations and position our projects in debates that are relevant for architecture and beyond.

After several semesters of work dedicated to local sites in New York City, Design III is an opportunity for students to consider international locations and address contemporary global concerns, incorporating critical questions, research methods, and design strategies that are characteristic of architect’s operations at this scale. The studio will partner with a parallel studio at UNAM led by Profs. Gabriela Carrillo (Taller de Arquitectura), Loreta Castro Reguera (Taller Capital), and Emilio Canek with Andrés Solís Paz, Pável Escobedo Amaral (Escobedo Soliz) and Diego Ricalde Rechia (MMX). Their work will be concerned with the same areas of the city and will focus on their reconstruction after the 2017 earthquakes.
Collective management of water resources in Iztapalapa, Mexico DF

Learning Objectives
Students in Design 3 should be able, at an advanced level, to:
1. Visually communicate architectural concepts and design intent using discipline-specific techniques including:
   - orthographic projections (plans, elevations, sections),
   - paraline projections (axonometrics, isometrics),
   - physical models using various techniques and materials,
   - multiple media and/or combined representational strategies
2. Verbally communicate architectural research methods and spatial concepts
3. Demonstrate an understanding of precedent and site analysis
4. Demonstrate an understanding of design method as a step-by-step, iterative, and incremental process of research, synthesis, and feedback
5. Demonstrate an understanding of design thinking as responsive to and shaper of social and cultural contexts
6. Demonstrate the ability to work independently and collaboratively
7. Demonstrate an understanding of the historical and theoretical contexts for architectural representational conventions
8. Utilize a range analog and digital techniques in the design process
9. Demonstrate an understanding of program, use, and activity
10. Demonstrate an understanding of material and fabrication
11. Develop a research project with independently articulated design objectives.

Prerequisites
This is an advanced elective course for students in their senior year majoring in Architecture. Students must have completed Architectural Design I. Admission to the course is selective and based on an application submitted to the Department.
B. COURSE REQUIREMENTS AND ASSESSMENT CRITERIA

Studio Teaching Methodology
Design is a unique type of knowledge production requiring unique working methods. This course is taught by the studio method – an iterative process that requires dialog, design production, and risk taking by the student to explore ideas in the form of a variety of media. The Studio will be divided into small, individual sections, each led by a Studio Critic. The core method of instruction is that of ‘desk crits’, a one-to-one dialogue at the desk between the student and the Critic. At the desk crit, previous design work is reviewed and discussed, and the student and critic formulate the next steps in the process. Desk crits are supplemented by Interim Reviews, or ‘Pin-ups’, where all students in the Section (sometimes teamed up with another Section) present their design ideas for group critique and discussion. The culmination of each project is the Final Review in which students present their work for public evaluation by a group of Studio Critics and Visiting Critics.

Attendance
Attendance is mandatory at all scheduled classes, field trips, and reviews. Students are encouraged to work in studio, and to review one another’s work together. Studio is held Monday and Wednesday beginning promptly at 9:00 AM. Any student arriving after 9:20 AM will be considered late and anyone that arrives after 10:00 AM will be marked absent.

Absences due to acute illness, a personal crisis (e.g. a death in the family), religious observance, or for other reasons of comparable gravity may be excused. In all such cases, students must promptly email their instructor to communicate the reason for their absence and to arrange an opportunity to review any important information they may have missed. Students who know they will miss a scheduled class due to religious holidays should email their instructor during the first week of classes with a list of dates for their anticipated absences.

Unexcused absences, late arrivals, or early departures from class will reduce your course grade. Three non-consecutive absences will result in a grade reduction by one-third (1/3) of one letter grade (e.g., A to B+). Three consecutive absences or four nonconsecutive absences will be considered grounds for failing the course.

Grading
Each project will be graded with a letter grade. Your work will be evaluated by the following criteria:
1. Depth of investigation and critical thinking skills
2. Iterative design process
3. Ability to articulate ideas verbally, both in class and in formal reviews
4. Ability to express concepts via well crafted tectonic compositions
5. Precision of drawings using a range of graphic conventions
6. Participation during design crits and timeliness of assignment completion

Project 1: 30%
Project 2: 70%

Students are required to present their work in all Interim and Final Reviews. Failure to do so will reduce the grade of the exercise by a minimum of one letter grade (e.g., B to C). Work not presented at the designated time will not be reviewed at a later date. Project grades will be based on the work you present at your reviews. Required work that was not completed at the Final Review must be completed in time for grading. Additional work completed after the Final Review and before grading will not be considered at the grading session unless otherwise stated by the Studio Critics. No incompletes will be given at the end of the course.
Room Rules and Security

After the first week of classes, students will be granted 24-hour access to the studio and DAL through your school ID. It is crucial that the doors to these spaces remain closed and locked at all times for your personal safety and your belongings’ security. Please do not prop open the door and do not leave any valuables unattended at your desk. The studio and the DAL are open to all students in approved courses; please respect other critics and students that are using the space. Barnard and Columbia Security officers do periodically check the studio but security is a responsibility that we all share; please help us maintain a safe and productive environment. If your personal belongings are stolen (or go missing) please notify your instructor and Barnard Public Safety.

General studio rules:
- You must provide your own lock for the locker.
- The studio must remain locked at all times.
- Use the spray hood in the model building room for spray paint or fixative.
- Use headphones for listening to music.
- You are responsible for keeping your desk and storage area clean and organized. If you are using an empty desk adjacent to your assigned seat, it is also your responsibility to keep this area free of debris.
- 100% of the work surface of your desk space should be covered with 3-ply chipboard or vinyl board cover. Do not cut, carve, glue or otherwise destroy the plywood desktop.
- Please help us recycle and reuse extra materials by donating anything you don’t need to our recycling locations in the studios.

Travel
This studio has a special foreign travel component. Students will travel to Mexico City the first week of November (3/11-11/11, exact dates TBC). Students are advised to consult all their instructors in advance to clear any classes they will miss and are also responsible to make sure their passports are current. If anyone need visas for Mexico, to take care of this independently.

This studio is the ninth in which students have traveled internationally to cities where they can engage first hand in contemporary global issues. Barnard will help students to fund the trip, providing $750 for Barnard students and adding to funds from CC and GS to make sure Columbia students also have $750.

An approximate budget, subject to variation, includes:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight</td>
<td>430 USD</td>
</tr>
<tr>
<td>Lodging</td>
<td>340 USD</td>
</tr>
<tr>
<td>Meals</td>
<td>320 USD</td>
</tr>
<tr>
<td>Transportation</td>
<td>70 USD</td>
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<tr>
<td>Visits</td>
<td>40 USD</td>
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**TOTAL (aprox.)** 1200 USD

Required materials
Students will need to purchase materials for physical models throughout the semester. Specific materials will depend on the goals of the models and will be decided by students in consultation with the critic. Students should anticipate to expend around 50-100 USD.

See the materials and vendors list provided by department on our website:
https://architecture.barnard.edu/node/59931.
Academic Accommodations
If you are a student with a documented disability and require academic accommodations, you must visit the Office of Disability Services (ODS) for assistance. Students requesting eligible accommodations in their courses will need to first meet with an ODS staff member for an intake meeting. Once registered, students are required to visit ODS each semester to set up new accommodations and learn how to notify faculty. Accommodations are not retroactive, so it is best to register with ODS early each semester to access your accommodations. If you are registered with ODS, please see me to schedule a meeting outside of class in which you can bring me your faculty notification letter and we can discuss your accommodations for this course. Students are not eligible to use their accommodations in this course until they have met with me.
Barnard ODS is located in Milbank Hall, Room 008. Columbia ODS is located in Wien Hall, Suite 108A.

Wellness Statement
It is important for undergraduates to recognize and identify the different pressures, burdens, and stressors you may be facing, whether personal, emotional, physical, financial, mental, or academic. We as a community urge you to make yourself—your own health, sanity, and wellness—your priority throughout this term and your career here. Sleep, exercise, and eating well can all be a part of a healthy regimen to cope with stress. Resources exist to support you in several sectors of your life, and we encourage you to make use of them. Should you have any questions about navigating these resources, please visit these sites:
- Barnard Students: https://barnard.edu/wellwoman/about
- Columbia Students: http://www.college.columbia.edu/resources Click on Health-Wellness
- Columbia GS Students: https://gs.columbia.edu/health-and-wellness
- Columbia SEAS Students: http://gradengineering.columbia.edu/campus-resources

Honor Code
The Barnard Honor Code applies to all students in this class regardless of academic affiliation. Approved by the student body in 1912 and updated in 2016, the Code states:
We, the students of Barnard College, resolve to uphold the honor of the College by engaging with integrity in all of our academic pursuits. We affirm that academic integrity is the honorable creation and presentation of our own work. We acknowledge that it is our responsibility to seek clarification of proper forms of collaboration and use of academic resources in all assignments or exams. We consider academic integrity to include the proper use and care for all print, electronic, or other academic resources. We will respect the rights of others to engage in pursuit of learning in order to uphold our commitment to honor. We pledge to do all that is in our power to create a spirit of honesty and honor for its own sake.
The Columbia College Honor Code and the Columbia College Faculty Statement on Academic Integrity can be viewed here:
https://www.college.columbia.edu/honorcode
https://www.college.columbia.edu/faculty/resourcesforinstructors/academicintegrity/statement

Affordable Access to Course Texts:
All students deserve to be able to access course texts. The high costs of textbooks and other course materials prohibit access and perpetuate inequity, and Barnard librarians are partnering with students, faculty, and staff to increase access. By the first day of advance registration for each term, you should be able to view on Canvas information provided by your faculty about required texts (including ISBN or author, title, publisher and copyright date) and their prices. Once you have selected your classes, here are some cost-free methods for accessing course texts, recommended by the Barnard Library: find out if your faculty has placed the texts on reserve at Barnard Library or another Columbia library, and look for course texts using CLIO (library catalog), Borrow Direct (request books from partner libraries), Interlibrary Loan (request book chapters from any library), and NYPL. Students with financial need or insecurity can check items out from the FLIP lending libraries in the Barnard Library and Butler Library and can consult with the Dean of Studies and the Financial Aid Office about additional affordable alternatives for getting access to course texts. Talk with your librarian and visit the Barnard Library Textbook Affordability guide (library.barnard.edu/textbook-affordability) for more details.