

B+C | A

Barnard and Columbia Architecture

Barnard and Columbia Colleges Architecture Department

Instructor: Ana Peñalba

Fall 2018 ARCH V3103

Architectural Representation: Perception

Dates: Tuesdays & Thursdays / 9:00am-11:50am

Location: 404 The Diana Center, Barnard

Office hours by appointment

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"The link between one organic structure and another can no longer, in fact, be the identity of one or several elements, but must be the identity of the relation between the elements (a relation in which visibility no longer plays a role) and of the functions they perform."

Michel Foucault, The Order of Things

The Nobel Prize-winning Paul Crutzen has revolutionized the conventional boundaries of Ecology. He has popularized the term "Anthropocene" and therefore a new whole range of speculations on how our relationship with the environment is and will be performed. The Anthropocene is a proposed epoch to define the beginning of significant human impact on the Earth's geology and ecosystems. We have entered a new period of environmental uncertainty and it urges us to investigate new interactive systems that allow multiple agents to coexist and grow together. In this class we will investigate the design and content of an alternative form of Architecture that explore new ways of relating to our environment. This type of non-human centered Design obligates us to think of Architecture as a practice that not only serves the human being but also other types of living forms such as plants, animals and even other intangible atmospherical conditions. Within this studio context, we will learn to perceive and look at the city from another point of view. We will draw attention to invisible ecosystems made through the appropriation of our urban settings; we will learn to translate the spatial qualities of our immediate surroundings into architectures for environmental occupation; and we will explore the design of collaborative infrastructures that encourage new relationships between us and our environment. Our surroundings are the homes of many other forms of being and it is time to question the holistic sense and formal scope of inhabitation!

COURSE FORMAT

PROJECT 01: ARCHITECTURE FOR THE ENVIRONMENT (4.5 weeks)

ENVIRONMENT: *"The surroundings or conditions in which a person, animal, or plant lives or operates".*

In this project we will learn how the physical elements that compose our cities have a critical role in the way we feel and mediate with our environment. During this first project we will concentrate on the analysis and observation of our nearby surroundings. We will look at the spatial qualities of urban settings and analyze their role in the construction of our atmospheric contexts. Each student will be assigned one of the following natural elements -Water, Wind and Light- and will represent the environmental conditions that their medium perform in three different scenarios. The challenge will be not to represent what you see but to unveil the architectural systems that configure our relationship with the environment.

PROJECT 02: ARCHITECTURE FOR THE "OTHER" LIVING BEINGS (3 weeks)

LIVING BEINGS: *"An individual form of life, such as a bacterium, protist, fungus, plant, or animal, composed of a single cell or a complex of cells in which organelles or organs work together to carry out the various processes of life".*

In this project we will investigate how the physical elements that define our cities are components designed for us, but have also been appropriated by other forms of life. Humans are not the only urban animal in the city, squirrels, pigeons, mice, and rats are all species that live near and in association with humans; our Architecture is their homes. If we look closer to the way that those species live, we will realize that there are tens of hidden ecosystems built from our very domestic urban scenarios. Windows are essential elements in the life of pigeon's habitat; Subway tunnels are the streets for the domestic life of a rat; and, the city is a space of concrete cliffs and street valleys for falcons. None of those species perceive the city the way we do. In this project we will design a series of imaginary "animal" cities; artificial habitats for synanthrope species that make visible the spatial qualities and formal relationships of their environmental settings within our urban contexts.

PROJECT 03: ARCHITECTURE FOR THE ECOLOGY: INFRASTRUCTURAL SYSTEMS THAT MEDIATE BETWEEN THE ENVIRONMENT AND THE LIVING BEINGS (5.5 weeks)

THE ECOLOGY: *"The branch of biology that deals with the relations of organisms to one another and to their physical surroundings".*

The studio will finish with the design of a project that investigates new patterns of cooperation between the environment and our human activities. If we consider Architecture as a mediator and a binary form between the living beings and the environment, its structure and program need to respond to the demands of several agents. We will investigate the identity of those agents and explore forms of design that respond to adaptive structures that promote a co-evolutionary process between the environment, and us. Can we use Architecture as an activator of spatial scenarios that not just minimize the negative impact of us on the planet but that integrate the environment in the goals and scope of our projects?

TENTATIVE WORK SCHEDULE

PROJECT 01: ARCHITECTURE FOR THE ENVIRONMENT

Week 01: Introduction.

Week 02: Exercise 1A

Week 03: Exercise 1B

Week 04: Exercise 1C

Week 05: REVIEW PROJECT 01 + INTRODUCTION TO PROJECT 02

PROJECT 02: ARCHITECTURE FOR THE "OTHER" LIVING BEINGS

Week 06: Exercise 2A+2B+2C

Week 07: Exercise 2D

Week 08: REVIEW PROJECT 02

PROJECT 03: ARCHITECTURE FOR THE ECOLOGY

Week 09: Exercise 3A

Week 10: Exercise 3B

Week 11: Exercise 3C

Week 12: PRE-FINAL PIN UP + THANKSGIVING WEEK

Week 13: Project and Drawing Updates

Week 14: FINAL REVIEW

PREREQUISITES

This is an introductory course for students interested in thinking about architecture and is required for those majoring in Architecture. There are no prerequisites, with the exception of a passion and a will to speculate. It is generally recommended for the sophomore year, and can be taken before or after Architectural Representation: Perception. Abstraction and Perception complement each other, with the former concentrating on conventions of architectural representation and the latter on techniques of spatial representation.

STUDIO TEACHING METHODOLOGY

This course is taught by the studio method. The core method of instruction is that of 'desk critiques', a one-to-one dialogue at the desk between the student and the faculty (also described as "studio critics") or teaching assistants (TA). At the desk crit, previous design work is reviewed and discussed and the student and faculty formulate the next steps in the process. Desk crits are supplemented by Interim Reviews, or 'Pinups', where all students in the studio present their design ideas for group critique and discussions. 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.

Each student will have a desk in 404 Diana. You must work in the studio after hours, employing your peers as critics. You will be expected to equip your desk with the necessary tools and materials for your projects (see below). No excuses for incomplete work should be made for lack of equipment. Each project will use different equipment more specific purchases should be made at that time.

STUDIO WORK

This introductory studio course introduces experience, perception, and interactive relationships between subjects, objects and environments as catalysts for design experimentation. Emphasis is placed on understanding how space is perceived and how different media can be utilized to document the built environment and pursue its transformation. Projects explore the representation of diverse experiences of a specific space, activities performed in a place and over time, and other ephemeral or environmental conditions. Source media include photographs, drawings, films, videos, models, games, texts as well as virtual and real spaces. Students use these media to develop analytical, critical and representational skills and as generative design tools. In addition to periodic presentations by the TA and the critic, DAL Teaching Assistants will conduct other informal evening workshops focusing on techniques and methods relevant to ongoing projects. These sessions are optional but you are strongly encouraged to attend.

STUDENT LEARNING OBJECTIVES

Students in Architectural Representation: Abstraction and Perception should be able, at an introductory 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 context
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 of analog and digital techniques in the design process
9. Utilize three-dimensional digital modeling software in the design process
10. Utilize animation or video techniques in the design process

GRADING

Students will be evaluated on their own capacity to fulfill the course goals, not only requirements. Working in this field goes beyond completing the requirements, it implies a stronger engaging with the given material and effort to accomplish things. Students need to develop their critical thinking skills, analytical comprehension and, rigor in the process of making the projects. These exercises are based not only on a final product, they are based on a daily progression and evolution of the work, on an active process attitude. It is crucial that all students work consistently.

Each project will be graded with a letter grade. Your work will be evaluated on the following criteria:

1. Concept: Critical thinking skills and analytical rigor
2. Work Process: Iterative design process, ability to respond to input and develop project
3. Presentation: Ability to articulate ideas visually and verbally.

Project 01_____	30%
Project 02_____	25%
Project 03_____	35%
Attendance, Work Process and Participation in Pin-Ups and Group Discussions_____	10%

You will receive a written evaluation after the Midterm Review and one after the Final Review. Students are required to present their work in all 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.

CLASS ATTENDANCE, LATE ARRIVALS, AND ABSENCES POLICY

You are encouraged to work in the studio and to take advantage of the shared learning environment to discuss your work with your peers. Attendance is mandatory at all scheduled classes, field trips, and reviews. Studio is held Tuesdays and Thursdays 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 non-consecutive absences will adversely affect your final grade.

STUDIO WORK PRACTICES

Please refrain from the use of spray paints, spray adhesives, or similar products in the studio and all adjacent spaces. This may be done only in the model room annex to the studio. The hallway, stairwells, and sidewalks outside the building are not to be used as working spaces for model building, etc. The overspray from spray paints and adhesives are destructive to the building. In order to maintain a productive workspace for all, music must be listened to through your headphones. Please keep the studio and DAL clean. Do not leave food items in studio.

STUDIO EQUIPMENT

The items on this list will continue to be useful throughout your careers as designers, and should be considered investments in quality tools. However, they are precision instruments and some of them are expensive. If you are uncomfortable purchasing some of these items for yourself please check with the Department Assistant about borrowing used equipment.

- Sketchbook (minimum size 8"x10")
- architects' scale (6 sided)
- 12" roll of white tracing paper
- lead pointer, lead holder, leads (or .3mm, .5mm, .7mm, .9mm Mechanical Pencils)
- white rubber eraser
- Olfa or similar utility knife with breakaway blades (and replacement blades)
- 24" metal ruler with cork backing
- selfhealing cutting mat
- model making materials (as needed throughout the term, including Elmer's or Sobo glue)

These supplies can be purchased at various art supply stores, including:
Janoff's Typewriter (2870 Broadway. Limited supplies, local but expensive)
Pearl Paint (Google for location)
New York Central (SW corner of 11th and 3rd Ave.)
Utrecht (13 th Street between 5 th and University. Also cheap)

SECURITY

After the first week of classes, students will be granted 24-hour access to the studio and DAL through their 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 (for room 404 Diana) or Columbia Public Safety (for 116 Lewisohn).

- 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 your 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.

STATEMENT FROM THE OFFICE OF DISABILITY SERVICES

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.

AFFORDABLE ACCESS TO COURSE TEXTS STATEMENT

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.

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. For more information about available resources:

- Barnard Students: <http://barnard.edu/wellwoman>
- 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>