Lina Bo Bardi, MASP – Museu de Arte de São Paulo, Photo montage and drawing (1957-1968). Arquivo ILBPMB

ARCH UN 2103_001
ARCHITECTURAL DESIGN: ENVIRONMENTS AND MEDIATIONS

Barnard and Columbia Colleges Architecture Department
Spring 2021 A, Monday and Wednesday 9:00-11:50, Friday 9:00-12:50
ONLINE and Room 404, The Diana Center
Critic: Ignacio G. Galán, igalan@barnard.edu
TA: Laura Blasczak, lab2242@columbia.edu
Office Hours: https://calendly.com/igalan

A. COURSE DESCRIPTION.

This architectural design studio course explores modes of visualization, technologies of mediation and environmental transformations. These explorations will be used as catalysts for architectural analysis and design experimentation.

In a series of concatenated exercises, we will use different forms of representation to analyze the relationships between subjects, objects, and environmental phenomena. With this knowledge, will intervene on the ways in which architecture transforms these relations and results in the constitution of spaces, networks, atmospheres, and territories as well as in hierarchies, rituals, and societies. We will consider architecture as an artifact operating both culturally and materially and will seek to mobilize it to trigger more just forms of coexistence.
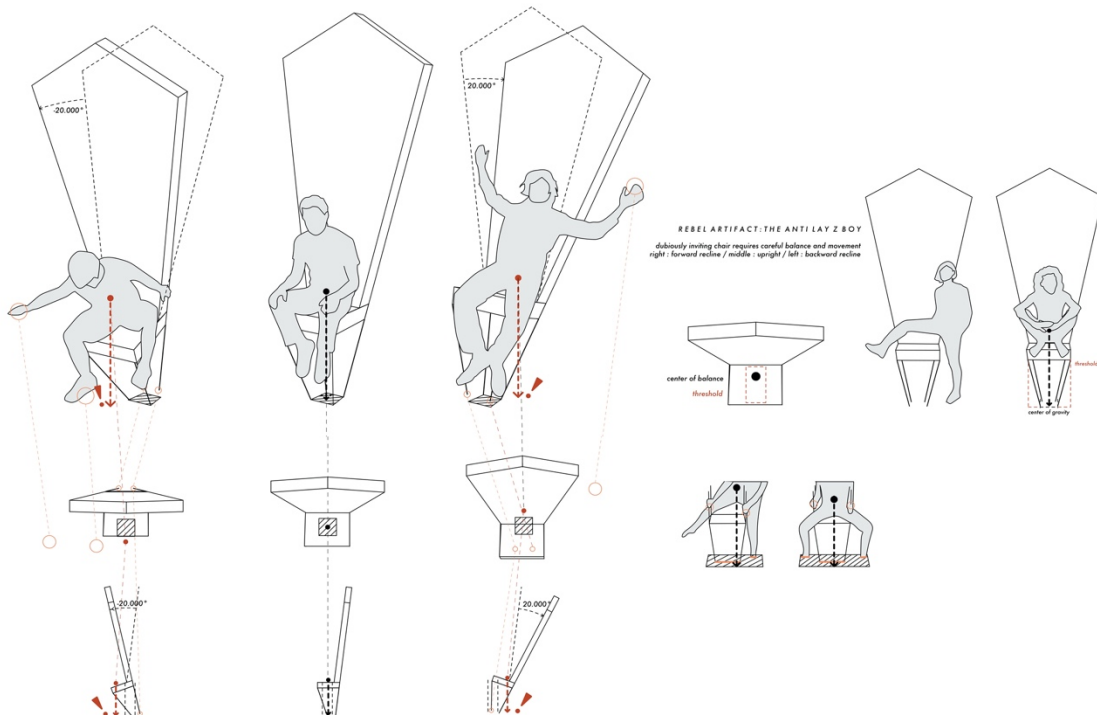
Teaching modality

The studio is open both for on-campus students and remote students. Most sessions will be taught online, even if on-campus students are able to connect to class from studio. Depending on the evolution of the pandemic, some sessions might be taught from the studio, but remote students will still be able to connect and have access to the same kind of instruction. The studio requires students to participate in class sessions synchronously.

B. PROGRAM
EXERCISE 1: SUBJECT-OBJECT.

The first exercise will address subject-object relations through the design of a WILD ARTIFACT. We will consider an architectural element or furniture object and will analyze the cultural and material frameworks that shape its participation in social dynamics and will pursue to challenge them. We will represent the resistances and affordances at stake in these relations as well as the ways in which they consolidate everyday practices and "habitus." Our representations will attempt to learn from subject-object relations and will offer new ways for those to unfold. We will discuss the contentious nature of these dynamics and we will rehearse ways of intervening within them through processes of formal transformation and re-signification.

REBEL ARTIFACT: THE ANTI LAY Z BOY
dubiously inviting chair requires careful balance and movement
right : forward recline / middle : upright / left : backward recline

[Utsa Ramaswami, Class exercise]

EXERCISE 2: OBJECT-ENVIRONMENT.

We will consequently consider how objects relate not only to subjects but with their surrounding environment, particularly analyzing their relationship with atmospheric conditions in outside settings. We will aim to represent these relations as they result in new phenomena, which effect both objects and environments alike. These representations will trigger the design of an ARTIFICIAL TREE—a technology through which to critically analyze performance as independent from intention and agency as detached from a will. The substitution of Barnard's famous magnolia tree (recently deceased) will serve as a case study for this exercise.
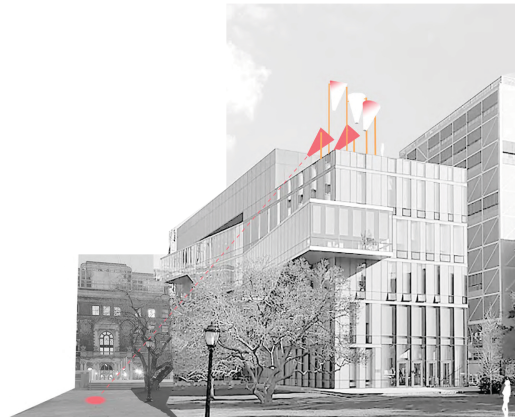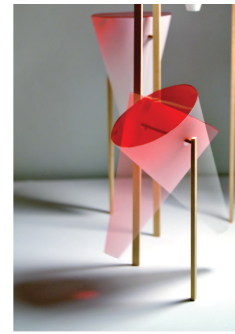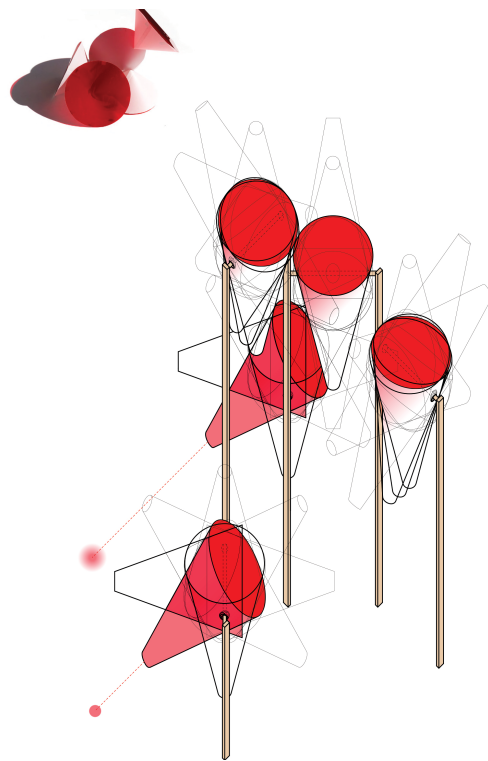
[Isabel Chun, Class exercise]

EXERCISE 3: ENVIRONMENT-SUBJECT.

The studio will finish with the production of an ENCHANTED FOREST. We will consider the unstable and changing articulation of social relations and the environments in which they unfold, which we will analyze within larger urban processes. Working in the vicinity of the Barnard and Columbia campus, we will inspect how those processes can be considered through material/spatial notions (threshold, access, etc.) as well as in relation to social and cultural questions concerning the aggregation of bodies in space and the management of the environment.
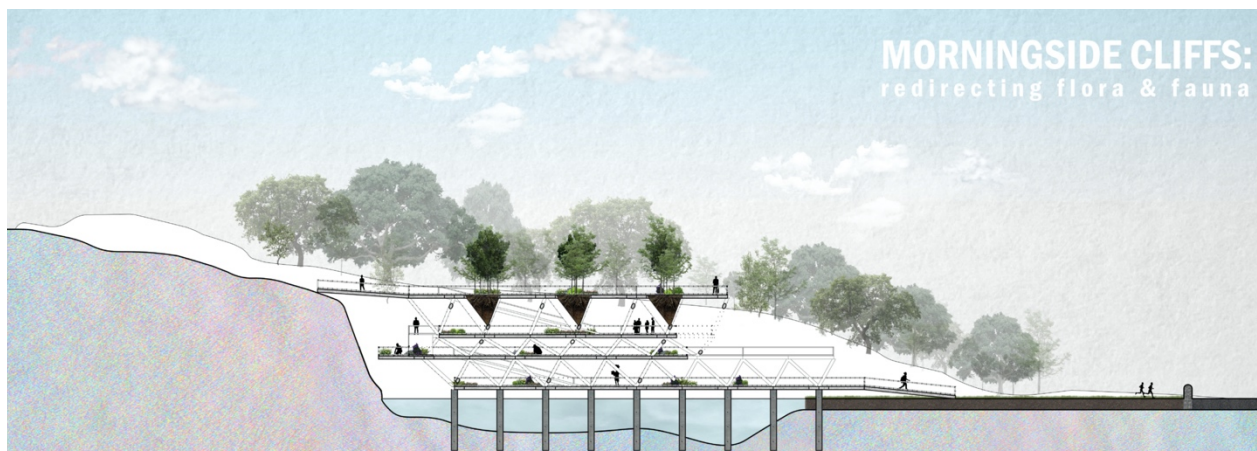
[Jaime Danies, Class exercise]

C. TENTATIVE CALENDAR

Week 1. Exercise 1 A

M 1/11   _Introduction. Photoshop/Illustrator Workshop
W 1/13   _Deskcrits. Rhino Workshop
F 1/15   _Deskcrits. Rhino Workshop

Week 2. Exercise 1 B

W 1/20   _Deskcrits. Rhino/Illustrator Workshop
F 1/22   _Deskcrits. Rhino/Illustrator Workshop

Week 3. Exercise 2A

M 1/25   _Review
W 1/27   _Deskcrits. Model Making Workshop
F 1/29   _Deskcrits. Model Making Workshop

Week 4. Exercise 2B

M 2/1   _Deskcrits. Rhino/Illustrator Workshop
W 2/3   _Deskcrits. Photoshop Workshop
F 2/5   _Deskcrits. Photoshop Workshop

Week 5. Exercise 3A

M 2/8   _Review
W 2/10   _Deskcrits. Software Workshop
F 2/12   _Deskcrits. Software Workshop

Week 6. Exercise 3B

M 2/15   _Deskcrits. Software Workshop
W 2/17   _Deskcrits. Software Workshop
F 2/19   _Deskcrits. Software Workshop

Week 7

M 2/22   _Deskcrits. Last day of class
F 2/26   _FINAL REVIEW

D. LEARNING OBJECTIVES

Upon the completion of this course, students should be able to:
• Demonstrate an understanding of design method as a step-by-step, iterative and incremental process of research, synthesis, and feedback that requires experimentation and risk taking
• Visually communicate design concepts and design intent using discipline-specific techniques of representation
• Utilize analog and digital modeling and visualization techniques in the design process
• Demonstrate the ability to record relations, transformations, and environments

DESIGN AND TECHNICAL SKILLS
The studio curriculum will be an introduction to fundamental design and technical skills. Workshops will be offered both in class and outside studio sessions to support software tutorials. In addition to periodic presentations by the studio critic and the TA, DAL 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.

Students in this course are required to gain proficiency in the following:
Architectural Drawings
Analytical Diagrams
Plans, Elevations, Sections
Three dimensional drawings: Axonometric, Isometric, Perspective, etc.
Freehand Sketching

Modeling Skills
Model-making using a variety of materials using paper, wood, chipboard, foam core, wire, plexiglass, etc.

Software Skills
Line drawings using Adobe Illustrator
2D/3D Renderings, Collages using Adobe CS
Three-dimensional modeling using Rhino
Moving Image Media (Adobe CS, iMovie)

E. COURSE REQUIREMENTS AND ASSESSMENT CRITERIA
Prerequisites
This is an introductory level design studio 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 Design: Systems and Materials. Systems and Materials and Environments and Mediations complement each other, with the former concentrating on material assemblies, techniques of fabrication, and systems of organization and the later on modes of visualization, technologies of mediation, and environmental transformations.

Studio Procedures
This course is taught by the studio method. The core method of instruction is that of 'deskcritiques', a one to one dialogue at the desk between the student and the faculty or TA (also described as "studio critics"). 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 Critics.

On-campus students will have a desk in 404 Diana and can work in the studio after hours, employing peers as critics. You will be expected to equip your desk with the necessary tools and materials for your projects. No excuses for incomplete work should be made for lack of equipment. Specific purchases might be needed for each project.

Studio Work

The studio work will consist of analog drawings, model making, and computer work. You will maintain a sketchbook throughout the semester that will be used for sketching and writing notes for all projects. This sketchbook will be reviewed during deskcrits and may be required for grading. 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.

Attendance

If you are on campus, you will be able to work in the studio and to take advantage of the shared learning environment to discuss your work with your peers. Attendance, either in person or online, is mandatory at all scheduled classes, activities, and reviews. 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.

Grading

Each Studio 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. Understanding of abstract architectural ideas
3. Iterative design process
4. Ability to articulate ideas verbally
5. Ability to express concepts via well crafted tectonic compositions
6. Precision of drawings using a range of graphic conventions
7. Participation during design crits and timeliness of assignment completion

Project Grading Breakdown

Project #1: 30%, Project #2: 30%, Project #3: 40%
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.

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")
-12" roll of white tracing paper
-lead pointer, lead holder and leads or Mechanical Pencils or Pencils
-white rubber eraser
-Olfa or similar utility knife with breakaway blades (and replacement blades)
-24" metal ruler with cork backing
-selfhealing cutting mat
-architects' scale (6 sided)
The cost of these materials is approx. $70. Most of them you only need to buy once for your career as designers.

Additionally you will need model making materials (as needed throughout the term, including Elmer's or Sobo glue). You are invited to be inventive in the selection of materials, using recycled, cheap, or materials available in studio for your models.

Supplies can be purchased at various art supply stores, including:
Janoff's Typewriter (2870 Broadway. Limited supplies, local but expensive)
Utrecht (13th Street between 5th and University. Also cheap. https://www.utrechtart.com/)
Canal Plastics Center (https://www.canalplastic.com/)
Blick Art Materials (https://www.dickblick.com/)

Room Rules and Security
Note that all access to campus is governed by current campus health protocols, and these protocols may be revised by the College and University at any time.

We are planning to implement new protocols for access to the studio in 404 Diana and the Digital Architecture Lab (DAL) through online signups and onsite swipe access through your school ID. We hope to be able to open these spaces to you in some limited capacity beginning January 25th. More information for this process will be communicated through the Architecture Department and by your faculty.

Once access to these spaces is allowed, it is crucial that our standard safety procedures are followed, including 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 students in approved courses; please respect other critics and students that are using the space. Barnard and Columbia Public Safety officers do periodically check the studio but security is a responsibility that we all share; please help us maintain a safe and productive environment. Additional instructions and rules for using the studio and DAL will be reviewed with you during the first few weeks of classes.

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).

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 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 believe you may encounter barriers to the academic environment due to a documented disability or emerging health challenges, please feel free to contact me and/or the Center for Accessibility Resources & Disability Services (CARDS). Any student with approved academic accommodations is encouraged to contact me during office hours or via email. If you have questions regarding registering a disability or receiving accommodations for the semester, please contact CARDS at (212) 854- 4634, cards@barnard.edu, or learn more at barnard.edu/disabilityservices. CARDS is located in 101 Altschul Hall.

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 (Cl 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 Barnard Honor Code includes relevant language for the proper use of electronic class material: *We consider academic integrity to include the proper use and care for all print, electronic, or other academic resources.* To be clear, this means that any recorded class content – from lectures, labs, seminars, office hours, and discussion groups – is the intellectual property of your professor and your fellow students, and should not be distributed or shared outside of class.

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

Instructions for accessing Apporto
Barnard College Student Computing has implemented a new virtual computer lab platform, Apporto, that will provide students who are enrolled in architecture courses with remote access to the same academic software that is currently installed in the physical architecture computer lab (DAL) on campus.

In order to access these applications (e.g. Adobe Creative Cloud, Rhino 6, ArcGIS, etc.) please go to barnard.apporto.com and log in using your Columbia UNI and password. Once you are logged in, you will see two Virtual Lab desktop icons: BC GPU Virtual Desktop and BC Virtual Desktop. These two virtual environments have some common applications on both, but mostly contain different software for different types of classes. For software related to your architecture courses, please use BC GPU Virtual Desktop.

Instructions for requesting support and reporting problems:
-If you have any issues logging into Apporto with your Columbia UNI credentials, please review these pages regarding resetting your UNI password and contact CUIT directly if you are unable to resolve the problem on your own.
-If you can log into Apporto, but experience any issues opening or using the applications, please email BCIT at help@barnard.edu with a description of the problem and any relevant screenshots or screen recordings. Someone from BCIT will follow up with you directly to help you troubleshoot and resolve the issue.