ARCHITECTURAL REPRESENTATION:

PERCEPTION

Faculty: Kadambari Baxi
TA: Ricardo Leon

INTRODUCTION:
This design studio course introduces visual perception and media as catalysts for the production and critique of architecture. Emphasis is placed on understanding how space is perceived and how different media can be utilized to document, analyze and invent architectural space. The studio projects, along with class readings and presentations, aim to situate the acquisitions of design methodologies and skills in contemporary architectural discourse. All projects collectively promote conceptual architectural thinking that relates to larger cultural, social and political contexts where students expand their imagination to originate ideas—ideas about an object, space, city or world. The projects make possible imagining multiple scales and human interactions with/within these objects, spaces, cities and worlds.

The semester will be devoted to a series of three projects titled: From Random to Indeterminacy, From Monumental to Transitory, From City to World. Project issues include the representation and experience of a specific space, activities performed in place or over time and both physical and immaterial parameters defining space and form. 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. While the projects are conducted in a linear progression, the ideas generated in each should flow freely, and aspects may be recycled with each new project assignment. The project-briefs (distributed separately, not included in the syllabus) outline specific assignments related to each project a rigorous process of experimentation using analytical drawings, spatial models, and multimedia images. We will use both analog and digital media and create a working process where we think visually with these interdependent representational tools. The projects described in brief below give an overview of the semester.
Project 1:
FROM RANDOM/ORDER TO INDETERMINACY

Chance comes in here to give us the unknown.
– John Cage to Pierre Boulez, January 17, 1950

The first project will include diagrammatic, drawing and performative activities that investigate indeterminacy as a generator of productive ideas for creative experiments and cultural analysis. We will explore related concepts such as: randomness, order, chance operations, predictability, (un)knowable, (un)planned, repetition, difference, etc. These terms will be assessed for space and form making possibilities via action-based, environmental or algorithmic procedures. We will speculate on how these concepts accentuate social, cultural, relations, reveal limitations within given norms, or address individual or collective biases for spatial interactions. The investigations will lead to a set of drawings that will subsequently become a basis for a three-dimensional physical model. The project goal will be to produce provocative visual analyses in which the final results are not pre-determined but evolve out of a rigorous process of experimentation, sensorial observations and playful imagination.

Project 2:
FROM MONUMENTAL TO TRANSITORY

A Camera movement anticipates one spectacle and discloses a different one.

The second project will begin with a moving-image filmic examination of an urban space in New York City. We will document and record a highly active public space with readily available smart-phone cameras and apps. This collaborative collective film project will use montage techniques to perceive existing and potential physical, cultural and social dynamics of a given space. With moving images and editing techniques we will review the significance of architectural monumentality, physical infrastructure and transitory occupation of a charged, active, landmark, public space. Our “live” spatial and temporal studies will represent the space in a new way with critical overviews that combine the past, present and future from multiple points of views.

Project 3A:
FROM LOCAL TO GLOBAL

Project 3B:
FROM CITY TO WORLD

A City is never simply in one place.
Every building imagines a city, and a world.
Every building can imagine another city, and another world.
– Kadambari Baxi and Reinhold Martin, “Multi-National City: Architectural Itineraries”

The final two-part project of the semester will explore a specific site that uniquely embeds multiple scales ranging from local to global and from city to world: the United Nations complex in New York. Using aerial photography, site maps, building plans and sections, informational data and virtual networks as source media we will explore the UN premises. Drawing from the ideas explored in the first half of the semester we will end with a final project situated at the UN site. The project as a design intervention will aim to engage multiple publics that physically or virtually may transverse the UN at a given moment. The final project will also draw from concepts studied earlier in the first two projects, including (but not limited to): random order, indeterminate spaces, monumental structures, transitory occupations, etc. The project goals will be design a new pavilion that represents and reimagines the local/global networks and city/world imaginaries at this important locale in New York.
DESIGN SKILLS
The studio curriculum will be an introduction to fundamental design and technical skills. Students are required to gain proficiency in the following: (workshops will be offered outside studio sessions for digital skills).

Drawing skills
Analytical Diagrams
Plans, Elevations, Sections
Three dimensional drawings: Axonometric, Isometric, Perspective, etc.
Freehand Sketching

Digital skills
Line drawings using Adobe Illustrator
2D/3D Renderings, Collages using Adobe CS
Three dimensional modeling using Rhino
Modeling Skills (Model-making using a variety of materials using paper, wood, chipboard, foamcore, wire, plexi)
Image+Moving Image Media (Adobe CS, iMovie)

LEARNING OBJECTIVES
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.

STUDIO PROCEDURES AND POLICIES

0.1 STUDIO PROCEDURES
This course is taught by the studio method. The core method of instruction is that of ‘desk crits’, 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 ‘Pin-ups’, 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 piers 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.

0.2 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 desk-crits. In addition to periodic presentations by the faculty, 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.
0.3 ATTENDANCE
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. Studio is held Monday and Wednesday beginning promptly at 9 AM. Any student arriving after 9:20 AM will be considered ‘late’ and arrivals after 10:00 AM will be considered as absent. The only excused absences are those for reasons of health or crisis, and you must alert your critic or TA by email. Unexcused absences, late arrivals, or early departures from class will reduce your course grade. Three consecutive absences or four nonconsecutive absences will mean that you have dropped the course, whether or not you have filed the appropriate “drop” form. Three non-consecutive absences within the semester will result in a grade reduction by one-half (1/2) of one letter grade (e.g., B to B-). You may NOT leave class early or after a desk crit. Plan to use your time in the studio productively and related to project assignments so that you are not simply waiting for your Critic.

0.4 GRADING
Each Studio Project will be graded with a letter grade. Your work will be evaluated by the following criteria: (1) analysis; (2) conceptual development; (3) drawings and models. Final grade will be constituted as: Project #1: 25%, Project #2: 25%, Project #3: 50%. Sketchbooks will be reviewed periodically by your critic and may be required for grading. The instructors recognize learning and improvement as important factors in determining your final grade.

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 Final Review. 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.

0.4 SECURITY
Please attend to the security of the Studio space. Because there is occasional theft, it is highly recommended that you not leave any valuables unattended when away from your desk, and that you not leave costly tools or devices (iPods, laptops, cameras, etc.) in your desk even if locked. One very workable solution is to carry your more valued items with you! You may leave your parallel rule attached to your desk. Barnard Security does make periodic checks of the studio but security is a responsibility that we all share; please help us maintain a safe and productive environment. IF SOMETHING OF YOURS IS TAKEN, PLEASE MAKE SURE YOU CONTACT SECURITY, DEPT. ASSISTANT AS WELL AS THE STUDIO FACULTY. Finally, University policy prohibits smoking in classrooms. Please be considerate of your classmates.

0.5 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. (We are trying hard not to enforce a “NO FOOD” policy in studios).

0.6 STUDIO EQUIPMENT
Sketchbook (minimum size 8”x10”)
Basic Tools and Materials:
-Borco (board cover)
-parallel rule – Mayline
-architects’ scale (6 sided)
-8” or 10” adjustable triangle
-12” or 18” role white tracing paper
-drafting dots
-lead pointer, lead holder, leads
-white pencil eraser
- X-acto with #11blades
-24” metal ruler with cork backing
-elmers or sobo glue
-model making materials (as needed)

CONTACT:
Kadambari Baxi <kbaxi@barnard.edu>
Office hours: Mondays & Wednesdays: 1-2 PM (subject to change, see sign-up sheets)
Ricardo Leon < ral2179@columbia.edu>
Selected Readings:

Project 1:

Branden W. Joseph, “Chance, Indeterminacy, Multiplicity”


Thierry Lagrange, “A Matrix as an Analogous Space / A Mental Tool for New Insights” in OASE 85: Productive Uncertainty


Project 2:


Film: “The Man with a Movie Camera” Dziga Vertov, 1929

Project 3:

See Project Assignments after the mid-term

General Reference Readings:


Robin Evans, “Rumors and Extremities,” in The Projective Cast


Architectural Representation:

Francis Ching, Design Drawing by Architectural Graphics

Ramsey/Sleeper, Architectural Graphic Standards

Watson/Crosbie, Time-Saver Standards for Architectural Design Data
## SEMESTER SCHEDULE
(Subject to change!)

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Activity</th>
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| 1    | Wed. 20 JAN | Introduction
      |                                               |
|      |             | Studio Syllabus and Semester Overview         |
| 2    | Mon. 26 JAN | Project 1 Desk crits                         |
|      | Wed. 28 JAN | Project 1 Pin up                             |
| 3    | Mon. 02 FEB | Project 1 Desk crits                         |
|      | Wed. 04 FEB | Project 1 Desk crits                         |
| 4    | Mon. 09 FEB | Project 1 Desk crits                         |
|      | Wed. 11 FEB | **Project 1 Final Review**                   |
| 5    | Mon. 16 FEB | Project 2 Desk crits                         |
|      | Wed. 18 FEB | Project 2 Desk crits                         |
| 6    | Mon. 23 FEB | Project 2 Desk crits                         |
|      | Wed. 25 FEB | Project 2 Desk crits                         |
| 7    | Mon. 02 MAR | Project 2 Pin up                             |
|      | Wed. 04 MAR | Project 2 Desk crits                         |
| 8    | Mon. 09 MAR | Project 2 Desk crits                         |
|      | Wed. 11 MAR | **Project 2 Final Review**                   |
| 9    | Mon. 16 MAR | SPRING BREAK                                 |
|      | Wed. 18 MAR | SPRING BREAK                                 |
| 10   | Mon. 23 MAR | Project 3A Discussion                        |
|      | Wed. 25 MAR | Project 3A Site Visit                        |
| 11   | Mon. 30 MAR | Project 3A Pin up                            |
|      | Wed. 01 APR | Project 3A Desk crits                        |
| 12   | Mon. 06 APR | **Project 3A Final Review**                  |
|      | Wed. 08 APR | Project 3B Desk crits                        |
| 13   | Mon. 13 APR | Project 3B Desk crits                        |
|      | Wed. 15 APR | Project 3B Desk crits                        |
| 14   | Mon. 20 APR | Project 3B Pin up                            |
|      | Wed. 22 APR | Project 3B Desk crits                        |
| 15   | Mon. 27 APR | Project 3B Desk crits                        |
|      | Wed. 29 APR | Project 3B Desk crits                        |
| 16   | Mon. 04 MAY | **FINAL PROJECT REVIEW** (Date to be confirmed) |