

B+C | A

Barnard and Columbia Architecture

Fall 2017 ARCH V3103:
Architectural Representation: Perception

Dates: Tuesdays and Thursdays 9:00 am - 11:50 am
Location: 404 The Diana Center, Barnard
Instructor: Frederick Tang, (ftang@barnard.edu, (212) 854-8430, 500H The Diana Center
Office hours: Tuesdays and Thursdays by appointment
TA: Jake Finnicum, wlf2112@columbia.edu

FICTIVE SPACES

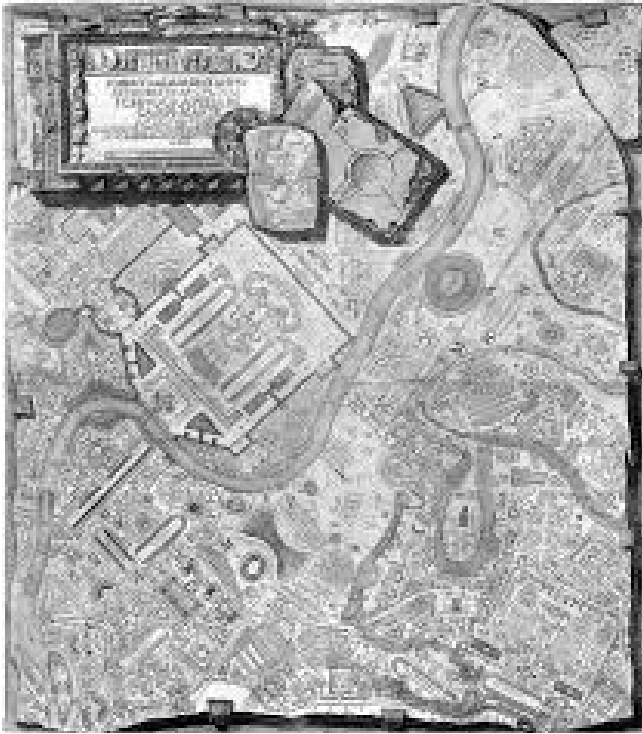


left to right: Still from Monument Valley, video game, 2013; Models of Playground Furniture for Ala Moana Park by Isamu Noguchi, 1940; Film still from Jonah Freeman's "The Franklin Abraham."

When we perceive, we become aware. We absorb atmospheric phenomena and translate them into consciousness and knowledge. The practice of architecture involves a similar task -- taking information from many sources (program, context, structure) and using them to create an intervention. Both processes are inherently subjective acts that rely on a particular point of view and interpretation. To perceive something, to practice architecture is to tell a story.

In this design studio, we will consider perception to be a fiction. We will explore subjectivity as the means of architectural inspiration and intervention. We will examine the ways in which space can be perceived, and how the act of perception can itself be an operation that produces space. The studio will examine conventions of architectural representation and dissect the bias in each of these techniques. We will experiment with photography, hand drawing, collage, model making, digital drafting, rendering and we will invent new methods of notation that are tailored to the narratives we craft.

The semester will be divided into three independent but related projects. Each project begins with an analytical exercise. The act of analysis is not a neutral or passive process. It requires the perceiver to assert an agenda and viewpoint. The analytical representation will quickly evolve into speculation and design. We will measure distortion. We will make the imaginary concrete. We will invent stories about our worlds.



left to right: Piranesi's Campo Marzio, 1762; Jiri Kolar's collage, "Homage to Movie Stars," 1914-2002; Rachel Whiteread, "Untitled (stairs)" at the Tate Gallery, 2001

PROJECT 1 - THE TREASURE MAP

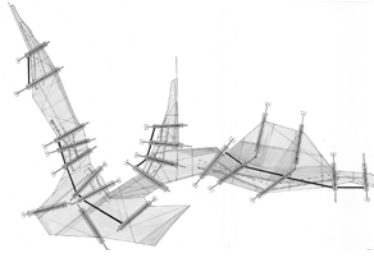
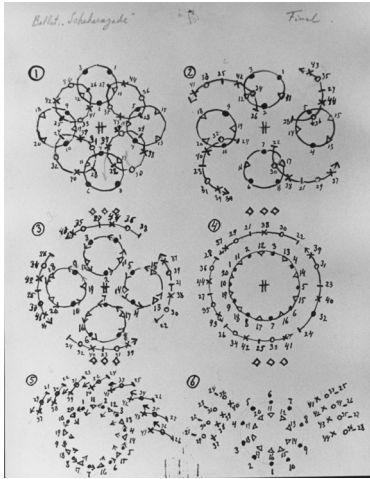
"Collage is the noble conquest of the irrational, the coupling of two realities, irreconcilable in appearance, upon a plane which apparently does not suit them." - Max Ernst,

In the first project, you will start by taking a planometric photograph that documents a segment of your daily path on campus. You will be assigned a portion of the Manhattan grid at a different scale and you will create a collage (1A) that combine the two images so that they can be read simultaneously as a new whole. You will use this collage as the basis to invent a treasure map. You will create a drawing (1B) and a bas relief model (1C) that speculates on the space implied by this map.

This project will be an exercise in extrapolating spatial information from a planometric analysis. We examine the concept of "figure-ground" relationships. We will discuss the imagined spaces of Piranesi's Campo Marzio plan, the paradoxical spaces in the video came "Monument Valley," and the collages of Jiri Kolar.

Readings

- Stan Allen, "Piranesi's Campo Marzio: An Experimental Design," *Assemblage* 41, pp 70-109. (MIT Press, 2000)
- Colin Rowe, Robert Slutzky, "Transparency: Literal and Phenomenal," *Perspecta* 13/14, pp 287-301 (MIT Press, 1971)
- *The Greatest Grid: The Master Plan of Manhattan, 1811-2011*, Introduction, p. 1-19 (Columbia Univ. Press, 2012)



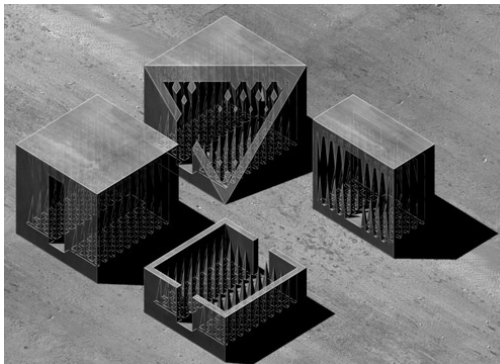
left to right: Ballet diagrams by Michel Fokine (1880-1942) from Fokine Estate; Photographs of a dancer by Eadweard Muybridge; Student Work by Sandra Bonito (2012)

PROJECT 2 - THE PUPPET SHOW

In the second project, you will work in pairs (of puppet and puppeteer) to document your partner as they undertake a series of controlled movements. You will create a 10 second video (2A) from two different perspectives of the movement. You will invent a notation to describe this choreography (2B) and then use Rhino and physical modeling (2C) to imagine the space that is implied by the movement. This project will be using elevational and sectional information to generate a space. We will consider concepts of part to whole relationship and difference/repetition. We will look study the photographs of Eadweard Muybridge, and discuss the writings of Greg Lynn.

Readings

- Greg Lynn, *Animate Form*, Introduction, (Princeton Arch. Press, 1999)
- Edward Tufte, *The Visual Display of Quantitative Information* (Graphics Press, 1983)
- Robin Evans, "Translations from Drawing to Building," (MIT Press, 1997)



left to right: Painting by Madelon Vriesendorp, "Flagrant Delit," 1975; John Hejduk, "Mask of Medusa," 1947-1983

PROJECT 3 - THE LIGHTHOUSE

The final project will be a more formal architectural proposal created by fragments from Projects 1 and 2. You will use them as seeds, to grow a new Lighthouse on campus. We will consider the ways in which architecture responds to programmatic requirements as well as how it creates events. We will create narratives that inform the spatial propositions we make.

Readings

- John Hejduk: *Mask of Medusa - Works 1947-1983* (Rizzoli, 1989)
- Rem Koolhaas, *Delirious New York: A Retroactive Manifesto for Manhattan*, (Oxford Univ. Press, 1978)

Studio Schedule:

Week Date Assignment / Course Event

PROJECT 1 - THE TREASURE MAP

1	Tu	9/5	Introduction to Studio and Syllabus
	Th	9/7	In-class Tutorial on Drawings, Assignment 1
2	Tu	9/12	Desk crit of Analytical Drawings
	Th	9/14	Pin-up Analytical Drawings
3	Tu	9/19	Introduction to Analytical Models
	Th	9/21	Pin-up of Analytical Models
4	Tu	9/26	Desk Crit of Analytical Models
	Th	9/28	Final Review

PROJECT 2 - THE PUPPET SHOW

5	Tu	10/3	Introduction
	Th	10/5	Desk Crit of Video/Photograph Analysis
6	Tu	10/10	Pin-up of Video/Photograph Analysis
	Th	10/12	Desk Crit of Video/Photograph Analysis
7	Tu	10/17	Project 2a Review of Video/Photograph Analysis
	Th	10/19	Project 2b Introduction and In-class Tutorial (Rhino)
8	Tu	10/24	Desk Crit of Rhino Model Rendering
	Th	10/26	Final Review

PROJECT 3 - THE LIGHTHOUSE

9	Tu	10/31	Project Introduction (Tour of Site)
	Th	11/2	Desk Crit
10	Tu	11/7	Election Day HOLIDAY
	Th	11/9	Project Discussion of Model Fragment
11	Tu	11/14	Pin-Up of Model Fragment Analysis
	Th	11/16	In-class Tutorial
12	Tu	11/21	Mid Project Review
	Th	11/23	Thanksgiving HOLIDAY
13	Tu	11/28	Pin-Up
	Th	11/30Y	Discussion of Analysis to Design
14	Tu	12/5	Desk Crit
	Th	12/7	Final Review

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

Freehand sketching

Digital Skills:

Line drawings using Adobe Illustrator

2d/3d renderings. Collages using Adobe Photoshop and Illustrator

3d modeling using Rhino

digital photography and video recording

Physical Model Skills

model making using paper, wood, chipboard, foamcore, wire, plexi

LEARNING OBJECTIVES:

Students in Perception should be able, at an introductory level, to:

- 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
- Verbally communicate architectural research methods and spatial concept.
- Demonstrate an understanding of precedent and site analysis
- Demonstrate an understanding of design method as a step-by-step, iterative and incremental process of research, synthesis and feedback
- Demonstrate an understanding of design thinking as responsive to and shaper of social and cultural context
- Demonstrate the ability to work independently and collaboratively
- Demonstrate an understanding of the historical and theoretical contexts for architectural representational conventions
- Utilize a range of analog and digital techniques in the design process
- Utilize three-dimensional digital modeling software in the design process

STUDIO METHODOLOGY

This course is taught by the studio method. The core method of instruction consists 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) and "pin-ups" where the studio as a whole gathers to review and discuss the work collectively. At desk crits, previous design work is reviewed and discussed and the student and faculty formulate the next steps in the process. 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 are expected to work in the studio outside of class times 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.

PRE-REQUISITES

There are no pre-requisites. This course can be taken before or after “Architectural Representation: Abstraction.”

ATTENDANCE AND ABSENCES POLICY

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 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 on the following criteria:

- Concept: initial conceptual ideas, critical thinking, analytical rigor
- Development: iterative design process, ability to respond to input and develop project
- Presentation : ability to articulate ideas visually and verbally, craftsmanship of built work

Project 1 will count for 25% of the grade

Project 2 will count for 25% of the grade

Project 3 will count for 35% of the grade

Overall studio progress, participation will count for 15% of the grade.

Students are required to present their work in all Interim and Final Reviews. Failure to do so will reduce the letter grade 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.

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 (for room 404 Diana).

SKETCHBOOK/JOURNAL/NOTEBOOK

Students must maintain a book within which to draw, sketch, take notes, document ideas. This is a critical component of the studio process. Ideas concerning your studio assignments should be recorded here. The sketchbook should be used to brainstorm, initiate concepts, work through various thoughts. It is a diary of ideas.

SUPPLIES

Each student will have a desk in the 4th floor studio in the Diana Center. Students are expected to work in the studio after hours, employing peers as critics and engaging in discussions. Students are expected to equip their desks with the necessary tools and materials.

Basic Tools and Materials:

- Parallel Rule (36" – 42" armor edge recommended.)
- 8" or 10" adjustable triangle and a 30/60/90 inking edge triangle larger than 10"
- Xacto or Olfa cutting knife
- Lead pointer
- Lead holder
- Leads (HB, H, 2H, 4H)
- White and yellow eraser
- Eraser shield
- Desk lamp
- Vyco board cover
- Desk brush
- Scissors
- Architectural scale
- Stainless steel straight edge ruler w/ cork bottom for cutting
- Cutting mat
- Digital Camera
- Elmers White glue
- Drafting tape
- Scotch Tape
- 12" tracing paper

See the materials and vendors list provided by department on our website:
<https://architecture.barnard.edu/node/59931>

DISABILITIES STATEMENT

Students with disabilities who will be taking this course and may need disability-related accommodations are encouraged to register in advance with the Barnard College Office of Disability Services (ODS) in 8 Milbank or the Columbia College Disability Services in Suite 108A, Wien 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:

<http://barnard.edu/primarycare>

<http://barnard.edu/counseling>

<http://barnard.edu/wellwoman/about>

<http://health.columbia.edu/>

STATEMENT OF ACADEMIC INTEGRITY:

The intellectual venture in which we are all engaged requires of faculty and students alike the highest level of personal and academic integrity. As members of an academic community, each one of us bears the responsibility to participate in scholarly discourse and research in a manner characterized by intellectual honesty and scholarly integrity.

Scholarship, by its very nature, is an iterative process, with ideas and insights building one upon the other. Collaborative scholarship requires the study of other scholar' work, the free discussion of such work, and the explicit acknowledgement of those ideas in any work that inform our own. This exchange of ideas relies upon a mutual trust that sources, opinions, facts, and insights will be properly noted and carefully credited.

In practical terms, this means that, as students, you must be responsible for the full citations of others' ideas in all of your research papers and projects; you must be scrupulously honest when taking your examinations; you must always submit your own work and not that of another student, scholar, or internet agent.

Any breach of this intellectual responsibility is a breach of faith with the rest of our academic community. It undermines our shared intellectual culture, and it cannot be tolerated. Students failing to meet these responsibilities should anticipate being asked to leave Columbia.

It is your responsibility to fully understand what constitutes a violation of the honor code.

Below are links to the Barnard and Columbia Colleges honor codes along with pages that summarize what the colleges consider to be academic dishonesty.

Barnard:

<http://barnard.edu/dos/honorcode>

<https://barnard.edu/honor-code/faq>

Columbia:

<https://www.college.columbia.edu/honorcode>

<http://www.college.columbia.edu/academics/academicdishonesty>

If an instructor believes you to have acted dishonestly, you will be referred to the formal process of Dean's Discipline. Overseen by Student Conduct and Community Standards, the Dean's Discipline process is an educational one that determines your responsibility using the principle of "preponderance of evidence." If found responsible, and depending on the nature of the dishonesty and whether or not you have a disciplinary record, you could face one of several sanctions.

Parents and guardians may be informed, faculty committees awarding honors will be notified, and the case may remain on your permanent record meaning that employers and graduate schools may also be informed. These sanctions are in addition to whatever determination the instructor makes on how your final grade in the class will be affected."