INTRODUCTION. This course explores the conventions of the representational language of architecture. Two dimensional orthographic projection and three dimensional elaborations will be used to analyze space, and will be investigated for their ability to reveal and conceal physical and social relationships. Particular emphasis will be placed on the revelatory value of this abstract language; a language that is both a concise method for abstracting architectural space, and a generative method for speculating on design.

The course is comprised of a series of projects that allow for the sequential development of both technical skills and conceptual thinking. First the studio will focus on the translation between two and three dimensional spatial systems through an abstract problem moving from full-scale environment toward two dimensional representation of social relationships following the conventions of plan and section drawing. Then the focus will shift to the city as a field of inquiry for the observation and transformation of abstract urban systems.

PROJECTS for this course will require creative thinking and precise execution with refined craft in the service of ideas. Through engagement and participation in the studio process students will be expected to:

VISUALLY communicate architectural concepts and design intent using discipline-specific techniques including:

- orthographic projections (plans, elevations, sections)
- paraline drawings (axonometric and isometric)
- physical models with various methods and materials
- multiple media and combined representational strategies

VERBALLY communicate architectural research methods and spatial concepts.

DEMONSTRATE an understanding of precedent and site analysis.

UNDERSTAND that the design method is a step-by-step, iterative and incremental process of research, synthesis and feedback.

ENGAGE in design thinking as responsive to and shaper of social and cultural context.

DEVELOP the ability to work independently and collaboratively.

DEMONSTRATE an understanding of historical and theoretical contexts for representational conventions.

WORK with a range of analog and digital techniques in the design process.

UTILIZE digital fabrication technology in the design process.
METHOD. This course is based on the studio method in which students respond to design problems over an extended period of time guided by feedback from the instructor and fellow students. In some ways the design studio is similar to a science lab where project based learning occurs in an open environment. Each exercise is open-ended; students are encouraged to explore multiple solutions to a design problem before developing the final proposal for each project. Collaboration is encouraged as the information shared between students reveals alternative approaches to the design problems.

Class time will be divided into individual critiques with the instructor, group discussions and presentations. Presentation of work will be either informal (pin-up) or formal (review). In both cases students are expected to present their work intelligently (visually and verbally) in order to instigate a discussion about the ideas in their work.

PREREQUISITES: This is an introductory course for students interested in making 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 other methods and techniques of spatial representation.

GRADING: is based on the conceptual strength of your work, the development of your project, and technical execution. Creative risks are encouraged and will be rewarded. Attendance, participation in group discussions and improvement throughout the semester will all be factors affecting your grade.

ATTENDANCE: Attendance is mandatory at the scheduled class time. Three consecutive absences or four non-consecutive absences will mean that you have dropped the course. The only excused absences are those for reasons of health or crises, and must be justified with written documentation. Three late arrivals (20 min. after beginning of class) or missing a group review will lower your grade by one-half-point. You may not leave class early and you should always plan to use the time you spend in class productively.

STUDENTS WITH DISABILITIES who will be taking this course and may need disability-related accommodations are encouraged to register in advance with the Office of Disability Services (ODS) in 008 Milbank for Barnard students or Disability Services at Wien Hall, Main Floor — Suite 108A for Columbia students.
EQUIPMENT. Projects for the course require the use of basis architectural tools and supplies. Tools are implements used to accomplish the fabrication of the studio projects - they should be durable and last the duration of this course and beyond. Supplies are an estimated amount of material necessary for use, along with the architectural tools, on the studio projects - they may need to be replenished during the semester. Your tools and supplies should be carefully stored and maintained. You will be expected to bring all necessary tools and supplies to each class. No excuses for incomplete work should be made for lack of equipment, please make sure that you have access to all necessary materials at your workspace. Consider this the equivalent of book fees for the course.

TOOLS
Portable drafting board with parallel rule – 24” x 36” (or larger)
*Alternative – (or for first assignment) 1/8” white board and 24” T-square - wood, metal or plastic edge
Cutting surface (30” x 40” piece of 1/8” chipboard)
24” stainless steel straight edge ruler with cork bottom
8” or 10” 30/60 degree triangle
8” or 10” 45 degree triangle
Lead Holder(s)
Lead Pointer
Pencil Sharpener
Olfa knife with 1/2” snap off blades
X-acto knife with #11 blades
6-sided architectural scale
Erasing Shield
Digital camera

SUPPLIES
Drafting Leads (2B, HB, F, H, 2H, 4H)
Sketching Pencils - General or Sanford #314
Black permanent markers (Sharpie or Alvin)
White pencil eraser
24” roll of white or buff colored tracing paper
Sheets of 1/16” chipboard (at least 3 30 x 40 sheets)
White Sobo glue
Uhu glue stick
Masking tape / artist tape
Scotch tape
Sketch book

SUPPLY LOCATIONS:
New York Central Art Supply - 62 3rd Avenue (the best source for materials and information)
New York City
Urret / Blick – city wide
New York City (the closest, not the best)
STUDIO. Students will explore various analytical, conceptual and design approaches to examine existing and potential spatial and programmatic conditions. Students will use and experiment with various modes of representation (collage, sketching, orthographic drawing, physical models). Students are encouraged to address architecture through current interests and developing representational skills. Studio work will be integrated with field trips on campus and in the city.

PROJECT 01: **Diagram a System**  
10% of Total Grade

PROJECT 02: **Build a Strategy**  
25% of Total Grade

PROJECT 03: **Graphic Analysis** in Adobe Illustrator  
25% of Total Grade

PROJECT 04: **Construct an Environment** at a site  
to be announced  
40% of Total Grade

*F. Detail, Manhattan Transcripts, Bernard Tschumi, 1976 - 1981*
### SCHEDULE

#### Barnard / Columbia Architecture Program

**ARCHV3101_001_2016_1**  
M/W 9:00 - 11:50  
rrouhe@barnard.edu

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*F Plan View, Time Bank, student model, 2014*

*G. Still, Playtime, Jacques Tati, 1968*

*H. Life Without Objects, Superstudio 1971*

*I. Graph Paper Architecture, Saul Steinberg, 1954*
BK 01: Graphics for Architecture, Kevin Forsyth, Wiley and Sons, 1980
BK 03: Pamphlet Architecture 1-10, Princeton Architectural Press, publishers, 1998
BK 04: Translations from Drawings to Buildings and Other Essays, Robin Evans, Architectural Association, 1997
BK 05: How to Lie with Maps, Mark Monmonier, Univ Chicago Press, 1991
BK 07: Structures for Reflection, Allen Wexler, Neuer Folkwang-Verlag Hagen, 1993

CIN 02: Man with a Movie Camera, Dziga Vertov, Soviet Union, 1929
CIN 03: Five Obstructions, Lars von Trier and Jorgen Leth, Denmark, 2003
CIN 04: Playtime, Jacques Tati, France, 1973
CIN 05: La Jetee, Chris Marker, France, 1962
CIN 06: The Way Things Go, Switzerland, 1987
CIN 07: Wings of Desire, Wim Wenders, Germany, 1996
CIN 08: Powers of 10 - The Films of Charles and Ray Eames, 1968

WEB 01: http://www.spatialagency.net.com/
WEB 02: http://bldgblog.blogspot.com/
WEB 03: http://welcometocup.org
WEB 04: http://www.archpaper.com/
WEB 05: http://lifewithoutbuildings.net/
WEB 06: http://www.deathbyarchitecture.com
WEB 07: http://www.plataformaarquitectura.cl/
WEB 08: http://nyc.thepublicschool.org/
WEB 09: http://archigram.westminster.ac.uk/