INTRODUCTION
This course explores the representational language of architecture - the conventions of the language, and the unconventional implications of working graphically and in “scale”. Both two-dimensional methods - orthographic projection (plan, section, elevation) - and three-dimensional elaborations - axonometric drawings and models - will be used to analyze space, and will be investigated for their ability to reveal and conceal relationships in space. Emphasis will be placed on the revelatory value and limitations of this abstract language, and how this language is both a concise method for abstracting architectural space - an analytical tool - and a generative method for speculating on design and sparking conceptual ignition.

METHODOLOGY
The course is comprised of a series of projects that allow for the sequential development of both technical skills and conceptual thinking. The first focus of the semester will be on the relationship between two and three dimensions through a conceptual problem that moves from analysis and mapping to a spatial model, using both manual and digital techniques. The course will then explore the language of lines and visual vocabulary. We will work on two-dimensional, orthographic representations of the spatial models, and photographic layouts manipulated through Photoshop. The focus will shift to the built work of visionary designers and architects, both at the scale of the body (sensorial environment / furniture) and the scale of the body in space (rooms and buildings). We will analyze this work through a sequence of processes - documentation, analysis and intervention - and end with a visionary experimental work of our own. All stages of this studio process require creative thinking and precise execution with refined craft in the service of ideas.
FORMAT

The course is based on the studio method, in which students are expected to work independently to develop their thinking/making, with regular critiques from a faculty member and teaching assistant. Class time will be divided into individual dialogues or critiques (desk crits) between student and critic, open discussions, student presentations, and/or informal lectures. Presentations of work will be public - either informal (pin-up) or formal (review). In both, students are required to intelligently (visually and verbally) present their work in order to instigate a discussion/critique about ideas in their work. The studio method requires a commitment to the design process – an iterative process with an expectation for risk taking and experimentation. There are no “correct” answers for many of the questions that arise during desk crits – only suggestions for ways to approach research. We expect you to establish your own research question(s) based on the project and to develop a graphic argument to support it. The development of your project, the rigor of your research, the clarity of your representation, the presentation of your design are all significant parts of the evaluation of your work – not just the final product.

PRE-REQUISITES

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 methods and techniques of spatial representation.

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 (i.e. a note from a physician or the Dean). 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.
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 scholars’ 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.

SECURITY
- Provide your own lock for the locker.
- Studio door should be locked at all time. This is for your and safety and the security of your belongings. Your ID should allow you in the room once the the dept. has passed info to security.
- No spray painting or fixative is permitted in the studio. It is extremely toxic.
- If you wish to work in the studio during other scheduled classes, please do so quietly.
- Work kept under your desk should be placed in a box and labeled, "Do not throw out." Blades should be wrapped up before being discarded.
- See standard studio room rules and security text provided by department.

STUDENTS WITH DISABILITIES
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.

GRADING
Projects are evaluated according to the student’s success in fulfilling the objectives of the project with emphasis on creative problem solving, process, development, imagination and the rigor of individual interest and output. Assignments and verbal brainstorming will identify the key concepts and criteria for projects. Students should target these key issues when producing work. Progress in craft, creative exploration and personal growth should be visible through the duration of the exercise. Process work will serve an important role in the development of a successful concept and the final manifestation of an idea. As such, evidence of the development of a work will play a significant role in determining student’s overall grade at mid-semester and at the end of the term. Students’ analytical and
critical abilities will be developed through critiques and written assignments in response to reading material or problems given in class. Development in these areas will also be factored into each student’s evaluation and grade at the end of the semester. Attendance, group discussions and improvement throughout the semester are important factors as well. You will be given a midterm review of your work and a final grade. Individual reviews with your critic (written and in person) and both daily and at the midterm, will help you to guide your work and evaluate your strengths and weaknesses. There are no incompletes. Work for each problem must be completed within the specified time frame allotted. Some work will be held for the end of the year exhibition.

STUDENT LEARNING OBJECTIVES
- 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 concepts
- 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 digital fabrication technology in the design process

SKETCHBOOK
Students are required to maintain a sketchbook that will contain all drawings, sketches, notes, etc. This is an important supplement to the studio, and a place to begin to develop a consistent design process. It is also a great storehouse for drawings, when it comes time to make a portfolio of your work.

TOOLS AND SUPPLIES / EQUIPMENT
Projects for the course require the use of basic 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
- Scissors
- Digital camera (Phones are fine)

AS NEEDED
- Compass
- French curves (come in a set)
- External hard drive
- At a later date, students will need to purchase Bristol Board, double sided Mylar and other papers and Model making materials

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
- Sketchbook
For our next class you will need the following materials, in order to work on the current project:

- pencils
- pens
- eraser
- sketch paper, sketchbook
- trace paper
- scissor
- tape
- straight edge

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 (13th Street between 5th and University.) (also cheap)
<table>
<thead>
<tr>
<th>week</th>
<th>date</th>
<th>class</th>
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<tbody>
<tr>
<td>1</td>
<td>W: 07 Sept.</td>
<td>ORIENTATION // <strong>Project A: Tectonics</strong></td>
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<tr>
<td>3</td>
<td>M: 19 Sept. W: 21 Sept.</td>
<td>In class work In class work</td>
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<tr>
<td>4</td>
<td>M: 26 Sept. W: 28 Sept.</td>
<td>In class work In class work</td>
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<tr>
<td>5</td>
<td>M: 03 Oct. W: 05 Oct.</td>
<td>In class work <strong>PINUP Project A // Project B: Stereotomics</strong></td>
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<tr>
<td>7</td>
<td>M: 17 Oct. W: 19 Oct.</td>
<td>In class work In class work</td>
</tr>
<tr>
<td>9</td>
<td>M: 31 Oct. W: 02 Nov.</td>
<td><strong>Project C: Site NYC</strong> // Urban Analysis I // Diagrams III (Photoshop I // Rhino III) In class work</td>
</tr>
<tr>
<td>10</td>
<td>M: 07 Nov. W: 09 Nov.</td>
<td>Academic Holiday In class work</td>
</tr>
<tr>
<td>11</td>
<td>M: 14 Nov. W: 16 Nov.</td>
<td><strong>PINUP Project C // Project D: NNYC</strong> Orthographic III (Photoshop II // Rhino IV) In class work</td>
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<td>12</td>
<td>M: 21 Nov. W: 23 Nov.</td>
<td>In class work In class work</td>
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<tr>
<td>13</td>
<td>M: 28 Nov. W: 30 Nov.</td>
<td>In class work In class work</td>
</tr>
<tr>
<td>14</td>
<td>M: 05 Dec. W: 07 Dec.</td>
<td>In class work In class work</td>
</tr>
<tr>
<td>15</td>
<td>M: 12 Dec.</td>
<td><strong>FINAL PRESENTATION</strong> (One Book + Physical Models)</td>
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The schedule is subject to adjustment during the course of the semester based on the progress of the entire studio group from one project to the next. Any schedule conflicts due to religious or health reasons, etc. should be brought to the attention of the studio instructor.
B+B A
Barnard and Columbia Architecture

Architectural Representation: Abstraction

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TEXTS & REFERENCES

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: Graphics for Architecture, Kevin Forseth, Wiley and Sons, 1980

CIN 01: Metropolis, Fritz Lang, Germany, 1926
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 07: Wings of Desire, Wim Wenders, Germany, 1996
CIN 08: Powers of 10 - The Films of Charles and Ray Eames, 1968

WEB 01: http://archidose.blogspot.com/
WEB 02: http://bldgblog.blogspot.com/
WEB 03: http://www.archinect.com/
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/