

Course Number and Title: ARCH 152 / Architectural Drawing II / 3.0 Credits

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PROJECT 1: Rendering Space and Form with Light

The physiological and psychological effects of light (and its companions, shade and shadow) are important considerations in the design of most spaces. Whether light is artificial or natural, direct or ambient, architects rely upon this temporal feature to enliven static spaces, draw occupants in and around, and create drama through the definition of form and definition of fore-, middle- and background spaces.

Assignment 1, complete in class Week 1 due 1/12/10 (Section 1) or 1/14/10 (Section 2)

- Observe the chairs set up in the classroom.
- Using dark media (charcoal or colored pencil) on white paper, draw the effect of shade as it reveals the form of the chairs. Use techniques of hatch, cross-hatch and tonal rendering to depict the qualities of the materials' reflectivity and luminosity.
- Repeat the exercise using light media (white pencil) on dark paper, looking for the effects of light as it, too, reveals form.
- Complete a final drawing on newsprint using light and dark media together to build the chair from light and shade.
- Scan these drawings and save them at 300dpi, entitled YourName_P1A1_Detail#.JPG.
- Create 72dpi versions to post online on your Journal.
- Upload both versions (300 & 72 dpi) to AW Storage.



Assignment 2, begin in class Week 2, due 1/19/10 (Section 1) or 1/21/10 (Section 2)

Supplies required: black and white paper, soft graphite pencil and white prismacolor pencil, sharpener, sturdy 12"x18" surface (ie, cardboard or masonite) to lean on while drawing.

- Visit the Fischer Fine Arts Library Main and Rotunda Reading Rooms on the University of Pennsylvania campus. Observe the effects of light and shadow on the space and the objects within it.
- Select two details from the architectural elements observed. One detail should be selected because of the effects of *light* on its form; the other detail should be selected due to effects of *shade and shadow*.
- *Note: Do not draw the outline of the object – instead, build the detail from rendering only.*
- The “shade” detail must be drawn freehand on white paper in dark media and the “light” detail on dark paper in white media. Draw each detail at a large scale such that they fill each page.
 - Build each component of the detail separately, looking at the *shape* of light or shade
 - Use relative proportions of elements to recreate each detail on the page
 - Use geometry to aid in establishing alignments between elements
- Rendering must be carefully executed and may utilize hatch, cross hatch and smooth rendered tone.
- Scan the drawings at 300dpi, entitled YourName_P1A2_Detail#.JPG. Create a 72 dpi to post online on your journal. Upload both versions to AW Storage.

Assignment 3, complete in class Week 3, due 1/26/10 (Section 1) or 1/28/10 (Section 2)

Diagramming and analysis: to be discussed in class

Assignment 4, assign at end of class Week 3, due 1/26/10 (Section 1) or 1/28/10 (Section 2)

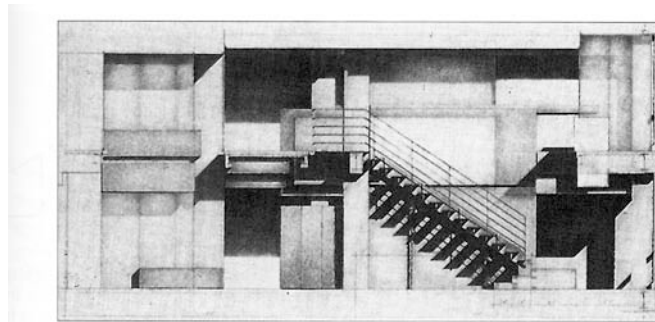
- In graphite, draft a *partial plan* and the corresponding *longitudinal section* on a sheet of drawing-quality paper using appropriate line weights. Orient the page vertically; draft at 1/8"=1'-0" scale; include a north arrow.
- Construct the location of shade and shadows on *trace paper as overlay drawings in section* for next week, using the technique of shade and shadow projection discussed in class.
- You may draft an additional *reference cross-section* on trace paper to aid in shade and shadow construction.
- Assume a sun altitude of 45-degrees and a bearing (azimuth) angle of 45-degrees to the southwest.
- Refer to *Design Drawing* pp. 164-171, "Shade and Shadows."

Assignment 5, begin in class Week 4, due 2/2/10 (Section 1) or 2/4/10 (Section 2)

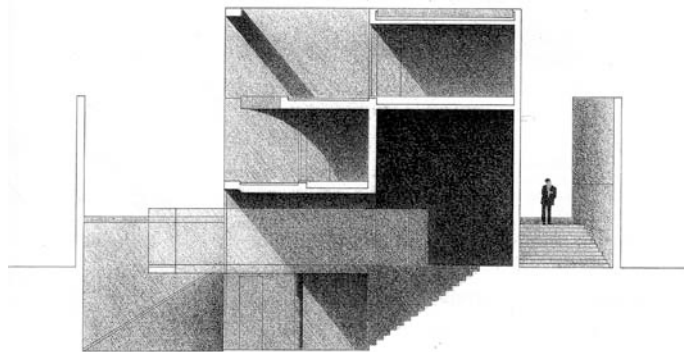
- After reviewing your work with your instructor, transfer the constructed shadow projections to the final drawing.
- Render shade and shadow using the technique of *rendered tone* (*hatch, cross hatch or smooth tonal rendering*).
- Use different tonal values to convey depths: *foreground objects are lighter, background objects are darker*.
- Hand-letter your name and the drawing title on the final drawing be prepared to present it in class next week.
- Scan the drawing at 300dpi, entitled YourName_P1A5.JPG. Create a 72 dpi version to post online on your journal. Upload both versions to AW Storage.



Ink wash section, Richard Morris Hunt, Circular Stair, 1846



Drawing: The Stainless Steel Apartment, Chicago, Illinois
36" x 24" (91.4 x 61 cm), Scale: 1/2"=1'0"
Medium: Colored pencil
Courtesy of Krueck & Sexton, Architects, and
Ludwig Mies Van der Rohe, Building Architect



Drawing: I Gallery, Tokyo, Japan
429 x 297 mm (16.9" x 11.7"), Scale: 1:100
Medium: Colored pencil on the copy of the inked drawing
Courtesy of Tadao Ando, Architect