

Department of Architecture
School of Architecture and Allied Arts
University of Oregon

ARCH 281 Fall 2005 Intermediate Architectural Design I

ASSIGNMENT 8: THE PART AND THE WHOLE
ROOM STUDY AND CONCEPT CONSOLIDATION



Los Angeles Cathedral by Raphael Moneo

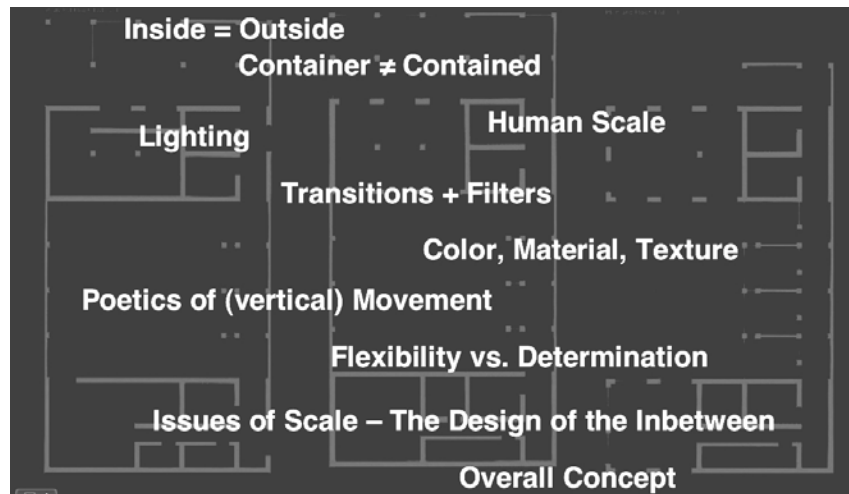
- OBJECTIVE**
- To explore an interior with scaled models, photographs and digital manipulation
 - To develop how daylighting enhances the functional, spatial and sensory qualities of a space

INTRODUCTION Consider your design concept and look at how it can be strengthened and complemented through interior development. How can the feedback of the second midterm be adapted to resolve issues about your design?

- DESCRIPTION**
1. List design objectives for your chosen space, describing the ambiance, atmosphere, and character, considering your overall design concept.
 2. Build a well-crafted working model at ¼" or ½" scale of the space addressing the following:
 - Lighting
 - Color & Material qualities (i.e. rough, shiny, transparent, soft...)
 - Thickness and connections of the envelope and partitions
 - Relationship to circulation & other user activities
 - Ergonomics (include scale figures or major furnishing)

For a daylit space, adjust the model to guide the daylight towards your objectives: adding/subtracting windows, light shelves, skylights, light wells, roof monitors, and shading controls. Pin or tape in alternative possibilities.

Model the size of the openings accurately. Model the mullions and translucent but not clear glazing. Surface reflectivity matters more than color, see the online material reflectance reference. Use opaque materials, such as black foamcore with a lining, for opaque walls. Make sure all cracks are sealed by using black electrical tape to seal the corners and joints.





Lighting Study Model

3. Take digital model shots

Simulate different lighting conditions (night, dusk, daytime) with sunlight and different artificial light sources. Photograph at least 3 contrasting conditions as a basis for reworking and further design investigation. Use a sun peg chart to examine the interior for June 21, Sept 21 and Dec 21. Develop the images in Photoshop to include in your final presentation, collaging partial views to show a complete interior view.

Take pictures from eye level, using wide angle or macro settings

Partner to act as each others photo assistant



Room and Light Study by Chris Young – ARCH 681, Bleher Studio – Fall Term 2004

4. Revise & consolidate your overall design

Assess the photographs to determine if your objectives were achieved and document revisions including changing materials and/or aperture size to compare with original scheme. \ Adjust your overall model & drawings to incorporate your new insights about your concept.

RESOURCES

- Marietta S. Millet, [Light Revealing Architecture](#)
- Daylight Modeling by B. Rippe, N. Cheng and J. Theodorson
<http://design.uoregon.edu/281.05/p.cheng/ppt/Daylighting3.pdf>
- Lighting Design Lab, Seattle: [Daylight Model Tips and Tricks:](http://design.uoregon.edu/281.05/p.cheng/handouts/dayltg_tips.pdf)
http://design.uoregon.edu/281.05/p.cheng/handouts/dayltg_tips.pdf
- Material Reflectivity References
<http://design.uoregon.edu/281.05/p.cheng/handouts/reflectivity.pdf>
- Sun Peg Chart
http://design.uoregon.edu/281.05/p.cheng/handouts/sunpeg_chart.jpg