

## Architecture, Design & Materials Studio

Spring 2007, CMU, Arch #48-205, M/W/F 1:30-4:20  
Class Website: [www.andrew.cmu.edu/course/48-205](http://www.andrew.cmu.edu/course/48-205)

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Off. Hr: M/W 12:30-1:30pm & by appt. in MM307

(7/16/07)

## PROJECT 2: BUILDING STUDY (M&A)

### MINDSET

The single most important source, and tool, for learning about architecture, is architecture. This is never more true, than when studying the materiality and unique construction of great works of architecture.

This graphic and modeling assignment will focus on two important issues pertaining to the making of architecture. The first is to understand how designers use structure & materials to inform space or, at times, use space to inform structure. The second aspect of this assignment is to study how details can be used to create a thematic whole to the building of which they are apart.

### WORK PROCESS:

Depending on your studio instructor, each student will choose or be assigned a building to study over the course of the semester (see next page for final list).

The first step is to gather as much documentary evidence of the design of your building as possible, from the overall context, to the detail level, from as many sources as possible (internet, library, books, journals, foreign language sources, letters to the building owner, etc.). Thorough research takes time: your instructor may send you back several times to look for images or drawings of relevant parts of the building, or ask you to draft to-scale plans from photos, if accurate drawings seem unavailable. Create a large poster-sized exhibit about the "Materials & Assembly" aspects of your building so that your whole studio can learn from the building.

Once you understand the basic formal principles, materials experiences, and construction details of your building, determine how to re-represent these ideas. While a certain level of abstraction is always necessary in making a drawing or model, an attempt must be made to maintain the essence and accuracy of the building. Through sketches, axonometric drawings and a chip board model, analyze any two of the following aspects of your building:

1. Structure: Primary and Secondary
2. Structure: Structural System 1 & 2, # etc.
3. Enclosure: Skin/ envelope
4. Components: How the assembly of small parts lead to form and space
5. Material: How primary building materials lead to form and space
6. Material: How the ground or roof plane is manipulated
7. The relationship of circulation to structure
8. Loadbearing to non-loadbearing

### DELIVERABLES

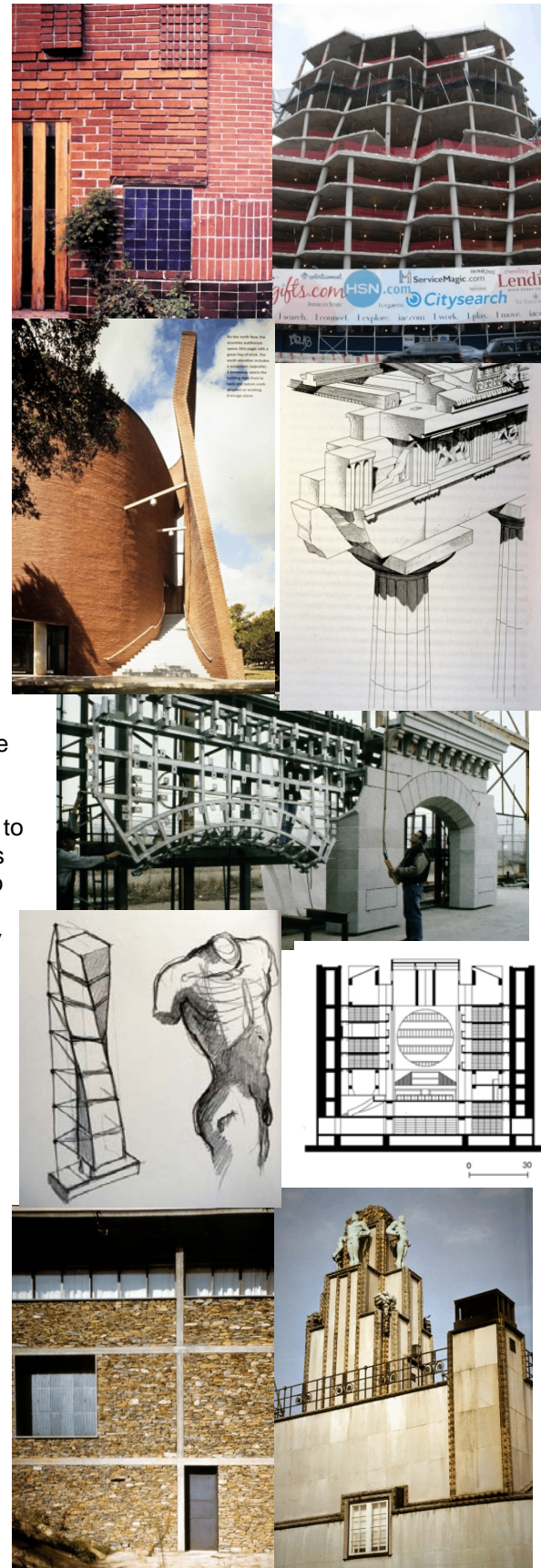
Every student must create at least one large scale analytical drawing, and one analytical model of their building, and must prepare a 2-page "template" about the analysis of your building. Individual studio instructors will add more requirements, as appropriate.

### Readings:

*The Architecture of the Well-Tempered Environment* by Reyner Banham

"Slowness", T. Williams & B. Tsien (on course website)

"Is Drawing a Lost Art?" Bill Bouchey



BUILDING ASSIGNED / SELECTED, Spring 2007

**CALISTI STUDIO, PROJ.2, "BUILDING STUDY"**

Wood

Santiago Calatrava, Bodegas Ysios, Laguardia, Álava, Spain [**C. Folliard**]

Bohlin Cywinski Jackson, Ledge House, Maryland, 1995 [**C. Helmstetter**]

Metal

Santiago Calatrava, Lyon Airport Station, Satolas, France, 1994 [**P.**

**Warman**]

Steven Holl, Sarphatistraat Offices, Amsterdam, Netherlands 2000 [**J.**

**Paceley**]

Charles and Ray Eames, Eames House, Pacific Palisades, CA, 1945-49 [**P.**

**Patel**]

Concrete

Tod Williams and Billie Tsien, Neurosciences Institute, La Jolla CA, 1993-95

[**J. Williams**]

Eero Saarinen, Dulles Airport, 1958-62, Chantilly VA [**D. Reeves**]

Louis Kahn, National Assembly in Dhaka (Dacca), Dacca Bangladesh, 1962-74 [**R. Bottini**]

Masonry

Le Corbusier, Maison Jaoul, Neuilly-sur-Seine, Paris, France, 1956 [**D.**

**Taccioli**]

Eero Saarinen, MIT Chapel, 1957 [**D. Kennedy**]

Mario Botta, (with HOK SF) Museum of Modern Art, San Francisco, CA 1989-1995 [**R. Roll**]

**DAMIANI STUDIO, PROJ.2, "BUILDING STUDY"**

Steel:

Pierre Chareau, Bernard Bijvoet, Maison de Verre, 1930- Gregson

Jean Prouve, Maison du Peuple/ Covered Market in Clichy, 1939- Azoulai

Eero Saarinen, John Deere Headquarters, 1964- Cohn

Le Corbusier, Pavilion des Temps Nouveaux, Paris, 1937- Kuhns

Wood:

Le Corbusier, House for M. Errazurie in Chili (project), 1930- Topinka

Antonin Raymond, Karuizawa Summer House, 1933- Park

Le Corbusier, Maison aux Mathes, 1935- Perry

Concrete:

Le Corbusier, Millowners Building, 1954- Yankowski

Louis Kahn, Richards Medical Research Building, 1965- Tanski

Giovanni Michelucci, Chiesa dell Autostrada, 1964- Varshavsky

Masonry:

Le Corbusier, Houses Jaoul at Neuilly-sur- Seine, 1956- Silverstein

Eero Saarinen, MIT Chapel, 1957- Rachavaks

Sigurd Lewerentz, St. Peters, 1966- Butchko

**LUBETZ STUDIO, PROJ.2, "BUILDING STUDY"**

Wood

Mitsu- Shigeru Ban, IMAI Hospital Daycare Center, Akita Japan

Yifei- Santiago Calatrava, Bodegas Ysios, Laguardia, Spain

Woobok- E Fay Jones, Tom Crown Chapel

Metal

Chang- Renzo Piano & Richard Rogers, Centre Pompidou, Paris, France

Kaitlin- Frank Gehry, EMP, Seattle, Washington

Erin- Santiago Calatrava, Athens Olympic Sports Complex, Athens, Greece

Concrete

Nico H.- Peir Luigi Nervi, De Re Aedificatoria, Mexico

Yarden- Moshe Safdie, Yad Va'Shem Holocaust Museum, Jerusalem, Israel

Jeff- Kendrick Bangs Kellogg, River Restaurant, Florida

Craig- Zaha Hadid, Phaeno Science Center, Wolfsburg, Germany

Masonry

Lexi- Seok-gui-Ahm, Cheon-Joo, Korea

Niko T.- Louis Kahn, National Assembly Building, Bangladesh

Jared- Louis Kahn, Exeter Library

**WOLFF STUDIO, PROJ. 2, BUILDING STUDY**

Masonry

Naeun Choi, Dominus Winery, Herzog and deMeuron

Patrick Kim, Thermal Baths, Peter Zumthor

Stephen Sun, Hollyhock House, Frank Lloyd Wright

Concrete

Nelly Dacic, Kimball Museum, Louis Kahn

Raedun Knutsen, Dulles Airport, Eero Saarinen

Jaeyoung Park, Leeum Museum, Rem Koolhaas

Metal

Chris Gallot, Rookery Courtyard, Frank Lloyd Wright

Patricia Rivera, Guggenheim Bilbao, Frank Gehry

Jon Spring, Arizona Stadium, Peter Eisenman /HOK Sport

Wood

John Hsu, Finnish Pavilion, Alvar Aalto

Daniel Zhang, PS 1, ShoP