#### (1/16/06)

# S'06 Syllabus

CONSTRUCTION: "The action of framing, devising, or forming by putting together parts systematically; see also assembly, building, structure, erection, conformation, disposition."

### OVERVIEW:

Building on the fall "Composition" studio, the spring semester is concerned with more in-depth understanding and development of designs for small-scale buildings, now informed by greater knowledge related to materials and the act of construction. We seek to explore the aesthetic and experiential meaning of materials (WHY?), and the technical knowledge related to the use of materials and the processes of construction (HOW?). The creative opportunities and design implications of using varied materials, structural systems, and assembly techniques are elaborated, especially as they determine the *artistic, conceptual, poetic, creative, spatial, and experiential* aspects of architecture. The studio and the lectures focus on the application and integration of knowledge acquired in a parallel "Materials & Assembly" course.

Objectives: To analyze and think critically about the role that materials, assembly methods, and construction play in existing architectures, and applying this with intent as part of a larger, synthetic and creative design process in your own designs. To define strategies for problem solving, conceptual development and poetic expression at all levels of the design process, large and small, conceptual and real. To develop structured arguments about your design intentions and the means to communicate them effectively, especially with regard to materials and construction. As in the fall, the focus of both the teaching and learning must be in 6 areas: 1) <u>Attitude; 2) Verbal Acuity; 3) Drawing Clarity and Power; 4) Robust Models;</u> 5) Conceptual Clarity and Richness of Detail; 6) Theory.

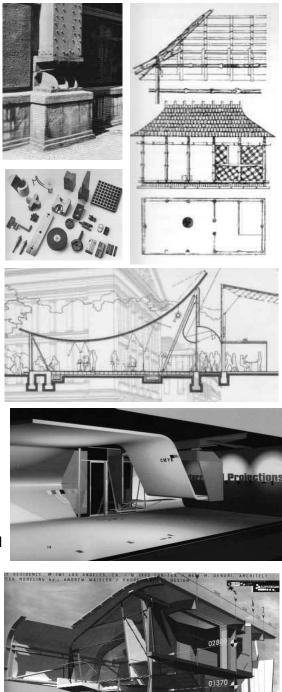
### PROJECTS:

Each of the studios will approach the theme of design, materials and assembly differently, but all students are expected to explore a broad spectrum of design strategies at every opportunity. The instructors will present a series of lectures and guide a series of discussions based on required readings.

The semester will consist of a single extended project, broken down into distinct phases of research and design:

- Phase I: all studios will design a portable or demountable library pod using a 40ft. container. The focus will be on the human body encountering the materiality of books and architecture in a small scale design. The problem will include distinct research into a limited palette of materials.

- Phase II: research results from the first phase, especially knowledge about materials, and the interaction with books, will be used for the design a neighborhood library. We will focus on the role of materials and assembly in reference to context, function, experience, space, and meaning. Near the end of the project, we will do further research into the design of a building detail (e.g entry, wall section, shelving or circulation desk). Details about the site, program, and final requirements will be announced after Phase I.



### Arch. 48-205 -- Architecture, Design & Materials Studio, Spring 2006

LECTURES: In addition to studio, there will be a series of communal lectures related to the studio projects and on architectural theory (M,F 1:30-2:50, MM103, see schedule for details). You are required to attend ALL lectures, to take notes, and to be prepared to discuss the lecture in studio and in some in-class exercises. Integrate what you learn and see in lecture into your design work. In addition, students are expected to take advantage of the excellent and diverse lectures and cultural events offered in the School, College, University, the Carnegie Museum of Art, and many related institutions in the city through the "Passport" program.

**READING ROUNDTABLES:** In order to continue expanding your acquaintance with a wide range of design philosophies and theories, there will be a series of discussion "roundtables" related to reading packets that will be distributed. It will be your responsibility and challenge to differentiate and synthesize the different viewpoints, discussions, and assignments, and use them to develop your own robust design process.

SEMESTER SKETCHBOOK: As in the first semester, a sketchbook (8.5"x11" black spiral bound recommended) is required. Instructors want to "see your work." You should save and date all sketches, study models, photos, ideas, etc., and keep them in your sketchbook and/or an ordered portfolio for review at the end of each project and semester. Make a conscious effort to record your design process, especially through your sketchbook. Make every sketch

worthwhile and worth saving to show and record the progress of your ideas. Put all your effort, focus and attention into each piece. A sketchbook is an invaluable tool in the design process and life of an architect. This is especially the case in a studio whose focus is architectural composition, conceptual thinking, and designing opportunities for unique architectural experiences. The sketchbook is a resource for exploring, understanding, recording, and questioning what we can see, hear, and experience about architecture, in studio, in lectures related to architecture (history, statics, drawing), during self-motivated research and reading, on site visits and field trips, and in the world around you. It is a place to work spontaneously and experimentally with new and unfamiliar ways of working, thinking, and communicating. It is a space for critical thought, dialogue, and reflection. It is an opportunity to orchestrate observations and ideas over time, a reservoir for synthesis of many disparate thoughts and inspirations. The sketchbook is a trace of your thought process where inter-connections, both purposeful and serendipitous, should come to life and influence your design.

**PROJECT DOCUMENTATION:** Communicating your ideas clearly, and documenting your work effectively is a crucial part of the design process and becoming an architect. As part of an effort to record your work for the future, especially for website and portfolio, all students will be REQUIRED to create effective and graphically well-designed project documentation sheets (8.5"x11" pages, submit hardcopy, low-res & hi-res pdf files) of all their designs after each review. See the studio website for details.

TA WORKSHOPS: Our TA Andrew Caruso (acaruso@andrew.cmu.edu) will hold regular sessions to offer advice and teach skills to help insure success in 2<sup>nd</sup> year, including workshops on project documentation & portfolio, presentation & media, time management, etc.

**BIBLIOGRAPHY / RESOURCES**: Make a habit of reading more! For useful readings, see the handouts, studio website as well as the library research guide for architects. Some suggested readings to approach the issue of "New Materiality":

"New Materiality," 2 special issues of <u>a+t</u> (2005) "Liquid Stone," exhibit and forthcoming catalogue Buchanan, Renzo Piano: Complete Works Zumthor, Thinking Architecture Holl, Experiments in Porosity (2005) Ketcham, <u>The de Young in the 21<sup>st</sup> Century (2005)</u> Quantrill, Plain Modern: Arch. of Brian Mackay-Lyons Glen Murcutt: A Singular Arch'l Practice (2002)

Mori, Immaterial / Ultramaterial (2002) "Innovation," supplement to Arch'l Record (11/05) Weston, Materials, Form & Architecture (2003) 4x4 Series: <u>Cool Construction</u>, <u>Techno Architecture</u>, <u>Radical Tectonics</u>, <u>Concrete Regionalism</u> Tsien & Williams, <u>WorkLife</u> (2000)

In order to keep up with the latest developments in architecture, and to become acquainted with the professional culture, issues and communications of architects, go to the 4<sup>th</sup>-Floor periodicals area in Hunt Library at least once a month to review the latest magazines. Some of the best:

AA Files	
AD: Arch'l Design	
Architectural Record	

Architectural Review Arch. + Urban. (A+U) Blueprint

Casabella El Croquis Domus

Grey Room Harvard Architectural Mag. Metropolis



#### THE DESIGN STUDIO

<u>Room Assignments</u>: Studio spaces in Margaret Morrison Carnegie Hall (MMCH) are assigned as follows: Damiani & Calisti 313 & 317 // Wolff 314 // Lubetz 315 // Galford 318.

<u>Space</u>: Your foremost intention as an architect is to create space that will improve the human condition. The studio environment is no exception. You are expected to make and maintain the studios as the best possible places for exploration and expressing architectural ideas. Keep the studios neat, clean and professional looking. Clean up the space around you regularly. Share the space, desks, and wall space.

<u>Collaboration</u>: Architecture is by definition a collective venture, with many different people contributing to the final products. The design studio should be, too. Make your design process a collaborative one with your instructor and fellow students. Be considerate of your neighbor and instructors. Share inspiration, information, and responsibilities freely. Be supportive of each other, respect character and personality differences. Since your greatest growth comes from peer review and discussion, working in the studio on studio projects (except shop and computers) is required. Avoid working in the dorms. Work to be a positive force in the studio environment.

Intensity & Time: Be efficient, learn to develop good time-management skills. As an 18-unit course, you should spend a minimum of 18 hours per week working in the studio (includes class time). In an effort to maximize your work efficiency and time management skills, studio sessions should be intense. You are expected to participate actively in all discussions and pin-ups. Unsupervised time during desk crits should be highly productive and self-motivated.

<u>Attendance</u>: Design studio is the backbone of your architectural education. You are required to attend every studio, including all the lectures. Absence without a valid excuse will result in grade reductions. If you cannot make it to class, always notify your instructor *in advance*. More than three un-excused absences can result in automatic failure of the course. You are expected to be on time for the start of class at 1:30, and stay in class through the end of studio at 4:20, or longer for reviews or if your instructor expects it (except for approved extra-curricular activities). Lateness, excessive coming-and-going, and leaving early are disruptive, disrespectful, and unacceptable.

<u>Forbidden</u>: No food, audible music or <u>cell-phones</u> in the studios or lecture hall during class times. Minimize them during other times as well. Drawing or <u>cutting on desks</u> or walls or otherwise defacing or soiling school property will not be tolerated. Do not <u>drag the desks</u> across the hardwood floors. <u>Spray-mount</u> and spray-paint are forbidden from all parts of MMCH!

### **PROJECT DEVELOPMENT & DESIGN PROCESS**

Architectural design is a complicated, multi-layered process that has traditionally required a significant amount of time, pondering, research, setbacks, and effort. All projects, even simple ones, require multiple steps and phases to complete, each phase being a revision and progression from the previous one. Over the course of the next year your studio projects will get much longer, and the your ability to work constructively in a self-motivated and self-critical manner becomes increasingly important. This independence is, perhaps, the greatest change you will encounter from the first year.

The 2<sup>nd</sup> year instrucotrs encourage you to be firm and committed to your ideas at each step of the way, but do not be afraid to change direction, ideas, or details. Experiment! Don't cling so much to your own creative products that you refuse to change any or all of it. Invite feedback, criticism, and radical new ideas about your work, but work deliberately.

Design studio is about <u>process</u>, <u>ideas</u>, and <u>passion</u> even more than about final products. In your work, at desk crits, and in the final portfolio instructors will be looking for evidence that you are searching and exploring for new and better ideas, that you listen to and respond constructively to feedback from your professors and peers.

## FINAL PRESENTATIONS:

In the 2<sup>nd</sup> year you are given a great deal of leeway about exactly what constitutes a complete presentation for your particular design. Nonetheless, a set of "Minimum Requirements" for the entire year will be handed out before each project deadline. In addition, each studio instructor may assign additional "Minimum Requirements" to acknowledge the special focus and emphasis of each studio and instructor. In general, 2nd year projects require three types of representations:

1) Descriptive: site plan, general floor plans & elevations, detailed sections, models

2) Experiential: interior perspective(s), exterior perspective(s), cinegrams

3) <u>Diagramatic</u>: concept, parti, and design-development; program distribution, dynamics & circulation; geometric organization, proportional systems, orientation; materials & systems; design language.

Make sure the final presentation of your design ideas is complete, convincing and professional. Plan ahead to make sure all drawings, models and diagrams get done by the time the project is due. Work within the time constraints to maximize the expression of your ideas. Make sure that your final products represent all of your ideas, without too much repetition, without needing to embellish too much with words. Make sure each drawing or model says something distinct and important. If it's superfluous, leave it out. Make sure your verbal presentation is SHORT and to the point. Make sure to outline your main points in advance.

### **GRADING & EVALUATION**

Evaluation Criteria: Grades will be assigned based on problem comprehension and definition, selfdirection in response to criticism, commitment to imaginative exploration and problem-solving, dedication to refinement and completion, and excellence in communication in terms of graphic, written, and verbal resolution. Instructors will measure your performance with respect to the 6 primary goals outlined on p.1 of the syllabus, and evidenced in your attitude, commitment, and designs. Your solutions to each assignment will be evaluated on the strength of idea, degree of challenge, level of complexity and completeness. Your ideas should show evidence of applying a broad range of resources to inform the quality of your solution. Your work should evidence knowledge gained from within the studio as well as other co-requisite courses and cultural events. Exceptional work is built upon a synthesis of previous knowledge, as well as a broad spectrum of sources, not merely the studio assignment.

<u>Completeness & Deadlines</u>: In order to make final reviews celebrations of excellent work, all projects deemed incomplete by the instructor will NOT be allowed to present. Such work will be graded afterwards, and marked down for incompleteness or lateness. Every effort will be made to discuss the inevitable exceptions. In order to maintain standards and enforce the "minimum requirements," we will mark down all students who do not have all the minimum requirements (both 2nd year and individual studio). In addition, those students who have obviously done less work will be open to comments about this during the review, and will be granted less review time: "less time for less work." Working past the project deadline in any way will result in a failing grade for the project. You must complete ALL the assignments by semester-review on May 9, 2006, in order to receive a passing grade.

#### Standards:

**A** - excellent, enlightened invention. Superlative or exemplary work, initiative beyond the description of the problem. Significant understanding of the problem. Conceptual clarity. Attended by an attitude of self-motivated exploration, open-mindedness, and a willingness to benefit from criticism.

**B - good, convincing development and comprehensive resolution**. Very good, some exemplary work, a thorough understanding of the problem. Project displays conceptual foundation, well crafted. Competence and mastery of skills. Open, inquisitive attitude.

**C** - satisfactory, exploration of alternatives in the resolution of the project. Satisfactory or adequate work which meets the minimum requirements of the problem and course. Shows understanding of the problem, with some deficiencies. Reasonable mastery of skill and concepts. This grade is seen to represent the average solution.

**D** - passing, consideration of factual knowledge and complete presentation. Work which is complete, but demonstrates deficient skills and does not show an understanding of the problem or expectations. Work often attended with closed-minded attitude with respect to criticism and self-motivation. Although technically passing, this work is unacceptable in a professional program.

**R - repeat.** Work which is unsatisfactory, which does not meet the requirements of the problem or course, and shows a serious deficiency in skills or is incomplete. Raises questions with respect to the future success within the program.

<u>Distribution</u>: Your studio instructor is responsible for assigning the majority of your grade, but is subject to advisory grades and counsel by all the other instructors. The grade for the individual projects will INCLUDE the evaluation of sketchbooks, exercises, class participation, willingness to explore, and your enthusiasm and passion for the subject. The final grade will be weighted as follows:

Phase I Mobile Book Unit	30%
Phase II Library	40%
Research Work	10%
Coordinator	10%
Other 2 <sup>nd</sup> Year Instructors	10%

The mid-term grade will be a statement about progress and promise, based on the grades for Proj. 1 and Proj.2, but also an indication of the passion and trajectory of the student.

<u>Special Needs</u> Students with any documented medical, psychological, or learning conditions that require special classroom accommodations should see the coordinator as soon as possible so we can make the appropriate arrangements.

