
University of Michigan

Taubman College of Architecture and Planning

Architecture 516

Architectural Representation

Fall 2009

McCullough (coord), Abrons, Newell, Ng, Shieh, Unverzagt

Course Syllabus

Objectives

Organization

Schedule of Topics (shared)

Schedule of Topics (parallel)

Requirements

Objectives

This course should help you develop your own particular work practices in visual communication and technical documentation. Because “representation” takes so many different forms in an information age, this course asks you to make choices and seek an identity. A diverse offering of course sections for the second half of the semester may help you with this. As a requirement in the graduate architecture curriculum, this course also aims to establish some common literacy, partly as a basis for the studio culture in the school. So besides engaging particular technical concerns from week to week, you should expect to advance with respect to each of these more general goals.

Visuality No single course can address the enormous cultural role of visual communication at any but the most cursory level. Here you are asked to be aware of—but not consumed by—issues in visual cultures, aesthetic criticism, scientific visualization, cognition, and media sociology, to name a few...

Seeing The educated person sees more critically. This course invites you to train your eye not only culturally, as above, but also instrumentally, with respect to your everyday work practices, and to connect these outlooks.

Delineating If one interest unites all participants in this school, that is in form. Skillful form processing remains a core competency and prerequisite for many specializations. Practices of measure, construction, and projection advance those skills. In several of the course sections here, you are asked to find rigor in these, and to keep your eyes open while doing so.

Explaining In an age of information glut, communications must be designed. Despite the studio culture’s preference for inventive artifacts requiring lengthy explanation, any discipline of architecture demands the use of intelligible documents, based on a shared visual literacy.

Sharing Because design is a communication art, perhaps the main reason to use digital media is to make your work more transmissible. In this course you are asked to post all work, to share online resources, and to contribute to some multi-author documents.

Organization

With nearly 100 participants and 6 instructors, this course is large. With only one 3-hour session per week, it must proceed quickly. In order to meet what has to be a very wide range of objectives, interests, and experiences, we must emphasize organization. In the early going, this emphasis must err on the side of strictness, but by the time of semester-end projects, it should provide more latitude for more people than we could otherwise obtain in so large a course.

All participants will share the first hour of each weekly session, and the first part of the semester's agenda. Six sections, each led for the whole semester by one instructor, will meet separately for the latter two hours each week, and will each pursue a separate agenda for the second part of the semester.

The first part of the semester will be organized by the lead instructor, and will involve a series of short weekly exercises, which each section will carry out. Much of this segment will be addressed to the shared objectives described earlier.

The second part of the semester (which is slightly longer) will be organized according to the objectives of the individual instructors' sections. This part develops a longer project, which will be the main basis for your course grade. Coordination among sections will occur in two ways: a related lecture by each of the instructors, and a shared exhibition of selected projects at semester end.

The course will make extensive use of the web for submitting work. Course pages link to each participant's university network account to find images uploaded there. Instructors review the weekly exercises by making picks from the full set of 90+ links.

Schedule of Topics Part 1 - shared agenda

- Week 1 (14 Sept.)** **Information Arts**
concepts: Course philosophy and objectives. Architecture and the media arts
organization: Section presentations and balloting
practices: Using your network account
guide: Lev Manovich, *Language of New Media*
exercise 1: Collaborative emergent mosaic
- Week 2 (21 Sept.)** **Visual culture**
concepts: Vision, visuality, and cultural theory
practices: Graphic design fundamentals
guide: James Elkins, *Visual Studies: A Skeptical Introduction*
exercise 2: Poster set
- Week 3 (28 Sept.)** **Data visualization**
concepts: Information anxiety and information design
practices: Tufte's principles
guide: Edward Tufte, *Envisioning Information*
exercise 3: Visual explanation
- Week 4 (5 Oct.)** **Maps**
concepts: Spatial data models
practices: Symbolic coding
guide: Denis Wood, *The Power of Maps*
exercise 4: Thematic map
- Week 5 (12 Oct.)** **Projected forms**
concepts: Primitives, parameters, projections
practices: Construction planes and picture planes
guide: Robin Evans, *The Projective Cast*
exercise 5: Multiplane construction

Schedule of Topics Part 2 - parallel agendas

Topic, format, and requirements differ by course section.

Completed projects presented in section 7 December and exhibited 14 December.

- Abrons **Transforming.** This section will develop a generative system for describing the language of self-similar morphologies. The project will formulate the geometric “kit-of-parts” for a family of existing forms in order to create an extensible morphology. This will be a chance to use parametric modeling (Grasshopper) in a precise and rigorous environment. Lecture: 16 November.
- Newell **Revealing.** This section will develop techniques for representing ambient qualities. Work will emphasize such instances as sounds levels, temperature zones, water content, or night and day transition, with the restriction of drawing atmosphere, not structure. To focus our work, we will be documenting the conservatory at the Matthaei Botanical Garden. Lecture: 23 November.
- McCullough **Ordering.** This section will extend the rigors of Euclidean measure and construction, such as proportions, rhythms, and intervals, into everyday form-processing practice (Rhino), with an emphasis on placeholders and substitutions. Selections from Italian renaissance architecture as subject matter. Lecture: 12 October.
- Ng **Assembling.** This section will examine communication techniques in design for assembly. Using a system with small number of variable parts for making spatial divider screens, we will explore how a complex formal logic can be diagrammed in 2D+3D for fabrication and final assembly by nonprofessionals. Lecture: 2 November.
- Unverzagt **Typesetting.** This section will conduct a photographic survey within the city limits of Detroit with an emphasis on found typography and letterforms in order to document the competing identities and territories of ownership, appropriation and influence. Final project: a hand-held pamphlet, whose physical make-up and assembly support your reading(s) of the city. Lecture: 26 October.
- Shieh **Projecting.** A pattern sample will be the starting point for an iterative cycle of development, alternating between model and drawing. Samples will be transformed through axonometric, anamorphic and perspectival projection. With each successive step, the student will move further from the object and work toward inventing a new idiom of representation to be refined, tested and disciplined. Lecture: 9 November.

Requirements

- Section* All participants will ballot for section assignments the first week. All sections will carry out the same work in the first part of the semester, but different work in the second part. All work will be reviewed and graded by section leaders. Your section leader is your first contact for all matters in this course.
- Online* You are expected to monitor e-mail, find resources on cTools, and to post work to your university network account (IFS space, via sftp client such as mFile).
- Software* The early exercises assume some familiarity with the most widely used software in the College, such as Photoshop, Illustrator, and Rhino, and will only provide limited review of key techniques in these. Sections will develop more depth in particular techniques according to their respective agendas.
- Reading* If you wish to acquire a textbook, please start with Edward Tufte, *Envisioning Information*. Next: either Lev Manovich, *Language of New Media*, or Robin Evans, *The Projective Cast*. Each of these is among what the first part of the course has identified as “guides”: reliable picks from what is a very extensive literature. Beyond this, readings will vary according to the agendas of the respective course sections. There you are expected to research and interpret the theoretical basis of your project according to those shared points of reference.
- Exercises* In the first part of the semester, you will have to complete a short exercise each week. Topics and formats will be specified fairly tightly. Due to the nature of these exercises, grading will simply acknowledge competent timely postings. From these approximately a dozen will be cited for excellence of content and execution.
- Grades* Your course grade is your semester project grade, adjusted upward if in the first half your work has been among the weekly picks more than once, and downward if your work on those has been late more than once.
- Project* As a result of your participation in your elected course section, you should generally expect to develop a single piece of portfolio-quality work. (In group projects, you may be asked to acknowledge whether all participants have been active contributors.) Each section will select a few projects for presentation to everyone in the courses.