ARCH 599: DRAWING SETS

Location: TBD

Instructor: Alfie
Koetter Email:
akoetter@usc.edu
Telephone: 617-519-9158

COURSE DESCRIPTION

As far as the modern practice of architecture is concerned, there is a distinction between the decision (design) process and its execution: architects design, but they don't build; that's left to the contractor. At the center of this division of labor is the much-maligned but often-uncelebrated architectural drawing set.

The architectural drawing set is particular in its representational responsibilities. Less concerned with issues of beauty or affect or composition, it is intended first and foremost to be a seemingly dry means of communication. The language that has been developed and used in this effort is a sort of pidgin, a simplified set of glyphs and graphics meant to provide some line of communication between groups lacking a common tongue. Revision clouds, door swings, elevation markers and material call-outs, amongst other things all attempt to ensure that the intentions of a designer are executed by a builder with an adequate degree of fidelity.

To draw out every nook and cranny of a building (even a small one) is a Herculean task. Not only does it require an immense amount of time and effort to produce, but also to consume. (One only needs to think of the familiar email acronym TLDR – Too Long, Didn't Read – to understand). And so the building is summarized: break lines, partial fills, and spaces between the pages of a drawing set crucially allow for an architect to imply and for a builder to intuit an imagined whole through a set of atomized parts. (The drawing set is really less like a novel than it is like a set of CliffsNotes.) Given all of this, it is inevitable that certain things would get overlooked and mistakes would get made.

In this seminar we interrogate the drawing set in an effort to produce one of our own. We will survey the history and evolution of its annotations and graphic standards; of its networks of participants; of the tools that have allowed for its production. We will recognize that not only is the drawing set a means of communication; it is also a reflection of the social, cultural and technological circumstances that surround their production. The classist division of labor between architect, draftsman and builder; the not-so standard gendered dimensions of books like Architectural Graphic Standards; and the advent of color printing have all had a hand in shaping the language of the drawing set.

We will come to understand the strengths and shortcomings of the language of architectural drawing sets in an effort to produce a language of our own that will be used for the production of our own drawing sets. In doing so, we will consider how much has to be drawn to effectively communicate: Where can shortcuts be taken and abbreviations made? Where is redundancy necessary? Does a more complex object necessarily demand more drawings than a simpler one? These are but a few questions our drawing sets will attempt to answer.

LEARNING OBJECTIVES

In this seminar students will familiarize themselves with the history and evolution of the architectural drawing sets in an effort to better understand the particulars of its language and the significance of instructability. Students will be expected to develop a technical understanding of disciplinary graphic and annotative standards as they relate to the production of architectural drawing sets as well as an intellectual appreciation of extradisciplinary methods of instruction-based production.

Lectures, readings and class-time conversations will together provide a foundation for understanding of the importance of instruction in the practice of architecture. Production-based assignments will be issued as an opportunity for students to demonstrate their technical and intellectual understanding of the subject matter.

TECHNOLOGICAL PROFICIENCY

Students are expected to be proficient in a number of softwares including, but not limited to, AutoCad, Rhino, Photoshop, Illustrator and InDesign.

READINGS

Bernstein, Phillip G., "Digital Representation and Process Change in the Building Industry," Perspecta Vol. 35, Building Codes, MIT Press, Cambridge, MA, 2004.

Evans, Robin, "Seeing Through Paper," The Projective Cast, MIT Press, Cambridge, MA 2005.

Evans, Robin, "Translation from Drawing to Building," Translation from Drawing to Building and Other Essays, Architectural Association Publications, London, UK, 1997.

Hosey, Lance, "Gender, Race and the Body in 'Graphic Standards'," Journal of Architectural Education, Vol. 55, No. 2, 2001.

Johnston, George Barnett, "Drafting Manuals and Manual Training: Rouillion and Ramsey's 'Architectural Details'," Journal of Architectural Education, Vol. 58, No. 4, 2005.

Krauss, Rosalind, "Lewitt in Progress," The Originality of the Avant-Garde and other Modernist Myths, MIT Press, Cambridge, MA, 1986.

Lewitt, Sol, "Paragraphs on Conceptual Art," Art Forum, June, 1967.

Stewart-Halevy, Samuel, "Short-Cuts," E-Flux Journal, 2019.

DESCRIPTION AND ASSESSMENT OF ASSIGNMENTS

Students in this seminar will be responsible for the completion of a variety of assignments that include in-class presentations, the production of drawing sets and the execution of instruction sets produced by others. In-class presentations and the production of instruction sets will be done in pairs, while the execution of instructions will be done individually.

1. In-Class Presentations

Students will prepare in-class presentations of assigned readings and self-selected precedent instruction sets. These presentations are not simply the rote description of the readings and precedents; instead they should consider the significance of these works within their broader historical context and consider their relationship to and impact on the discipline of architecture. To this end, students are expected to do self-directed research.

Before presenting their precedents, students will discuss them with the instructor in order to receive feedback and approval.

Students will be assessed based on the clarity and comprehensiveness of these presentations and the quality of their research.

2. Production of Drawing Set

With selected precedent instruction sets as a reference, students will each produce their own drawing sets (one drawing set per group) that will attempt to instruct the reproduction of an assigned object whose overall volumetric boundary should be no larger than 8"x8"x8". How might construct instructions in the style of George Brecht's Water Yam (Fig. 2)? Or in the style of Cage's Score Without Parts (Fig. 6)? The object assigned to those producing the instructions shall not be disclosed to the rest of the class until after the instructions are executed by said class.

Instructions should be considered as art objects in and of themselves. To that extent, they should be thoughtfully considered, designed and formatted.

The assessment of instruction sets will not be affected by the quality of the objects produced from them, but by the integrity with which they themselves are constructed and conceptualized. Students will be assessed based on the design and formatting qualities of their instruction sets as well as the extent to which these sets demonstrate an informed understanding of the assigned precedent.

3. Execution of Drawing Set

Each student will produce a set of small-scale objects and/or drawings based on the drawing sets produced by their peers.

Students will be assessed on the timely execution of peer-produced drawing sets. While we will appreciate the fidelity with which instructions can be followed, accurate misinterpretation will also be celebrated (Fig. 7).

In addition to the production of drawing sets, students will be responsible for in-class slide-based presentations on their assigned instruction precedents. Students will be expected to be able to speak to the representational qualities and techniques of these instructions, as well as the historical and disciplinary contexts within which they were produced.

GRADING BREAKDOWN

Students will be graded on the production of a set of instructions, execution of those instructions produced by their peers, in-class presentations, and overall participation and class engagement. Students working in groups will receive a shared group grade based on the quality of the work produced.

Production of Drawing Set:	40%
Execution of Drawing Set:	15%
In-Class Presentations:	35%
Participation:	10%

Grades pertaining to the production and execution of instructions will be given on an assignment by assignment basis.

ASSIGNMENT SUBMISSION POLICY

In-class presentations, the production of instructions and the execution of instructions are to be completed as per the course schedules. Assignments that do not reflect adequate completion or that are late will be considered incomplete.

ATTENDANCE

Attending classes is a basic responsibility of every USC student who is enrolled in courses at the School of Architecture. Regular and punctual class attendance is required. Any student not in class within the first 10 minutes is considered tardy, and any student absent (in any form including sleep, technological distraction, or by leaving mid class for a long bathroom/water break) for more than 1/3 of the class time can be considered fully absent. If arriving late, a student must be respectful of a class in session and do everything possible to minimize the disruption caused by a late arrival. It is always the student's responsibility to seek means (if possible) to make up work missed due to absences, not the instructor's, although such recourse is not always an option due to the nature of the material covered.

SCHEDULE

Week 1:

    Course Introduction

Week 2:

    Instruction vs. Execution, A Lesson Through Instruction Based Art

        Reading: "Lewitt in Progress," Rosalind Krauss, 1986

                             "Paragraphs on Conceptual Art," Sol Lewitt, 1967

Week 3:

    Drawing vs. Building

        Reading: "Seeing Through Paper," Robin Evans, 1995

                             "Translation from Drawing to Building," Robin Evans, 1997

Week 4:

    The Drawing Set: Shortcuts and Abbreviations

        Reading: "Short-Cuts," Samuel Stewart-Halevy, 2019.

Week 5:

    Drawing and Class

        Reading: "Manuals and Manual Training: Rouillion and Ramseys 'Architectural Details," 1984

Week 6:

    Drawing and Gender and Race

        Reading: "Gender, Race and the Body in 'Graphic Standards'," Lance Hosey, 2001

Week 7:

    Drawing and Technology

        Reading: "Digital Representation and the Process Change in the Building Industry," Phillip G. Bernstein, 2004.

Week 8:

    Student Presentation 001

    Student Presentation 002

Week 9:

    Student Presentation 003

    Student Presentation 004

Week 10:

Student Presentation 005

        Student Presentation 006

Week 11:

        Student Presentation 007

        Student Presentation 008

Week 12:

        Drawing Set 001 Issued and Followed

        Drawing Set 002 Issued and Followed

        Drawing Set 003 Issued and Followed

Week 13:

        Drawing Set 004 Issued and Followed

        Drawing Set 005 Issued and Followed

        Drawing Set 006 Issued and Followed

Week 14:

        Drawing Set 007 Issued and Followed

        Drawing Set 008 Issued and Followed

Week 15:

        EXHIBITION OF ALL INSTRUCTIONS AND EXECUTIONS

FINAL EXAMINATION PERIOD:
Submission of Drawing Set 001-008

Statement on Academic Conduct and Support Systems

Academic Conduct:
Plagiarism — presenting someone else's ideas as your own, either verbatim or recast in your own words — is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct

Support Systems:

USC Student Health is available through the single phone number **213-740-9355 (WELL)**—
including all services 24/7.
https://studenthealth.usc.edu/

> **Counseling and Mental Health Services**, a division of the *Department of Psychiatry and Behavioral Sciences, Keck School of Medicine of USC*
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> **Medical Services**, with providers on clinical faculty of the *Departments of Family Medicine, Obstetrics and Gynecology, Dermatology, Orthopaedic Surgery, Keck School of Medicine of USC; and professional affiliations with the USC Chan Division of Occupational Science and Occupational Therapy, the USC School of Pharmacy, and the Division of Physical Therapy and Biokinesiology.*
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> **Relationship and Sexual Violence Prevention and Services**, with counselors who are clinical faculty of the *Department of Psychiatry and Behavioral Sciences, Keck School of Medicine of USC*
> A nurse (for medical concerns) or licensed counselor (for mental health concerns) is available 24 hours a day, even when the student health centers are closed and during university closures.

>> **Students in crisis may walk-in for urgent mental health services** at the health centers (Engemann Student Health Center on UPC or Eric Cohen Student Health Center at HSC) during operational hours without an appointment; this may include urgent matters involving a death in the family, suicide concern, crime/sexual assault survivor counseling, or other high-risk matters.
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>> **Urgent "sick" appointments for medical care** are available "same-day" for students needing care during operational hours.
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>> **The evening operators of the 24/7 phone service line** can connect to USC Student Health services when an urgent matter presents itself.
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>> **Sexual assault survivors requiring transportation** to a SART center can ask RSVP to call a Lyft ride (an "on-call" staff advocates program to accompany survivors is currently staffing operations and will be activated this fall).
>> **MySHR (the student health record portal)** shows all available regular appointment times; many appointments can be made within 24-48 hours.
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>> **Campus incident post-ventions** are regularly provided by Counseling and Mental Health Services on campus for students; departments are encouraged to contact us to learn more or to make arrangements.

National Suicide Prevention Lifeline — *1 (800) 273-8255*
www.suicidepreventionlifeline.org
Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Office of Equity and Diversity (OED) | Title IX - *(213) 740-5086*
equity.usc.edu, titleix.usc.edu

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

Bias Assessment Response and Support - *(213) 821-8298*
https://campussupport.usc.edu/trojans-care-4-trojans/
Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

The Office of Disability Services and Programs - *(213) 740-0776*
dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support & Intervention - *(213) 821-4710*
https://campussupport.usc.edu/
Assists students, faculty, and staff in navigating complex issues.

Diversity at USC - *(213) 740-2101*
diversity.usc.edu
Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - *UPC: (213) 740-4321— 24/7 on call*
dps.usc.edu, emergency.usc.edu
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - *UPC: (213) 740-6000 - 24/7 on call*
dps.usc.edu
Non-emergency assistance or information.

Office of the Ombuds - *(213) 821-9556 (UPC) / (323-442-0382 (HSC)*
ombuds.usc.edu
A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.