Architecture 423, Light, Color and the Character of Material  
Mondays 12:00-1:50  
University of Southern California School of Architecture  
Spring 2012 Faculty: Lee Olvera, Associate Professor In Practice of Architecture

... After too much non-teaching, non-learning, and a consequent non-seeing, --in too many art ‘activities’ --it is time to advocate again a basic step-by-step learning which promotes recognition of insight coming from experience, and evaluation resulting from comparison. This, in sum, means recognition of development and improvement, that is, of growth, growth of ability. This growth is not only a most exciting experience; it is inspiring and thus the strongest incentive for intensified action, for continued investigation (search instead of re-search), for learning through conscious practice.

Chapter XXV On teaching color --some color terms

Course Abstract:
Architecture 423 is a course designed to develop a critical recognition of the interactive and dimensional consequences of color use, through an analysis and understanding of the properties of perception, material surface and light. Implementing the device of the abstract serial diagram as a formal construct, the exercises combine and manipulate color fields to reveal a set of perceptual interactions particular to color adjacency, mixing, proportion and geometry. The application of pigment-based dry-media --specifically chalk pastel onto the two-dimensional surface of paper is the primary instrument of inquiry, assembling and developing throughout the semester into a visual-based syntax for the course. Referential reading assignments and discussions augment the exercises to further expose students to a variety of critical frameworks, spanning the historical to the technological, necessary for the informed and critical use of color.

...Colors do not proceed from experiments but reside in concepts.  
Chapter 8, Colors and Color Theory.

...Theory is not a recipe for success; it provides overview and order within diversity. Everything else depends on context, an interplay of knowledge and perception in constant motion.  
Chapter 3, Sample and Projection.

Grade Criteria:  
In-Class Projects (Diagramming Exercises) 70%, Final Project 20%, Final Exam 10%  
Exam Date: Friday, 05.04.2011 (11:00-1:00).

Diagram exercises are evaluated on (2) levels, color intent and craft execution. Color intent requires the exercises investigate a specific series of goals with regard to the principles of color theory, interaction and perception. They must represent a carefully considered --built-up process to fully realize their potential interactive properties. Just as the course begins with basic color vocabulary and quickly moves on to more complicated compositional color theory, the exercises move from the elemental to the complex. All of the diagrams are hand-drawn and require the manual application and manipulation of color pigment --chalk pastel. As such, they require precision, control and high-craft. Introductory exercises do explore technique but students are required to quickly master and advance through skills-related issues in order to concentrate on the consequence of color use. Out-of-class skills practice time will be needed if the required high level of craft is not achieved in a timely manner. The careless application of color on the exercises dramatically decreases and distracts from their analytical and pedagogical intent.

Attendance Requirement:  
Arch. 423 attendance policy follows the University and School of Architecture guidelines. A maximum (1) week of missed class limit equals (1) absence permitted for the semester. After (1) absence students will be issued a Letter of Unsatisfactory Progress stating the potential negative impact on their final course grade. If additional absences occur students have the option of withdrawing from the class to avoiding the possibility of negatively impacting their grade. All assignments should be completed in class so attendance
is critical. A missed class means a missed assignment. Diagram exercises are presented during each class in a step-by-step format making independent completion outside of class difficult. The class will conform to the recognized University of Southern California Spring 2012 Academic Calendar with regard to holidays. Religious holidays will also be accommodated according to the University of Southern California religious observance policy.

**Course Schedule Outline:**

**01/09** Course Methodology and Language, The Diagram.
The word “variety,” although recently a favored design term, has become discredited because of increased abuse. It has become a pretentious recommendation for designs of questionable merit. It is applied to protect hurried changes, to excuse poor alterations, or to defend an accidental and meaningless whim. It even appears as a weapon to prevent rejection, to force credits. Thus the excuse “for variety’s sake” remains a warning signal.

To replace this negative criterion, we are in favor of a related word of better reputation, the design term “variant.” As variety usually concerns changes of details, variant means a more thorough re-doing of a whole or of a part of a given scheme. Although variant may remind us slightly of imitative plagiarism, normally it results from a thorough study. Because of a more comprehensive comparison forth and back, it usually aims at a new presentation. On the whole, variants demonstrate, besides a sincere attitude, a healthy belief that there is no final solution in form; thus form demands unending performance and invites constant reconsideration –visually and verbally.


“Variants versus variety.”

**01/16** HOLIDAY

**01/23** Color Contrast. Contrast of Saturation

….We speak of contrast when distinct differences can be perceived between two compared effects. When such differences attain their maximum degree, we speak of diametrical or polar contrasts. When we survey the characteristics of color effects we can detect seven different kinds of contrast... Each is unique in character and together they constitute the fundamental resource of color design.


“The Seven Color Contrasts.”

**01/30** Primer, The Six and Twelve-Color Color Wheel.

….By way of introduction to color design, let us develop the 12-hue color circle from the primaries –yellow, red, and blue...


“The Twelve-Part Color Circle.”

….In a very dark chamber at a round hole about one third part of an inch broad made in the shut of a window I placed a glass prism, whereby the beam of the sun’s light which came in at that hole might be refracted upwards toward the opposite wall of the chamber, and there form a colored image of the sun...


**02/06** Color Saturation and Color Temperature

….The classic color theory is founded on the observation that warm colors appear to advance and cool colors to recede...


“The Renaissance System of Perspective.”

….Within the visual field, the condition for the perception of an edge, or bounded surface, consists of a transition. Segregation in the visual field can be caused by brightness contrast, or a change in luminosity. Two hues of equal brightness, on the other hand, cause the appearance of uniformity... It has been established that brightness and not form is primary in perception...


Chapter 2, Dimensional Color: Theoretical Background.
02/13 Color Saturation, Proportion and Extension
…Hue is a sensory initiator of the experience of space. The aggressiveness or visual insistence of red is a spatial phenomena, as is the radiating effect of a yellow, or the recessive quality of a light, desaturated blue…
On a surface or in space then, color remains relative to its context.
Chapter 3, Color-Space and Time.

02/20 HOLIDAY

02/27 Color Extension and Spatial Perception
…Contrast of Extension involves the relative areas of two or more color patches. It is the contrast between much and little, or great and small.
“The Seven Color Contrasts.”

…Like atmospheric perspective, color perspective emphasizes the illusion of separation between planes and can be exaggerated so as to strengthen the illusion that one plane, or point is behind and separated in space from the other…
“The Renaissance System of Perspective.”

03/05 Color Extension and Spatial Perception, cont’d.

03/12 SPRING BREAK

03/19 Spatial Color, Perception, Analysis and Materiality
…Chromophobic or chromophilic, there is usually something apocalyptic in these stories of color…If one group of stories typically involves a descent into an existing but hidden realm of color, this other group of stories involves the imposition of an artificial or illusory layer of color upon a monochromatic world….One group of color lies beneath the surface; in the other group, color is applied from without.
Chapter 3, Apocalypstik.

03/26 Spatial Color, Perception, Analysis and Materiality, cont’d.

04/02 Color Harmony
…By color harmony I mean the craft of developing themes from systematic color relationships capable of serving as a basis of composition. Since it would be impossible to catalogue all combinations here, let us confine ourselves to developing some of the harmonic relationships…chords such as dyads, triads and tetrads…
“Color Harmony.”

04/09 Color Order Systems: Analogical and Digital Color
…The color-chart colors have contributed to a further change in the use and understanding of color. This might called the digitalization of color, whose opposite is analogical color…
Chapter 5, Chromophilia.

04/16 Comprehensive Project

04/23 Comprehensive Project

05/04 FINAL EXAM

Referential Bibliography:


**Required Materials:**
The following should be purchased for you to proceed with the class assignments. You must bring ALL of the materials to every class.

‘Charkole’ or equal brand of compressed charcoal sticks. You need only purchase (1) set and they should be all black. Do not purchase the sets that contain a range of values from white, through gray to black. DO not purchase ‘vine’ charcoal or charcoal pencils. Most of our exercises will concentrate on manipulating numerous applications of black. White chalk will be provided when required.

Nupastel, brand of compressed chalk pastels (minimum 24 color set). Do not purchase a set that contains a graduated set of a single hue. Note there is a difference between oil and chalk pastels. Also, make sure you purchase compressed chalk as opposed to traditional chalk –do not purchase Alpha brand pastels, they do not provide an adequate pigment/value range. The higher pigment amount allows compressed chalk to achieve more saturated results when required.

Strathmore-Bristol Smooth Drawing paper pad, 9”x12”. All drawing will be prepared on this paper so multiple pads will need to be purchased.

Trace paper roll. White. Maximum 12” width, 6” width is preferred to eliminate waste. This paper will be used for masking purposes.

Soft white eraser(s).

White artist’s tape. No colored tape is allowed, including drafting tape, blue painters tape etc.

X-acto knife.

Architect’s scale.
Accreditation Statements:
“The USC School of Architecture’s five year BARCH degree and the two year M.ARCH degree are accredited professional architectural degree programs. All students can access and review the NAAB Conditions of Accreditation (including the Student Performance Criteria) on the NAAB Website, http://www.naab.org/accreditation/2009_Conditions.aspx.”
“The Master of Landscape Architecture degree program (for USC’s +3 students with no prior design education, and our +2 for students admitted with advanced standing) is currently in "Candidacy Status" for accreditation by the Landscape Architecture Accreditation Board. All students can access and review the LAAB accreditation standards/process at http://www.asla.org/Education.aspx.

"The 2010 Imperative Statement”:
As the Architecture Faculty have voted to accept the 2010 Imperative-- to improvement of ecological literacy among the students and faculty:
“The design should engage the environment in a way that dramatically reduces or eliminates the need for fossil fuel.” Every aspect of this course's execution respects an awareness of its own carbon footprint.

Statement for Students with Disabilities:
Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the individual course instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30a.m.-5:00p.m., Monday through Friday. The phone number for DSP is 213.740.0776

Statement on Academic Integrity:
USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by the instructor, and the obligations both to protect one’s own academic work from misuse as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. SCAMPUS, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The review process can be found at: http://www.usc.edu/student-affairs/SJACS/