

Advanced DP3: Color (60452)

Spring 2017

CFA 313

TTH 6:30-9:20

Clayton Merrell (office: CFA 406, e-mail: cmerrell@andrew.cmu.edu)

Graduate Assistant: Erin Mallea (e-mail: emallea@andrew.cmu.edu)

Course Description:

In this advanced course, students will learn to employ a wide range of color theories and color systems through hands-on exercises and studies. Studies will be done primarily in paint, with some use of collage and digital media. These exercises will be aimed at mastering a variety of color approaches that will be applicable to each student's own artistic practice. Students will develop, based on their own interests, a cohesive body of work in which to practice and expand on the skills learned through the directed exercises. Studio work will be augmented by lectures, demonstrations, critiques, readings and critical discussion of writings about color.

Class Policies:

Participation: Class participation = working diligently on all workdays + participating fully and intelligently in critiques and discussions + reading the assigned readings + signing up for regular meetings/studio visits. (During studio workdays, I will be available for studio visits.)

Attendance and Lateness: You are required to be in the studio working during every class period for the entire class period as well as working diligently outside of class. Attendance is essential to your success in this course. If you miss class, it is your responsibility to ask me or another student as soon as possible about what you missed or will miss. **After the third absence, your course grade will be reduced by one full letter grade. Three late arrivals or early departures count as one absence.** Attendance sign-in sheets will be posted on the classroom door on independent work days.

Evaluation: Grades are based on completion of all assignments and a substantial body of work, as well as the quality of that work. A substantial portion of your grade will be determined by your class participation. Projects may be turned in late, but for each class meeting they are late, they lose 10% of the possible score.

For the purpose of calibrating our expectations:

A = Developed the requirements of the class to their fullest extreme. Work submitted shows extraordinary dedication and innovation.

B = Satisfied the requirements of the class in innovative and thorough ways. Assignments submitted stand out for their quality and effort.

- C** = Satisfied the requirements of the class. All assignments acceptably well done.
- D** = Satisfied most of the requirements of the class, some assignments submitted late, and/or poorly done.
- R** = Satisfied less than 60% of the requirements of the class, numerous assignments submitted late or poorly done.

Official School Safety Notice: Some materials and equipment used for art-making pose a potential hazard if students do not follow safe procedures. Federal and state laws require that students be informed regarding the materials used in the classroom. Safe practice procedures are an integral part of instruction in studio classes. Students are responsible for being aware of the properties of materials they use and the proper procedure for using equipment in the school.

Painting Studios Safety Rules and Guidelines

General Caution: Treat all paints, solvents, oils, and varnishes as if they are toxic and flammable, because most of them are. Please use low toxicity solvents such as Turpenoid natural and mineral oil, etc. whenever possible.

Avoid skin contact with paints and solvents: Solvent resistant gloves should be worn when handling hazardous materials. Wash hands immediately with soap and water if contact with paint or solvents occurs. Wash hands before eating or smoking. Do not put fingers, pencils, brushes, etc. in mouth. (duh)

Recycle Solvents: Re-use your solvents throughout the semester by letting the sediment settle out. Use as little solvent as possible to do the job. Keep all solvents in original container or jars with airtight lids. Keep all solvents sealed when not in use. When necessary, empty all solvents and oils, etc. into the large red hazardous waste disposal containers. Never pour any kind of solvent, oil, or varnish down the sink. Do not smoke near solvents or fumes. (boom!)

Paint rags: Place all contaminated rags and paper towels in the appropriate hazardous waste can. They are not only a major source of fumes, but are flammable and prone to spontaneously combust. (really)

Ventilation: Open windows and use ventilation or fans when painting.

T 1/17

- Introduction
- Adds from waitlist
- Compile Gmail address list
- Discuss Syllabus, Bibliography and Materials list
- What is color?
- Discuss Primaries: what are the primary colors? real vs. ideal primaries, additive vs. subtractive primaries - look at additive light primaries with filters and LEDs
- Discuss light and “reduced spectrum light” – look at white and other colors in various light situations – extinguishing colors with light
- Discuss color as material
- Draw-downs of paints to observe qualities in both oil and gouache
- Examine Kremer color charts and color fading samples
- Basic issues of selecting a palette, color gamuts, primary triads, 6 co-primaries, overtones, transparency/opacity, warm/cool,
- Ideal vs real primaries and some possible CMY triads with wide gamuts
Hansa Yellow (PY 97), Quinacradone Rose (PY19), Pthalo Blue (PB 15.3)
Cadmium Lemon(PY35), Cobalt Violet Phosphate .(PV ?), Cobalt Turquoise lt.(BG 50)
Indian Yellow (PY153 or 150) Quinacradone Magenta (PR122), Pthalo Blue (PB 15.3)
see <http://handprint.com/HP/WCL/colormap.html> for comprehensive list
- *Assignment: buy books and materials (by next Tuesday)*
- *Assignment: read David Batchelor Chapter 4 from Chromophobia, and Annie Dillard*
- *Assignment: bring one example of “good color” and one example of “bad color” to discuss at the beginning of next class*

TH 1/19

- Discuss color and language: Batchelor, and Dillard
- Discuss perceptual color vs socio-cultural color
- Discuss “good” and “bad” color examples
- Definitions: Hue, Value, Saturation
- Use photoshop sliders to discuss HV&S changing independently
- Other qualities (iridescence, transparence, opacity, graininess, gloss, thick, thin, smooth, rough, dry, wet, sparkly dense, etc.
- Everyone pick 4 colors at random and 4 composed colors – compare them as practice using the color terminology we just learned, and as a way of explaining choices
- Hue: Pull out all one hue; arrange in order of relative warmth & coldness; put up & compare; discuss qualities of expansion & contraction within & between groups

- Value: Line up ten chromatic greys in order of value, then do the same thing with ten saturated “spectral” colors – discuss difficulties of seeing value independently of saturation and hue.
- Saturation: Pull out all colors of a single hue and arrange them according to saturation level. Discuss disagreements about “reddest red” etc.
- *Assignment: read topics 1-10 on “learning color through paints” at <http://handprint.com/HP/WCL/intstud.html#top> and “talking about color” section at <http://handprint.com/HP/WCL/color18a.html>*
- *Assignment: Read Albers Chapters I-V, and accompanying plates*
- *Assignment: Finish getting materials and books!*
- *Assignment: Take the 100 color test on the Pantone website: <http://www.xrite.com/online-color-test-challenge> Repeat the test until you get a score of 100%*

T 1/24

- Relativity of color: look at some examples and discuss
- Look at afterimages - brightest color held at arms length, slides, etc.
- Physiology of the eye - general discussion and slideshow
- Rods & cones, retinal inversion, ganglion cells, stereoscopy, hemispheric image, wavelength sensitivity, opponent process theory, impossible colors
- With paper: make 3 colors look like 4
- With paper: make 4 colors look like 3
- Make examples of value shift, hue shift and hue+value shift
- Extreme simultaneous contrast: edge effects
- *Assignment: Read section on color vision at <http://handprint.com/HP/WCL/color1.html> - skim the more technical parts!*
- *Assignment: Read Albers chapters VI, VII, VIII, XV, and XXII*
- *Assignment: either in paper or paint, make 2 color studies that use simultaneous contrast and color relativity in a slightly more complex composition – in one, make 3 colors 4, and in the other make 4 colors 3 (as part of a more sophisticated formal arrangement)*

TH 1/26

- No Class
- Everyone is invited to the opening of show at Concept Gallery, 1031 S. Braddock Avenue, 6-8pm (optional, of course!)

T 1/31

- Chromatic greys: slideshow
- Discuss warm-cool contrasts and spatial effects
- With paper – pull out all the colors that you would call grey, then invent compositions that push them to become nameable colors. Making boring colors interesting.

- Using the paper studies as a color basis, paint a gouache study that uses the same colors in a more complex composition. Focus on exact color matching and amplifying the relativity effects through compositional choices.
- *Assignment: two more gouache studies in "chromatic greys" that push the effects of warm-cool contrasts. Focus on concentrating warm colors in one area and cool colors in other areas to create an implied light source and illusion of depth.*
- *Assignment: read Albers chapter XIV and XXI*

TH 2/2

- Muted Color and Prismatic Color: Slideshow – look at examples of broken color and highly saturated color.
- 2 gouache studies: the first one in "prismatic" highly saturated colors. Then transpose this one into a second version done exclusively in muted or broken versions of the same colors, keeping the same color intervals (one method: use an earth tone triad for the second version. Another method: mix a small amount of each color's complement into it to break it)
- slideshow: look at paintings with limited value ranges. Discuss qualities of space and light.
- With paper – search for 6 colors that have exactly the same value – discuss why this is difficult to see, and what spatial effects are the giveaways.
- *Assignment: 3 studies, one in low value range, one in high value range, one in a middle value range. Focus on keeping the values very close, using only hue and saturation contrasts. Make digital versions of each study first to help visualize the exact value matches. This can be done with the "luminosity" mode and pencil tool by drawing completely over an existing image, or by drawing into a monochrome grey background using the "color mode" and pencil tool.*
- *Assignment: read Albers IX X, XX, and XXIII*

T 2/7

- Slides: value progressions, using stepwise motions to create maximum illusion of space - Paul Klee, etc.
- Weber-Fechtner Law
- In gouache – make a simple 6 step tonal progression that appears to have equal steps.
- Slides: modulation of both value and hue in more sophisticated ways.
- In gouache – make one study that uses tonal and saturation progressions (limited to analogous colors) in a more complex composition to create the illusion of maximum spatial depth.
- *Assignment: Make two studies in gouache that use tonal and hue progressions in a "contrapuntal structure", meaning that you will create an interplay of two types of modulations/progressions happening simultaneously. The challenge is*

to interweave or overlap these progressions so that they work with and play off of each other.

TH 2/9

- Slides: middle values, transparency and grouping
- With paper, find exact middle values to create the illusion of overlapping transparent planes
- In gouache or paper, find exact middle values and make a study that demonstrates and makes interesting use of the illusion of transparency. Look at special cases where a “dark value transparency” is needed to create the effect.
- Gouache or paper study, 1 hour: make a more complex composition that utilizes stepwise value progressions together with transparency.
- Slides: grouping, transposition and multiple color spaces in the same image.
- *Assignment: 2 Gouache or paper studies that utilize transparency, transposition, and grouping to create two distinct color spaces in the same image.*
- *Assignment: read Albers XI and XII*

T 2/14

- Slides: Optical mixture – Seurat, Signac, tapestries, mosaics, Barry McGee, etc.
- Maxwell/Chevreur disks
- Paper or paint study, 1 hour: using scale and repetition of colors to create optical mixing effects. Focus on the ways that colors can be made to group together, altering each other in surprising ways.
- Slides: Bezold effect, Chimerical colors, Optical Mixing attempts through binocular vision – binocular rivalry, red-green stereoscopic images, etc.
- *Assignment: make two studies in any medium. In one, use the Bezold effect, in the other, experiment with binocular color mixing and/or binocular rivalry. Make a study that attempts to incorporate these effects.*
- *Assignment: read Denis and Rilke (on Cezanne)*
- *Assignment: read Chromatic Algorithms Chapter 1*

TH 2/16

- No Class – Professor Merrell out of town for Conference

T 2/21

- Discuss Denis and Rilke and Gage
- Slides: Hue used to create space and stand-in for value effects. Cezanne, Monet, etc.
- Paper or paint studies examining the possibilities of hue standing in for value to create volumetric modeling or the illusion of space. In particular, look for ways in which forms and colors can work together to achieve his effect. Determine the limits of this effect. (1 hour)
- Slides: Saturation to create space

- Paper or paint studies – using cool low saturation colors in background, and warmer, higher saturation colors in foreground, plus overlapping of shapes, try to create maximum illusion of depth in an abstract image without relying on value to create depth (1 hour)
- *Assignment: one study that uses hue and saturation effects to create lots of spatial depth within a restricted value range. (value difference restricted to approximately 30% of full black-white value range)*
- *Assignment: read Albers XVI*
- *Assignment: read Chromatic Algorithms Chapter 7*

TH 2/23

- Discuss contradictory color cues. Slides: Hans Hoffman and examples of push-pull relationships in paintings
- Gouache studies: 2 compositions that use contradictory spatial cues to create dynamic equilibrium or tension. (1.5 hours)
- Slides: Unity, Anomaly and Bridging
- *Assignment: create in Photoshop or Illustrator, 3 versions of the same image – to address the question of how much unity vs. how much anomaly. Make study #1 extremely unified by using colors that are close in hue, value and/or saturation. In study #2, introduce one color that is as wildly anomalous as possible. Then in study #3, introduce “bridge colors” to mitigate the anomaly. Submit result by posting your images into the Google documents “presenter” document.*
- *Assignment: read Michael Taussig “What Color is the Sacred” pages 28-36 only*

T 2/28

- Discuss images on Google presenter
- Studies with paper to continue thinking about unity/disjuncture – cut in half 16 or 25 color papers, using them to make two color studies with exactly the same ingredients: one which has maximum unity, using smooth transitions and grouping, and one with maximum disjuncture and rupture. (1 hour)
- Slides: Discuss embodied color: colored bodies, intrinsic and extrinsic color, physicality of color, authentic and false color, etc. Discuss Michel Taussig
- High speed sculpture a la Jessica Stockholder and Rachel Harrison: using found materials, create a temporary 3-D arrangement than explores the idea of intrinsic and extrinsic color. (1 hour)
- The Monochrome – color as monolithic material and surface
- Slides: Anish Kapoor, Lucio Fontana, Brice Marden, Malevitch, etc. pink & blue
- *Assignment/Challenge: to create a work in any material that uses a single color to spectacular effect*
- *Assignment: Read David Batchelor: Chromophobia Chapters 1 & 2*

TH 3/2

- Discuss Monochrome works
- Look at examples of multicolor and extreme color
- Discuss ways that these can succeed or fail
- *Assignment: Maximalchromophilisuperextraradhypermegaohmyfuckinggod-myeyesarebleeding Color*
- *Assignment: Read Color in Time pages 62-65 and 88-91*

T 3/7

- Wangechi Mutu Lecture – CMOA Theatre

TH 3/9

- Discuss *Maximalchromophilisuperextraradhypermegaohmyfuckinggod-myeyesarebleeding Color projects*
- Slides: Complicated color, texture and subtlety
- *Assignment: work outside of class – experiment with physicality through layering, scraping, sanding, stippling, drybrushing, spraying, etc. to create 3 studies that utilize extremely complicated colors*

T 3/14 and TH 3/16

- Spring Break

T 3/21

- Color extractions, inventories, visual research – Slides: Jonathan Lewis, etc.
- Get images from web – paintings or other images whose colors you want to extract – make simplified color studies summarizing three paintings or other images, analyzing how the color works. (1 hour)
- *Assignment: either physically or digitally make six proportional color inventories from sources you admire.*
- *Assignment: read Albers XVIII and XIX and Color in Time pages 40-51*

TH 3/23

- Discuss color inventories, and the types of palettes they represent.
- Discuss palette choices, and types of organization
- look at images of self-portraits with palettes
- look at online tools such as Kuler, ColorRotate, etc
- Two-color palette – choosing colors for maximum range
- Split complementary
- Triad
- Earth tone triad
- Altered or shifted palette (breaking down all colors with the admixture of a small amount of a single color to all)
- Discuss & criticize our own palette choices

- Show examples of ways to mix down a palette, then during class, mix examples of these palettes down and paint them onto grey backgrounds
- *Assignment: create a unique color palette that gives you the same kinds of qualities that you admired in your color extractions. Paint two studies with this new palette.*
- *Assignment: Read Color in Time pages 132-135*

T 3/28

- Discuss the results of custom-palette studies, and suggest changes and other issues to investigate for the rest of the semester
- Begin exclusive focus on independent work!
- *Assignment: Write 1 page proposal for independent work*

TH 3/30

- Turn in and discuss proposals, then begin independent work & studio visits

T 4/4

- Independent work and studio visits

TH 4/6

- Independent work and studio visits
- (Optional Topic: Color and Information)
- *Assignment: Read David Batchelor: Chromophobia Chapters 3 & 5*

T 4/11

- Discuss Batchelor chapters 3 & 5
- Independent work and studio visits
- (Optional Topic: Calibration and color correction of monitors)

TH 4/13

- independent work and studio visits

T 4/18

- independent work and studio visits

TH 4/20

- independent work and studio visits

T 4/25

- Group critique of independent work
- Students give each other one last specific color assignment/challenge to help everyone break bad habits and expand the possibilities

TH 4/27

- Independent work and studio visits

T 5/2

- Independent work and studio visits

W 5/4

- independent work and studio visits

T 5/9 Or TH 5/11

- Final Group Critique

Advanced DP3: Color

Supplies:

Gouache paint (or other paints): During the first half of the semester, we will be doing a large number of color studies. I recommend doing these in gouache, which is opaque watercolor. It is an ideal material for this sort of work because it dries quickly to a dense matte surface, can be easily over-painted, and comes in a wide range of colors. Most gouache is made with a gum arabic binder, but some brands are made with synthetic binders, making them more like acrylic. Any variety is fine, with the understanding that they will have different working characteristics and present different challenges. Note that gouache is often made with the widest variety of pigments, but some will not have good lightfastness ratings – pay attention to the labels if longevity matters to you.

If you really would rather work with acrylic or oil, or something else, that is ok, but each of them will present certain difficulties, which we will discuss.

Brands & types of gouache

Utrecht/Blick: the store brand set is a very good value – quality paint, reasonable price

Windsor & Newton: (available at Utrecht, Top Notch, A&C, CMU art store) – very good paint, opaque & smooth, but pricey. They have a convenient trio of “Primary” Yellow, Magenta and Cyan.

Lascaux: my favorite – comes in larger bottles, and all colors are lightfast. Artificial binder makes it less easy to re-wet than other brands. (available from Blick, Jerry’s A&C, etc.)

Holbein: excellent – wide range of colors (available at A&C)

Holbein Acryla Gouache: good, but really this is a kind of matte acrylic paint – permanent once dry (A&C)

Maimeri; good value (available at Top Notch)

Talens; good quality, often cheaper than Windsor & Newton (available at Utrecht)

Reeves: dirt cheap because they skimp on the pigments. Many of the colors are not truly opaque, & require more layering to get good dense color. (available at CMU art store)

French School Gouache: similar to reeves (A&C)

*There are plenty of other brands out there too.

Remember that if you stick to only the most opaque colors, watercolors are essentially the same as gouache, and can be used together.

What colors to get?

We will discuss this in detail on the first day of class. Your choice of color range (the gamut of your palette) will dictate what you can and cannot do in your color studies . . .

Watercolor paper or illustration board. Hot press or cold press (not rough). This we will tear down to small sheets for our studies. The studies should be small – approximately 8x10. 2 ply vellum Bristol board would also work well.

** If you decide to work with oil or acrylic instead of gouache, you can paint on Gessoed paper (at least 140 lb paper – thinner will warp & be nasty) or on small canvases, plywood panels, etc.

Paint brushes: watercolor brushes will be best – a couple of different sizes of rounds, plus a 1/2" flat. (or bristle brushes for oil/acrylic)

Plastic or ceramic mixing palette with wells or depressions to hold colors separately, and some surface area for mixing.

Permanent glue stick

Scissors

x-acto knife or other utility knife

roll of blue house-painters tape or removable artists tape

ruler

water container

some sort of folder or box to protect your finished studies

Colored papers (try to get 100+ different colors). There are three ways of amassing a wide range of color:

- Option 1- Buy a 158, 220 or 314 sheet pack of Coloraid paper. They come in a range of sizes, are thin, matte, paintable and acid-free. They are also expensive, costing you anywhere from \$50-\$100 depending on the size of the set and number of sheets it contains. (amazon.com)
- Option 2 – Go to Lowe's or Home Depot, and shamelessly help yourself to a sample of every color swatch in the paint department. They are small, but have nice matte surfaces, and are a convenient uniform size. Cost: your dignity.
- Option 3 – collect scraps everywhere (thin papers work best) and make a habit of using all your leftover paint by painting it out onto thin scrap paper so that you build up an increasing store of colors. Cost: your time.

Optional Supplies

For your own independent work in the second half of this class, you are free to work in any media or combination of media you choose. So your optional supplies could be just about anything.

General guidelines for all of the “studies” we will be doing over the next few weeks:

In spite of the fact that I will be giving you specific color assignments for each set of studies, I do want you to make these paintings your own. In particular, please use forms, subject matter, etc. that are interesting to you, and related to your other work. That way these will not end up being merely disposable exercises, but will help you to expand your existing creative practice.

The parameters:

- Keep them small – somewhere around 8x11 should be big enough for the class to look at, but small enough to be done quickly without too much sense of risk.
- The point of all of these studies is to practice seeing color relationships, and to internalize more complex and nuanced ways of using color – the more mental energy you bring to each study, the more you will take away. These are experiments – trial and error and observation should be your method.
- Keep them simple enough that you can finish one in 30-60 minutes, and complex enough that you can really dig into the color relationships you are working with.
- In each study, paint the entire surface rather than leaving any paper showing – that way you are compelled to make active color choices about the entire composition. In other words, leave no white space unless you paint it white.
- Stylistically, they can be anything you want them to be – hard-edged, painterly, abstract, representational, etc. It would be ideal for them all to take on a “family resemblance” so that you don’t have to think too much about questions of style after the first few studies.
- Keep the focus on the color relationships so that most of your working time you are actively thinking about the color – if you find yourself thinking more about the forms, lines, details, etc. then you are off the track . . .
- I recommend working with gouache, but if you feel more comfortable working with oil or acrylic, or if a particular assignment seems to you to be easier to execute in paper or digitally, that’s ok. Submit digital work either in the form of prints with excellent color fidelity, or send them to me digitally before class. Several assignments will be submitted digitally via Dropbox and/or Google Presenter (I will let you know which ones).