

Workshop 2: Painting and Dyeing Workshop

Learning Objectives

- To understand the difference between pigments and dyes
- To experience processing a natural dye and dyeing natural fibers
- To understand how natural dyes were made historically
- To understand how additives such as mordants and fixatives affect the dye color
- To understand how the absorption of light influences how we interpret a color
- To understand the artist's process of creating a painting
- To introduce Infrared Reflectography and Ultraviolet imaging as methods for observing underdrawings in a painting

Curricular Tie-ins:

This painting and dyeing workshop is a useful tool to introduce color analysis and some of the analytical methods that are used in technical art history.

- Students will be able to answer the following questions:
 - What tools and resources are available for technical art historians to conduct color analysis?
 - Why is color analysis important in technical art history?

Supplies:

- Clean workspace
- Mylar, newspaper paper (to protect work surface, if necessary)
- Nitrile gloves
- Apron
- Safety glasses
- Glass jar with lid
- Glass stirring rod
- Tweezers
- Undyed wool yarn
- Dried cochineal dye
- Alum powder
- Cream of tartar
- Blue vitriol (copper sulfate)
- Tin (II) chloride
- 2 plastic cups
- Hot Water
- Cold water
- 5 x 7 canvas panels
- 5 x 7 primed masonite board
- Acrylic paint (red, blue, yellow, black, white, and brown)
- 6-well palette
- Paint pot strips
- Paint brushes
- Graphite pencil
- Willow charcoal
- Compressed charcoal

- Oil Pastel
- Centrifuge tubes

Pre-Class

1. Cut about 8 feet of the yarn and wrap into a miniature skein of yarn, each student should have 2 skeins
2. Prepare centrifuge tubes: Fill up tubes to around the 1mL line with either alum powder, cream of tartar, tin chloride, or blue vitriol
 - There should be one tube of alum for each glass jar
 - There should be a tube of cream of tartar for half of the amount of jars
 - Alternate between tin chloride and blue vitriol
 - Each jar should have one or the other
 - Note: some jars may have three vials (e.g. 1 alum, 1 cream of tartar, and 1 of either tin chloride or blue vitriol)
3. Fill paint pots with dried cochineal (one for each glass jar)
4. Prepare paint pots for the painting portion of the workshop, everyone should have one of each color
5. Have a cup of hot water and a cup of cold water prepared before starting the workshop
6. Prepare a clean workspace

Steps:

Dyeing

1. Add all of the dried cochineal to a glass jar
2. Crush the cochineal slightly with a glass rod
3. Fill the jar halfway with hot water
4. Continue crushing the cochineal and stir, the water should begin to turn a red violet/wine color
5. Add the entire vial of alum to the jar and stir
 - If you have a vial with cream of tartar add to the jar and stir
6. Add one of the skeins of yarn to the jar, and stir
7. Close the jar and let sit for at least 15 minutes (shake lightly once in a while to distribute dye)
8. Remove the skein of yarn with tongs and squeeze out the excess dye, set the yarn to the side
 - Yarn should be a red violet/wine color
9. Add either tin chloride or blue vitriol to the jar and stir
10. Add the second yarn skein to the jar and stir
11. Close the jar and allow the dye and yarn to sit for at least 15 minutes
12. Remove the yarn from the jar and squeeze out excess dye, set the yarn aside to dry
 - If the jar had alum and cream of tartar, the color of the yarn on the dye should be vibrant
 - If the jar had tin chloride the color of the yarn should be a pinkish or crimson
 - If the jar had blue vitriol, the yarn should be a dark purple color
13. Dye disposal:
 - If the dye **DOES NOT HAVE** blue vitriol in it then the dye can be poured down the drain

- If the dye **HAS** blue vitriol in it then pour the dye onto paper towels, allow to dry, and throw them away. **DO NOT** pour blue vitriol down the drain.

Painting

1. Each person should have either a canvas board or a primed Masonite board
2. Draw (using either graphite, vine charcoal, pressed charcoal, or oil pastel) an under drawing for your painting
3. Label the back of your panel with your name and the drawing medium that you used
4. Paint the panel, covering your drawing
5. Clean-up workspace, brushes, and palettes
6. Allow the paint to dry
7. Using either a DSLR camera with an infrared filter and/or a UV light, examine the class's paintings

Tips:

- Wear clothes that you do not mind getting dirty
- Make sure that the water used for the dye initially is hot, the warmer the water the stronger the dye
- Yarn can be left in dye longer than the time suggested for a stronger color
- Keep a paper towel nearby when working with charcoal or oil pastel, they can get messy
- Ensure that the lid is secured before shaking a jar with dye in it

Safety:

- Wear gloves and safety glasses
- If dye gets in to eye or on skin flush thoroughly with water
- Do not eat or drink dye
- Follow proper disposal instruction at the end of the workshop