Cochineal: At the Intersection of Cloth and Paint
Lesson Plan
College Level

Summary
Explore the relationships between a family of painters and their ancestral ties to the cloth dying industry in Venice. Delve into the origins of the family nickname “Tintoretto” (“the little dyer”) for the Robusti family of cloth dyers and Renaissance painters by getting hands-on experience with cochineal red. Since the vegetable and insect-based dye-stuffs for textile dyes and paints are the same, the Tintoretto name shifted in significance from one generation to the next. This lesson teaches the history and chemistry of pigments to college students interested in studio art, art conservation, and art history.

Objectives
Students will be able to:

• Discuss the context of the Tintoretto family and its history
• Gain an overview of technical study on paintings by Jacopo and Domenico Tintoretto
• Create an organic red lake pigment
• Follow the procedure of textile dyeing using prepared wool
• Experiment freely with oil paint
• Compare and contrast organic dyes and pigments
• Extract dye from colored fabrics
Lesson Outline

- Powerpoint introduction to the era, region and history of Italian Renaissance painting with an emphasis on the technical study on the paintings by Jacopo and Domenico Tintoretto
- Lecture on the history of organic pigments and the art history of cochineal red
- Pigment extraction activity
- Creation of oil paint activity
- Extraction of dye from cloth shearing activity

Activities

- Have the students follow the procedure for extracting brilliant red-purple dye from cochineal insects as part of a demonstration on the creation of pigments (See “Historical Materials and Techniques” section of the Kress Reconstruction website)
- Lead students through the process of shearing and washing raw wool in preparation for dyeing
- Use cochineal dye to color prepared wool
- Create and experiment with oil paint (See “Historical Materials and Techniques” section of the Kress Reconstruction website)
- Conduct an experiment to extract a red lake dye cloth shearings and compare the qualities of this dye to the one created directly from cochineal insects

Materials

<table>
<thead>
<tr>
<th>Red Lakes</th>
<th>Oil paint</th>
<th>Wool Dyeing</th>
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</thead>
<tbody>
<tr>
<td>Cochineal insects</td>
<td>Linseed oil</td>
<td>Raw wool</td>
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<tr>
<td>Mortar and pestle</td>
<td>Dropper</td>
<td>Dish soap</td>
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<tr>
<td>Alum</td>
<td>Palette knife</td>
<td>Washing bowl</td>
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<tr>
<td>Potassium carbonate</td>
<td>Muller</td>
<td>Large pot or saucepan</td>
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<tr>
<td>Glass beakers</td>
<td>Glass palette</td>
<td>Hot plate or kettle</td>
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<tr>
<td>Glass stirring rods</td>
<td>Odorless mineral spirits</td>
<td>Large tongs</td>
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<tr>
<td>Hot plate</td>
<td>Assortment of brushes</td>
<td>Clothesline</td>
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<tr>
<td>Funnel</td>
<td>Canvas board</td>
<td>Clothespins</td>
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<tr>
<td>Cheesecloth</td>
<td>Paper palette</td>
<td></td>
</tr>
<tr>
<td>Silk</td>
<td></td>
<td></td>
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<tr>
<td>Cloth shearings</td>
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</tbody>
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Resources

Internet Resources:

Video: “Cochineal Red: The Art History of a Color” Sunday at the Met lecture at the Metropolitan Museum of Art by Elena Phipp

Video: “In Search of Lost Colour: The Story of Natural Dyes”

"Organic Pigments" on the Kress Reconstruction Website

Books and Articles:


