Dyeing with non-native plants **Art 185LJ April 26 2023**


Species might include: Bull Mallow (*Malva nicaeensis*), Black Mustard (*Brassica nigra*), Wild Radish (*Raphanus sativus*), Ribwort plantain (*Plantago lanceolata*), Sea Fig (*Carpobrotus chilensis*), Fennel (*Foeniculum vulgare*), Sheep Sorrel (Rumex acetosella), Bindweed (Convolvulus arvensis), Curly dock (Rumex crispus)

Type of dye:
Flavonoids (mostly flavones and flavanols). The flavonoids give the plant color and help with photosynthesis.
Colors: yellow, greenish yellow, bright yellow, dull yellow (did I say yellow? .. Flavus is the Latin word for yellow), dull greens, brownish.

Anthraquinones
Colors: Reddish, brown

Textiles: Mordanted Wool (Alum), Silk (Alum) and Cotton (Aluminum Acetate)
(Don't waste the dye bath on un-mordanted samples. Maybe try a small piece of an un-mordanted material just to see the difference, will not dye much.)

Modifiers: Several will react with Iron Sulfate, some might react with Citric Acid (Acid) and Soda Ash (Alkali)

Process

Task: In groups of 2, create as many different colors you can using just one plant. The more different the colors the better.

In the field:
Find and identify <u>one</u> non-native plant that no other group is using (when you decided on plant let Lisa know). (You can use Google and apps to identify plants) Separate two kinds of parts from the plant, for example stems and flowers, or roots and stems. Have enough of each part to fill 2/3 of a jar. Find information about the plant, and try to figure out if it has been used for dyes historically and what other uses the plant might have.

Dyeing:
1. Fill a jar to 2/3 with plant matter. Fill water to the top.
2. Place the jar in a pot with water.
3. The water in the pot (with lots of jars) should simmer.
4. Leave the jar in the simmering water for 30-60 mins.
5. Remove the plant material.
6. Prepare your fabric samples (cut, label, tie to clothes pin etc.). Use 3.5" (silk/cotton)/4.25" (wool) patches or cut them in smaller pieces.
7. Put fabric samples in the jars. Leave for 10-60 mins.
8. Make acidic, alkaline and iron afterbaths in jars. Use ¼ - ½ tablespoon of chemical to start with, mix it with hot tap water.
9. Rinse or dip samples in afterbaths then rinse (or use delayed rinsing). Experiment with different pH levels and time in the bath.