

Cyanotype Workshop Plan

For Photofringe July 2024

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Setup

Materials

- Solution - New or Classic TBC
- Paper - Fabriano Artistico Hot Pressed
- Paper towels / newspaper
- Citric acid (for washing)
- Envelopes to take home unexposed paper
- Extra uncoated paper

Equipment

- Washing trays
- Foam brushes for coating
- Acrylic sheets
- A4 and A5 size
- MDF boards or thick card (x-laminated?)
- A4 and A5 size
- Clamps
- Syringes to dispense solution
- Mixing pots for solution
- UV lamp and clamps/stand/tripod and foil screens
- Extension cord
- Clothes pegs
- Washing line or clothes hanger
- foam for padding thicker objects
- envelopes or light proof bags to cover up exposures before washing.
- dark sheet and clothes pegs to make dim room
- Binder clips and sellotape
- Hair dryer
- Nitrile gloves, var sizes
- Safety glasses

Things to show

- Feathers, other plants that make for good found objects
- Digital negs
- Test strips
- Prints - of garden objects and plants
- Toned prints

Space

- UV-Proof space
- Sink
- Clean water
- Drying line
- Kettle ideally

Activity

1. Introduction

Timings: 10 mins

Space: Outside (but note we can't show paper!)

- What is cyanotype
- Show some examples
- Talk through process and materials
 - Paper
 - Sensitizer
 - When ferric ammonium citrate mixed with potassium ferricyanide, it becomes sensitive to UV light.
 - Works by UV light
 - These chemicals are then exposed to UV light such as sunlight, which creates ferric ferrocyanide, also known as Prussian Blue.
 - Screen / object / negative
 - Exposing
 - Sun or UV lamp
 - Weather conditions affect time
 - How do I know it done?
 - Washing
 - After exposure, the paper is developed by washing in cold running water: the water-soluble iron(III) salts are washed away. The parts that were exposed to ultraviolet turn blue as the non-water-soluble Prussian blue pigment remains in the paper. This is what gives the print its typical blue color.[22]
 - Drying/oxidising
 - The blue colour darkens upon drying.

- Colour changes throughout
 - Coating: lime green
 - After exposure: pale steel blue
 - After washing: denim blue
 - After drying/24hrs: deep prussian blue
- Why it's great
 - No fixing/stopping chemicals
 - no darkroom
 - You can see it happen (in bright sun)
 - You can play with toners, found objects, acid/alkali
- Show some good plants to print
- Things to be careful of:
 - Must set up the objects to expose in 'dim' area - or do it quickly in shade
 - Must time the exposure based on conditions
 - Mustn't move print/objects while exposing
 - Need objects you can make flat
 - When finished, must cover up and wash off solution in 'dim' area - or do it quickly in shade
- Health and safety
 - Cyanotype solution: if coating, wear nitrile gloves
 - Washing: don't get in eyes / mouth
 - (Glass: handle with care)
 - No food or drink - wash hands before eating

2. Find objects to expose through

Timings: 10 mins

Space: around the garden / exploring

E.g

- Feathers
- Grasses
- Translucent leaves
- Interesting silhouettes
- Glass bottles or other objects that distort light

3. Assemble materials for exposure

Timings: 10 mins

Space: UV-proof space / "dim room"

- Put paper on backing board
- Arrange objects on paper
- Put acrylic sheets on top and clamp if needed
- Warn about moving, and UV exposure

4. Exposure!

Timings: 10-30 mins - depends on conditions

To test, but expect:

- Sunny: 2m 30s
- Light cloud: 6m
- Medium cloud: 25m

Tested: Artistico / CC / Blue sky afternoon: 6 mins

Space: outside in direct sun

- Lay clamped frames out in sun and time to expose
- Everyone needs to time their own prints, or we all start at the same time
- Wait until the exposure time is up, then cover up and take to washing area

4a. No-sun alternative exposure

Timings: 30 mins - depends on paper/solution

Space: inside with mains power

Advance Prep: coat some A6 sheets of Bergger Cot with NC solution for 25 min UV lamp exposures.

- Set up UV lamp and foil screens
- Lay out multiple prints under one sheet
- Wait until the exposure time is up, then cover up and take to washing area

Exposure time (30cm with reflectors):

- Bergger Cot / NC: 8 mins
- Artistico / NC: 8 mins
- Bergger Cot or Artistico / CC: 24 mins

5. Wash and dry

Timings: 5-10 mins

Space: shady area or dim room

Rinse prints in trays with fresh water (ideally some citric acid added, in case water is alkaline)

Hang to dry on washing line

6. Discussion

Change in colour as they dry

Timing and test strips

Looking after/mounting

Toning

Option for another go

Further activity - optional

For those who want to play some more, repeat with paper we coat ourselves

1. Coat paper

Timings: 20 mins

Space: UV-proof space / “dim room”

Use foam brushes to coat paper with solution

2. Leave paper to dry

Timings: 20 mins (you can do this while looking for objects to print)

Space: UV-proof space / “dim room”

Leave paper in dark space - e.g. in a drawer or box

3. Then repeat main activity

Whilst waiting for paper to dry, go and hunt for materials

Could also prep another exposure using pre-coated paper