

“Through an Older Eye”® presents  
“**Historical printing out processes**”  
**A1 Camera Club 2024**

1. Chemistry that changes with light
2. Making Cyanotype paper
3. Mounting for exposure
4. Making the exposure
5. Developing
6. Toning
7. Drying and handling



Cyanotype is an iron-based process. It is one of the oldest processes used for making permanent prints and is the basis for the process used to make document copies called “blue-prints”.

Discovered by John Herschel in 1840 and used as means of copying his notes, this process uses iron compounds that react to light. These iron compounds are much less expensive than the much more light-sensitive silver salts that replaced them in later photographic printing technologies.

### **Cyanotype**

Strong, watercolour paper is coated with a mixture of two solutions:

Solution A is 25 grams Ferric ammonium citrate (green) and 100 ml. distilled water

Solution B is 10 grams Potassium ferricyanide and 100 ml. distilled water

In dim lighting (not fluorescent) use a sponge brush to apply the liquid and then leave the paper to dry naturally. (Hairdryer if pressed for time - not too hot)

### **Make the Print**

Place a negative onto the cyanotype paper in a contact printing frame/press.

Negatives with a good tonal range work best.

You can use the sun if the weather is good, to expose the paper - anything from 5 to 30 minutes depending on the time of year/day/cloudiness and density of the film negative.

One to two hours can be needed for a paper negative but the results are equally as good as that from the film negatives.

Or use a 30 Watt LED UV lamp if the sun isn't available, or for reproducing images with greater consistency.

Using a contact printing frame allows you to inspect the progress of the exposure. You are looking for the image to be mostly blue with the lightest part of the negative rendered as areas of grey and the blackest areas rendered as yellow. Too little exposure and the image seen on the paper will wash away during development.

**Development** is achieved by washing in slightly acidic water. In our area the water is alkaline so wash the print in 0.1% citric acid, until all the yellow on the front has gone.

At this point the print needs to be left to **oxidise** and darken. However, for those in a hurry- a wash with dilute Hydrogen Peroxide (Household cleaners with “Oxy-action”) achieves a similar effect.

Once washed from the peroxide, the print is done but may still darken more on drying.

**However**, we can see what further treatments could enhance the print.

A rinse, to a soaking, in alkaline washing soda will darken the blues, add a bit of purple and then eventually bleach the blues to yellow.

After the chosen rinse/soak treatment, further **toning** of the image can be done with solutions that contain tannins - coffee, green or black tea, oak bark tea, matcha tea, Red Wine!

Colours ranging from browns to greens to blacks and pinks can be achieved with different solutions.

**After toning** we need to thoroughly wash the print before hanging to dry.

The print will darken on drying.

When mounting don't apply glue (eg Pritt Stick) to the back of the visible areas of the print.

Jacquard Ferric Ammonium Citrate 80z  
★★★★★ ~ 114  
£17<sup>79</sup> RRP: £19.99

Jacquard Potassium Ferricyanide 40z  
★★★★★ ~ 77  
£14<sup>92</sup>

Bergger COT-320 Art, 8 x 10in, Pack of 25  
£16.00

Cyanotype: Historical and alternative photography by Peter Mrhar  
★★★★★ ~ 138  
Paperback  
£24<sup>00</sup>

Everbeam 395nm 10W UV LED Black Light - High Performance LED Bulbs, IP66 Waterproof – Ultraviolet Flood Lighting for  
Sponsored ⓘ  
LED  
★★★★★ ~ 400+ bought  
£16<sup>99</sup>  
PATERSON CONTACT PROOF PRINTER - LARGE FORMAT (PTP623)  
Product Code: PTP623  
£49.00 (Inc. VAT)

# Cyanotype Hands on

1. Initial paper
2. Mix equal volumes of solutions A+B to make green cyanotype sensitiser
3. Coat paper evenly with sensitiser - don't overwork & roughen paper.
4. Dry paper
5. Load contact frame:  
  
Neg onto glass, then protective film then sensitised paper
6. Make exposure (15 mins - probably - until get grey areas)
7. Rinse in acidic water
8. Peroxide spray
9. Optional bleach
10. Wash
11. Optional tone & Wash
12. Hang to dry ( will darken)