

The cyanotype process at a glance

Mixing chemicals

The cyanotype is made up of two simple solutions.

- Potassium ferricyanide and Ferric ammonium citrate (green) are mixed with water separately.
- The two solutions are then blended together in equal parts.

Preparing the canvas

- Paper, card, textiles or any other naturally absorbent material is coated with the solution and dried in the dark, or you can use a hair dryer to speed things up. Once the paper is coated and dried put into the black bag until ready to expose.

Printing the cyanotype

- Objects or negatives are placed on the material to make a print. The cyanotype is printed using UV light, such as the sun, a light box or a UV lamp.

Processing and drying

- After exposure the material is processed by simply rinsing it in water. A white print emerges on a blue background.

Preparing the canvas

Using a brush, **simply paint the chemicals onto the material**. Paper, card, textiles or any natural material can be used to print on. Decide how big your print is going to be, and cut your material to size. Make sure your working area is dimly lit, or lit with a low-level tungsten bulb. Once the material is coated, leave it to dry in the dark.



Printing the cyanotype

Print a cyanotype by placing your negative (to reproduce a photograph) or object (to make a photogram) in contact with your coated paper or fabric. Sandwich it with a piece of glass. Expose the sandwich to UV light. Natural sunlight is the traditional light source, but UV lamps can also be used. Placing items on the surface can also make a photogram. Plants, decorative items or other objects can be used to create silhouettes or interesting shapes. Exposure times can vary from a few minutes to several hours, depending on how strong your light source is or the season where you are printing.



Processing and drying

When the print has been exposed, **process your print by rinsing it in cold water.** The wash also removes any unexposed chemicals. Wash for at least 5 minutes, until all chemicals are removed and the water runs clear. Oxidation is also hastened this way – bringing out the blue color. The final print can now be hung to dry.



How to Make Lumen Prints

Making a lumen print takes you back to the beginnings of camera-less photography in 1830s when [William Henry Fox Talbot](#) made his "photogenic drawings." He placed foliage on sensitized paper and exposed it to sunlight. This created a negative print or a photogram from which positive contact prints could be made. Today, the process is exactly the same with the addition of image manipulation using digital technology.

The appeal of lumen prints rests in the way they capture nature's fleeting beauty – its vulnerability, strength, form, color, and physicality.

Materials

- photographic paper of any size or age
- tray for fixing
- Hypo fixer mixed at 1:9. Use at 20 C° (temperature is not critical)
- Tongs
- Clip Frame

Procedure

Select a plant specimen. Place the plant specimen on the photographic paper, then insert it in the clip frame. This should be done under subdued lighting.



Expose it to sunlight for up to 60 minutes. Exposure time depends on the strength of the sun and the time of year. If a cloudy day, exposures can be 4 hours or more. If weather is awful you can expose your lumen prints indoors, but this could take a few days. Experimentation is the only way to find out what works. The photographic paper will start to change colour. These are the chemicals in the paper re-acting to the chemicals found in plants and flowers. You can change the way the photographic paper reacts by adding vegetable dyes, or chemical dyes. Again it is all experimenting.



Image created by adding Cynotype to the photographic paper, and exposed for 1 week indoors.

Developing print

Carefully remove the plant specimen from the paper. Place your exposed paper in the wash tray for 30 seconds.

Pour water away and place print face down on the tray with the hypo fixer and fix it for about two minutes. Remember to do this process under subdued light.

Wash it again for another 20 minutes to remove any excess fixer and dry it overnight. Your print is now ready for scanning.

Scan your print. Using a photo editing software, you can adjust the levels or tweak the brightness or contrast if you wish.

Composing Your Print

- Place paper under the clip frame and the materials outside or above the frame for soft focus and distorted shadows.
- Try even or uneven arrangements, masking, and overlaps.
- Freestyle by scattering leaves or seeds on paper.
- Contact print a photo face down on the unexposed paper.
- Hand-held opaque objects also work with minimum exposure times up to 90 seconds in bright light.
- Aside from plants, try using an opaque material such as glass, plastic, artificial flowers, stencils, etc.

There is no limit to the different effects possible using this simple historical process!

Camera-less photography is at the forefront of contemporary photographic practice.

Some artists to check out using camera-less photography

Wolfgang Tillmans - <https://www.ideelart.com/magazine/wolfgang-tillmans>

Adam Fuss - <http://www.artnet.com/artists/adam-fuss/>

Catherine Yass - <https://www.alisonjacquesgallery.com/artists/29-catherine-yass/works/>

Susan Derges - <http://www.artnet.com/artists/susan-derges/>