

A cyanotype photograph of a complex, branching algal structure, likely a red alga, rendered in shades of Prussian blue against a dark background. The alga has a central stem that branches out into numerous smaller, feathery or leaf-like structures. In the top right corner of the image, there are three small white icons: an information icon (i), a speaker icon, and a monitor icon. In the bottom right corner, there is a white double-headed arrow with the number 49 in the center.

What is a cyanotype?

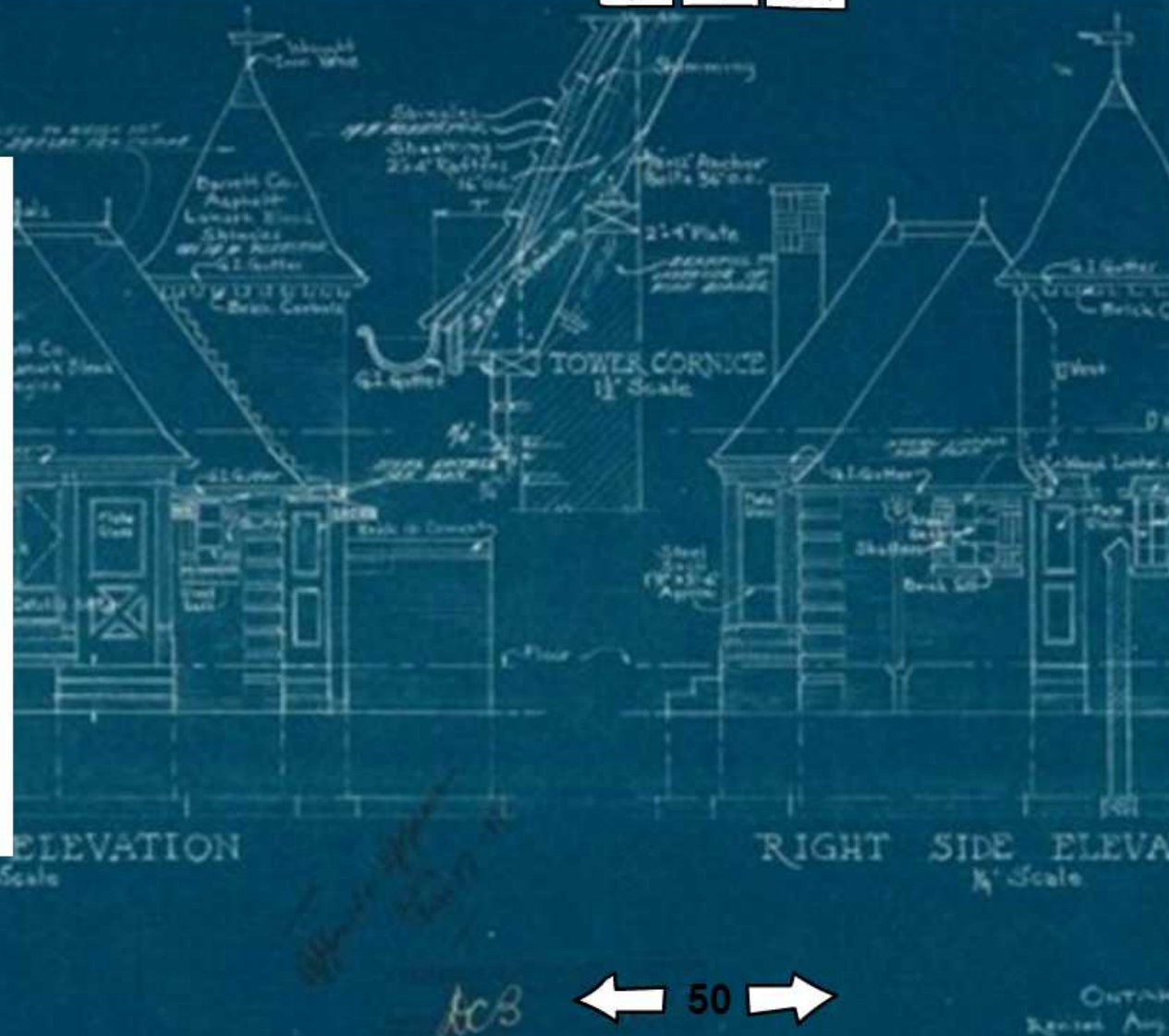
Cyanotypes (also called blueprints) are considered photographic images since they are obtained by "drawing" with light on a surface. No cameras, boxes or lenses are necessary in the process, just a sensitive surface, **UV light** along with something to be placed between the light source and the surface.

Cyanotypes are monochrome images in which the only colour that appears is **Prussian blue** (plus the paper colour).

*Algae. Cyanotype by Anna Atkins.
1843*



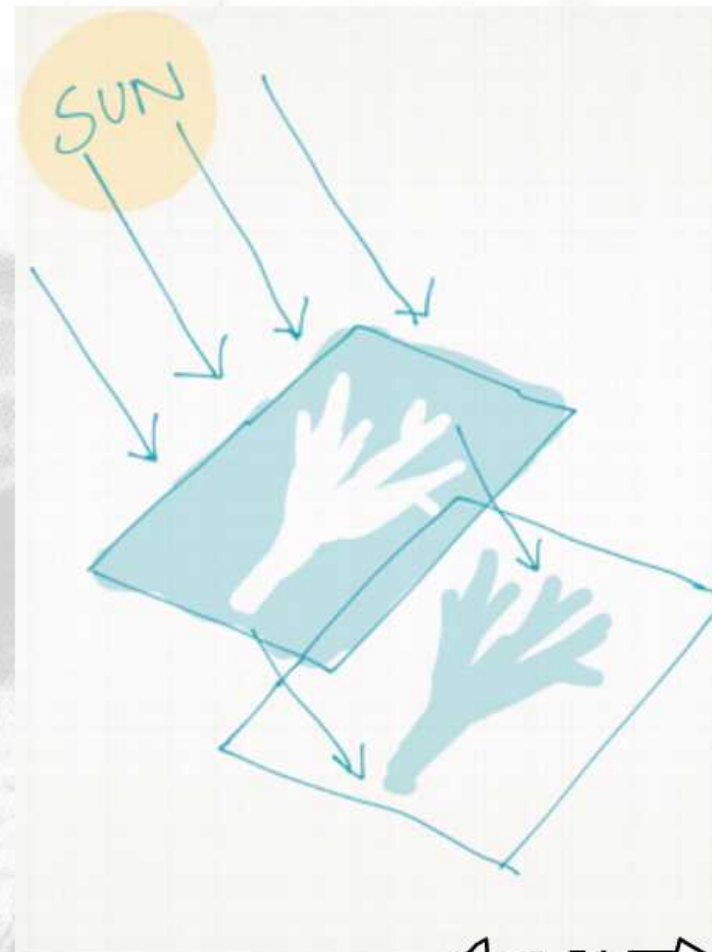
The process was invented by **John Herschel** in **1842**. Instead of handmade drawing, the botanist **Anna Atkins** chose this method in 1843 to produce the images that she used in her well-known book. For years cyanotypes were used to get copies from architectural plans drawn in tracing paper. The copies are called **blueprints**. Along with blueprint, other names for cyanotypes are: Sun prints, Iron prints or Ferro-prussiate print





How is the process?

The process is based on using iron salts instead of silver as base of the **sensitive layer** to capture light (as photographic sensitizer). A surface, sensitized with the appropriate iron-based solution, is printed by oxidation of the salts by UV light action. If an object is placed between the light source and the sensitive surface, the light will not reach all the paper area, and the object's silhouette and those parts which are not completely opaque will appear after exposure.





MAKING CYANOTYPES II- SAFETY EQUIPMENT II



- ← running water (tap)
- ← Old newspaper sheets
- ← Rubber gloves
- ← Apron
- ← Goggles
- ← Sink



BASIC VOCABULARY I



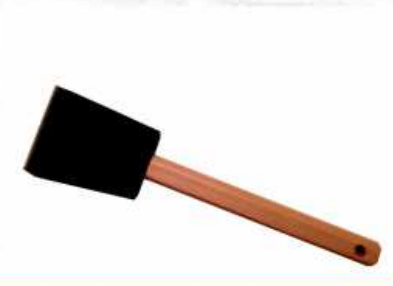
Brown glass bottle

Fabric

Masking tape

Foam brush

Watercolour paper





BASIC VOCABULARY II



Match



MAKING CYANOTYPES IV - PREPARING THE CANVAS

Coating the canvas

The surface used to get cyanotypes is usually a natural paper but cloth or **fabric** can be used as well (cotton and linen are fine). The paper must be absorbent and free of components that could react with the chemicals. **Watercolor paper** is appropriate for this technique.

The paper must be coated using a foam brush (without metal ferrule).

Use **masking tape** or a **template** to delimit the area. It is important to coat each paper twice (2 layers), vertically and horizontally.

It is advisable to prepare canvases in a dim light room.

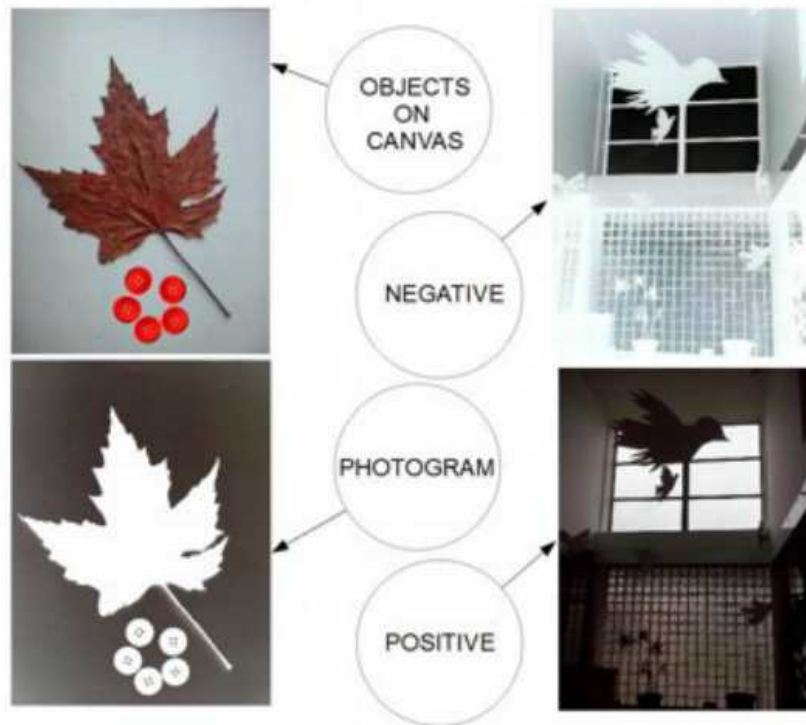
drying the canvases

Sensitive papers must be protected from light while drying. Putting them away inside a cabinet is a good option. Once dry, store them into proof-light bags up to using them, if you will use the material some days later.





MAKING CYANOTYPES V - PREPARING THE IMAGE



There are two main options to prepare an image in order to make a cyanotype:

1- Using **contact prints**. They are negative images that you can get easily from the computer using a photo editing software as GIMP. You must print them on acetate sheets.

Painting on a transparent paper or glass is another good option to prepare an image.

2- Using **photograms**

(<http://en.wikipedia.org/wiki/Photogram>)

By placing things directly on the sensitive surface



MAKING CYANOTYPES VI - EXPOSURE I

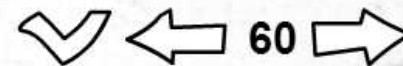
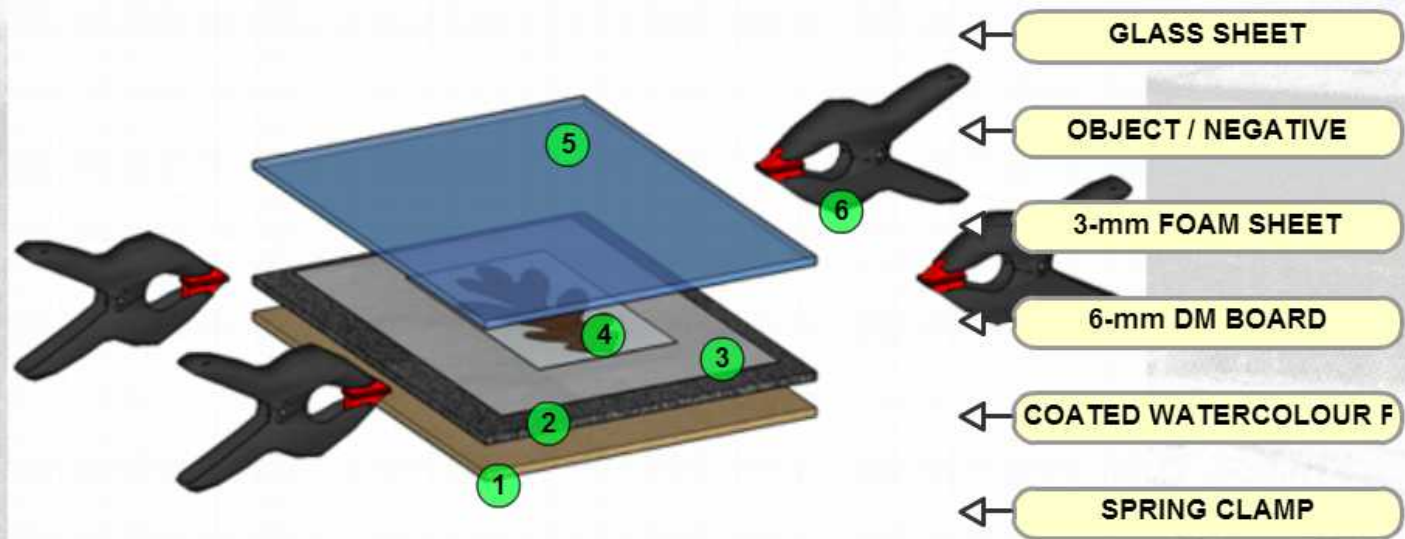


Use of contact frames

It is advisable to use a contact frame in order to avoid sliding between the contact prints and the canvas during the exposure. Make your own contact frame using a 6-mm DM board with a 3-mm foam sheet stuck on it, a 4-mm glass sheet and four plastic spring clamps to keep all fixed.



MAKING A CYANOTYPE VII - PREPARING THE CONTACT FRAME





MAKING CYANOTYPES VIII - EXPOSURE II



Once the contact frame is prepared, it must be exposed to UV light. Although UV lamps are widely used, it is more interesting to use natural resources (environmentally friendly solutions), so sunlight is perfect.

The frame must be placed facing directly the sun rays (perpendicular to them as much as possible) to shorten the exposure time.

The exposure time depends on the weather and the season. It can take from some minutes to hours. In a sunny day, around 20' is a good exposure to start, but you should develop your own exposure time chart for your area.



MAKING CYANOTYPES IX - WASHING AND DRYING



Rinsing

After exposing the cyanotype to sunlight, the next step is to wash the print in running water for 5-15 minutes to remove all the product that was not printed. The image will turn blue and white while rinsing.

Drying

To dry the cyanotype, hang it on a clothesline with plastic pegs and leave it there until being bone dry.

In the photo, the teacher Mr. Irving Osterer is hanging the cyanotypes made by his Integrated Art Students (grades 9-10) at Merivale High School. Ottawa. Canada

