

CHILDREN'S PAPER CUTS: Silhouette Scenes and Photogram Cyanotypes

Two Projects based on Hamlet

PROJECT 2: PHOTOGRAM CYANOTYPE PRINTING

A photogram is created without a camera and is made when an object is placed onto a light sensitive surface. A Cyanotype is the printing process that produces a cyan-blue print. It is very simple to do, although it can require some preparation, and children are captivated by the 'magical' effect of images they have designed appearing on the sensitised paper after exposure to UV light.

As in introduction to photogram cyanotype printing, the work of **Anna Atkins** (1799-1871) is both remarkable and important:



An English Botanist and photographer, she is considered by some to be the first woman to make a photograph. Atkins made her images by placing botanical specimens onto paper that had been made sensitive to UV light with chemicals.

For this project, the children will use their cut-out making skills to create a new illustration for a scene in Hamlet, placing their paper designs directly onto sensitised paper, before exposing to sunlight, and then 'fixing' the image by washing.

Resources



NOTE: For this project you may use commercial 'Sun Print Paper' which is readily available from Educational suppliers. The advantage of using this paper is that it has been pre-sensitised to UV light and is ready to use. It does not react very quickly to sunlight, so there is no need to create a dark room in

school and children can prepare their images in low light conditions with no adverse effects to the paper. The great disadvantage to using this paper is that it can be of thin, poor quality and does not produce the same vibrant Prussian blue colour as a true cyanotype. Furthermore, it normally does not come in large-size sheets.

It's completely up to you and your budget which approach you take, but here, I will explain the method for **teachers (not children)** to make their own cyanotype paper very simply, usually at much less expense than buying commercially created paper. I will also address how to create a 'dark room' space for children to work in. I really think the small amount of effort required results in more visually arresting work.

YOU WILL NEED:

- Scissors (enough for all children, including left-handers)
 - Cartridge paper (not card)
 - A number of sheets of Perspex or glass – the inside of an old frame is ideal (tape the edges to make them safe).
 - Uncoated/acid-free watercolour paper
 - Flat boards to work on – eg clay boards or strong card sheets
 - Roll of masking tape
- To coat your paper, you should purchase **Cyanotype Sensitiser** solution. This is a solution of ferric ammonium citrate and potassium ferricyanide, ready-mixed for you. 100ml of the solution should be enough to coat 50 sheets of 20 x 25cm paper!

Here are two suppliers:

<http://www.wetplatesupplies.com/old-school-cyanotype-200ml-kit-131.html>

<http://www.ag-photographic.co.uk/fotospeed-cyanotype-sensitiser-50ml-2557-p.asp>



Advance Preparation of Paper

NOTE: This is a job for responsible adults only.

It is advisable to wear gloves, mask and goggles when using chemicals.

Children should NOT be allowed to prepare the paper.

You need to paint your cyanotype solution directly onto the surface of your watercolour paper (on one side only). This should be done where there is no possibility of UV light reaching your paper – ideally wait until it is dark and you can safely work under house lights.

Your paper will look as though it is green:

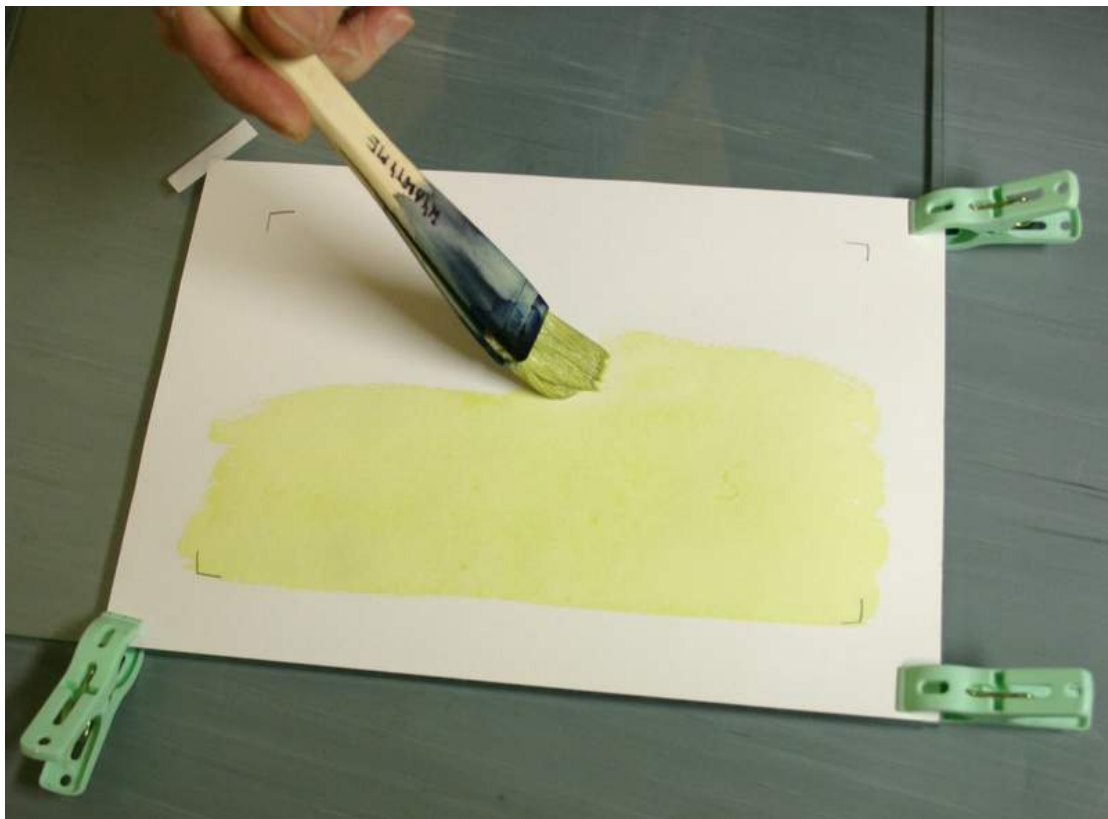


Photo credit: <http://www.ntm.cz>

Leave your papers to dry, then put them into a **LIGHT TIGHT BLACK PLASTIC BAG**. You could ask for one of these at a photo suppliers – they may give you one for free. Alternatively – wrap the papers in a couple of heavy bin bags then put the parcel in a tin or box.

Preparing a Dark Room in School

Cyanotype paper is much more sensitive to UV light than Sun Print Paper. Making a darkened room is necessary for making the best cyanotypes but it doesn't have to be completely light tight. It will work best if you choose a small room, with the fewest windows possible. Tape heavy black bin bags up at the windows with black gaffer tape to block out the light. This should be enough for your purposes.

Lesson 1 –Designing and Cutting-Out Images for Photograms

As with the Silhouette Scenes lesson, recap with the children on the scenes of Hamlet that they might want to illustrate. This time, it won't be important to create an atmospheric background, so concentrate on getting the children to generate strong symbols to represent place, and think about how the characters' pose and body language can express their attitudes.

For the example here, we used symbols that represented the play overall, rather than working on one specific scene – for example, the Castle of Elsinore, dueling swords, poisoned wine, broken hearts etc.

Children should draw their scene on paper of a decent thickness, such as cartridge paper. The paper can be black, but this is not necessary, however using dark paper will help the children to see the layout of their design better later on.

Cutting Out the Design

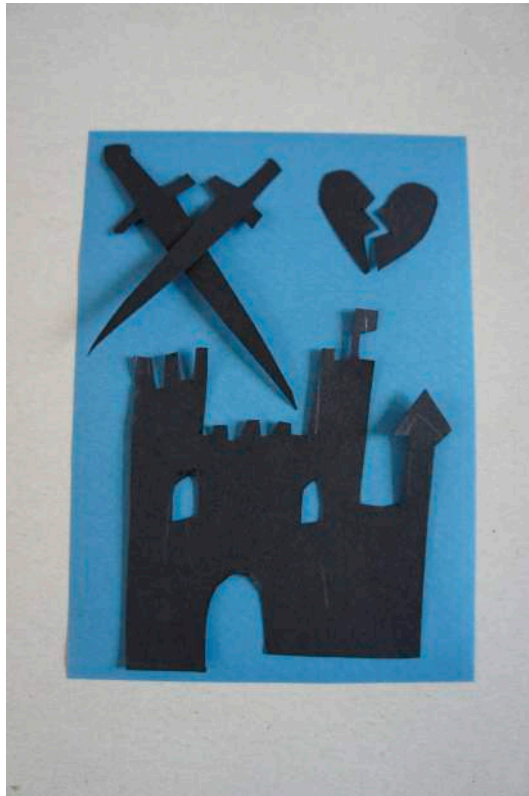
Again, have a named envelope handy for children to put all their cut pieces into as they work – this saves upset in the event that an important piece is swept into the bin! See also the Hints for Successful Cutting in the Silhouette Scenes PDF.



Lesson 2 – Printing and Fixing the Image

This is a really fun lesson, though to get the best results, teachers should work with one small group at a time. I would suggest a maximum of 6 children in each group.

Take the first group of children into the 'dark' room – remembering their envelopes of cut pieces. With the door is closed, give each child a sheet of the cyanotype sensitised paper. They should tape this with masking tape to a small board.



The children should then spend time arranging their cut-out pieces on their paper. (As the room is unlikely to be completely light tight, there should be enough light to see by – if not, you can use a desk light with a tungsten bulb.)

Please note – the paper used in this photo was Sun Print Paper, which is already blue to start with. I used this so I could take photographs of each stage - which I could not do easily in the dark - and Sun Print paper does not require a darkroom. If you are using cyanotype paper, it should still be greenish at this stage.

When the children are satisfied with the placement of their cut-outs, place the glass or Perspex sheet on top of the paper and the board to keep everything flat.





Next, the children should carry their board out into an area that has a good amount of UV light. This doesn't have to be outside – UV light coming through a window is fine, and an overcast day will work too, only not as quickly as a sunny day. On a sunny day, allow 2 minutes exposure, more on a cloudy day. If using Sun Print Paper, the paper will turn lighter blue when it is done – a slight change. If using cyanotype paper, it will turn from green to blue – a much more noticeable change.



After the print has been successfully exposed, remove the glass/Perspex plate and the cut-outs and transfer the paper into cold water. This will 'fix' the image, making it permanent. Where the cut-outs were placed, the paper will be white. With Sun Print paper, the sheets may be removed from water and laid out to dry after a minute. With cyanotype paper, the prints need to stay in the water for at least twenty minutes to wash away all chemicals. Anyone handling the prints at this time would be advised to wear gloves. Running a tap onto the prints speeds up the fixing process.



Here are three finished Photogram Cyanotype prints next to the finished castle Sun Print – for comparison. You can see that objects placed on top of the glass can create some interesting 3D effects. As an extension, children might want to experiment with creating different effects and using more than cut-outs to make their scene.



More information on the cyanotype process:
<http://www.silverprint.co.uk/cyanotype/>

Jan Periton Dunning, February 2015