Susanna Brown - Anna Atkins, Title Page and Poppy , from the portfolio British and Foreign Flowering Plants and Ferns

SUSANNA BROWN: Hi. I'm Susanna Brown, curator of photographs here at the Victoria and Albert Museum. And we're standing in the photograph store, which is the space where we hold about 800,000 photographs from the collection. And the store is a very carefully controlled environment. Both the temperature and the humidity are regulated to best preserve the very, very fragile objects that we store in this room.

And today, I'm going to talk about two of those objects, some incredible cyanotype images by Anna Atkins. The cyanotype process is a very simple way of making an image, which, in fact, although we think of it as a photograph, doesn't use a camera at all. And later on, I'll talk in more detail about the process of how to make your own cyanotypes.

Anna Atkins is a really, really important person in the history of photography. She's probably the first woman to ever create a photograph. And she became hugely important as a botanist as well as a photographer.

She knew a great deal about plants. And she contributed enormously to the science and understanding of plant life in Britain. Anna Atkins was born in 1799.

And as an adult, she became a friend of the famous astronomer Sir John Herschel. And this cyanotype process was, in fact, invented by John Herschel. And he taught Anna Atkins how to use it.

She had a lot of famous friends. And one of her other good friends was a man called William Henry Fox Talbot, who we consider today to be the father of photography in Britain. He invented the negative-positive photographic process that's still used by many photographers today.

And Anna Atkins is credited with creating the very first photographically illustrated book, which was an album of plant life, and in particular algae studies made using this wonderful cyanotype process.

So you're probably wondering, how is a cyanotype made? Well, it's very, very simple. A sheet of paper like this one is coated with iron salts. And then, objects - plants and flowers in this example - are laid on top of that paper and taken outside into the bright sunlight.

And Anna Atkins would have left these sheets of paper out in the sunlight for quite a few minutes to develop and then washed them in water afterwards to reveal this rich blue image. And the areas of the photograph where the plants had been resting are a much lighter colour - almost white, in fact, in this example.

Although today at the museum we prize these cyanotypes as artworks, they were, in fact, made for a very scientific purpose. As I said, Anna Atkins was a botanist. And in her studies of plants, she relied on drawn and painted illustrations. But this invention of the cyanotype in the 1840s enabled Anna Atkins to record in incredible detail plants and natural specimens.

And this cyanotype process would really transform the way in which botanists could work. Because what we see is not an artist's impression of a plant, but an impression that's made by the plant itself. What this means is that the size of the image is exactly the same size as the real plant in nature. And we also see a very different view of its outline and form than we would in a painted illustration.

In keeping with the scientific approach of her cyanotype project, Anna Atkins includes the Latin names of the plants and flowers on each of her cyanotypes. But this flower to us today is just called a poppy. That's its simple common name.

And it is one of my favourite examples from Anna Atkins' huge series of cyanotype pictures. What I love in particular is this beautiful ghostly quality of the petals of the flower, almost like a modern-day X-ray photograph. And we see in contrast to those thin light petals the heavier, thicker stem of the poppy and the outline of its leaves.

Of course, when we think of a flower like a poppy, we think of the colour red. So it's strange and unusual in a way that this image is entirely blue. But that is the nature of the cyanotype process. It's not possible to make a red cyanotype. So we see a different version of a poppy than we would ever be able to experience in real life and a different version of the poppy than we would ever see in a painting or a drawing.

But the effect of this process draws our attention to different elements of the flower that we might not necessarily notice if it was a conventional photograph in colour. What I also love about it is it reminds me of my own childhood passion for collecting flowers from my garden and pressing them inside a flower press till they were dried out and flat. And in fact, that's something that Anna Atkins herself would often do in order to create her cyanotypes. So rather than picking the poppy and immediately making this image, she would dry it out in order to be able to lay out each element of the plant more clearly for the cyanotype image.

When Anna Atkins first started working in the 1840s, being a photographer was an incredibly complicated and technical role. Today, it's very easy for us to pick up a camera, or even our phone, and take a photograph. But it required a huge amount of scientific knowledge back in the 19th century.

It also required very long exposure times. People would have to sit still for several seconds, or even several minutes, to have their portrait taken in the 1840s. Which is perhaps why there are so many photographs of plants and landscapes from that era, things which were much easier to take a picture of back then.

Anna Atkins experimented with other processes. But the cyanotype process is what she became best known for. And at that time, many of the photographic processes in use were highly complicated and very, very dangerous, using complex recipes of quite nasty chemicals.

But in contrast, this cyanotype process was very safe and easy to use. And in fact, today, we can still get little kits to make our own cyanotypes at home. So why don't you have a go yourself with some flowers or other objects?