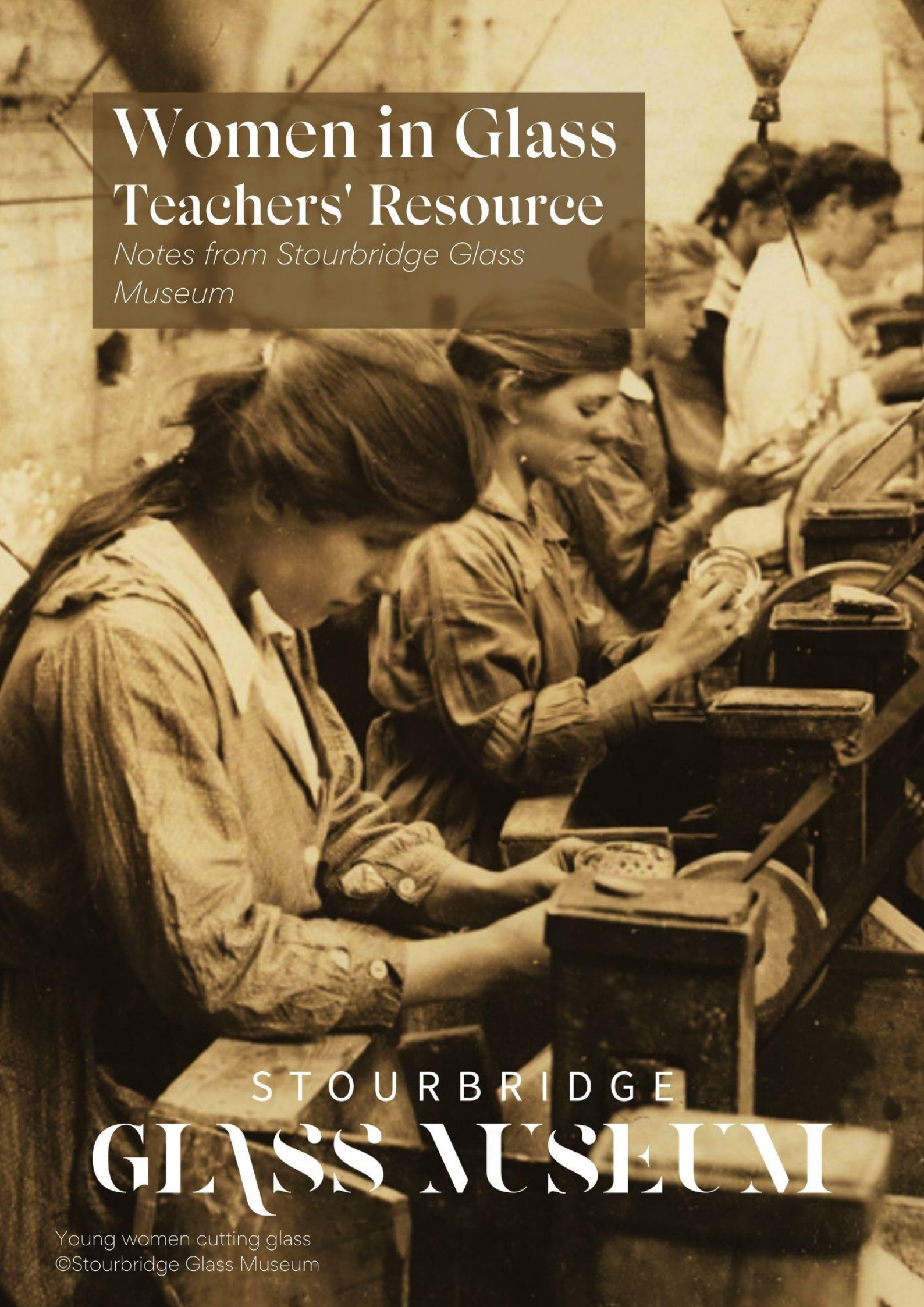
Women in Glass
Teachers' Resource
Notes from Stourbridge Glass Museum



STOURBRIDGE
GLASS MUSEUM

Young women cutting glass
©Stourbridge Glass Museum

Women in Glass

1850—1914

Introduction

Women have played an important role in Stourbridge's glass industry, but not always at its forefront. Many better skilled roles in the industry were only open to men, and women were only allowed to do certain specific jobs. The hot working factory conditions were an all-male environment, and women's work was restricted to auxiliary jobs, like sorting cullet, and washing, cleaning, and inspecting the products for quality. From the 1850s, many local glass companies developed a new way of decorating their glass called acid etching. Women were often employed to do the labour intensive work of applying the acid resistant wax to the glass before it was dipped in acid. Some were also employed to operate the machines that etched the designs through the wax. Click through the pictures to see some of the women working in the glass industry in the nineteenth century.

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These women worked in Richardson's Cutting Shop in the 1830s. They are carrying a bath of water to refill the troughs underneath the cutting wheels to keep them cool. Can you spot the dog in the picture?

These young women worked at the acid etching shop at Stevens and Williams in the 1880s. Can you see the tall lady at the back? Her name was Miss Lawley, and she was their supervisor.





This picture shows some women workers at Stuart Crystal in 1902. They are applying acid resistant wax to the glass. How many glass objects can you see in this picture?

This is an example of an acid etched goblet. What do you think are some of the dangers that women workers might have faced from working with acid?



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1914—1918

Introduction

During the First World War, women were able to take on some of the jobs that had been traditionally done by men, who were away fighting at the front. These included marking patterns, engraving, cutting, enamelling, and hand painting on glass. There was huge demand for window glass in wartime which kept the women busy manufacturing, and they also had to make lots of specialised glass for use in war – everything from submarines' portholes to splinter glass for use in gas masks!

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These women are sorting cullet (waste glass that can be remelted) to check it isn't contaminated. Would you want to do this job with your bare hands like they are?

These women are shovelling sand. Sand was used in the manufacturing process to help bed glass onto surfacing tables, to stop it moving around. Can you see what protective clothing they are wearing?





The government placed huge orders in order to meet the needs of the armed forces in wartime. These three women are packing an order of one million lamp bulbs! Can you sport what they have put on the floor, to help prevent breakages?

These ladies are making window glass – in high demand during wartime! They are lehr table workers handling a sheet of drawn glass. What is unusual about their clothing for the time?



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These women are packing glass for submarines' portholes. How many glass circles do you think there are in the picture?!

1918—1939

Introduction

Between the wars, fewer women were working in the glass industry, in part because there was not the need for mass production once the conflict was over, and also because of a depression in the trade during the 1920s and 30s. Local companies produced many decorative pieces, and women were involved in the process of making these items by undertaking acid dipping. This could be dangerous work! Click through the pictures, and listen to the audio of Dulcie Harper, who worked at Royal Brierley, talking about this job.



These women are acid dipping some glass: rinsing it in a highly corrosive mixture of hydrofluoric and sulphuric acids. There were shields over the vats to draw all the fumes away. Can you see what protective clothing the women are wearing?

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This picture shows the production of a lead crystal wine glass, made by Stuart Crystal right here in this building. You can see it as it is first made, then after it has been rough cut, then after it has been dipped in acid. Can you see what difference this makes?





This tea glass was made for Florence Perrins, who worked in the processing department, by one of the apprentices. Apprentices often practiced their skills on ‘seconds’ (items with minor faults which mean that they can’t be sold) by engraving quite rude pictures! Can you see what Florence is sitting on?

Transcript comes from KR based on oral history with Dulcie Harper, who worked at Royal Brierley.

“We had a copper plate with an etched design, it was coated in acid paste and a piece of tissue paper rolled on it, to absorb acid, then it was transferred onto the glass, the acid in the paper etched the design”.

Working in the acid dipping shed was one of the hardest jobs on the site done by women. When you opened the door to the acid room the fumes made you gasp”.

When the glass was taken from the acid bath they were put on a draining board and swilled with water. They were taken to the warehouse on a tray, this job was called ‘carrying-off.

“To see the pieces of glass before the acid polish, in the raw, you would not look at them twice, they were dull and with no shine. When it came out of the acid, the pattern sparkled.

“If you worked in the acid, you could not wear glasses as they would go all frosted. The fumes spoilt the glass, and you had to tie your hair up in a scarf because the acid fumes would turn it yellow.

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1939—1945

Introduction

During the Second World War, women workers in Stourbridge were once again called upon to make glass for the war effort. The product needs in this conflict were much more specialised than they had been in the First World War, with local factories making hundreds of important and intricate items for use in the war effort – everything from glass vials to hold vital medicines, to aircraft landing lights. Stourbridge also made the glass for sticky bombs, a special kind of grenade that was designed to stick to the side of a tank when thrown, then explode. Click through the pictures to see some of the women workers in the industry during the war.



Here, a ‘sticky bomb’ is being examined to check the depth of the neck. It was important to know how deep the bomb was, so it could be filled with the right amount of explosive! Would you have wanted to have done this job?

And in this picture, the sticky bomb is being checked to make sure that the glass is thick enough. Why do you think this is important?



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These ladies are all working on the sticky bombs. Can you see that some of them have woolly jackets on? This was to stop the bombs sticking to each other!

These women are cracking off the glass and checking radar tubes. What other uses for glass can you think of in wartime?



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1945—1960

Introduction

After the war, many local glass factories were remodelled and went back to making domestic items for the home such as glasses, bowls and vases. Many women workers were involved in the finishing off process, doing jobs like cracking off, smoothing and puntying the glass. This needed careful handling of and concentration. Crystal glass can easily be bruised by bumping two pieces together, which would make them into second quality – not what the bosses wanted! Have a look at the pictures of the women doing this work, and listen to the audio of June Wilson, a worker at Tudor Crystal, describing the processes.

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This lady is applying gold lines to wine glasses, using a brush to paint thin lines of liquid gold suspension, which was then fired on in a kiln. Do you think you have a steady enough hand to do her job?

This photograph is from the 1950s and shows the women working on finishing off the glasses on their tables. How many glasses can you see in just this one image?





These women are ‘cracking off’ the excess glass to make sure everything was the right height. Occasionally this could go wrong and the glass might splinter or crack! Do you think they should have any protective clothing or equipment to help them?

These women are packing up the finished glass, ready to send it out into the world to be sold. Can you spot the rolls of corrugated paper above their heads, to wrap the glass in to keep it safe on its journey?



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An oral history interview with June Wilson describing work at Tudor Crystal in 1946.

The New Process was a Conveyor belt that came out of the lehrs. Women worked on both sides of the belt processing small glassware such wine glasses. The markers measured the height and scored a line around the glass, then passed it on to the ‘crackers off’. The glass was moved around a flame to make a line of weakness and the girls used a wet finger to just touch it to ‘crack-off’ the excess glass. They had a bowl of water beside them but usually they just wet their fingers in their mouths.

The ‘*stoners*’ smoothed off the top of the glass by holding it upside down on a wet stone turntable that revolved quite fast, it was lubricated with graphite powder. The smoothed glass was passed to a melting oven, the glasses travelled around inside, on a turntable, where the tops were heated to melting point and a round bevel was formed to smooth the rim. It was hard work, you had to hold the piece quite firmly and flat as the wheel spun around or it would be whipped out of your hands. It was known as a grotty little job.

Puntying was rubbing out the pontil mark on wooden wheels and then polished on cork wheels. We had to work on a ‘crate’ of 480 tumblers it was hard work rubbing the base of 480 glasses on two wheels each.

1960—now

Introduction



In more recent years, women were able to take on a much wider range of roles in the glass industry. While some continued to do unskilled work, women were also able to take on skilled jobs. In 1946, Webb Corbett employed its first woman designer, Irene Stevens who had attended Stourbridge School of Art then the Royal College of Art,

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London. Many women followed in her footsteps, coming from the Stourbridge School of Art to work in the design and drawing offices of local factories. Today, glass making is no longer a male preserve, with many women working in studios creating their own beautiful and unique pieces.

Irene Stevens, pictured here in 1954, was the first woman to be employed as a designer at one of Stourbridge's glass factories. Do you think it's fair that women had to wait so long to have the same job opportunities as men?

This lady is refining design patterns in the Drawing Office at Royal Doulton. Can you spot any items in our collection that make use of her design?

This woman is sketching designs freehand, which will then be etched onto the glass bowl she's holding. Are your drawing skills good enough to do her job, or would you need to practice more?

Here, a turntable set up is helping this lady to mark-up glasses for etching. Does this look like a fun job to you?

This is a video of glass artist Belle Walker working in her studio in the 1990s. Can you tell what she's making?

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