

Previous page Modern stained glass featuring a colourful flower and butterfly. Left One of two panels in Ely Cathedral entitled Girls Dancing, 1920s, by Thomas Cowell. Right Various tools from a stained glass kit. Below Modern stained glass featuring a hummingbird and flower. Bottom of page Example of restoration work carried out by Williams & Byrne.





The basic techniques of making stained glass date back centuries, and many modern processes are simply refinements and mechanisations of these age-old skills. The earliest examples of man-made glass, among them beads and decorative glazing for pottery, have been found among the remains of ancient Middle Eastern civilisations.

Stained glass was, it seems, first developed in sixth century Constantinople, where the Emperor Justinian employed glass workers to make windows using coloured glass, held in place with lead strips, in the great church of Saint Sophia. From here, the fashion and technical skills for making stained glass spread throughout Christian Europe, and there is evidence that British churches and monasteries featured stained glass windows as early as the seventh century. The first examples were simply mosaics of coloured glass, but as the art developed windows became larger and figures more subtly defined.

### EARLY TECHNIQUES

The growth of the Roman Empire created a vast market for glass of all types, but when the Empire waned European glassmaking fell into decline until the late Middle Ages. Luckily, the skills for making stained glass survived in the workshops attached to monasteries, where stained glass windows were produced for the great cathedrals and churches, illustrating stories from the Bible for churchgoers who could not read.

In earlier stained-glass work, the glass was stained by adding metallic oxides to the molten glass (copper for red, iron for green, cobalt for blue, and so on); but this type of glass (called pot-metal glass) often did not allow much light to pass through. To overcome this problem, 'flashed' glass was developed – clear glass dipped into coloured glass while molten, which produced a sheet of glass that was clear with a thin layer of colour that could be removed, using an abrasive wheel, to suit the design. Later the stain was painted and fired onto the surface of the glass, and from then on the techniques were often combined, to awe-inspiring effect.

By the 12th century, stained glass had become a sophisticated art form, and it was further developed by the discovery, in the early 14th century, of yellow stain (useful in the highlighting of hair, haloes and crowns) and 'silver stain', which could achieve a further range of colours from pale lemon through to deep orange. By the mid 16th century many different coloured enamels were being used and, as a result, windows began to be painted in the same way as easel pictures, on clear glass, with leadwork no longer an integral part of the design. This style prevailed from the 17th until the early 19th century.

### STAINED GLASS REVIVAL

The Reformation of the church in the 1540s had a dramatic effect on the art of stained glass. The change in religious outlook undermined the need for sacred art and many medieval and Renaissance windows were smashed and replaced with plain glass. Gradually, the craft declined and skills were lost. It wasn't until the 19th century that a serious attempt was made to rediscover the techniques of medieval glazing. In 1845 renowned Gothic architect AWN Pugin persuaded









Far left A fragment of a memorial stained glass window featuring an angel holding a banner reading Be Strong, Above Vintage stained glass door panel. Left Example of stained glass restoration work carried out by Williams & Byrne.

his friend John Hardman to expand his ecclesiastical metal works to include stained glass; it was to become one of the most important Victorian stained glass studios. Just as influential was the founding, in 1861, of Morris, Marshall, Faulkner & Company, by designer William Morris. Its aim was to produce medievalinspired items for the home, with stained glass one of the most important elements of its output.

The Arts & Crafts movement that was inspired by William Morris, with powerful designs by Edward Burne-Jones, was a major influence on the revival of traditional stained glass, and a number of notable manufacturers and designers were established.

#### MODERN DESIGNS

During the 20th century, stained glass artists aimed to transform an ancient art form into a modern one. From the 1950s, artist and designer John Piper, working with stained glass artist Patrick Reyntiens, revolutionised architectural glass with their use of colour and artistic expression. While in the 1960s and 70s the Expressionist painter Marc Chagall produced extraordinary, contemporary stained glass windows that demonstrated his desire to explore colour, light and emotion. Other noteworthy names include the American artists and innovators John LaFarge and Louis Comfort Tiffany.

Thus developed a 21st-century aesthetic in which anything is possible, with glass artists pushing back the boundaries of both materials and methods, offering highly individual interpretations to create a range of works that are as beautiful and appealing as their medieval counterparts.

## INSIDE STORY - David Williams, stained glass artist

I've always been fluent in drawing, and I studied both painting and print-making. I was very lucky in that my first job was with Patrick Reyntiens, the great stained glass artist. My eight-year apprenticeship included working on John Piper windows and the Benjamin Britten memorial windows in Aldeburgh. After that, I joined John Hardman's studio in Birmingham as chief designer – they were survivors of a very fine Victorian company and, amongst a huge variety of projects, I carried out lots of restorations of Pugin windows, as well as designing and making new windows, too. I set up Williams & Byrne seven years ago with Stephen Byrne, who I'd trained at Hardman's.

The wonderful thing about stained glass, as someone said, is that it's an interruption of light – so you are working with the way the glass adjusts light and the environment it's in. I love the whole process of discussing initial ideas, the designing, the making and

finally the installing, and I also love teaching students who come to our studio from all over the world."

# Get in touch...

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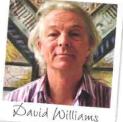
## Find out more

The Stained Glass Museum,

Ely Cathedral, Ely, Cambs, CB7 4DL. 01353 660347, www.stainedglassmuseum.com.

The Stained Glass Centre,

St Martin cum Gregory, Micklegate, York. 01904 611687, www. stainedglasscentre.org.uk.



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