

Stained Glass

All the stained glass in the Minster are Victorian except the East Window lower four panels, one in the South Choir aisle, the fragments by the West door, and the Chapter House.

A. Two examples of Victorian windows

I. The Candle Chapel - left hand window.

This is by Christopher Whall b.1849, who wrote the classic book on stained glass.

Made in 1906, its style is definitely of the 20th century.

Main lights - the crucifixion, with our Lady and St. John.

Bottom panel - the ram caught in a thicket (Gen.22.13), an O.T. type of the sacrifice of Christ.

2. The Airmen's Chapel; East window.

This is one of many windows in the Minster by Kempe, whose studio lasted until 1934. He himself was not an artist, but employed artists to carry out his ideas.

Main Subject: The Annunciation, the roundels below are of Gideon and the Fleece., left (Judges 6.39) and Moses and the Burning Bush, right (Exodus 3.1-3), both events out of the normal order and therefore parallel to the Virgin Birth.

The painted parts of the right hand lights have faded – this is probably due to a different paint mix, not to weather.

B. Techniques of stained and painted glass**1 How is glass made?**

Glass forms naturally and is found universally, e.g., on the moon. Earliest manufactured glass in ancient Egypt, for bottles, etc. Made from sand heated until liquid, with small amounts of other substances added, e.g., wood ash, sodium etc.,

Medieval artists used beehive shaped kilns, see Theophilus De Diversis Artibus, written in the Middle Ages. These kilns produced a mass of molten glass, made into flat pieces by one of two methods:

a) the muff method – sausage shape blown from a pipe, end chopped off, cylinder cut lengthways and flattened before hard, or is uneven in thickness and has striations and bubbles which give it character,

b) the crown method – a disc formed on a rod, cut up and the thick central piece thrown away – though today used in Pseudo-old windows and called bottle glass. Glass made by these methods

Coloured glass made by adding oxides to the mix - copper for red, cobalt for blue, iron for green, manganese for purple and soot for yellow.

2. How is a window made?

a) cartoon drawing of a design.

b) Lead lines added.

c) glass cut to fit the design, in Middle Ages by dripping cold water on hot glass and trimming with a grazing iron.

d) fitting pieces, of glass into leads, holding- them by closing nails temporarily until the whole window is leaded up. The lead joints are then soldered.

3. Painting glass.

Paint used for fine details, e.g., features in faces. A dark brown paint made from powdered glass, after painting fired a second time in a semi-cylindrical kiln on a flat metal tray. This firing needed very fine tuning.