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#### « Medieval Stained Glass

The technique of staining glass for windows using metal oxides dates back to at least the 7th century CE and the churches of the Byzantine Empire. However, the craft really became a refined art in the 12th and 13th centuries CE. The five main colours used to 'stain' glass were bright ruby red, which came from copper oxide, sapphire blue from cobalt oxide, green from iron oxide, yellow from sulphur or soot, and purple from manganese oxide. These materials were added to the glass while it was being heated, but because the result proved too opaque to allow much light through, often a thin layer of coloured glass was laid on top of a thicker pane of transparent or white glass. Painted on the interior side of the glass, details of scenes were rendered using a mixture of glass fillings, metal oxides, and vinegar or urine. The paint was then permanently fused onto the glass by putting the pieces into a kiln.

Individual pieces of stained and painted glass were specially cut according to a design chalked out beforehand on a wooden board and then inserted into lead borders to make a single composite panel. The finished panel was then mounted into the metal armature of the window frame using dowels and metal strips. A single tall lancet window at Chartres may include over 50 such panels of all shapes and sizes.

Not only decorative, the windows were also intended as a pictorial guide to the Gospel message in an era when few could read. Consequently, the wages of sin, the benefits of salvation, and the lives of the most important saints and biblical figures are shown as a lesson to all. Most windows, when they tell a narrative such as the life of an apostle or Bible parable, should be read from left to right starting at the base. Four-leafed rosette or quatrefoil panels are read by looking first at the bottom leaf, then the left, centre, and right leaf, and finally the top leaf. Following are descriptions of only some of the most important and striking windows in Chartres cathedral. »