

## 30. Facts about Glass: Early Glass Painting

### What is glass paint made of?

Glass paint is applied to the glass surface to manipulate the light and create details such as faces and drapery. One of the main components of glass paint is glass ground to a fine powder. This is mixed with iron or copper oxides (like rust) to create shades of black or brown, and a flux to help lower the melting temperature of the paint when fired in a kiln. This is then mixed with a liquid such as water, vinegar or oil, and a binder such as gum arabic to help the paint stick to the glass base. This is painted onto a shaped piece of glass cut out of a suitable colour. The painted glass is then placed in a kiln and heated to around 650°C - 680°C until the glass paint melts and the base glass begins to soften, permanently fixing the paint in place.

### Early Glass Painting: 12th and 13th Century Style and Technique

Like all technologies, glass painting has evolved over the centuries, so in this blog, we will look at examples over time, starting with the 12th century from which our earliest examples in the collection date. Very few examples of stained glass survive from before the twelfth century, and these are often small fragments from archaeological finds.

Perhaps one of the most influential examples of 12th century stained glass is the glazing scheme for the Abbey of St. Denis, near Paris, dating to the 1140's and installed under the direction of Abbot Suger. Previous Churches from the Romanesque period had massive walls with small windows to support the forces created by the roof. The large expanses of wall inside were often decorated with paintings showing people and scenes from the bible. With the development of buttresses and flying buttresses, the new Gothic architecture allowed much bigger buildings and large soaring windows. The paintings now moved to fill these great windows in the form of wonderful stained glass. Saint Denis was one of the first places to show what could be done with stained glass on this larger scale. The Burrell Collection has superb examples of 12th century glass on display, in particular a rare surviving stained glass panel from St Denis depicting St. Jeremiah, dating to the 1140's.

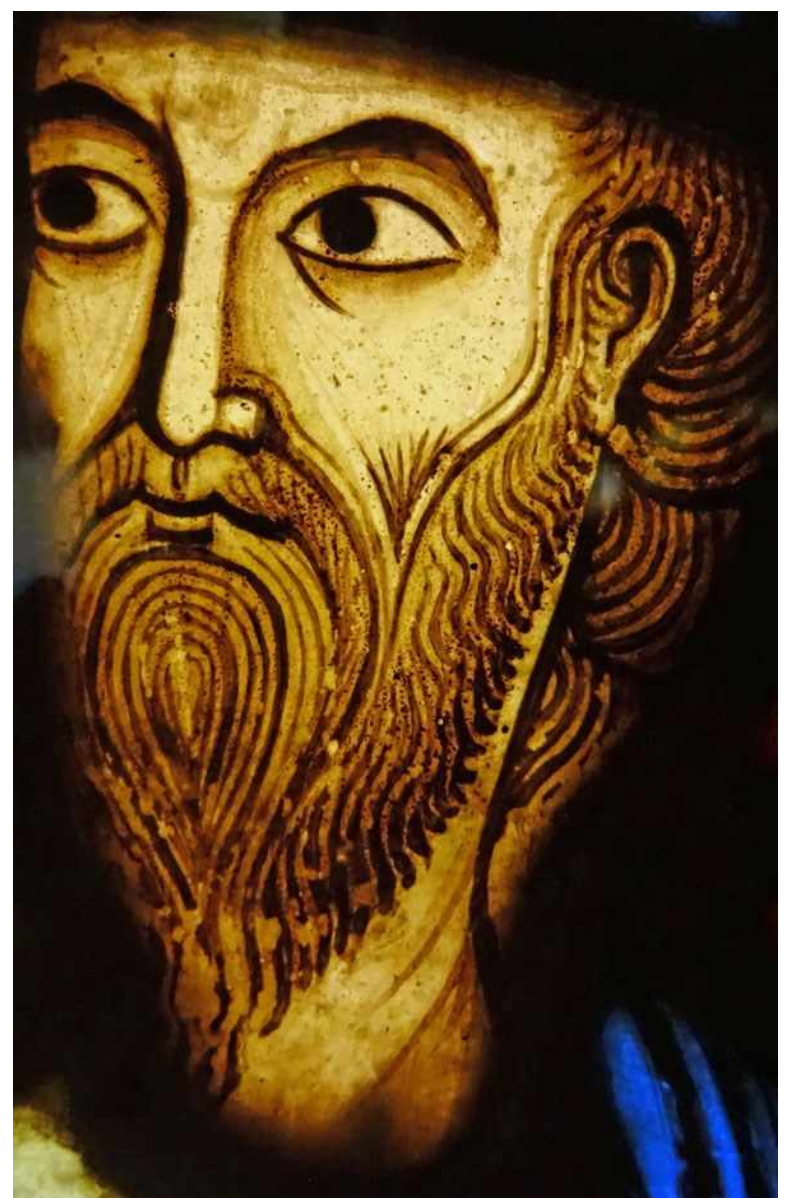
The Prophet Jeremiah holds a scroll with the words from the Book of Jeremiah, ch. 31, v. 22 saying, "the Lord hath created a new thing in the earth, a woman shall compass a man".

Perhaps the key element in creating these pictures is the technique of glass painting, essential for turning patches of coloured glass into vibrant pictures depicting people and events. The details of the face and clothes, the scenery and text, are all created with the use of paint. With paint, the artist could control the amount of light passing through the glass, creating shadows and 3D effects and bringing realism and animation to the images. The beautiful and artistic painting is what makes the Boppard Windows so special.

The painting on the Prophet Jeremiah panel uses black opaque lines to create the image and various half tones of paint known to create shadow, known as "smear shading". This technique was used extensively throughout the twelfth and thirteenth centuries. The twelfth



PROPHET JEREMIAH FROM THE ABBEY OF ST. DENIS NEAR PARIS WITH DETAIL SHOWING SMEAR SHADING







century monk Theophilus describes the process of applying paint through smear shading to create three tones in his book 'The Diverse Arts':

"smear it about with the brush in such a way that while the glass is made transparent in the part where you would normally make the highlights in a painting, the same area is opaque in one part, light in another, and still lighter [in a third] and distinguished with such care that there seem to be, as it were, three pigments placed side by side"

This can be clearly seen in the detail of Jeremiah's face, on the previous page.

The inscription was created by coating the glass with a flat opaque coat of paint, known as a 'matt', leaving it to dry, and then scratching out the letters with sharp stick. This is known as the "Lombardic" style of lettering. Lettering, which is typical of twelfth and thirteenth century styles of glass painting. There are many examples on display at the Burrell Collection, but here is just one more:

The panel "Beatrix van Valkenburgh" is English and dates to 1275. Beatrix van Valkenburgh was the third wife of Richard, Earl of Cornwall, King of the Romans ("Rex Allemanie"). The panel is the earliest known example of English donor glass in existence and the earliest surviving example of the Oxford School of Glass Painters. Sir William Burrell was very fond of this panel due to its links with his home, Hutton Castle. King Edward I stayed at Hutton Castle, when it was just a simple keep in 1296, the night before he laid siege to Berwick-on-Tweed. Accompanying King Edward was his First Cousin Richard Plantagenet, Beatrix van Valkenburg's step-son. It is considered likely that the two would have shared the top bedroom in the castle, as that would keep them as far away as possible from the noise and smells on the ground floor. Sir William Burrell seemed very pleased when he explained this link between the stained glass and his home, in a letter to Wilfred Drake, having installed the panel in the top floor bedroom at Hutton Castle.

BEATRIX VAN VALKENBURGH PANEL BELOW AND DETAIL SHOWING TEXT FROM THE PANEL SCRATCHED INTO THE PAINT WITH A STICK ABOVE

