

# The Sublime in Stained Glass

## *Background Notes*

Sophie Hacker - 20 November 2024



The Sagrada Família, Barcelona. Glass by Joan Vila i Grau, 1999

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Making a stained glass window offers a middle ground between being a painter and being a sculptor. In painting, one is concerned with colour, shade, form, composition, texture and personal technique. In sculpture, whilst many of those aspects still apply, there is the additional significance about the play of light on the surface, the manipulation and transformation of materials, and a technical appreciation of the changes wrought on materials through heat and chemical processes.

Working with glass is unique as a creative discipline. Considerable planning has to go into a design well before any glass is ever cut. Practical considerations such as: the number of tie-bars (also known as saddle-bars); the number of panels the window can take; the direction the window faces and how the light hits it; and whether there are buildings or trees close to the window.

If the window is to be in a liturgical space, such as an abbey or chapel, then good theology is essential in the design. Of course, a stained glass window already has the edge when it comes to theology, since it is articulated and revealed through the presence of Light. Mouth-blown glass has an inherent beauty. Little 'seeds' (air bubbles) will bend rays of sunlight, a reamy surface will fracture the light and transform the shapes and colours of the outside world.

The colours of the glass are animated by daylight. Red is not just red; it is more like fire. Yellow glows like the sun. Blue sparkles like water.

Whilst many church windows take their lead from medieval masters in using figurative, biblical narratives, contemporary artists might employ a much more abstracted language.



Fig. 1 - how seedy and reamy glass affect objects beyond a stained glass window

Below, is a 'short-list' of key considerations when creating a new stained glass window. This is not an exhaustive list, but provides some helpful pointers.

## **COLOUR**

Many artists working in stained glass would consider colour to be one of the most important elements.

Colour in glass is achieved in two ways.

- pot glass has colour running through the entire depth of the sheet. It is the first type of glass used by medieval artists. However, the intensity of pot colours, particularly reds, reduced the transmission of light to such an extent that a new type of glass, flash, was developed.
- flash consists of predominantly clear (or 'white' glass) with a very thin layer of colour across the top. By removing parts of that layer (through acid etching or abrasion) an almost infinite number of tonal values can be achieved, especially if two pieces of different flash are used (plated) within the same area of the design.

## SCALE

Westminster Abbey's Lady Chapel holds two contemporary windows that offer a good example of how scale dramatically impacts design. Alan Younger's Nativity Window installed in 2000 is tightly detailed and hard to read from ground level. A complex matrix of lead obscures some natural light but allows Younger's design to develop an equally complex palette of colour. The Hughie O'Donoghue Marian Windows, flanking the Younger window, are created on a much larger scale. Large, abstracted symbols of the lily, star and fleur de lys can be much more easily read from ground level. Very little lead is used to construct the windows. The Marian Windows were made by Helen Whittaker, from Barley Studios, York. She went on to make David Hockney's Jubilee Window in the North Transept.

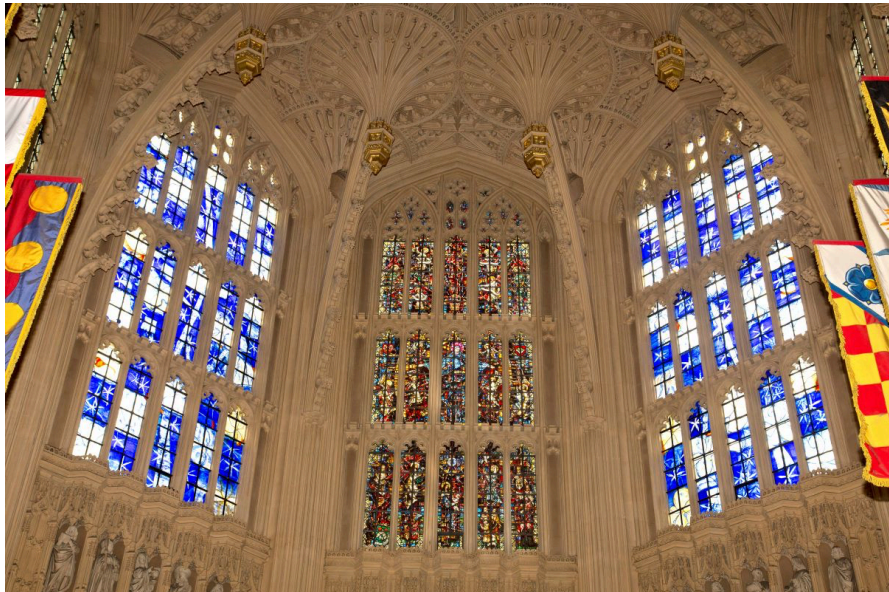


Fig 2. Left and right: Hughie O'Donoghue's Marian Windows, 2012,  
Centre: Alan Younger's Nativity Window, 2000

## LIGHT AND DENSITY

Two examples demonstrating light and density are works by Sophie Hacker and Tom Denny. On the left is Hacker's Calling Window in Romsey Abbey, commemorating the bicentenary of the birth of Florence Nightingale. On the right is one of Denny's panels in the Bede Chapel in Sunderland. The Calling Window has fewer lead lines, and glass paint is kept to a minimum. The leads echo the design, often even tracing the outlines of some parts. Denny's window contains a greater quantity of paint, bringing rich textures. The leads here function entirely independently of the design and form their own pattern.

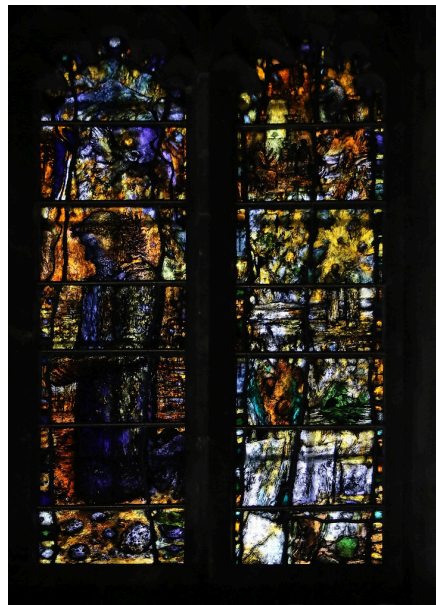


Fig. 3 The Calling Window, Romsey Abbey, 2020, by Sophie Hacker:  
The Bede Chapel, Sunderland Minster, 2006, by Tom Denny

## **CONNECTION WITH ARCHITECTURE**

The two windows in Fig. 2, while different in design, still fit comfortably within the architecture of the Lady Chapel, with its ornate traceries and gilded ceiling. This is an important aspect of a successful window. Tom Denny, one of the UK's very finest stained glass artists, encourages artists to aim to create windows that could 'look as though they've always been there', even if they are contemporary in design. The Hockney Window in the north transept at Westminster Abbey may be an example of a design that does not connect with its surrounding architecture.

## **NARRATIVE: ABSTRACTION AND FIGURATION**

Whilst both windows above are essentially figurative, the windows by Pierre Soulanges at the Abbey of Sainte Foy in Conques, take abstraction to its furthest point. Soulanges created an entirely new glass for this project. It is opaque white, blocking out any impact of the outside world. The only colour comes from the changes of light caused by the cycle of the sun throughout the year. Every single window (and there are 104 of them) has been filled with this glass. Many polychromatic post-war windows were removed during the project, making Conques almost unique as a church where only one artist has filled every window.

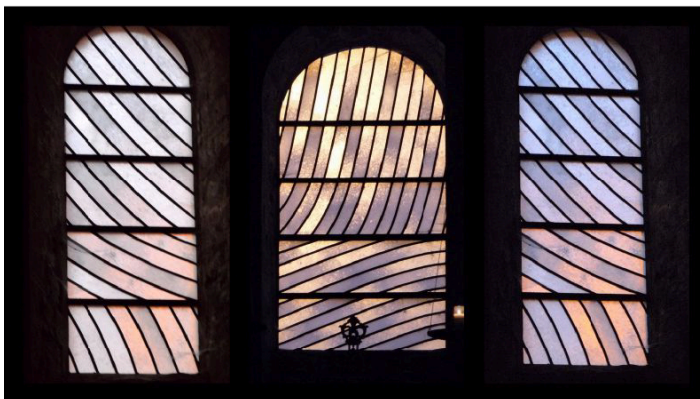


Fig. 4. Conque Abbey, windows by Pierre Soulanges



Fig. 5: Some materials used in the making of a stained glass window

1. Glass Cutter - diamond tipped, oil-filled barrel. Steel round hammer
2. Grozing Pliers - specially shaped to snap scored glass
3. Beeswax - melted in a pot, this is used to mask areas of glass to protect it from hydroflouric acid
4. Gum Arabic - softened and diluted in water to help glass paint adhere to the glass
5. Glass Muller - perfectly smooth base for grinding and whetting glass paint powder
6. Scorched Cow Rib - a medieval version of a glass muller
7. Lavender Oil - along with other oils, this allows unfired glass paint to be overpainted
8. Badger Brushes - the best type of hair to manipulate glass paint
9. Porcupine Quills - a perfect, natural tool to etch through unfired paint
10. Assorted widths of Lead Came - comes in many profiles and widths. Lead lines are a critical part of the design of a window. They can follow the design or offer a graphic element in their own right.
11. Lead Cutter - super-sharp, curved blade, which is rocked through the heart of the lead
12. Oyster Knife - used to open up the lead leaves

## Suggested Reading List

The History of Stained Glass

*Virginia Chieffo Raguin*

Thames and Hudson

Stained Glass, An Illustrated History

*Sarah Brown*

Bracken Books

Architectural Glass Art

Form and technique in Contemporary Glass

*Andrew Moor*

Mitchell Beazley

The Technique of Stained Glass

*Patrick Reyntiens*

Watson-Guptill

Stained Glass:

Masterpieces of the Modern Era

*Xavier Barral / Altet*

Thames and Hudson

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