

LOOKING AT: Stained Glass Sundials - Part I by John L. Carmichael



'The Blue Dial', probably by William Price, 1655, restored 1816.



Ulm Rathaus, Germany, probably by Hans Harderbeck, 1540/1560 [source: 'Sonnenuhren' by Rene R. J. Rohr].



'Cupid and the Four Seasons', Nun Appleton Hall, York, by Henry Gyles, 1670 [source: print by Titian].

Did you know that it is possible to make a stained glass window with the design of an accurate functioning sundial on it? I've learned that this news comes as a big surprise to most people outside of the sundialing community. Imagine a typical stained glass window with an attractive design that includes a sundial face. The outside of the window has a metal rod or sheet attached to it and when the sun shines, a shadow is cast onto the sundial face. Since the glass is translucent, you can read the time from inside or outside the building!

This is not a new idea. The first known stained glass sundial dates to 1518. In seventeenth century Europe, when both sundials and stained glass windows were in vogue, a few industrious artisans like Henry Gyles of York and John Oliver combined the art of stained glass making with the science of sundial design and produced wondrous stained glass sundial windows, some of which still exist today.

A few artisans continued to produce stained glass sundials on a small scale until the eighteenth century when interest in them died out, probably due to the advent of reliable mechanical clocks which killed the business of sundial making in general. Very few sundial windows have been built since then. They are so rare that the British Sundial Society has only 39 stained glass sundials in their National Sundial Registry and The North American Sundial Society has none at all registered as of this writing. Most existing examples are found in the old churches, private collections and the museums of Europe, particularly in Great Britain. So you can see why each of the few surviving examples of these beautiful old sundial windows should be cherished and treasured like the rare jewels that they are.

An idea began to simmer after I attended a sundial conference in York, England two years ago. Our British Sundial Society toured sundials in York. And on the tour, we saw two beautiful stained glass window sundials that worked! As a professional designer and maker of sundials and a lover (but not a maker) of stained glass windows, I was very impressed, but I wondered why I had never seen one before. I began to investigate and my research told me that most stained glass experts and artisans have not heard of them either. That was when I decided I needed to do something to encourage the construction of more stained glass windows.

I thought there must surely be a modern market for new stained glass sundials, if only more people knew about them. They definitely pass the 'Wow!' test with most people when they see one. Stained glass artisans could surely use the idea as a new and innovative marketing concept to suggest to their clients. I'm sure many stained glass window makers will be thrilled to find out there is something different that they can do in the ancient art of stained or etched glass. The idea is so old it's new again! I can't think of a better way to turn stained glass into educational, and functional art. Wouldn't it be great to have one in a school or museum? I also envision them in more churches, businesses and homes as well.

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Artwork and materials Stained glass sundial makers have a funny old tradition of painting an image of a fly somewhere on the sundial face! In an article he wrote for *The Connoisseur* (*Stained Glass Sundials*, April 1930), historian John A. Knowles says that flies were a common feature of British and Swiss glass in the seventeenth century. There are even examples of spiders and their webs. Knowles shares the following delectable and useful tidbit of information on the ubiquitous flies: 'The fly or bee was purely a glass painter's joke; and the amusement consisted in seeing people try to knock it off. Sometimes the legs of the fly were painted on one side of the glass and the body on the other, the difference between the two plane surfaces of the glass giving an extraordinary life-like effect of projection, and one, moreover, very easily produced.'

Other than the 'requirement' that they place a fly on the design, glass artisans are free to use pretty much the same techniques and materials that they normally use in their windows. The glass can be stained, etched or painted. The gnomon (the shadow caster) should probably be made from brass, bronze or stainless steel. Aluminium might be preferred if gnomon weight is an issue. On that part of the sundial drawing where you need to see the shadow to tell time, the glass should not be crystal clear or too dark. Otherwise the shadow won't be distinct. The glass of the sundial time scale should be translucent: frosted, or of a light colour.



(cont. in next issue)

(above) A modern design by Bernhard Franz, late 1900s. (right) The Merchants' House sundial, Marlborough, 1653, inscription 'While you watch, I fly'; (far right) detail of painted fly (photos courtesy Andrew James).



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