

# SHADOW PLAY

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The first moving shadow-show was provided by nature - the sun, moving across the face of the earth, which must have first inspired man to devise a shadow clock.

Vertical sundials were once common on important buildings, notably churches. They were set up to indicate the time of day before the introduction of public clocks; and later they were used to regulate those clocks, which in early days were less than reliable. Even before this were the Scratch Dials, of which examples from Anglo-Saxon and Norman times can still be seen on the south-west corners of some of our earliest churches. These usually consist either of a complete circle, or a segment of one, engraved in the stonework and marked off in radii from a centre hole, in which a pointer or stick and in some cases even a finger, was inserted to serve as a gnomon.\*

However, I am not concerned here with sundials in general, but to bring to attention a particular form of shadow clock, which has a much closer connection with projected images. These are the painted-glass or stained-glass sundials set up in windows.

In his excellent article "Shedding a Glorious Light" in *Country Life* of 26 February 1987, Christopher St.J. M. Daniel traces the history and location of such window dials; and most of the present article is based on his. Mr Daniel mentions that the earliest recorded window sundial seems to have been in the Castle of Kurfursten von Sachen in Atterbury and dated 1518. The earliest surviving example, dated 1535, is in the collections of the Kunstgewerbemuseum in Berlin, though on a recent visit I was unable to locate it, and members of the senior staff to whom I spoke had no knowledge of it.

Mr Daniel illustrates nine such stained-glass window sun-dials in colour, and very remarkable they are. He tells us that "they usually took the form of an oblong or oval glass panel with the gnomon (the indicator that casts the shadow) fixed to the outside of the window pane. The glass was backed with a coat of white matt or coloured semi-opaque pigment, upon which the hour-lines and numerals would be painted in black (reversed to be read from inside)."

Here, in fact, we have the makings of an embryonic magic lantern, with the sun itself as the light source (the lantern) and the painted glass dial, either oblong or oval (formats adopted for later slides), the lantern slide, while the gnomon itself is projected across the dial as a shadow, and the whole viewed as a transparency. No doubt there were occasions in strong sunlight when the dial itself was projected on to the floor of the interior of the building, though this would have been pure accident. The major missing element was, of course, a condensing lens.

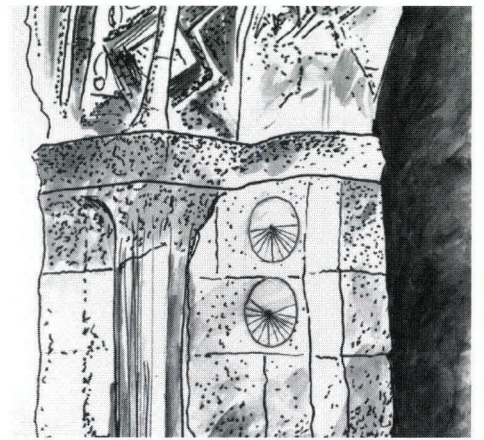
It would be interesting to discover if any members of the Society know of examples of such window sundials; and perhaps those who enjoy visiting old buildings will keep their eyes open and record any examples they discover. Mr Daniel writes that some 32 painted- or stained-glass sundials survive in situ in Britain today. The earliest example is a two-and-a-half inch diameter roundel set in a heraldic window in the Great Chamber of Gilling Castle in Yorkshire and dated 1585.

Mr Daniel considers that the finest complete glass sundial, with the gnomon intact and undamaged, is at Tony Hall, near Bradford, West Yorkshire. This is attributed to, and wholly typical of the work of the celebrated glass painter Henry Gyles of York (1645-

1709). Other examples of Gyles' dials are at University College, Oxford and, dated 1670, at Nun Appleton Hall. Another prominent glass painter mentioned by Mr Daniel is John Oliver (1616-1701). He adds that the best examples are now usually found in castles, country houses and colleges, as the ones originally set up in churches mainly suffered at the hands of the 17th-century puritans. An 18th-century dial in the British Museum is thought to be German.

\*"GNOMON. 1546. (from Greek, inspector, indicator...). 1. A pillar, rod, etc. which by its shadow indicates the time of day; esp. the pin or triangular plate in an ordinary sun-dial..." - OED

*12th-century scratch dials in the South Porch of the church of St. James, Shere, Surry. Before the porch was built this was the outside wall Sketch form a photo by Bill Barnes*



*Sundial and the Seasons, by Henry Nun Appleton Hall, Yorkshire, 1670*

*Photo by C. St.J. M. Daniel*



*17th-century glass dial at Grey's Court College, York*

*Photo by C. St.J. M. Daniel*

