

## AN UNUSUAL 40TH BIRTHDAY SUNDIAL

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In the last year or so, with one or two exceptions, I have tended not to accept new sundial commissions, since most of them have some form of demanding priority. Indeed, I have even given away a prestigious sundial project in the City of London to one of my colleagues in the Society. So how I came to accept a private commission to design a sundial for the owner of a private garden in Faversham, I don't quite know. Nevertheless, on the 21<sup>st</sup> February 2011, I received an e-mail from a friend enquiring as to whether I would be available to undertake a commission to design a sundial for her husband's 40<sup>th</sup> birthday.

My friend is no ordinary lady, having, for a start, been a captain in the British Army in Military Intelligence, with experience in a warfare zone in Sierra Leone. She had evidently bought a copy of my Shire book on sundials and her husband, had read it and shown an interest in the subject. She was positive and enthusiastic about the idea of commissioning a sundial: in these circumstances, I could hardly say "no."

There was just one problem: this was to be a surprise for her husband, so that the commission had to be kept secret, except for those involved in its construction. The date of this particular birthday was the 8<sup>th</sup> December 2011, so there was not too much time to play with. A vertical wall dial was ruled out, particularly as this would have to be set up before the birthday, with the result that it would not have been a surprise. Also, such a dial could hardly be removed if the couple decided to live elsewhere. Consequently, a so-called "garden" sundial was agreed upon; but it had to be very special to mark this important event.

Designing a sundial is perhaps rather similar to composing a piece of music, where, so often, other artists enable the final work to be brought to life. Taking into account the wishes of the client, the design of a dial is largely a matter of imagination and personal taste, underwritten by a good grounding in astronomy and a sound knowledge of the construction of sundials. The design should necessarily include the delineation of the dial, which should not be an independent factor, as some suppose. Nevertheless, this commission would

be a challenge, as I had no inclination to produce a common or garden horizontal dial. Furthermore, quite apart from the fact that the date of the 40<sup>th</sup> birthday was the key to the design, Faversham's local historian, and others had, for some time, expressed their views that it would be desirable to have one of my sundials in Faversham! Thus, with the figure "40" firmly in mind, I set to work to achieve this, conceiving a dial based on that of a horizontal dial in latitude 40 degrees North, which could be carved entirely out of slate by an experienced sculptor or stone mason.



*Fig. 1. The birthday sundial.*  
Photo by Richard Riddick, the DPC Greenwich.

Since my design called for a substantial piece of slate, which could be placed, but not fixed on the circular capital of a stone pedestal, I decided to approach two individual stone masons to undertake these separate tasks. This division of labour would mean that the work could be carried out in parallel, thus saving time, since I could ill afford to fail to meet the deadline for the delivery of the sundial! I commissioned Ben Jones of Exeter to make the dial, particularly as he had already made the beautiful

memorial polar sundial to my late wife, which is in Sidcup cemetery. I approached a local Faversham stone mason, Clive Sherwood of West Street, to make the pedestal, which would allow one to monitor progress more easily. Of course, there were a number of problems that arose in both cases; but these were easily resolved. Clive set up the pedestal some days before the birthday, which was explained away as "a bird table." Ben duly delivered the sundial itself to me on Tuesday 29<sup>th</sup> November, giving me just enough time to have studio photographs taken of it and to produce a small explanatory leaflet. This was for the benefit of guests for distribution at the birthday party on the Saturday. The explanatory text is given as follows:

### "THE SUNDIAL

The sundial was designed and made as a work of scientific art to mark this event. It may not be particularly beautiful or elegant; but it is undoubtedly unique. Firstly, the base of the dial is 40 cm square and, secondly, it is constructed as a horizontal sundial for latitude 40 degrees north. To achieve this, the dial-plate

is tilted about the east-west axis by  $11\frac{1}{2}^{\circ}$  degrees, such that it will face southwards to indicate the correct *local apparent time* in Faversham. Thus, it may well be described as an *inclining sundial* or even a *lectern dial*.



Fig. 2. Dial set up in situ on its pedestal.  
Photo by the author 6 Jan 2012.

However, perhaps the most unusual “hidden” feature of the sundial is the fact that, on the actual birthday, on 8<sup>th</sup> December at 12 o’clock noon, the shadow of the indicator or *gnomon* will be contained within the gilded “box,” formed by the 12 o’clock hour-lines, whilst the edge of the shadow, cast by the horizontal tip of the gnomon, will coincide with the gilded horizontal line at the top of the “box.” This line is denoted with the gilded cipher “C. VIII. XII. MMXI. F.” indicating not only the time by the Roman numeral XII; but also the date: VIII. XII. MMXI. The prefix letter and suffix letters represent the “split monogram” of the recipient.

The customary *furniture* of the sundial includes the ‘signatures,’ as well as the latitude and longitude of the place for which the dial was made, and also the name of the town, ‘Faversham.’ The dial-plate itself is delineated with gilded *xiphoidal* hour-lines, reminiscent of Ancient Greek weaponry, or the rays of the rising sun, although each hour is denoted by a plain painted Roman Numeral. In the morning, the trailing edge of the gnomon’s shadow will indicate the hour of the day, as it passes over the centre of each hour-line,

whilst in the afternoon, the leading edge will give the time. However, no attempt has been made, neither was there any intention, to provide the means to determine accurate time, whereby ‘clock’ time might be ascertained.



Fig. 3 Photograph taken by the author at 12 o’clock noon on 6 January 2012, when the sun’s declination was almost identical to the reciprocal declination the recipient’s birthday on 8 December 2011. The extraneous shadows, cast by a nearby redwood shrub, are a little disconcerting; but the shadow of the gnomon completely fills the gilded ‘box’, indicating both the hour and the date, as it would have been on 8 December.

The sundial was delineated by the author and executed in Cumbrian green Kirkstone slate by Ben Jones, the noted Devonian sculptor and sundial maker. The pedestal was constructed in Nabresina limestone – sometimes called Roman stone – by Clive Sherwood of West Street, Faversham.

Enlisting the help of Clive Sherwood, I was able to have the sundial brought to the door on the 7<sup>th</sup> December, when it was taken inside and placed on a table, prepared with birthday wrapping paper. All that was needed to do was to fold the paper over the dial-plate. As it happened, a few days later, in noon-day winter sunshine, I was able to set it up and align it in the meridian. On the 6<sup>th</sup> January 2012, I was even able to take photographs at noon, when the sun was almost at the reciprocal declination to that of 8<sup>th</sup> December 2011. Apart from some extraneous shadows from a nearby redwood bush, I was pleased to see that the dial was giving an accurate reading. Of course, as the dial is on private property, I have not exactly fulfilled the wishes of those mentioned earlier in this article – I apologise!