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THE GREENWICH NOON DIAL – AN UPDATE

Members of this Society may recall the article that I wrote, published in the *BSS Bulletin* in December 2010, concerning the history of the *Meridies Media* noon mark mean time sundial, designed by Dr Tadeusz Przyrkowski in 1967 for the south wall of the Meridian Building in what was then the Old Royal Observatory at Greenwich. At this time, these buildings were an integral part of and in the curatorial care of the National Maritime Museum. Furthermore, in this same year, I was given curatorial responsibility for the Museum's sundial collections, on display in Flamsteed House. It followed that I had the immediate task of overseeing the installation of Przyrkowski's sundial in late June, 1968. However, as related in my article, there were problems which not only delayed setting up the dial until 1969; but which unwittingly provided a firm foundation for my interest in sundials.

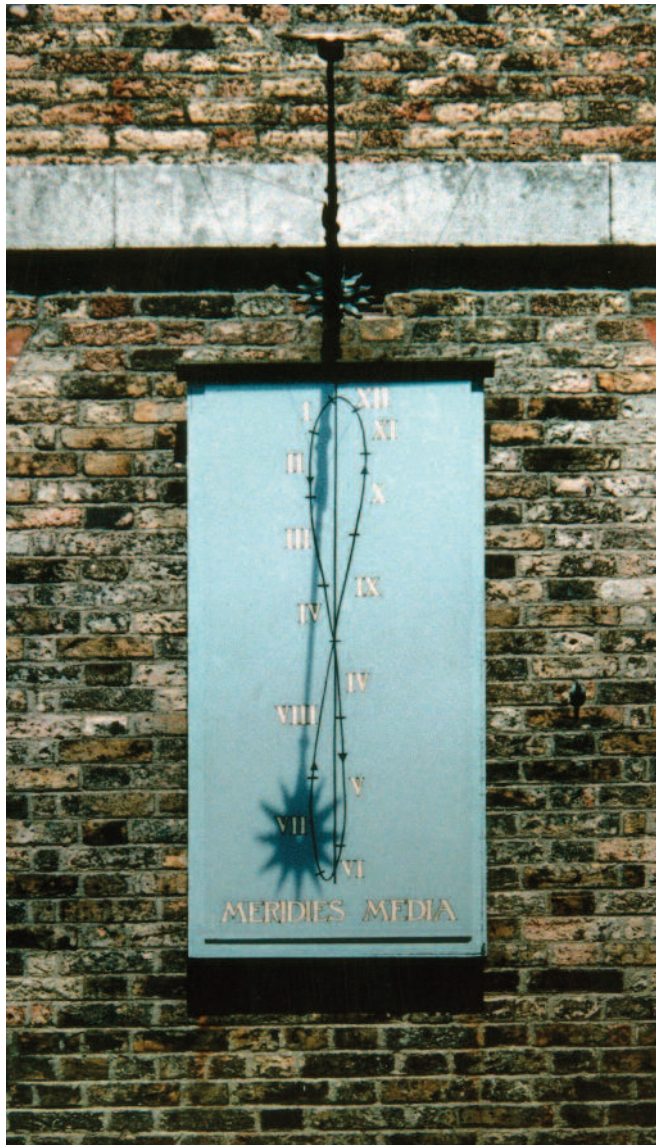


Fig. 1.
The classic colour photograph of Dr Tadeusz Przyrkowski's corrected noon dial, taken by Douglas A. Bateman in July 1988. (Photo courtesy D. A. Bateman)

There can be little doubt that Douglas Bateman's meeting with Dr Gloria Clifton, at an evening function in London in June 2009, was the event that brought about the idea of restoring Przyrkowski's sundial. Not only had Doug delineated the glass noon dial on the 'curtain wall' in the headquarters building of DERA (later to become Qinetiq Ltd) in Farnborough; but he had taken the only colour photograph, of which I know, of Przyrkowski's meridian noon dial. The conversation on this occasion must have moved from Dr Clifton's essential reference work on British Scientific Instrument Makers and Jill Wilson's *BSS* monograph on British Sundial Makers to Doug's own gnomonical achievements, since, amongst other items, he promised to send her a copy of the publication on his DERA dial. This booklet describes and illustrates not only Doug's noon dial; but Przyrkowski's dial as well, with Doug's colour photograph, taken shortly before 12 o'clock noon (GMT) c. 15 July 1988. (2.) (3.)



Fig. 2. The Oxford noon dial in Green College, at the Radcliffe Observatory, on the wall of the Lankester Quadrangle, designed and delineated by the author, and carved by Martin Jennings, the distinguished Oxford sculptor. Had I been responsible for designing the original noon dial for the then Old Royal Observatory at Greenwich, I would no doubt have used the same abbreviated form of denoting the months of the year. (*Clocks Magazine*, 'The Sundial Page', p.29, Vol 19/5, October 1996)

A year later, in June 2010, Dr Clifton and Douglas Bateman met again at this same annual function, when the possibility of restoring Dr Tadeusz Przyrkowski's sundial became a more serious matter for consideration. It was shortly after this that I was brought into the discussion, which subsequently caused me to write the article published in the December 2010 issue of the BSS Bulletin. The fact that I had been responsible for rectifying the problems of Przyrkowski's original design was sufficient to give me a natural interest in the possible restoration of this noon dial. Consequently, I volunteered to give my services gratis for this purpose, bearing in mind that I had the experience of designing and delineating two similar noon dials and various other mean time dials. Furthermore, I had some eighteen restoration/reconstruction commissions to my credit, with specific expertise in this field.



Fig. 3. An example of a completely reconstructed "17th century" direct vertical sundial on the Martin Tower in the Tower of London, designed by the author and carved by Messrs Plowden & Smith in 1988. The face of the original dial-plate had suffered from severe weathering and had been entirely worn away, whilst the metal gnomon had survived until c. 1938. A new dial-plate of Portland stone was affixed over the original stone-work, incised with a 17th century design. (Clocks Magazine, 'The Sundial Page', p. 20, Vol 23/2, March 2000)

The term 'restoration' is generally defined as the process of renovating an object, such as a work of art or a scientific instrument, to return it to its (supposed) former state or condition. The simple cleaning of an object, in the process of restoration, removes not only accumulated matter on its surface, but a thin layer of molecules of the object itself. Thus, conservators might add that restoration normally entails the use of

an amalgam of original and modern materials, whereby there would be an element of reconstruction. On the other hand, the term 'reconstruction' is rather more self evident, i.e. to construct again, or to rebuild, according to the available evidence. In this case, there was no shortage of available evidence, since I had kept a personal record of my work on this project, together with photographs and photocopies of relevant material. In this instance, the original gnomon was still in place, projecting from the wall of the building, providing the basic means for determining the dimensions of the dial. However, had there been nothing else, Doug Bateman's classic colour photograph would have been sufficient evidence on its own to carry out this work of restoration/reconstruction. Accordingly, I set about costing this proposed scheme, with a view to raising sufficient funds to enable the National Maritime Museum to have Przyrkowski's sundial reinstated.



Fig. 4. An example of a restored pillar dial – the Countess's Pillar, erected by Lady Anne Clifford in 1656 at Penrith in Cumbria – with an element of reconstruction design by the author, in the provision of a new gnomon for the south face. The dial was restored (repainted) by English Heritage in 1984-85. (Clocks Magazine, 'The Sundial Page', p.35, Vol 20/9, September 1997)

By mid September 2010, the Appeal Fund for the Noon-Mark Mean Time Sundial had been set up and the first donations began to come in. Under the guiding financial hand of Lucy Cooke, the Museum's Individual Giving Manager, in the NMM Development department, the funds gradually built up; but it was not until October 2011 that the target was actually

reached. It had been considered that the appeal might prove to be an attraction to members of the British Sundial Society, as well as to members of the general public. As it happened, it is understood that there were twenty donations in total, of which sixteen were from members of the Society. However, it may be said that the donors were more than generous and it is evident that several gave substantial sums to the Appeal. This allowed the project to get underway earlier than anticipated and, by the summer of 2011, work was already well in hand.

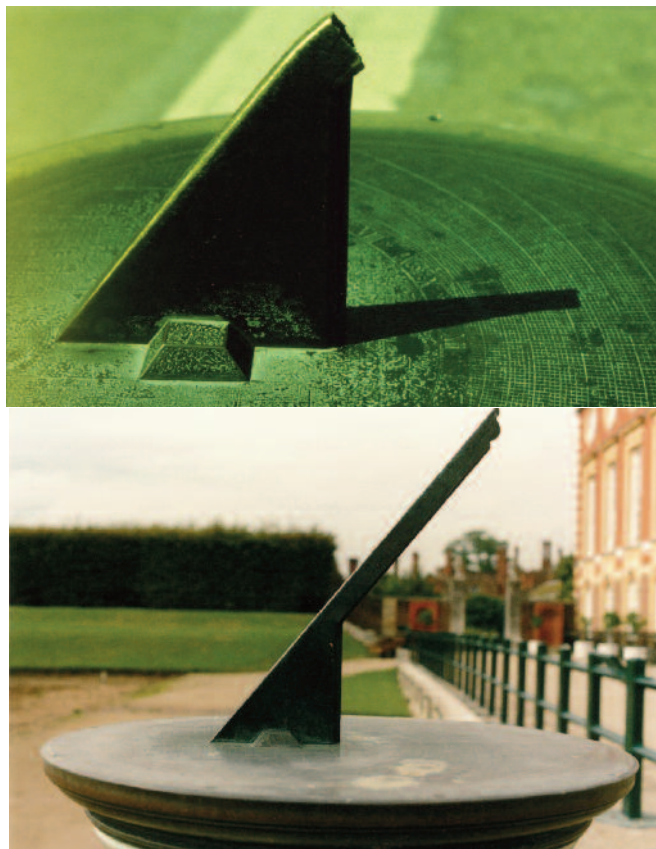


Fig. 5. An example of the reconstruction of a section of the gnomon of a double-horizontal sundial by Thomas Tompion at Hampton Court. The replacement section was designed by the author and made by Messrs Plowden & Smith. Following a fire, the gnomon had been damaged and a piece of it had broken off. As it happened at that time, there were no suitable photographs or dimensions available to assist in the reconstruction. (Clocks Magazine, 'The Sundial Page', p.28, Vol 18/4, September 1995)

The first task was to contact the Museum's Estates organisation, when arrangements were made to put up scaffolding to allow for the removal of the gnomon for refurbishment. Once this was accomplished, I was able to take the necessary critical measurements to assist in the reconstruction design of the instrument. I was also able to calculate the slight adjustments, which would have to be made to the gnomon, i.e. to the nodus, to ensure that it would be correctly aligned, when the gnomon itself was replaced in situ. This done, I took the gnomon, well secured in 'bubble-wrap', up to the Crucible Foundry in SW London,

where the work of refurbishment was to be carried out. Although the gnomon was over three feet in length (i.e.1 metre.) and heavy, it was more convenient to travel by train and on the underground; but it obviously intrigued fellow passengers, even to the extent that one of them wanted to commission me to design a sundial for his business premises! The Crucible Foundry completed the work, including the re-gilding of the nodus, by the 6th December; but it was not until early in the New Year that I was able to collect it and return the gnomon to Greenwich.

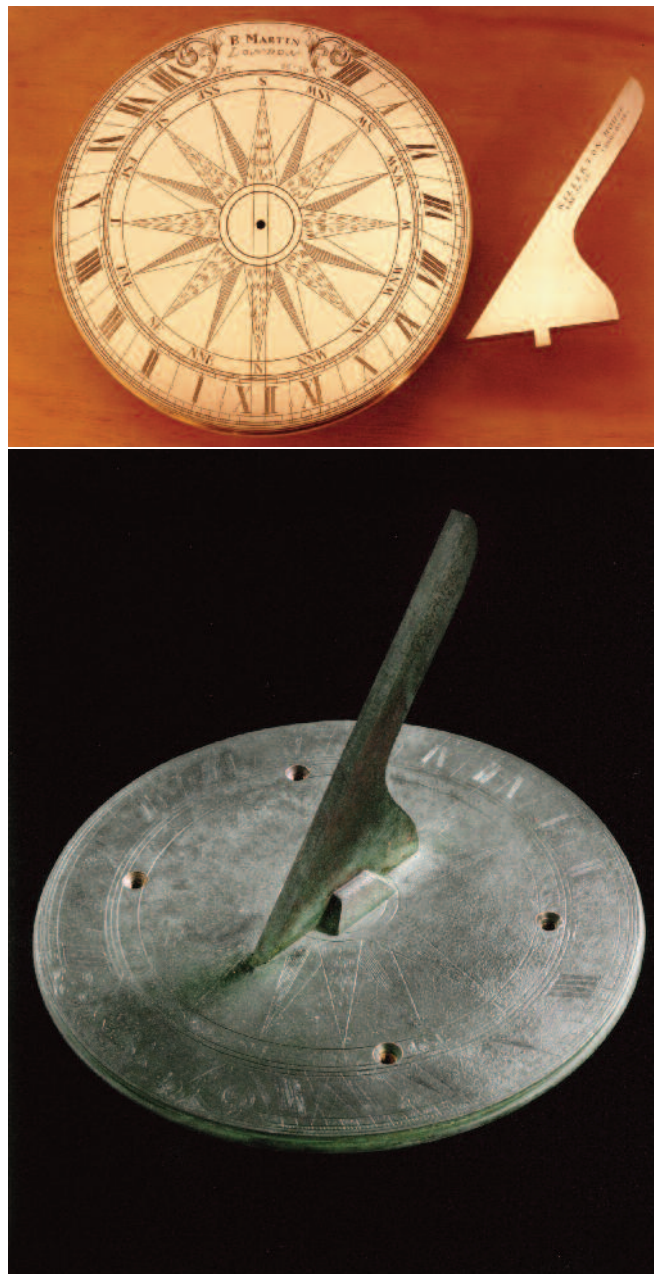


Fig.6. An example of a completely reconstructed horizontal 18th century sundial by Benjamin Martin, designed and delineated by the author, made by Messrs Plowden & Smith, and engraved by Larry O'Connell. The original dial (c.1780) had been stolen from Killerton House in Devon in 1996. (Clocks Magazine, 'The Sundial Page', p.30, Vol 19/6, November 1996)

Meanwhile, I had become engaged in the design and delineation of the dial-plate for the Greenwich noon dial, the intention being to reconstruct Dr Tadeusz Przykowski's original (corrected) work. This involved re-calculating and re-delineating the analemma,

re-dimensioning the dial-plate, and making certain slight modifications to the design of the dial itself. However, in view of Przytkowski's original stipulation that the dial-plate should be made in green marble (not in wood, as used by the Ministry of Public Buildings & Works, when they constructed the original dial-plate in 1968), the appropriate current specifications are for this to be made in green Kirkstone slate. Whilst the wooden dial remained in place on the wall of the Meridian Building for some twenty-two years, from 1969 to about 1991, this restoration / reconstruction of Przytkowski's noon dial in slate might still be in situ and indicating the time in two hundred years or more!



Fig. 7. The gnomon of the Greenwich noon dial, having been removed from its fixing on the wall of the Meridian Building, prior to refurbishment. Considering that it has been in place for some 44 years, it is in remarkably good condition.

As to the design of the dial-plate itself, since the fundamental design element, in Przytkowski's mean time noon dial, was the use of Roman numerals to denote the months of the year, these have been retained. Perhaps based on his DERA experience, Douglas Bateman had mentioned his wish to take part in the discussions of the [design] committee; but, in this instance, no such committee was formed. Doug had thought that it was inappropriate to use Roman numerals to mark the months, since they were no

longer used for this purpose on the continent. He sought the views of four Sundial Society members in France, Germany and Austria, concerning this matter, eliciting responses that confirmed his opinions. (4.) However, it must be said that the Post Office in this country still makes use of such numerals in their date-stamps, when franking letters. Coincidentally, Doug actually sent me a couple of documents in envelopes clearly bearing just such date stamps! (4.) (5.) Thus, in my view, the argument against the use of Roman numerals was flawed and I saw no real reason to change the design. Indeed, Doug had stated in an e-mail to me, "the Greenwich site would need bold lettering and full months could be a bit much," with which I entirely agreed. (6.)

All being well, the restored gnomon will be returned to its original site shortly, whilst it is hoped that the dial-plate will be completed early this summer. However, bearing in mind the fact that the celebrations for the 2012 Olympics are likely to affect the access and the organisation of the Royal Observatory, the intended unveiling date might have to be delayed until the early autumn. Nevertheless, invitations to this ceremony will no doubt be sent out to all those who contributed so generously to the restoration of Dr Tadeusz Przytkowski's Meridies Media noon dial. On this occasion, Douglas Bateman might well reflect on the fact that the photograph in his DERA booklet had brought about the dial's timely restoration. Recognising his initiative, Dr Rebekah Higgitt, on behalf of the Museum, quite rightly expressed their gratitude for his interest in and contribution to the project. (7.) He may justifiably be congratulated on this achievement. As a matter of personal interest, I might add that my 'dolphin' sundial was designed in 1977, to mark the Queen's Silver Jubilee, whilst this particular dial might happen to mark the Queen's Diamond Jubilee – an inspirational thought that first occurred to Dr Gloria Clifton!

REFERENCES and NOTES

1. C. Daniel: 'Meridies Media – An Historical Essay' (The Direct Vertical Noon Mark Mean Time Sundial at Greenwich), BSS Bulletin, 22 (iv), 26-30 (2010).
2. D. Bateman: Sundials in DERA, 12, Fig 9, DERA (2000).
3. D. Bateman: Copy of e-mail letter to Dr Rebekah Higgitt, dated 13 February 2012.
4. D. Bateman: Copy of letter to Dr Gloria Clifton, dated 4 October 2010. (Used envelope, franked 31.VIII. [2010.]])
5. D. Bateman: [BSS 2011 Annual Conference Report], Antiquarian Horology, 141, (Sept 2011). (Used envelope, franked 23.XI. [2011.]])
6. D. Bateman: E-mail dated February 02, 2012, paragraph 3.

7. R. Higgitt: Copy of e-mail to D. Bateman, dated 15 February 2012.

Note:

The complex of buildings that have hitherto been known as the National Maritime Museum, Greenwich, including the Royal Observatory, the Queen's House and the main buildings of the Museum itself, are now known as the Royal Museums Greenwich. However, the names of the individual buildings, or group of buildings, have been retained for use within the boundaries of the RMG.

Christopher St J. H. Daniel.

12 April 2012