

AN EARLY MERIDIAN LINE IN A FORMER STATELY HOME, HAMPSHIRE

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Summary. *This article describes what may be the first meridian line in the British Isles, dating from around 1720. It is in a loggia in a fine Jacobean mansion, together with a very early west declining dial and a horizontal dial. In addition, there are photographic records of two other dials.*



Fig. 1. Bramshill House: the north east side with the figure of Sir Edward Zouche high in the niche.

Meridian line sundials with a line on the floor and an aperture gnomon are quite rare in the British Isles. Those that have been recorded are in the cloisters of Durham Cathedral (1829); the former Customs House in Ramsgate¹ (1819); and Bromley House, Nottingham² (1834). Whilst the Bramshill meridian is not of the same quality as the others (one with a fine brass strip), there is no question as to its authenticity and purpose. It does, for example, have its original aperture whereas Bromley House and Ramsgate do not. This particular meridian line is not indoors but in a dark loggia with access from a terrace and, rather intriguingly, seems to have been laid out in error.

Other existing dials at Bramshill House are a west decliner and good horizontal dial. Photographs show two more previously existing dials in the period 1890 - 1920.

The Manors of Great and Little Bramshill are recorded in the Domesday book and were successively owned by various knights, a Knight of the Garter and aristocrats. In 1605 the estate was purchased by Sir Edward Zouche who built the present house and set out the gardens. The official guide to Bramshill House (Fig. 1 & 2) records that Lord Zouche had a somewhat chequered political career of traveller and ambassador, Privy Councillor and holder of other high

offices. The house is a good example of Jacobean architecture and, apart from a fire some time in the 1640s that damaged part of the south west side of the building, is largely unchanged. The house is now recorded as a Grade I listed building. Architecturally, the house is similar to the more well-known Temple Newsam House in West Yorkshire.



Fig. 2. The south west facing front and terrace. The meridian line is in the far loggia and the aperture is in the upper part of the ground floor window.

Bramshill House is better known under the former title of the Police Staff College. The House and immediate grounds were purchased by the Home Office in 1953 and the college was created in 1960. More recently, the college and other police academies were combined under the auspices of the National Policing Improvement Agency (NPIA). Access is therefore restricted so that the existence of the meridian line had been known to only a few individuals and local historians and, even then, few of the current staff were aware of the discreetly located vertical dial.

During the 1850s some alterations were carried out by the then owner, the Rev Sir William Henry Cope. In his book on the history and architecture of Bramshill, a plan of the ground floor shows a passageway taking up part of the south loggia and embracing half of the bay window. The passageway was taking up a relatively large area of the loggia and must have been removed during the alterations. The book is undated although it is believed to have been published around 1880 whereas the meridian could well have been much earlier. A local historian³ with extensive knowledge of Bramshill House and the families believes that the father of Sir John Cope (who purchased the estate in 1700)



Fig. 3. The loggia, looking towards the aperture (just visible). The line runs from the corner below the aperture across the stone floor to the base of the pillar on the right of the photograph.



Fig. 4. The aperture, about 20mm in diameter, and a spot of sunlight having crossed the line at solar noon, taken on 3 August 2007 (Photo credit Lindsey Kerr, NPIA).

was probably the person who brought the idea of a meridian line sundial from Italy. He certainly travelled there, presumably on a ‘grand tour’. His diary records an interest in water gardens and fountains that could be turned on by a hidden ‘fountaineer’ so as to spray visitors as a practical joke. Apparently Sir John had a room in Bramshill House for experiments and “little inventions” and for the meridian line the historian adds (based on the diary and other writings) “it is typical that he did not get it quite right”. If we assume that Sir John (1634-1749) created the meridian line, it will therefore pre-date the other recorded lines in the British Isles by around a hundred years.

The prospect of viewing the meridian line on a sunny day was met with enthusiasm, only to be dashed by finding the spot to be a peculiar shape and showing the expected noon

to be about 9 minutes in error. Part of the answer is almost certainly due to the glazing to the outside of the aperture. In Fig. 4 some ‘framing’ can be seen in the wall to the left of the aperture, which are the visible parts of the mullions and transoms of the stone window frame. The whole of the window on the loggia side has been bricked up! This is obvious from the outside, see Figs. 6 and 7.

The answer to the distorted spot is due to the glass being far from flat. Indeed, the part of the spot of light on the floor that is nearest to ‘correct time’ is the weakest trailing edge. Given the faults in the window and aperture, it is interesting to speculate how the line was laid out in the first place. The line itself extends across part of the loggia, although somewhat worn where it is more exposed. It should also extend up part of the pillar but there is no clear evidence of



Fig. 5. The best preserved part of the line with the elongated spot of sunlight, photographed at local solar noon, showing the large error in time (Photo credit Lindsey Kerr, NPIA).

Fig. 6. The ground floor window partially bricked up on the inside. The left window is functional, but with blinds.





Fig. 7. Close up view of the window with the crude opening in the brickwork and slightly larger glass pane. The missing pane of glass just below, judging from very early photographs, has been missing for some time.

the floor line extending up the pillar, which it would do so by just over a metre.

A follow-up visit was carried out to draw a plan of the loggia and measure the angle of the line relative to the south-east – north-west wall (at right angles to the direction of the building as whole). The angle is 31.6° . The easiest way of determining the declination of the longest dimension of the building without on-site determination is to use a modern Google Earth aerial or satellite photograph with the overlay of the latitude and longitude. This angle is about 34° west of south and confirms that the line is seriously in error by some 2.4° , which is consistent with the observed error in time.



Fig. 8. The horizontal dial (indicated by the arrow) is situated near to the meridian line in the loggia and outside the main hall. The buttress to the wall will cut off the afternoon sun after about 1.30 to 2pm, depending on the season.



Fig. 9. The clearly engraved but anonymous dial, quite deliberately fixed to the stone balustrade.

One may speculate as to how the line was laid out and then to be in error, especially having gone to the trouble of creating a good aperture and the rather permanent extreme of bricking up a window. It is quite likely that the error was found soon after construction, and the distorting glass window was left in place when it could have been easily removed, although this would not have corrected the fundamental error.

Nearby is a horizontal dial and it is tempting to speculate that allegiance was transferred to the humble dial, probably set up to take over the task of time determination. This dial set on the balustrade quite near to the meridian line, as in Fig. 8. There is no maker's name or date, but the quality of the engraving is good and it could be as early as late 17th century. The setting on the balustrade is quite purposeful and in addition to being close to the meridian line, it is near to one of the principal rooms of the house. The specific location is reinforced by the fact that its overall time telling is severely compromised by being rather close to the wall in



Fig. 10. The vertical west decliner is about 6m above ground level set across the re-entrant corner. Although 85cm wide, the dial appears relatively insignificant in this view.

the south westerly direction, with the angle from the dial south-direction to the buttress and wall about 23° and 30° respectively. Whatever the speculation, the dial is correctly aligned.

The other sundial of possibly greater interest is a very early vertical west decliner, which is partly resting on the stone string line course of the north east wing, see Figs 10 and 11. The numerals are legible, as are part of the initials and a date, such as: R ? and 16??. The initials could be those of either Randall MacDonell, the 2nd Earl of Antrim, who was at Bramshill from 1637 until 1640, or Robert Henley who occupied the house until his death in 1656. However, even this sundial will be in the shade during the winter months due to the height of the roof line to the south and west. Nevertheless, there is a sound practical reason for the dial being on this side of the house in that this was the 'working' side of the house with two main doors giving access to the walled garden, stables and the north drive. Given the prominent installation of such a sundial leads to speculation if there were any other 'companion' dials on the house, but there is no evidence of such.



Fig 11. A close up of the vertical dial with the rusted horizontal rod gnomon.



The gardens are being very well maintained and, over the years, the house and gardens have attracted much interest. Gertrude Jekyll wrote about them in *Country Life* and, in her book on garden ornaments, she has two photographs of the east loggia and bowling green.⁶ A search of the records of *Country Life* articles show that Bramshill House was written about thirteen times

Fig. 12. An old photograph of the south-east side where the gnomon of a sundial can just be seen silhouetted in the dark archway of the west loggia. The dial would have been near to where the photograph was taken for Fig. 2. (Photo credit IPC Media)

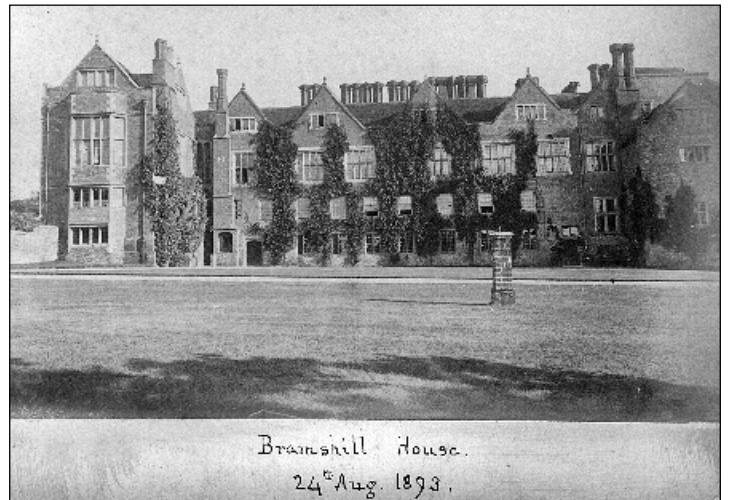


Fig. 13. An early photograph of the north east side showing the vertical dial on the north wing and a horizontal dial on a brick pedestal. The pedestal and its dial no longer exist. (Photo credit Violet Martineau.)

Regarding other dials, now missing, a photograph taken in 1891 of the main south-east side of the house just shows the outline of a gnomon on the stone balustrade on the southernmost side of the raised garden. The photograph was taken on 10 June 1891 by Violet Martineau.⁴ Coincidentally, a search of the library records of the popular magazine *Country Life* found a similar photograph⁵, which is reproduced in Fig. 12. The photograph is undated but was in a folder covering the date range 1900-1920. The substantial gnomon implies a dial of some quality and there are recesses in the top of the balustrade where the dial could have been fixed. The weathering of the recesses indicate that the dial was removed some time ago. This is a pity because of all the dials at Bramshill House it is in the best location for sunshine throughout the day.

Violet Martineau took another photograph, this time on 24 August 1893, that shows the north west side with a dial on a brick pedestal, Fig. 13. Unfortunately the winter sun would be obscured by the house. This dial and pedestal have long since disappeared.

between 1899 and 1953, with only four articles since then.⁷ The gardens continue to attract interest and there is the possibility of historically accurate replanting of one of the garden areas with assistance from the Heritage Fund.

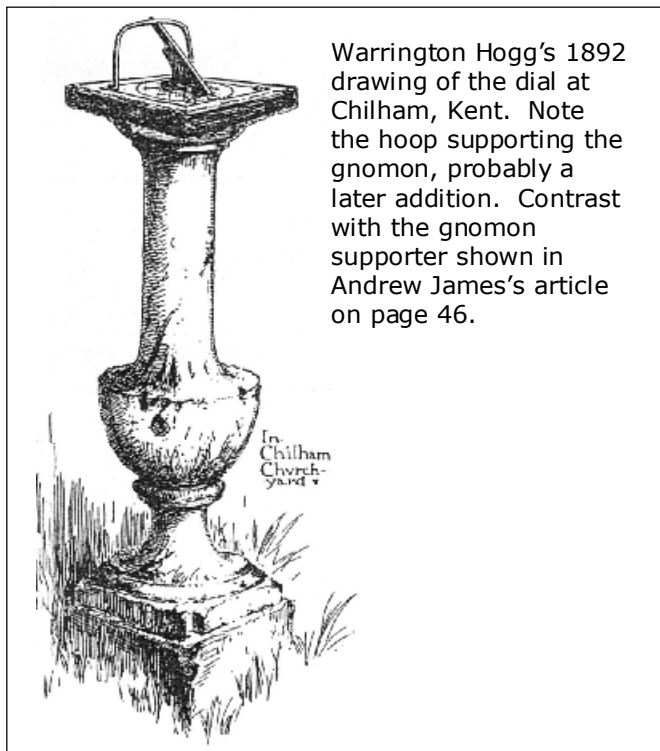
ACKNOWLEDGEMENTS

Mrs Sara Beer for bringing to my attention the existence of the meridian line and supplying much other information. Ms Lindsey Kerr, Curator, NPIA, for assistance, details of successive owners of Bramshill House, and further research.

REFERENCES

1. M R Norris: 'Meridian Line at Ramsgate', *BSS Bulletin*, **96.2**, pp.26-28, (June 1996).
2. D A Bateman: 'A Meridian Dial in a Subscription Library, Nottingham', *BSS Bulletin*, **11(ii)**, pp.55-61, (June 1999).
3. Mrs Sara Beer: Eversley, *private communication* (December 2007).
4. Copies of the photograph and one for Fig. 13 were very kindly supplied by Violet Martineau's great nephew, Mr Richard Martineau, who added that his great aunt lived at Park Corner, Stratfield Saye estate, with her father John Martineau who was a pupil and friend of Charles Kingsley and is buried close to him. Charles Kingsley was the Rector of Eversley Parish Church, less than 3 miles from Bramshill House.
5. Reproduced by permission from IPC Media, Southwark, London.
6. Gertrude Jekyll, *Garden Ornament*, first published by Country Life/George Newnes, (1918), reprinted by the Antique Collectors' Club, (1982).
7. Helen Carey: Librarian, IPC Media, Southwark, London (August 2007).

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Warrington Hogg's 1892 drawing of the dial at Chilham, Kent. Note the hoop supporting the gnomon, probably a later addition. Contrast with the gnomon supporter shown in Andrew James's article on page 46.

WATTS DIAL

In the last Bulletin, we showed a picture from Alice Morse Earle's *Sun-dials and roses of yesterday*, featuring the artist George Watts and his sundial. We asked "what has happened to it?". We now know that there is a rather better version of the photograph in Veronica Franklin Gould's biography *G. F. Watts, The Last Great Victorian* (published Yale, 2004, fig. 218 on p.335). An enlargement of the photo is also in the catalogue to the show *Mary Seton Watts (1849-1938) Unsung Heroine of the Art Nouveau* at the Watts Gallery, Compton. Veronica Franklin Gould is currently writing a biography of Mary Watts and was responsible for identifying her as the maker of the Tennyson sundial pedestal (*BSS Bull*, **19(iii)**, p.112) as well as the George Watts dial: we are grateful to her for permission to publish this picture. She is keen to hear of any other known terracotta sundials or garden ornaments by Mary's Arts & Craft Association at Compton.

Unfortunately, the dial was stolen from a private garden in the 1990s and has not been recovered despite being reported to the police. Can *Bulletin* readers do better?

