

APPARENT LONGITUDE PROBLEMS WITH SOME SCOTTISH SUNDIALS

DENNIS COWAN

I first realised that there may be a problem with the longitude marked on some Scottish sundials after I entered the Sundial Trail competition in 2010 sponsored jointly by ‘Sundials on the Internet’ and the BSS, with my entry entitled “Sundial Trails to the Home of Golf”. This trail was actually three trails in one – one trail to St Andrews (East Neuk) and another from St Andrews (North Fife), as well as a trail in St Andrews itself.



Fig. 1. The dial on University Hall, St Andrews.

Within the St Andrews trail, I included the vertical sundial on the old wing of University Hall (Fig. 1). On the roof of the building there is a weathervane inscribed with 1911, presumed also to be the date of the sundial. Inscribed above the dial is “LAT 56 20.7 N and LONG 11 12 W”. It should be noted that the superscript units are hidden by the shadow of the surround, so it is unclear of the designer’s actual intent. It was quite rightly pointed out by one of the judges that although “the latitude ($56^{\circ} 20.7' N$) appears correct, the marked longitude ($11^{\circ} 12' W$) would place it in the middle of the sea! It should be about $2^{\circ} 48' W$. This deserves further investigation”.

It irked me that I had missed this error and I decided that at some point in the future I would investigate further as suggested by the judge.

Later on in 2011, I visited Greywalls, a hotel in East Lothian next to the famous and exclusive Muirfield Golf Club. So exclusive is Muirfield that you will find no direction signs to it at all.

Greywalls was designed in 1901 by Sir Edwin Lutyens who, in his lifetime, was said to be regarded as Britain’s greatest architect since Sir Christopher Wren, if not indeed his superior. He collaborated with the landscape architect Gertrude Jekyll on the design of Greywalls and its grounds as well as on many other projects. Apart from many significant houses and other buildings, he was responsible for the

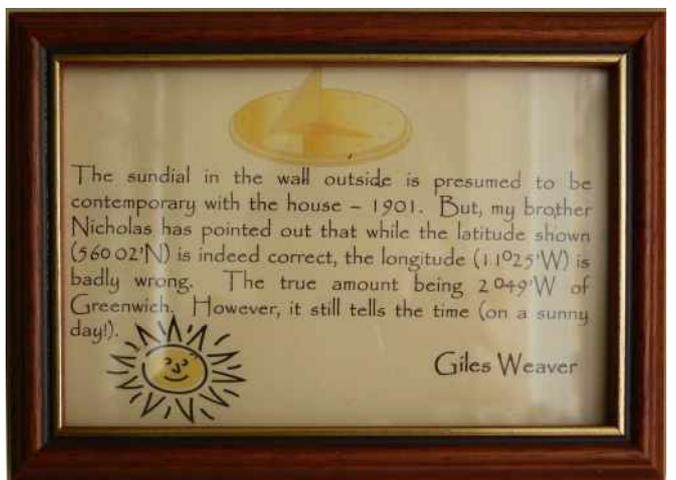


Fig. 2 (top). The dial on Greywalls hotel.

Fig. 3 (bottom). The notice indoors.

Cenotaph in Whitehall and the Memorial to the Missing of the Somme at Thiepval in France. When he died in 1944, his ashes were interred in St Paul's Cathedral. This sets the scene therefore for my visit to Greywalls.

I had been led to believe that there was a vertical sundial on the wall of the hotel and it was for this reason that I visited Greywalls. The staff were very accommodating and readily took me into the garden to show me the sundial (Fig. 2). A notice (Fig. 3) at the door to the garden was proudly pointed out to me saying that the sundial was inaccurate.

This notice rang a bell – the very same comments as the judge in the sundial trail competition about the sundial at St. Andrews. However, given Lutyens' pedigree, it was inconceivable that he had allowed such an error as to get the longitude so badly wrong.

At this point something kindled in my brain – were there others too? I looked through my collection of photographs and indeed there were other similar examples.

Some years ago I had photographed two other sundials with apparent anomalies in the longitude inscribed upon them, but had not picked up on it.



Fig. 4. The Hill of Tarvit Mansionhouse dial.

The first was at the National Trust for Scotland house near Cupar in Fife (Fig. 4). The Hill of Tarvit Mansionhouse was designed in 1906 by Sir Robert Lorimer for the Sharp family who had made their money from the jute industry, and it included a rather magnificent huge vertical sundial on the south face of the house. This dial showed a latitude of $56^{\circ} 18'$ and a longitude of 12^{min} West. Lorimer was also a



Fig. 5. The dial in Peebles High Street.

famous architect and would he too have made such an error? There had to be an explanation.

The second was on a building in the High Street in Peebles in the Scottish Borders (Fig. 5). This time, the huge sundial dated 1877, quoted Lat $55^{\circ} 39'$ and Time 12.85^{m} West. It was this sundial that gave the clue in that it quoted the word "Time" rather than "Longitude".

Looking at these four dials together, it was obvious that the longitude quoted on all four dials was not the longitude, but was instead the time difference from Greenwich. When the time quoted on the sundials was converted to actual longitude in degrees and minutes they were all virtually spot on with their locations. It actually makes more sense for longitude to be shown in this way as it makes it much easier for the user to tell the time.

This quite nicely answers the judge's query from the sundial trail competition.

I subsequently advised the owner of Greywalls that his notice about the error in longitude was itself an error, but he replied that he would rather leave the notice as it was as it provided a talking point! I'm not sure that Lutyens would have approved.

There appears to be a further error in the notice as it presumes that the sundial is contemporary with the house (1901). John Foad's article¹ on Lutyens' Vertical Sundials identifies that the sundial was added some time later, as a photo of Greywalls from 1913 does not show it to be in place.

The sundials were all from the period 1877 to around 1913. Was this a Scottish peculiarity or are there any other sundials from this period marked in a similar fashion in other parts of the UK?

REFERENCE

1. J. Foad: 'Lutyens' Vertical Sundials', *BSS Bull.*, 20(ii), 88-90 (June 2008).

For a CV of the author, see *Bulletin* 23(iv), December 2010.

