

# Ancient times...

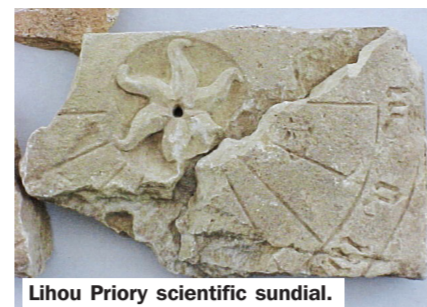


Forest School.

From garden decorations to the Liberation Monument, sundials can be found scattered all over Guernsey - but most people barely notice their existence, let alone their significance. David Le Conte explains more



Le Moulin de Haut.



Lihou Priory scientific sundial.



Alderney church tower.



Liberation Monument.



Castel Church.



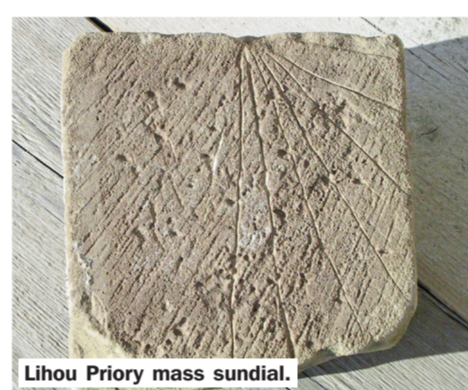
Working on sunshine: Shadow clock (left) and sundial (right), La Seigneurie, Sark.



Forest Church.



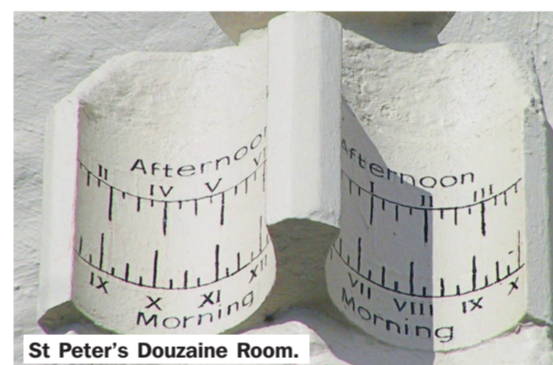
Church of Scotland.



Lihou Priory mass sundial.



Vale Church.



St Peter's Douzaine Room.



Equatorial sundial.

Watercolour 'La Chapelle de Ste Apolline a St Sauveur Guernesey', by Joshua Gosselin, inscribed and dated 1793, features a sundial at the top of the east gable.



St Andrew's Church.

## About Sundials...

SUNDIALS, including those installed in gardens for purely ornamental reasons, put us directly in touch with the cosmos, as they record the effects of the Earth's daily rotation and seasonal revolution around the Sun by tracking the Sun's apparent motion across the sky. For this reason do not expect them always to agree with the time shown on a wrist-watch. Sundials show local sun time, not clock time. The Sun's motion is not uniform like that of a clock, but varies by up to 16 minutes because of the nature of the Earth's orbit. In addition, our clocks are set to the meridian of Greenwich, not our local meridian, and this results in a further 10-minute difference. In the summer, of course, we also have to take into account the one-hour advance of Daylight Savings Time. Some sundials have tables or graphs showing the so-called 'Equation of Time' adjustment to the time shown on the sundial to convert it to clock time. One accompanies a fine wall-mounted sundial at Melrose School, which also has a fine motto: 'Treasure every golden moment'. All this assumes that the sundial is set up correctly to start with. The angle the gnomon makes with the disc of a garden sundial should be equal to our latitude - in Guernsey's case about 50 degrees. The disc must be level, and the gnomon must point towards true north. It also assumes that the sundial is designed correctly with the hour lines correctly delineated. Ancient sundials were designed using algebra and trigonometry. Nowadays computer software will do the design for you. If you want a well-designed sundial which will work, there are several reputable manufacturers. As to types of sundial, there is a range to choose from. The normal garden pedestal-mounted type is referred to as a horizontal dial. Ones mounted on walls are vertical dials, which can also be 'declining' if they are designed to face a direction other than directly south. Equatorial dials are curved, usually in the form of a sphere known as an armillary. Polar dials are rarer, the base or dial plate being parallel to the gnomon and the Earth's axis. Then there are multiple dials, particularly favoured by Scottish castles, and analemmatic or shadow clocks where the time-keeper's shadow is cast on the ground, often found in school playgrounds. Finally, there are other dials of individual, often highly inventive, designs.

One final bit of sundial trivia... You can take a sundial mounted horizontally in one hemisphere and mount it vertically at the right latitude in the other hemisphere and it will work perfectly well. So a horizontal sundial in Cape Town, at 34 degrees south latitude, will work in Edinburgh at 56 degrees northern latitude.

THEY are everywhere, yet we seldom notice them. They are on walls and pedestals, designed to be seen and to serve a useful purpose. Yet we don't need them. Indeed, many - perhaps most - are just decorative items. For hundreds of years, however, they were essential - the only way people could mark the passage of time with any accuracy. I am referring to sundials, the item no garden should be without. Despite the fact that we now carry much more accurate timepieces on our wrists or mobile phones, sundials are central to many gardens, and garden centres are happy to oblige with a variety of designs.

What particularly interests me, however, are the ancient sundials which form part of the Bailiwick's heritage. We can start with the parish churches, six of which have sundials hundreds of years old fixed vertically on south-facing walls: St Andrew's, Castel, St Martin's, St Sampson's, St Saviour's and the Vale. They are mostly (with the notable exception of the Vale) in obvious positions, yet I feel sure that many church-goers have never noticed them.

I well recall a visit to St Brelade's Church in Jersey to look at a sundial I knew was there. I was accompanied by someone who told me I was wasting my time as he had been going to the church all his life and assured me that there was no sundial. When we reached the entrance to the church there directly above our heads was a large and elaborate sundial which he had never noticed.

Of the other Guernsey churches, the most evident is the Church of Scotland in the Grange, which has a large sundial, probably dating from 1897 and prominently displayed on the front of the church. It has an appropriate motto: 'Watch and pray, time flies away.' The fact that so many of our ancient churches have them indicates that they were probably the norm rather than the exception. The Forest Church had one which was removed in the early 1920s when the vestry was built. It ended up at a house near the airport but is now displayed

inside the church, with an account of its history. Two possible candidates for the St Peter's Church are in private ownership in that parish. I have, however, found no evidence for a sundial on the Town Church, although I feel certain there must have been one. A watercolour of the chapel of Ste Apolline painted in 1793 by Joshua Gosselin clearly shows a sundial at the top of the east gable. It has long been missing and if anyone has any idea where it might be I would be most interested in hearing about it.

The purpose of the church sundials was to indicate the time at which services were to be held. The original mass dials of medieval times were simple small carvings on the south wall of the church, usually near the entrance. The gnomon (the rod which casts the shadow, and which has a silent g) has to be aligned parallel with the Earth's axis for the sundial to show the correct hours at all seasons, but these early sundials had horizontal gnomons. Nevertheless, in the days when precise time was not important they could still indicate the times of the five daily masses. They are prolific on English churches, but only one has been found in the Bailiwick of Guernsey - in fact, so far as I am aware, in the whole of the Channel Islands. It was discovered in 2003 during archaeological excavations at Lihou Priory and probably dates from the 15th century. A somewhat later, possibly early 16th century, sundial was found at the same site, but by then the design had progressed to what is termed a 'scientific dial' where the gnomon was at the correct angle and the hour lines marked actual hours.

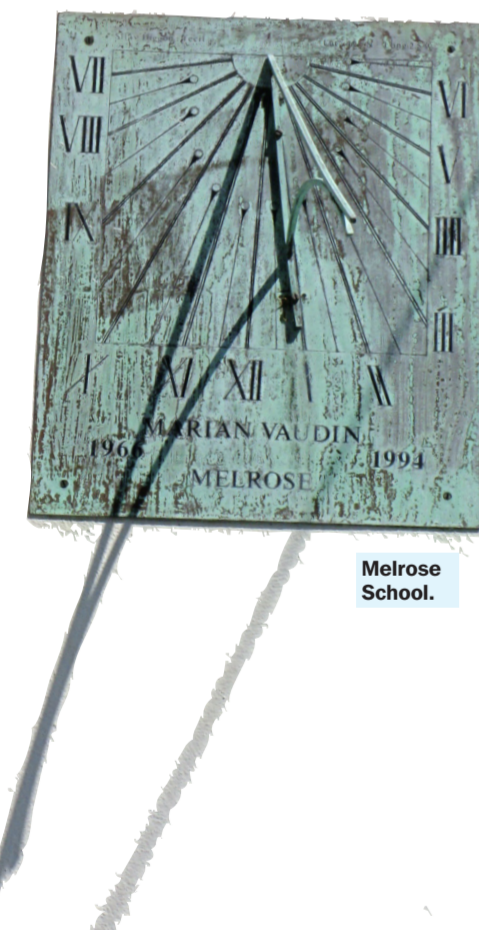
The church dials are invariably engraved on stones, often Caen limestone, mounted on the church wall. They are designed to point directly south, but church walls are rarely accurately aligned so they have to be wedged on one side to ensure they are the right orientation. The sole exception is the Castel church which is exactly aligned

so that its south wall faces due south. Although undated, its dial is probably 19th century. It is unusual in having a 'nodus' on its gnomon, which casts a shadow on curves representing the spring and autumn equinoxes and the summer and winter solstices, thus giving an indication of the month as well as the time of day. The dial at St Sampson's church is an interesting one because it is actually three dials in one. It has a south-facing dial, a west-facing one, and undoubtedly an east-facing one, although the latter is covered with lead. Many of the old sundials have lost their gnomons, or they have been replaced, not always sympathetically.

There are also sundials on public buildings other than churches. The beautiful gold-coloured sundial, dated 1829, on the front of the Forest School is very prominent. And the book-shaped one on the St Peter's Douzaine Room is unusual. An 18th-century sundial commemorating Pierre de Havilland, Harbour Supervisor, is on the south wall of the Slaughterhouse. The centrepiece of the Torteval cemetery is a pedestal-mounted sundial dated 1934. Many interesting sundials, including some ancient ones, are in private ownership. Moulin de Haut in Fauxquets Valley has a fine one dated 1769. One in Les Fauconnaires is undoubtedly much older and is similar to the Vale Church one. Not all of them are old, however. There is a rather nice dial, dated 1969, on the road to Moulin Huet. At Bruce Russell's is a large armillary sphere sundial, the hours curiously reversed, indicating that it was probably made for the southern hemisphere. On other islands of the Bailiwick are

interesting sundials too. On the front of La Seigneurie in Sark is a fine sundial dated 1685 and in the garden is a lovely old pedestal-mounted one dated 1703. The garden also has a modern 'analemmatic' dial, or shadow clock, beloved of children as their own shadow shows the time. Nor is there any getting away from time in Alderney where the airport has a gaudily-painted 'equatorial' dial, and the old church tower has both a sundial and a clock, just to be sure. In Victoria Street a large, well-designed modern sundial is on the wall of the pharmacy. Guernsey Museum has a small but interesting collection of sundials, mainly pocket ones popular in the 18th century before watches became common. There is also a 'nocturnal' for telling the time at night by reference to the stars of the Plough, and a dial in the shape of a model working cannon, which fires at noon when sunlight focused by a lens falls on a fuse. The largest sundial in the Bailiwick is one that works on just one day of the year - Liberation Day. The Liberation Monument is a clever design by Guernsey artist Eric Snell, the shadow of the five-metre obelisk accurately tracing the line of seating, and, at the appropriate times, passing the three inscriptions commemorating events of 9 May 1945. When you are out and about, do take the time to notice the many lovely sundials we have, and if you find any interesting ones I haven't mentioned do let me know.

Torteval cemetery.



Melrose School.

◆ A small book on Guernsey Sundials is available from La Société Guernesiaise, price £3.

◆ Want to know more? Visit the British Sundial Society website at <http://sundialsoc.org.uk/>

All pictures by David Le Conte, except for painting of Ste Apolline Chapel by Joshua Gosselin, 1793 (courtesy of Guernsey Museums and Galleries).