EAST OF ENGLAND Mike Cowham, John Davis & Margaret Stanier Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk, Suffolk

When we think of the East of England we normally envisage large areas devoted to agriculture, a flat land and those big open skies. The area is indeed noted for its fenland with black peaty soils with outcrops of clay but there are also large areas of gently rolling country and a wonderful coastline.

The area contains some interesting architectural

clunch (a soft white limestone) from Cambridgeshire, and flint from the coastal regions of Norfolk, Suffolk and Essex. These local materials have all been well used for the building of homes, churches and sundials.

There are numerous dials in the region and we have picked out a few of the more interesting ones to describe. Naturally there are many in



The magnificent cathedral at Ely, truly known as 'The Ship of the Fens'

gems. We have the great cathedrals of Ely, Norwich, Peterborough and Bury St Edmunds, and the incomparable colleges of Cambridge. The area is also famous for its many quiet lanes and small villages. These often appear as if time has overlooked them and they remain little changed by the march of time.

Building materials vary greatly from the hard and durable Barnack limestone from the north,

Cambridge, one of our mightiest seats of learning but there are others, often simple dials, spread throughout the region that are just as interesting in their own right.

The visitor to Cambridge should also see the Whipple Museum which has a great collection of mainly pocket dials and associated astronomical instruments. These too have an important place in our timekeeping history. The Fitzwilliam Museum in Cambridge is a world-class museum and should not be missed by the visitor. It houses fine collections from Egyptian, Greek and Roman times through medieval art to the 20th century. It also contains a fine collection of clocks.

ALDEBURGH, Suffolk

The 16th century Moot Hall was once in the centre of Aldeburgh but erosion by the sea has completely removed one of the three streets which ran parallel to the sea so that it now stands perilously on the edge of the shingle beach. It currently houses a museum of archaeology and has a most attractive Vertical Dial on its southern end. Many tourists view the dial as they watch the remaining fishing boats being hauled up the beach and it even featured briefly in the famous 'tell Sid' British Gas TV commercial! The dial carries the date 1650, although the style and its excellent condition makes it doubtful that this is the original dial for the location. Aldeburgh was at its most prosperous at this time as a leading port although Dunwich, its northerly neighbour, was already losing its battle with the sea. The dial is quite close to a direct south facing one, set just 11° to the west. The motto:

HORAS NON NUMERO NISI SERENAS

is the Latin equivalent of the rather twee, 'I only count the sunny hours' to be found on Victorian dials and poor modern reproductions.

There are several other sundials visible from a stroll around the pleasant streets of Aldeburgh. There is, for example, a painted Vertical Dial on the front of a house in Oakley Square and another



The Moot Hall at Aldeburgh



The Aldeburgh Moot Hall dial

in the appropriately named Dial Lane. Even the local rest home is named 'The Sundial'.

BURY ST EDMUNDS, Suffolk

Next to the cathedral, with its new tower, are the delightful Abbey Gardens. As well as the remains of the old abbey, these contain an interesting



The Pillar Dial at Bury St Edmunds



The unusual equation of time at Bury

Pillar Dial dated to 1870 by a plaque on the base. There is only a direct south face to the dial, with a mix of Roman and Arabic numerals for the hours, but on the west face of the stone block is a unique form of engraving for the equation of time. This is in a very early graphical form and it also corrects for the longitude of Bury, allowing Greenwich Mean Time to be obtained. This would have still been something of a novelty in 1870.

Its motto on the west face reads:-MONET ANNVS ET ALMUM QUAE RAPIT HORA DIEM (The year and the hour which snatches away the nourishing day warn you) Horace, Odes 4.7

There is a much older declining Vertical Dial, in traditional form, on the cathedral itself. Additionally, there are dials to be seen on St Mary's Church and on the Unitarian Meeting House in Churchgate Street. Whilst in Bury, be certain to visit the Manor House Museum where, amongst the many clocks on display, there is a good variety of portable dials to be seen. Gershom Parkington, the 20th century musician whose collection forms the basis of the museum, is buried locally and has a sundial as a monument, though it is now sadly vandalised.

CAMBRIDGE

Queens' College. In the colleges of the City of Cambridge are to be found many impressive sundials. Perhaps the best known is that at Queens', facing approximately south in the Old Court. Its complex lines and unusual table beneath make so many tourists ask their purpose that the College has printed a special leaflet. It is a Sun-and-Moon Dial and is one of the most remarkable wall dials in Britain, well known among gnomonicists for the intricacy and interest of its dial furniture.

The first dial recorded at the college was made in 1642 at a total cost of £3 7s 6d, though it is not known if this was related to the current dial. Then, in 1733 the antiquary Cole reported '....on y^e Wall of y^e Chapel and over y^e door w^{ch} leads to it is also lately painted a very elegant Sun Dial with all y^e signs. This is no small ornam^t to y^e Court to enliven it'. This was the Moondial which has often been attributed to the Cambridge scholar Sir Isaac Newton even though he was dead by then! Since then, the dial has been repainted at least seven times, including a period



Queens' College Dial



The Sun and Moon Dial at Queens' College, Cambridge

in the 19th century when it became derelict and gnomon-less. As a result, the accuracy of its delineation has slipped although there is now a computer-generated design available to correct it. The outer Roman numerals of the dial give the local apparent, or solar, time from the shadow of the gnomon in the standard manner. The rest of the dial furniture is read from the shadow of the nodus which is set level with the line marked



Detail of Queens' College dial

HORIZON. The green lines show the Sun's declination and are labelled with the zodiac signs and symbols, and with the associated planetary signs, in two broad strips inside the main numerals: from mid-winter to midsummer on the right and midsummer back to midwinter on the left. Note that the declination lines do not project above the horizon line (which indicates that the sun has set) so the positions of the zodiac signs have to be judged by eye. The months of the year, in Latin and for the old Julian calendar, are set just outside the signs. The column on the left labelled ORTUS SOLIS gives the times of sunrise for each of the green declination lines. The corresponding column LONGITUDO on the right gives the length of the daylight hours throughout

the year. The curved red lines give the elevation (or altitude) of the Sun in degrees above the horizon. The vertical black lines show the azimuth or bearing of the Sun. Finally, the straight black lines which fan out from the centre of the horizon line give the time in temporary, or seasonal hours, i.e. in twelfths of the period between sunrise and sunset.

The table of numbers underneath the dial is for reading the time at night by the Moon's shadow. The top and bottom rows (1-15 and 16-30) are the age of the Moon in days since the last New Moon, which the observer is expected to know. The times in the middle row, in hours and minutes, then need to be added or subtracted from the time indicated by the shadow to give the time of the night. The complexities of the Moon's orbit mean that this time is likely to be rather inaccurate, even if the shadow can be seen.

Gonville & Caius College. There is a large sixfaced Vertical Dial above the gateway between the College and the Senate House Passage. It is