

# GEOSUFFOLK TIMES

Newsletter 26

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Welcome to issue no.26 of GeoSuffolk Times – for those who value Suffolk's Geodiversity. Caroline Markham 03.11.15 [www.geosuffolk.co.uk](http://www.geosuffolk.co.uk)

## Elizabeth Cobbold (1765-1842)

Two of the first fossil shells illustrated in James Sowerby's 'Mineral Conchology of Great Britain' (commenced 1812) were *Murex striatus* and *Murex contrarius* (now in the genus *Neptunea*) from Holywells, Ipswich. These were two of very many sent to him by Elizabeth Cobbold from crag pits on the family's Holywells estate (her husband John was an Ipswich brewer). *Nucula cobboldiae* (now in the genus *Acila*) was named and figured in volume 2 (page 177 and plate 180 figure 2) in 1817/18. James Sowerby wrote, 'Being desirous of commemorating MRS COBBOLD, whose copious collection obtained with great industry, in company with several of the junior branches of her family, whom she delighted to inspire with a love for the works of Nature, from the Crag-pits of her estate, evinces a degree of taste and zeal seldom met with; I have named this rare and withal elegant shell, after her.'

We also see Elizabeth Cobbold's involvement with things scientific in her poetry, showing an understanding of erosion when telling us of the Holy Wells: 'But time, with silent, slow decay

Sweeps earthly pride and pomp away.'

In another poem she describes herself – a botanist one day or grave antiquarian, next a sempstress or abecedarian, next steering a deep philosophical lecture, at night assisting the idlers with whist or quadrille, ending with 'though science and friendship are nearest my heart'.

On her death the Mineral Conchology recorded: 'Our valued friend, whose assiduity in collecting Crag shells, and generosity in bestowing them, have so often been proved in the course of this work that every lover of science must join us in lamenting her loss.' A portrait of Elizabeth Cobbold attributed to George Frost hangs in Christchurch Mansion. Bob Markham (RM)

GeoSuffolk is on Facebook and Twitter – find us at: <https://www.facebook.com/GeoSuffolk>  
<https://twitter.com/geosuffolk>



Our new leaflet 'In Breckland with GeoSuffolk' is hot off the press and will be launched at the GA's Festival of Geology (see box at left). It will be available free at many sites. The leaflet celebrates Breckland's geology and scenery, making the point that this is what gives the area its unique character. All the localities featured are easily visited – you can for example: touch a special stone (flint); 'see' the wind on the heath (sand dunes); visit a pingo; discover chalk as a building stone. Then there are the ubiquitous vegetation patterns, the legacy of periglacial conditions – where to go, how to see them and what lies underneath them. There will be more on these in our display at the GA Festival of Geology, with large air photos showing a profusion of stripes, polygons and ground ice depressions. Breckland's vernacular buildings are part of its landscape and our display will also feature 'clunch' – a local chalk building stone. CM

## Great Waldingfield Extra

(See GeoSuffolk Times no.25). Also connected with Great Waldingfield Church was Norwich-born geologist Colin Ranson (1936-1989) who, with his wife Susan and their family sang in the church choir in the 1970s. In 1967 Colin became a Deputy Regional Officer at the Nature Conservancy with responsibility for Essex and Suffolk: he wrote the Geology of Suffolk in Simpson's Flora of Suffolk in 1982. RM

GeoSuffolk will feature Breckland on its stand at the **Geologists' Association Festival of Geology** on Saturday November 7th at University College London. This event is free and open to the public, see <http://www.geologistsassociation.org.uk/festival.html> for more information.

## GeoSuffolk: our busy August 2015

### Septaria at Walton Old Hall

The East Anglian Daily Times 22.04.15 featured Felixstowe historian Phil Hadwen at Walton (Felixstowe) Old Hall. Dating from the late 13<sup>th</sup>C, it has been in ruins for five centuries. The low sections of walls show local 'London Clay' cementstones (septarian nodules). They, together with information boards, may be seen in a corner of the town's playing field off Dellwood Avenue and behind the modern houses of Colneis Road. RM

### Quay Place, Ipswich

Two technical events have been held in connection with the project to restore St Mary at the Quay Church (Quay Place) by Suffolk Mind, supported by Heritage Lottery Fund and the Churches Conservation Trust. The contractors are Bakers of Danbury, Ltd.

'Repairing Stone Columns' was held on 22.05.15. The columns (arcade piers) in the nave are of Caen Stone. The water table is about 1.3-1.4 m below ground level here, and moisture has risen by capillary action, with dissolved salts crystallising as the water evaporates – disintegrating the stone. The moisture and dissolved salts were analysed by Hirst Conservation of Lincolnshire in 2006. Sulphates, nitrates and chlorides of (mainly) sodium and (lesser amounts) magnesium and potassium were found. Imported Caen Stone was used for repairs to the columns, with a damp-course of stainless steel and slate. The new stonework was by Collins, Landseer Road, Ipswich.

'Repairing External Flint and Masonry' was held on 24.07.15. Jay Harrison of Needham Chalks (HAM) Ltd., Castle Acre, Norfolk, talked about decorative building work, specialist shapes flintwork, and use of hydraulic machines instead of hammer and chisel. Rod Hunt (who manages the company's flint operation), gave a demonstration of knapping, producing 'square' flints. (See GeoSuffolk Times no. 14 for Needham Market chalk pit 1947-1979.) Adrian Ward of Collins showed new building work at Quay Place, including movement joints to reduce cracks opening as buildings move. Lepine Limestone from France, white, harder and more durable than Caen Stone is used for the new outside building works at Quay Place. RM

### Travelling Millstones

A recent visit to Michelham Priory watermill in East Sussex revealed that the pair of 18<sup>th</sup>C French Burr stones (each weighing 16cwt) installed there in the 1970s came from a disused mill in Suffolk. An article in the Suffolk Mills Group newsletter no.44, March 1989, informs that they came from Rattlesden in 1975. RM

We were at Ipswich Museum on the 4th for 'Space' where we showed meteorites and ran our very popular 'do you share your name with an asteroid?' activity. On the 11th for 'Bones and Teeth' we showed small mammal fossils, when amazingly, a small dot became a shrew jaw fragment containing two teeth when viewed under magnification. On the 19th for 'Show and Tell' we identified many specimens brought in by the public. On the 25th for 'Countries and Cultures' we showed gold specimens and gold-panned. We were at Colchester Natural History Museum on the 13th for 'Fossils', identifying and demonstrating specimens. Two outdoor events occurred on the 23rd. We were at Sutton Country Fayre with the Pliocene Forest and Edition 2 of Barry Hall's booklet 'Pliocene Plant Profiles'; and at Suffolk Wildlife Trust's Knettishall Fair with stereoscopic viewing of Breckland landforms and Richard West's book, 'Evolution of a Breckland Landscape' for periglacial enthusiasts. RM

### Radioactive Waste Management

This workshop on the National Geological Screening public consultation was held at the Novotel in Ipswich on 02.11.15. Their Chief Geologist is Professor Bruce Yardley, Emeritus Professor of Metamorphic Geochemistry of Leeds. The rocks being investigated for deep underground disposal of nuclear waste were of particular interest to me. A borehole core specimen of Jurassic Opalina Clay from Switzerland was on display. Other localities mentioned were the ANDRA site at Bure, Meuse, France (Callovian-Oxfordian claystone); the SKB site in crystalline rocks at Äspö, Sweden (Äspö diorite and Småland granite); and evaporate in New Mexico, USA (Permian salt). RM

### Early Records of Erratics

Excavations for the Archway at Highgate hill, London in the early 1800s yielded numerous fossils from the 'great blue Clay strata' (London Clay), and gave impetus to publishing James Sowerby's 'The Mineral Conchology of Great Britain', volume 1 from 1812. As well as recording many Chalk and Crag fossils many erratics are illustrated. Two of these are (Plate XVII< fig.3) '*Ammonites quadratus*. Robert Sparrow, Esq., of Worlington Hall, Suffolk, lent this specimen – found in a gravel pit at Brandestone, Near Framlingham, Suffolk, in 1781'; and (XIX, fig.4) '*Lingula ovalis* – found in a hard white marly stone, among the sand, above the Clay stratum near Pakefield in Suffolk, by Mr John Thurtell – accompanied by some striated Ammonites, Tellinas, etc. RM