

GeoSuffolk Notes 70

'.....science and friendship are nearest my heart.'

A botanist one day, or grave antiquarian,
Next morning a sempstress, or abecedarian;
Now making a frock, and now marrying a picture,
Next conning a deep philosophical lecture;
At night at the play, or assisting to kill
The time of the idlers with whist or quadrille;
In cares or amusements still taking a part,
Though science and friendship are nearest my heart.

Elizabeth Cobbold

Born Elizabeth Knipe, in London, 1760s.

Died Elizabeth Cobbold, in Ipswich, 1824.

- When younger, lived in Manchester - frequently visited London.
- November 1790, married at Liverpool to William Clarke, custom officer, Ipswich - her father, Robert Knipe, was a Liverpool merchant.
- And so, Elizabeth Knipe Clarke came to Ipswich. William Clarke (baptised 1731) was over twice her age and died in 1791.
- Within a year she re-married – to John Cobbold (born 1746), an Ipswich brewer, at St Clement's Church, Ipswich.
- Dr Nicholas Gwyn (1710-1798) of Ipswich, a botanist, introduced Elizabeth Cobbold to James Edward Smith of Norwich, a founder and first president of the Linnaean Society (in London 1788).
- In August 1793 James Smith arranged for 'Mrs Cobbold' (as she would be known in scientific circles) to receive the first part of *Flora Anglica*. This was a new publication by James Smith and the natural history artist and publisher James Sowerby of Lambeth, London.
- Elizabeth Cobbold contributed records to the *Flora*, including the 'weeds' summer snowflake and meadow-saffron at Little Stonham.
- In 1810 (17 April) Elizabeth Cobbold's paper 'On the Fasciola Hepatica' (concerning a liver fluke) was read (not by her as women were not allowed) to the Linnaean Society.
- The family moved to a new home, Holywells, in 1814 – the land was bought earlier by John Cobbold.
- In 1812 James Sowerby commenced his *Mineral Conchology of Great Britain*, in periodical form. This was the first scientific reference work on British fossil shells, well-illustrated, with Linnaean system nomenclature and naming many new species. Fossil shells were brought to his notice by correspondents, including Elizabeth Cobbold – from a crag pit on the Holywells estate. See '*Nucula cobboldiae* and more' for details.
- Captain Henry Kater, physicist, sent Elizabeth Cobbold a copy of his paper on the pendulum he invented (1817) to measure the strength of gravity. He also sent her some fossils from near Daventry and asked how the Actons were. Edward Acton, of Grundisburgh, also collected fossils from the crag.
- Reverend James Lambert, Professor of Greek at Trinity College, Cambridge sent Elizabeth Cobbold some *Buccinum lapillus* shells, fossils from Hastings, also two acorns for her garden. James Lambert was onetime curate at Bawdsey and a crag shell he found there was named *Voluta lamberti* after him by James Sowerby in 1816. Elizabeth Cobbold also provided James Sowerby with specimens of this fossil.
- In 1817 Reverend James Douglas, vicar of Kenton, Suffolk, enquired of Elizabeth Cobbold about remains of quadrupeds in the crag. She replied that there were very few fragments. James Douglas showed her letter to Dr Gideon Mantell of Sussex, discoverer of the dinosaur *Iguanodon* (James Douglas was previously Rector of Middleton, Sussex, and had earlier collected fossils from the Isle of Sheppey).

At James Douglas request, Elizabeth Cobbold sent (6 May 1819) a box of crag fossils to Gideon Mantell; in return he sent her some fossils later that year. Elizabeth Cobbold also subscribed to his 'The Fossils of the South Downs' (published 1822).

- Elizabeth Cobbold died 17 October 1824.
- On March 30th 1829 Gideon Mantell sent his Crag shells collected by Elizabeth Cobbold to Baron 'Georges' Cuvier, French anatomist who has been called 'the father of palaeontology' for the Natural History Museum in Paris.

Nucula Cobboldiae and more

- 1812- Elizabeth Cobbold sent fossil shells from crag pit(s) on Holywells estate to James Sowerby in London, for the *Mineral Conchology*. They included *Scalaria*, *Emarginula*, *Murex*, *Astarte*, *Auricula* and *Buccinum*.
- 1813 -mentions her cabinet for shells (in 'Poetical letter to a friend').
- April 1814 – James Sowerby wrote to Elizabeth Cobbold (Mrs Cobbold) – James Smith had delivered some of her shells to London, but the *Mya*, 'the finest he had yet seen' was broken into pieces (it was joined back together); one valve of *Pholas* was 'quite crushed', but the *Scalaria* was 'a very perfect specimen'. James Sowerby recommended a safer method of conveyance- a strong box and by coach ('stagecoach'), for which he would pay. The high-spired *Murex* was 'surely a distinct species', but he was waiting for more from Rev. George Leathes of Norfolk (who also collected crag fossils); in the end Elizabeth Cobbold's specimens were (1815) figured.
- James Sowerby acknowledged the 'kind friend of science, Mrs Cobbold (for the *Balanus*) and the 'scientific Mrs Cobbold' (for the *Infundibulum*) – 1815.
- *Nucula cobboldiae* named – 1817.
- Elizabeth Cobbold's crag shell collecting was mainly from Holywells, Ipswich, but a *Maetra* from Woodbridge (1817) and *Corbula complanata* from Butley (1823) were noted.
- 1822 (25 October) – James Sowerby died.
- May 1823 - Elizabeth Cobbold wrote to James de Carle Sowerby (the son who continued the *Mineral Conchology* publication) writing of her remembrance and the value of his father, which was much appreciated by de Carle. (The letter was delivered by Revd William Kirby, entomologist, of Barham near Ipswich. He, like Elizabeth Cobbold, had an interest in natural history encouraged by Dr Nicholas Gwyn and was also introduced to James Smith.)
- Although not in the best of health, in July 1823 Elizabeth Cobbold sent James de Carle Sowerby information about a bed of peat with bones, found in the Orwell, also sketches of shells from the crag at Butley. James de Carle Sowerby replied on the 2nd August, returning shells after figuring them and nos. 71, 72 and 73 of *Mineral Conchology* (Elizabeth Cobbold's subscription was paid promptly.) He identified one of the shells from Butley as *Corbula complanata* (as in *Mineral Conchology* plate 362, published 1822); he also sent sketches asking if she had perfect specimens of certain shells for figuring (one of them is now (2019) known as *Trophon clathratum*).
- James de Carle Sowerby again wrote to Elizabeth Cobbold on 14 October 1823. He would be pleased to receive certain unpublished shells, enough to fill a plate, including 'a rather smooth *Buccinum*'. He also noted that 'the little bivalve she called *Arca* found in Septaria along with *Pholas* was certainly *Mytilus rugosus*'. (They were figured in volume 5 of the *Mineral Conchology*, as *Buccinum dalei* and *Saxicava rugosa*.)
- James de Carle Sowerby visited ('attended upon') Elizabeth Cobbold and the Crag pit, 1823-1824.
- James de Carle Sowerby returned some more (including figured) shells on 16 August 1824.

But by now Elizabeth Cobbold was quite ill, and she died 17 October 1824. Palaeontology's loss was lamented by James de Carle's entries for *Fissurella graeca* and *Buccinum dalei* in volume 5 of *Mineral Conchology*.

- In 1914 Frederick W Harmer of Norwich, in 'The Pliocene Mollusca of Great Britain' (a Palaeontographical Society Monograph), named one variety of James Sowerby's (*Neptunea*) *Murex striatus* as variety *cobboldiae* nov, dedicated to the memory of the late Mrs Cobbold, from whom it was originally received.

The Mineral Conchology of Great Britain

by James Sowerby

Volume 1, part 1: 1812

...then continued by James de Carle Sowerby.

Elizabeth Cobbold specimens and a selection of acknowledgements (words slightly updated).

(18xx = date published)

Scalaria similis (1813) ...in 1812, Mrs Cobbold favoured me with thespecies, found by herself at Holywells, near Ipswich.

Venus equalis (1813) I have received a fragment of this,much resembling *Venus islandica* of Linnaeus, from Holywells near Ipswich, found in a crag pit on Mr Cobbold's estate.

Murex striatus (1813) figureis from among many choice specimens with which I was favoured by Mrs Cobbold, from the pit on the Holywells estate near Ipswich.

Emarginula crassa (1813) It was found in the Crag near Ipswich, by Mrs Cobbold, whose zeal for science prompted to send me the fine specimen from which this figure is taken.

Emarginula reticulata (1813) These specimenswere sent from Holywells fieldby Mrs Cobbold in 1812.

Murex rugosus (1813) My assiduous friend Mrs Cobbold sent me two specimens from near Ipswich last year.

Dentalium costatum (1814) I am greatly indebted to Mrs Cobbold for sending thisfrom the Holywell Crag, which place has afforded to ingenuity of enquiry and research such fine and instructive specimens, of which many are yet to come.

Balanus crassus (1815) This specimen, from Holywell near Ipswich, by favour of the kind friend to science, Mrs Cobbold, is the best I have seen.

Infundibulum rectum (1815) It is from Holywells, near Ipswich, by favour of the scientific Mrs. Cobbold.

Maetra arcuata (1817) Mrs Cobbold sent me these fine specimens from the Holywell Crag pits in 1813; they have been compared with and received the name of *Maetra solida* of Linnaeus.

Maetra dubia (1817) I have had the same..... from Mrs Cobbold, at Ipswich, from Woodbridge.

Tellina obliqua (1817) I have pairs from Ipswich, sent by Mrs Cobbold, who finds them fine, of all sizes, and varying in colour.

Astarte obliquata (1817) My active correspondent, Mrs Cobbold, discovered this shell in the crag pits at Holywells, near Ipswich, indulged me with specimens in 1812.

Nucula cobboldiae (1817) 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 own estate, evinces a degree of taste and zeal seldom met with; I have named this rare, and withal elegant shell after her.

Trochus laevigatus (1817) The specimen figured was presented me by Mrs Cobbold, who found it in the Crag pits at Holywells.

Mytilus alaeformis (1821) A single valve only of this mussel has come into my hands, for which I am indebted to Mrs Cobbold, who found it at their delightful retreat, Holywells, near Ipswich.

Auricula pyramidalis (1822) We first received this species from Mrs Cobbold of Ipswich, as long ago as 1812, but could not be satisfied with any place in the system for it.

Murex peruvianus (1823) A rare shell found at Woodbridge by Mrs Cobbold.

Acteon striatus (1824) A Crag fossil, in the cabinet of Mrs Cobbold.

Saxicava rugosa (1824) Mrs Cobbold has sent us a small specimen she found amongst others in holes in septaria, immediately below the Crag at Holywells.

Natica cirriformis (1824) A rare species found in the Suffolk Crag by Mrs Cobbold, whose valuable collection contains the specimen figured.

Fissurella graeca (1824) Found in the Crag of Ipswich, many years ago, by our valued friend the late Mrs Cobbold, whose assiduity in collecting Crag shells and generosity in bestowing them, has been so often proved in the course of this work, that every lover of science must join us in lamenting her loss, even if she had not possessed other high qualifications for which she was esteemed by all who knew her.

Buccinum dalei (1825) This very distinct shell was first received from our lamented friend Mrs Cobbold in 1812.

Elizabeth Cobbold specimens sent to and figured by James Sowerby in
Mineral Conchology

1813 (volume 1)	
Scalaria similis	page 49
Venus equalis/aequalis	59
Murex striatus	62
Vivipara suboperta	80
Emarginula crassa	73
Emarginula reticulata	74
Murex rugosus	75
Murex corneus	79
1814 (volume 1)	
Cardium parkinsoni	106
Turritella conoidea	109
Turritella incrassata	111
Dentalium costatum	162
1815 (volume 1)	
Balanus crassus	194
Infundibulum rectum	220
(volume 2)	
Murex striatus	13
Buccinum rugosum	16
Buccinum reticosum	17
Buccinum granulatum	18
1816 (volume 2)	
Voluta lamberti	66
Patella equalis	87
1817 (volume 2)	
Mactra arcuata	135
Mactra dubia	136
Tellina obliqua	138
Astarte obliquata	173
Nucula cobboldiae	178
Trochus laevigatus	179
Trochus similis	180
1818 (volume 2)	
Nucula laevigata	207
1821 (volume 3)	
Mytilus alaeformis	134
1822 (volume 4)	
Mya arenaria	88
Natica patula	99
Auricula pyramidalis	109
1823 (volume 4)	
Pecten grandis	129
Pecten striatus	130
(volume 5)	
Murex alveolatus	9
Buccinum tetragonum	13
Murex peruvianus	47
1824 (volume 5)	
Acteon striatus	87
Auricula ventricosa	99

Saxicava rugosa	102
Natica cirriformis	125
Natica hemiclausa	125
Fissurella graeca	132
1825 (volume 5)	
Buccinum dalei	139
Buccinum tenerum	140
1826 (volume 6)	
Fusus alveolatus	45
Pecten obsoletus	79

A Poetical Letter to a Friend (20 March 1813)

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Here science thoughtful, seeks to trace
The changes mark'd on nature's face
And finds, in strange confusion hurl'd
The wonders of a former world!
Dense, comic, belemnitic stones
Sharks fossil teeth, and horses bones,
And more abundant store of shells
Invite research at Holy-wells
Ostrea-striata and vulgaris
With pecten named opercularis
The same both maxima and varius;
Murex antiquis and contrarius
With erinaceous, carinatus
Caudatus, comeus, cancellatus
And senticosus and costatus
Emarginula, fissurella
Calyptica balamus; patella;
Voluta, buccinum glabratum
Minutum, and reticulatum
And serpula; vermicularia;
Pinna, anomia, rostellaria;
With turbo, trochus, and scalaria
Tellina; mya-arenaria;
Arca, pectunculus; and more
That I could name to many a score!
But sure already some apology
Is due for all this dull conchology,
So leaving shells to grace the cabinet

.....

.....

Your friend while there is breath in
Cobbold's Elizabeth

Acila cobboldiae, but why?

As *Nucula cobboldiae* this fossil bivalve shell from Holywells was named and figured by James Sowerby in volume 2 (pages 177/178 and plate 180 figure 2) of *Mineral Conchology* in 1817.

It was placed in the genus *Nucula* because of the tooth and socket arrangement of its hingeline. Later palaeontologists placed these nucas with a zig-zag pattern on the surface of the shell in a new genus, *Acila*. Although Elizabeth Cobbold's shell is now placed in a different genus it retains James Sowerby's specific name *cobboldiae*.

With the change of genus, the name of the author of the specific name is placed in brackets:

Nucula cobboldiae J Sowerby 1817

becomes

Acila cobboldiae (J Sowerby 1817)

It's the same fossil shell!

Some questions

- What is 'Crag'? in the eastern counties it is sand containing fossil sea-shells - the crag layers range in age from about 4¼ million to about 1 million years old.
- Where is Elizabeth Cobbold's cabinet of crag shells? Work continues -information welcome!
- Are there references to add to these pages? Yes – working on it!
- Are there more leads to follow up? Yes – working on them!
- Will this be published (at least in part) elsewhere? We hope to – where to be decided.

Work continues....

R Markham 2019