

### The 'Norwich Chalk'

The statue of Sir Thomas Browne (1605-1682) of Norwich, physician and antiquary (he holds a shard of pottery), stands on Hay Hill, Norwich. In his *Pseudodoxia Epidemica* of 1646 he wrote 'Of the Echinites (sea urchins), such as are found in Chalk-pits are white, glassie, and built upon a Chalky inside; some are of a hard and flinty substance, as found in stone-pits and elsewhere.'

In 1823 Richard Taylor noted that different Chalk pits at Norwich showed differences in their fossils – oysters were characteristic of the pit at St Giles's Gate, sea urchins and a brachiopod *Terebratula plicata* at the Pockthorpe pits, pectines and trochi (molluscs) at Magdalen Chapel pits, and large fragments of *Inoceramus* (bivalve molluscs) at the Thorpe pits.

By 1961 Norman Peake and Jake Hancock had, based upon R M Brydone's earlier (1930s) work, adopted broad faunal divisions of the Chalk – the Eaton Chalk and Catton Sponge Bed being named after Norwich localities. Eaton Chalk was named from Eaton Limeworks (Cunnell's pit) on the Newmarket Road, Norwich, and the Catton Sponge Bed, of very hard rust-stained chalk, from Camplings pit at Catton Grove, Norwich.

Several other former pits in Norwich are of particular note. John King (1805-1879) of Thorpe Hamlet, Norwich, collected fossils from Porter's pit and Pearce's pit at Harford Bridge (Harford Hills), including atpychi ('lids') of ammonites, '*Ammonites' icenicus* Sharpe. His firm was J & J King, Stained Glass Painters, etc. of Norwich. His collection went to Norwich Castle Museum.

Robert Fitch (1802-1895) was born in Ipswich, but moved to Norwich (as a chemist) in 1827. He collected antiquities and fossils including from a pit on the south side of St Giles' Street, Norwich, known as the 'Baculite Pit', on account of *Baculites*, a straight, somewhat compressed and elongate ammonite being obtained there. His collections went to Norwich Castle Museum, the Fitch Room (next to the Keep) being named after him, with the windows bearing his monogram R F and his coat of arms. There is also a light to his memory in the altar window of St Anne's Chapel, St Peter Mancroft, Norwich. *Ophiura fitchii* is a Forbes MS name.

The Lollard's pit, so called because the followers of John Wyclif were burnt there, was behind the gasworks on the south side of Gas Hill, Norwich. Thomas Gabriel Bayfield (1817-1893) recorded (Geological Magazine, 1864) the discovery of bones and teeth of the marine lizard *Mosasaurus* (under the name *Leiodon*) from this pit. Thomas Bayfield, born in Norwich, was an ironmonger in Magdalen Street, and later, Master of the Blind School. He married the eldest daughter of Samuel Woodward of Norwich, whilst his new brother-in-law, S P Woodward, named (in manuscript) a fossil echinoid, *Anachytes bayfieldi*, after him; much of his collection of fossils from the Chalk went to the British Museum. Frederick Harmer also told of the lacertian reptile when he gave a lecture to the Prince's Street Young Men's Society in Norwich in March 1877. Some years previously he said, he had seen, in the face of the chalk quarry at Bishop's Bridge the remains of a mosasaur. (Lollard's Chalk pit, to the south-west of Bishop's Bridge, was also known by this alternative name.) The impressive animal was about twenty-five feet in length, with the skull, backbone, ribs and tail all present. However, it was in such a decayed condition that, with the exception of the teeth, the skeleton fell to pieces at a touch. See also T G Bayfield, Geol. Mag, vol 1 (1864), p 296.

Norman Peake, a retired industrial chemist with a special interest in Chalk and the echinoid *Echinocorys*, was for many years the proprietor of the Scientific Anglian Bookshop, a second-hand bookstore in St Benedict's Street, Norwich. The bookshelves were engineered to turn and slide, sealing of his living quarters during the day, and his cats had a special passage constructed beneath

the floorboards to travel between the living quarters and the garden. His telephone number was ONO 3 24079 which in the days when telephone dials also had letters, he was delighted to quote as ONO 3 CHORX ! It is advisable to remove salt from sea shore and cliff specimens by flushing with fresh water; Norman Peake's method was to put specimens in the toilet cistern – this changed the water every time it was flushed and also saved on water. In 1961 he, together with Dr Gilbert Larwood, donated a flint with *Echinocorys* tests, found loose in the Chalk pit at Caistor near Norwich, to Norwich Castle Museum; the flint had the remains of tests of at least 36 individuals on the surface.

At a meeting of the Royal Society in the 1740s some observations of William Arderon were read. He described some large caverns in the hills near Mousehold Heath, Norwich, made when Chalk was dug out for the manufacture of lime. The entrance was about 2 yards by 2 yards but the height inside measured from twelve to fourteen yards in some places, and it was stated that the area inside was so large that there was room for 20,000 men. It was (later) stated that the site was 'thrown down' in 1748. The Mousehold site was known for echoes but more famous was the 'Whitlingham Cave' near Norwich, an old working whose echo was quite a local attraction in the mid-nineteenth century. Norwich tunnels beneath Earlham Road made news in 1988 when the rear end of a double decker Eastern Counties bus sank into a hole into the tunnels.

R Markham 2011