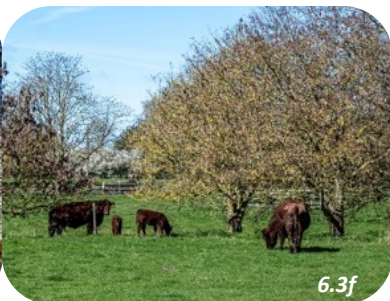


The Fen Edge Trail Waterbeach to Milton via Horningsea

4.4 miles (7 km)

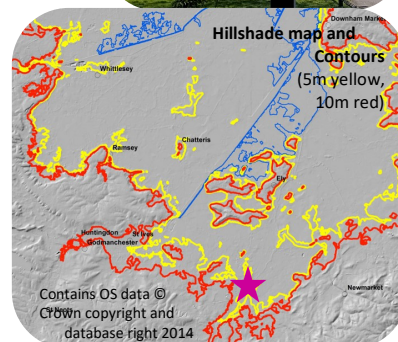
*‘River crossings
and enticing
village churches
and pubs’*

*Peter and Dominic,
Cambridgeshire
Geological Society
Geosites team*



The route: ‘exploring Roman pottery and 19th century coprolite workings while tracking the River Cam’

Having arrived in Waterbeach from Cottenham, to the west, the Trail now turns south to follow the valley of the River Cam, where the Trail crosses Chalk bedrock for the first time. The walk starts at the church of St John the Evangelist in Waterbeach, near the site of the short-lived Waterbeach Abbey, then crosses the Cam at Clayhithe to walk south on the east side of the river towards Cambridge. After passing through the village of Horningsea, it recrosses the Cam at Bait's Bite Lock to finish at All Saints Church in Milton village. This area was known in Roman times for its pottery industry, which used local Gault Clay to produce ‘Horningsea Ware’ and the ‘Old Tillage’ canal to connect to fenland waterways. The ‘coprolite’ industry was well established here in the 19th century taking phosphate from the Cambridge Greensand, again using the River Cam for transport.



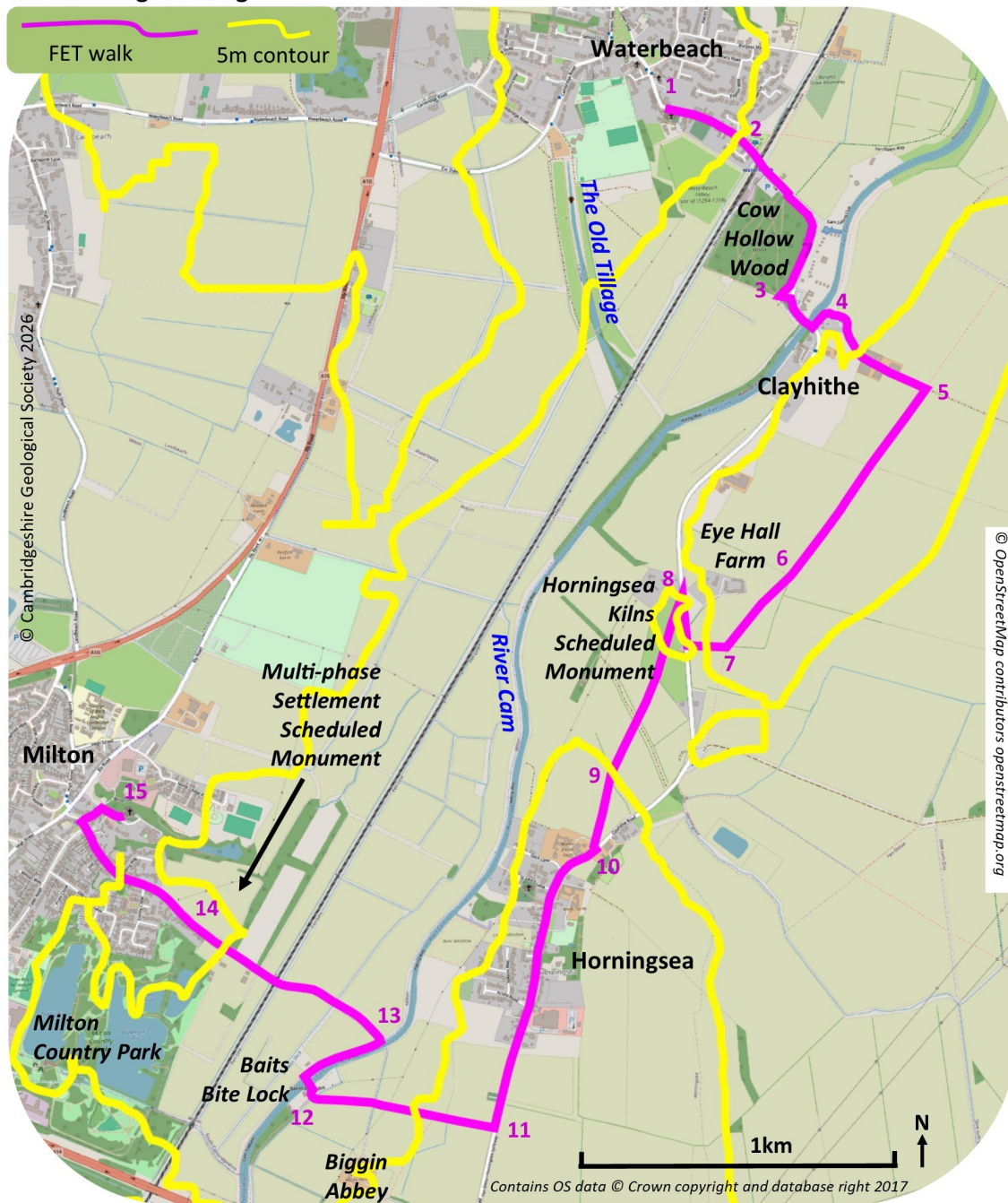
Photos: 1.1f St John the Evangelist, Waterbeach; 6.3f Eye Hall Farm cattle; 3.2f View over River Cam from Clayhithe Bridge; 10.3f Horningsea village sign; 3.4f Conservators' House; 12.3f Bait's Bite Lock; 6.5f Path through horse fields at Eye Hall Farm.

Practicalities As with all of the walks along the Fen Edge Trail, you can complete the full length of any walk or choose a short or long round trip option, or just visit some of the places on the route. The walk is divided into numbered parts as shown on the two maps. Photos are shown in the order they are seen except for those on this front page (f). The walk links with the **Fen Rivers Way** and the **Harcamlow Way** and crosses the **Haling Way and Cam Towpath** which connect Cambridge and Ely. A circular walk could be taken by returning to Waterbeach from Bait's Bite Lock via the tow path on the western side of the river. If walking on to Cambridge, you can continue on the tow path south of the lock rather than walk into Milton.

Length of walk (one way) approx. 4.4 miles (7 km). Guide time 1hrs 30mins plus stops. Grid ref for start **TL496654**. Maps O.S. Explorer 226 and 209. Free, easy to use online geology map viewer on www.bgs.ac.uk/map-viewers/bgs-geology-viewer.

Transport and services There are no buses running between the centres of Milton and Waterbeach but there are Cambridge-Ely bus services on the A10, adjacent to both villages. There are also buses between Waterbeach and Horningsea, and on to Cambridge and also buses between Cambridge and Milton (and Milton Park). See www.stagecoachbus.com, www.a2bbusandcoach.com, www.central-connect.co.uk. There are trains to Waterbeach from Cambridge and Ely. Street parking is available in Waterbeach (e.g. around the Green) and Milton but please park only where permitted and in consideration of others. There is a shop and pub in Waterbeach, two pubs and a garden centre in Horningsea and shops, pubs and a cafe in Milton.

Safety Be aware of risks you may encounter and take note of warnings given by landowners or on pathways. The terrain is generally flat, with potentially muddy ground in the river meadows. Take particular care with uneven terrain, when near water, on soft or slippery ground, in the presence of livestock or walking along or crossing roads. Ensure your dog is kept under control as needed. All Fen Edge Trail walks are on publicly accessible routes. **Anyone undertaking walks on the Fen Edge Trail does so at their own risk; these notes are for general guidance only.**



- 1** Starting at **St John's Church in Waterbeach**, walk in an easterly direction along Station Road.
- 2** Go over the level crossing and, just past the station car park, take the **footpath** on the right (**2.1**) to walk alongside the road around the edge of **Cow Hollow Wood**. Continue on the path to the west bank of the **River Cam** (or take an **alternative path through the wood** and rejoin the original path before the river).
- 3** At the river turn sharp left (**3.1**) and then turn right over the bridge. Cross the road to turn left down the path along the river (**3.5**) to **Clayhithe**.
- 4** Turn right, away from the river, to follow the **bridleway** around the **Cam Conservators' House**, keeping to the left of the steel railings and go through the centre of the **farm yard** (**4.1**).
- 5** At the **footpath sign** about 200m on from the farmyard, **turn right** and continue over the field on the marked footpath (**5.1**). Aim for the large tree (**5.2**) on the horizon and continue on this path.
- 6** Just before a hedge (**6.1**), you go through the gate (**6.2**) into the fields of **Eye Hall Farm**, which can be seen to the right of the path. Continue along the path to

the next gate, **Note that horses may be present here (6.5f), but fenced off from the path).**

7 At the next hedge line go through the **pedestrian gate (7.1)** and turn sharp right to continue on this path, reaching **Clayhithe Road**. Turn right here, walking briefly northwards along the right hand side grass verge (**7.2**). **NB Take care and look out for any traffic.**

8 After about 100m, just after the entrance to **Eye Hall Farm** (on the right), cross the road and take the signposted footpath through the gate (**8.1**) into the **Roman Potteries Fields**. **NB The land here is undulating and uneven underfoot, so take great care traversing this part of the walk.** The path here is poorly marked, if at all, so bear left (south) and aim to head to the **pedestrian gate between the rightmost two tall trees** of three on the horizon (**8.3**).

9 At this gate, continue through the next field (**9.1**) and over a **small footbridge (9.2)**, then through another field (**9.3**) to the main road into Horningsea.

10 Walk down the **High Street**, to St Peter's Church (**10.1**) and an optional stop at the **Crown and Punchbowl pub (10.2)** – booking recommended! Follow the High Street to the southern end of the village, past the cemetery on the right.

11 About 400m further on, take the next footpath on the right, along a hedge line, towards the river and lock (**11.1**).

12 At **Baits Bite Lock** cross the river (**12.2**) and turn right, heading north along the left bank (**12.4**) for about 400m.

13 Turn left onto **Fen Road**, walking over the level crossing, towards Milton. On your left you will see **Milton Country Park** (containing old gravel quarries that have been flooded), where you can take an optional detour (**13.2**) to return to Fen Road further along.

14 Continue along **Fen Road** for about 600m. Lastly, turn right into **Church Lane** where you will reach **All Saints Church (15.1)**, the end of the walk, **15**.

Walk: Waterbeach to Milton - geology and landscape map

Ages of the rocks

'Superficial':

Alluvium and Peat (Holocene)

Less than 11,700 years (most only hundreds of years)

River Gravels (Pleistocene)

Terrace 1 c.20,000 years

Terrace 2 c.50,000 years

Bedrock (Cretaceous):

West Melbury Marly Chalk

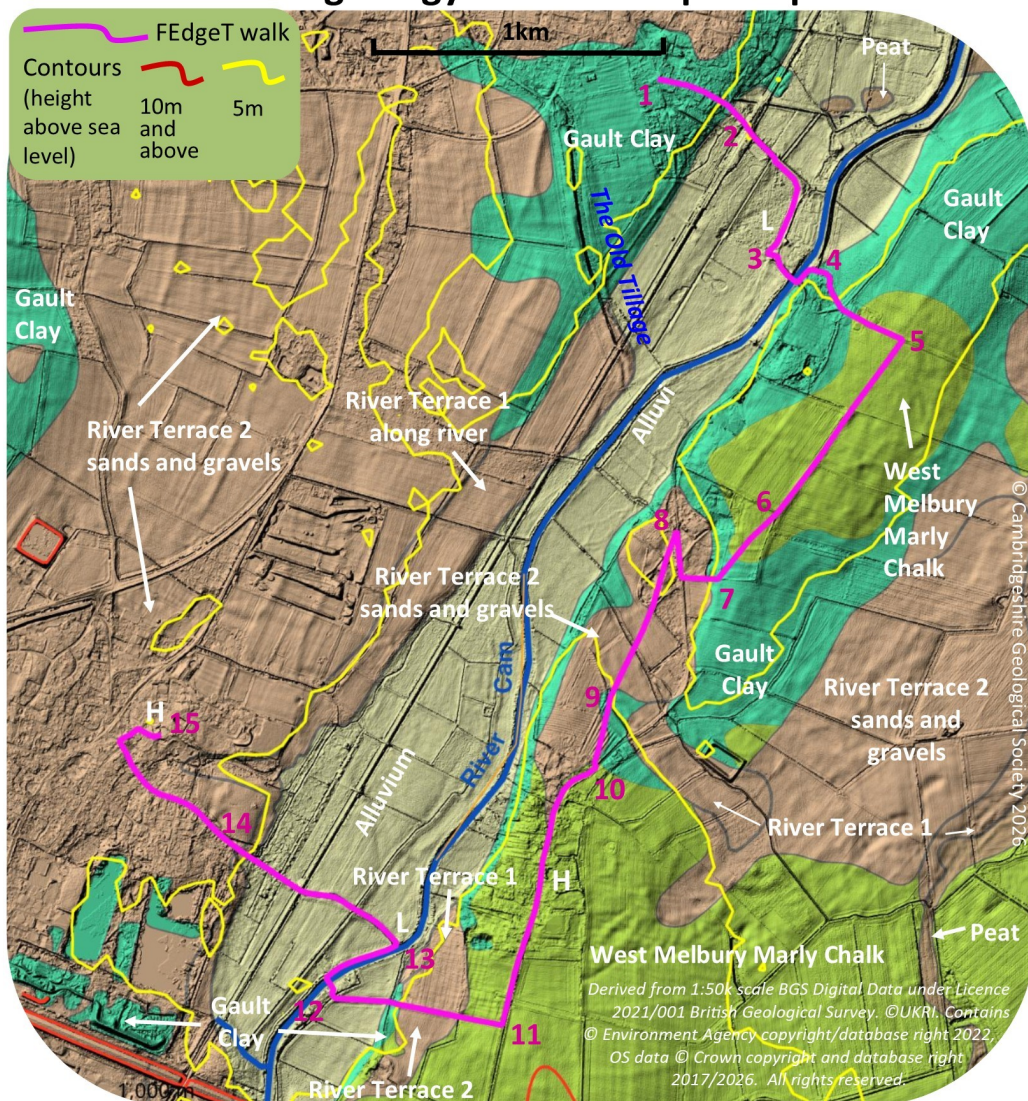
c.101 to c.94 million years

(including the **Cambridge Greensand** at its base c.101 my)

Gault Clay

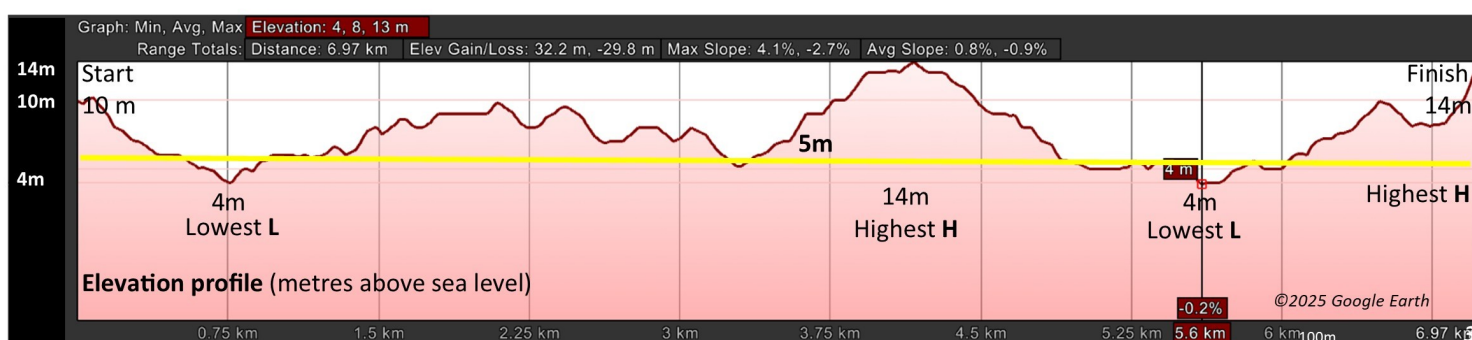
c.113 to c.101 million years

The bedrock that you walk over is either **Gault Clay (mudstone)** or the younger **West Melbury Marly Chalk**, the lowest stratum of the Chalk that forms the escarpment south-east of Cambridge. These sedimentary rocks formed from deposits on the seabed in shallow seas in the **Cretaceous Period**, when sea level was high and the climate was much warmer. In East Anglia the bedrock is tilted slightly to the south east and the Chalk has been eroded to the north west, exposing the Gault. The river has also caused erosion, carving out a very shallow valley, particularly in the soft clay. At the base of the Chalk, above the Gault, is a fossil-rich layer known as the **Cambridge Greensand**, exploited in the past for its abundant **phosphate nodules** (known as 'coprolites').



Over the last c.480,000 years, during the latter part of the **Pleistocene** 'Ice Age', the forces of ice and water have created a gradually deepening river valley with an **often-changing pattern of channels**. This has resulted in the deposition of a complex collection of, mostly, **sands and gravels that form a series of River Terraces**. At present four terraces have been identified, representing different stages in the river's history, of which two occur in this area. Those of the 1st (youngest) date from towards the end of the last glaciation, the **Devensian**, c.20,000 ago whilst those of the 2nd Terrace are from earlier in the Devensian. At this time, there were tundra-like environments in the region and the river that later became the Cam was a powerful, strong-flowing braided channel that eroded into the underlying clay and chalk. The Marly Chalk is relatively **clay-rich and impermeable**, as is the Gault Clay, and a covering of **Peat** built up when waterlogging occurred in freshwater marshes during the **Holocene** (the last 11,700 years). Patches of Peat still remain in places and a fine material (**Alluvium**), has been deposited along the valley, especially in times of flood; both of these provide more fertile soil.

The walk starts on the **Gault Clay** and then takes you below 5m across the wide band of **Alluvium** along the river, **dropping to 4m**, one of the two lowest points on the walk. Passing back onto the Gault, where **Clay sits at about 5m**, you then cross a slightly higher area of **Chalk** before more Gault. As you approach Horningsea, you reach a low area where the bedrock is covered by the sands and gravels of the **2nd Terrace of the Cam**. The main part of the village is reached once you return to the higher **Chalk**, rising to 13m, before you walk across a small patch of **2nd Terrace gravels** and then a thin strip of **Gault Clay** before reaching the Alluvium and dropping below 5m again. Once over the lock, there is more Alluvium and you reach 5m again as you walk away from the river. The walk finishes on the **2nd Terrace gravels** which underlie **Milton**, reaching the **highest point of the walk, 14m**, at the end, by the church.



Places of interest along the Trail

1 **Waterbeach** village is focused on its centrally located green and the walk starts at the parish church (**1.1f**) on Station Road, just east of the Green. Near the Green is the Baptist church, which is known for its association with a renowned preacher, **Charles Spurgeon**, who later became Baptist Pastor of London's Metropolitan Tabernacle.

The **Roman road between Cambridge and Ely, Akeman Street**, is on the western edge of the parish but the main road north was diverted to pass nearer to the village in the 18th century. Once a toll road, it became the route of the current A10 between the two cities. Just to the south west of the church is a **Scheduled Monument**, a remnant of the **Old Tillage**. This was once thought to be part of the **Roman Canal** called **Car Dyke**, which provisioned garrisons at Lincoln. The local canal's links with other waterways are now uncertain but it was an important route connecting the **River Cam** at Waterbeach to the **Great Ouse** at Earith, via the **Old West River** (then flowing in the opposite direction).

In the Domesday Book (dated 1086), the village of '**Bech**' is distinguished from the nearby village of **Landbeach** and recorded as having 47 peasants and a 'render' of 1450 eels. Behind the church is the site of **Waterbeach Abbey, another Scheduled Monument**; established in 1294, it was vulnerable to flooding and the Franciscan nuns had moved to **Denny Abbey**, not far to the north, by 1351. Until recently, Waterbeach had about 5000 inhabitants and it is now designated as a new town with planned development of 6500 houses on the site of the old airfield and barracks on the north side of the village. There is a long association with the former airfield and this is commemorated in the local **Waterbeach Military Heritage Museum**.

The handsome **parish church, St John the Evangelist (1.1f)** is Grade II* listed; the exterior walls are of **dressed flint** and field stone (**1.3**) with dressings of **clunch** (chalk) and **Barnack Stone**, a Jurassic limestone from north west of Peterborough (**1.4**). The church has an impressive pulpit of **Caen Stone** (a Jurassic limestone from France that is easily carved) inlaid with mosaics (**1.5**), an Early English nave and Perpendicular aisles plus some notable Victorian, pre-Raphaelite influenced, interior additions. The surrounding graveyard contains the **Grade II listed war memorial**, a cross made of (possibly oolitic Portland) limestone.

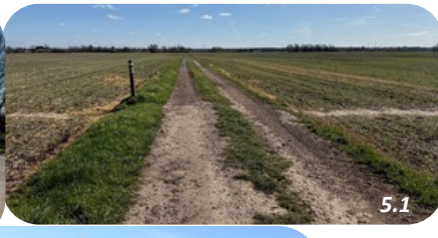
The village is underlain by **Gault Clay** bedrock (**Lower Cretaceous** in age) with the older **Woburn Sands** to the north west and the younger **Chalk** to the south east. In the western part of the village, the **Cam's 2nd Terrace sands and gravels** cover the bedrock. From the station, until you reach the river, you are walking on the **Fen Rivers Way**, which goes from Cambridge to King's Lynn.

2 You pass the **railway crossing and station** on the **Cambridge-Ely line**. On your right is **Cow Hollow Wood (2.2)**, a community wood planted in 2000 and managed by **The Woodland Trust**. The wood is in the **floodplain of the Cam** and can become waterlogged at times, along here is one of two lowest points on the walk, at 4 m; tree species planted include willow and alder, suitable for '**wet woodland**' habitat (**2.3**). A borehole to the south of the wood showed 2 m of clayey, peaty, **Alluvium** (deposited by the river) over 1.5 m of gravel, sand and clay layers (the **1st River Terrace**) with the **Gault Clay** at 4.5 m depth. The large willows along the left side of the road are part of a significant group of **pollarded willows** in Clayhithe that are designated as a **County Wildlife Site**.

3 **Clayhithe** was, as its name ('**clay port**') suggests, once an important centre of transport. The **bridge across the river (3.2f)** was opened in 1875, replacing the local ferry, and provided (with a toll) the only road crossing of the Cam between Cambridge to the south (**3.3**) and Ely to the north. Combined with wharfs on the Cam, it facilitated the booming **Cambridgeshire coprolite mining industry** of the 19th century allowing transportation overland and in barges to Cambridge, Ely or Kings Lynn for subsequent distribution by sea. Crossing the bridge, you see ahead on your left the **Grade II listed toll house of gault brick (3.4f)** with limestone dressings; although 'gault' is used generally to describe pale coloured (calcium rich) bricks, here they are likely to be of the true, local **Gault Clay**. Dating to 1842 (as shown by a plaque on its wall), it belongs to the **Conservators of the River Cam** who are responsible for maintenance of the river in 'a good and navigable condition' between Waterbeach and Cambridge, and was once their headquarters. On the opposite side of the river is '**The Bridge**', a popular pub and restaurant with riverside garden (**3.5**).



Photos: 1.2 Flint in the walls of St John the Evangelist church; 1.3 Mixed field stone walls; 1.4 Barnack Stone dressings; 1.5 Caen stone pulpit; 2.1 Path past Cow Hollow Wood; 2.2 Cow Hollow Wood; 2.3 Information Board, Cow Hollow Wood; 3.1 Turn left at the river towards the bridge; 3.3 View of the Cam to the south towards Cambridge; 3.5 Path alongside Cam after Clayhithe Bridge with The Bridge pub on opposite bank.

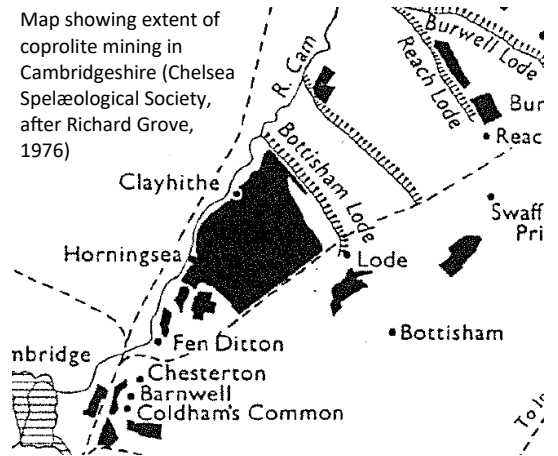


4 As you walk away from the river you leave the river Alluvium and walk again onto **Gault Clay**; a borehole taken at a nearby well in 1909 found the **clay to be 112 feet thick**. Under it was at least 12 feet of 'Lower Greensand' (now called the Woburn Sands), which forms a major aquifer and provided water for local farming and, later, local industries. Before you turn



south, the bedrock changes, and **for the first time on the Trail** (having started at the Lincolnshire border) **you arrive on the Chalk**. Further

south, it is known for forming the Chilterns and underlying the



'chalk downs' but here, you are walking on the very lowest (and oldest) part of the **Chalk Group**, the **West Melbury Marly Chalk**.



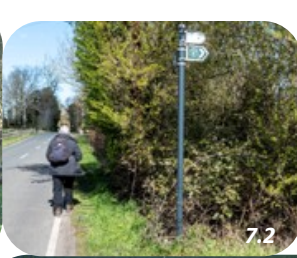
5 The path tracks south-westwards, parallel with the east bank of the Cam. This area, between the Cam and the villages of **Lode** to the south east and **Fen Ditton** to the south,



marks an area of significant **coprolite 'mining'** mainly between 1840 and 1900. The coprolites (phosphatic nodules) were found in the **Cambridge Greensand**, the lowest horizon of the **West Melbury Marly Chalk**. This layer was rich in the phosphatized remains of animals and is also **fossil-rich** (many of the fossils having been eroded from

the underlying Gault). The nodules were dug out ('mined') from large trenches and transported to factories to be processed for use as fertilizer. There are perceptible differences in height from field to field perhaps explained by previous extraction of coprolite and/or clay. An 1886 OS map shows a **tramway** running from a **brickworks near the river at Clayhithe**, crossing this path (note raised ground 5.2) and continuing east nearly as far as the village of Lode.

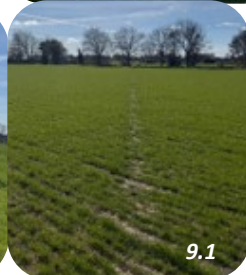
6 Close to Clayhithe, the soil in the fields is underlain by **Gault Clay**, made use of in local Roman pottery manufacture. You pass **Eye Hall Farm (6.3f)** with its 16th century timber barn (6.4) and 18th century 'gault' brick granary, both of which have corrugated iron roofs. They and the 16th century farmhouse are all Grade II listed.



7 Here, you walk onto the **2nd River Terrace**, which covers the Gault Clay and produces a rather gravelly soil, also with signs of the historic coprolite workings in places. **NB Walking along the grass verge of the Clayhithe-Horningsea road (7.2) look out for traffic.**



8 As you walk through the gate (8.1), you enter a field with undulating ground, that covers the **Horningsea Kilns Scheduled Monument**, the site of clay extraction and pottery manufacture in Roman times. A 2021 excavation revealed it was a major pottery manufacturing area; its most distinctive aspect was the production of very large jars. An information board illustrates the excavation of many kilns used in the making of **Roman pottery, 'Horningsea Ware' (8.2)** using Gault Clay from local pits. Pottery manufacture was not restricted to the Horningsea area as kilns were along both banks of the Cam and it exemplified the Roman settlements and proto-industrial activity north of Cambridge, using transportation on the local waterways.



Photos: 4.1 Path through farmyard; 5.1 Turn right onto path to Eye Hall Farm; 5.2 Raised site of old tramway with tree; 6.1 Hedge of Eye Hall Farm; 6.2 Gate for Eye Hall Farm; 6.4 Eye Hall Farm barn; 7.1 Turn right after gate in hedge line; 7.2 Clayhithe Rd grass verge; 8.1 Gate into undulating field; 8.2 Roman pottery fields; 8.3 Aim for gate between two tall trees; 9.1 Through next field; 9.2 Over footbridge; 9.3 Through another field. 5

According to East Anglian Archaeology ‘the location of the Horningsea potteries appears to be related to the River Cam and its connections to the fenland waterways by **the Old Tillage**’. The latter connected to the Cam just to the north. Thought to be part of **Car Dyke** (which runs from Peterborough to Lincoln), it is now regarded as an **important connection between the Cam and Ouse** (via the **Old West River**).

9 For a few thousand years, **Horningsea** would have occupied a **significant position on the fen edge**, with the higher land of the chalk hills to the south east and the extensive marshy land of the fens to the north; the river being tidal for many of those years would have added to its value as a port, although brought its own challenges. It lies on a ‘promontory’ of relatively high ground underlain by the West Melbury Marly Chalk, raising it above the adjacent land with Gault Clay bedrock.

Historically, it benefited from its location on the **Cambridge-Claythorpe road**, as well as from the Roman pottery manufacture and the later coprolite mining. Before the road, on the right, is the **Manor House**, sitting above 5 m on the **2nd River Terrace**. A nearby borehole showed 1.8 m of gravel including **chalk pebbles** whilst a borehole in the nearby 1st Terrace had 1.4 m of gravel including **flint, ironstone, sandstone, quartz and phosphatic nodules**.

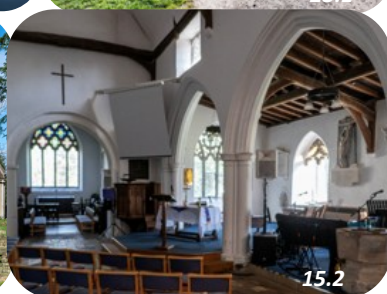
10 From here until the lock, you are following **Harcamlow Way**, a figure-of-eight shaped long distance trail that also passes through Essex and Hertfordshire. You pass **Dock Lane**, leading to the river where medieval wharves would have lined the banks. Along the lane are three listed buildings including one, **16th century with a reed thatch**, once a common roofing material in the area. The next turning, St John’s Lane, leads to the site of the parish church, dating back to **Saxon times**, with the current church, **St Peter (10.1)** being 12th century. Grade I listed, its structure is characteristic of the area with walls of **Barnack Stone blocks, field stone, flint and clunch**, with **Barnack Stone dressings**. Not long after the **Crown and Punchbowl pub (10.2)**, a Grade II listed building (part dating from the 17th century), you pass, on a green on the left, a **telephone kiosk and the village pump**, both Grade II listed. There are several other Grade II listed buildings along this street. The nearby **village sign (10.3f)** depicts a pottery maker; here you are at one of the two highest (14m) points on the walk.

11 Just to the south of this footpath lies the site of **Biggin Abbey** where the (part) 14th century farmhouse, Grade II*, is all that remains of what was once the **residence of the Bishops of Ely**. At the end on the right is **Wildfowl Cottage** (Grade II listed), once a pub called the Pike and Eel, no doubt serving the local barge traffic.

12 The walk crosses the river at **Baits Bite Lock (12.1)** by the **footbridge (12.2)**. The lock gates remained closed for a year or so in 2024/25 due to erosion damage of the lock island, preventing passage through this important part of the **Cam navigation (12.3f)**. You briefly follow the old tow path, **Haling Way (12.4)**, which is also the route of the **Fen Rivers Way**. (More information on this part of the walk and **Milton**, see the **Walk Guide** for the ‘**Milton to Cambridge**’ walk.)

13 Walking across the Alluvium, not far from the river you are down to 4 m again. To the north of **Fen Road** a **Scheduled Monument** designation protects the site of a settlement dating from **Roman times to the 12th century**. After crossing the railway line you can make a detour through **Milton Country Park (13.1)** where **River Terrace sands and gravels were excavated**; the flooded pits are now managed as wildlife habitats (**13.2**).

14 You pass the **Brewer’s Inn (14.1)**, Grade II listed, timber-framed with later gault bricks. **All Saints Church (15.1)**, also Grade II, was built after the Norman Conquest and has a 12th century font (**15.2**). This is the end of the walk, also at 14 m, **15**.



Photos: 10.1 St Peter’s church, Horningsea; 10.2 Crown & Punchbowl; 11.1 Footpath towards the lock; 12.1 Footbridge over Baits Bite Lock; 12.2 Crossing the lock; 12.4 Tow path along the river before left turn into Fen Road; 13.1 Entrance to optional walk through Milton Country Park; 13.2 Information board; 14.1 Brewers Inn; 15.1 All Saints Church, Milton; 15.2 Inside the church, with the font on the right.