

The Fen Edge Trail Walk: Reach to Burwell

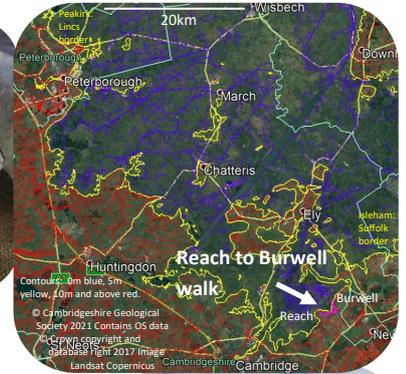
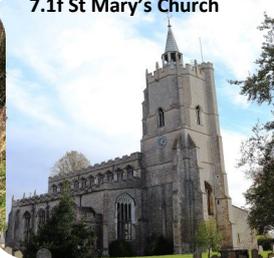
4.1 miles (6.6 km)

In partnership with
Burwell Museum & Windmill



'This walk includes a wealth of past economic geology'

Reg, Cambridgeshire Geological Society
Geosites team



The route: 'from the fen up onto the Chalk hills, and back down to the lodes'

Having travelled from Cambridge along the south eastern Fen Edge, this walk connects the two historic villages of **Reach** and **Burwell**. Rising out of the fen up towards the Chalk ridge, it meanders through a **linear village** and then takes you back down to the 5 m contour, ending by one of the famous **fen lodes**. You first walk along the **Devil's Dyke**, an Anglo Saxon (7th century) defensive construction. This imposing rampart and ditch runs straight from the boggy fen up to the wooded Chalk highlands at Wood Ditton (7.5 miles from Reach), an important area with King Anna's settlement in Exning nearby. The large village of **Burwell** is steeped in history, owing its success to the **freshwater springs** at the base of the **Totternhoe Stone** and the quarrying of this famous rock for building stone, lime and cement. Phosphate in the form of 'coprolites' was also mined from the **Cambridge Greensand**, a layer at the base of the Chalk that is now just below the surface of the Fen Edge, and the yellow brick came from the **Gault clay** pits to the west of the village. You visit two **Local Geological Sites**, seeing several springs and an accessible quarry into the **Zig Zag Chalk**. You also pass a ruined castle, a marvelous example of a perpendicular church and some very ancient houses. Look out for the informative black plaques erected by the **Burwell History Society** along the way.



Practicalities As with all of the walks along the Fen Edge Trail, you can complete the full length of any walk using transport one way 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. Photo numbers refer to the part they relate to and the order they are seen e.g. **12.1f** is the first photo relating to part 12 (*f* = on this front page).

Length of walk (one way) approx. 4.7 miles (7.5km). Walking guide time 2hrs 30mins minimum plus stops. Grid ref for start TL56796605. Maps **O.S. Explorer 226**. BGS Geology Map 188 Cambridge (1:50,000 New Series). Free, easy to use online geology map viewer (and phone app **iGeology**) on www.bgs.ac.uk/discoveringGeology.

Transport and services There are **buses** from Cambridge to Burwell and Reach www.stagecoachbus.co (but limited times only). There are **train services** at Cambridge (12 miles). Parking available at the start in Reach and near the end (recreation ground) in Burwell. Please park only where permitted and in consideration of others. Pub in Reach; pub and shops in Burwell. The Fen Edge Trail website has links to other places of interest, services and local organisations. The walk passes **Burwell Museum**, which has much of interest on Fen Edge life, and its associated **windmill** (www.burwellmuseum.org.uk for more information and opening times). The Mill is on a **Mill Trail** that features several local windmills and is possible by cycle and car.

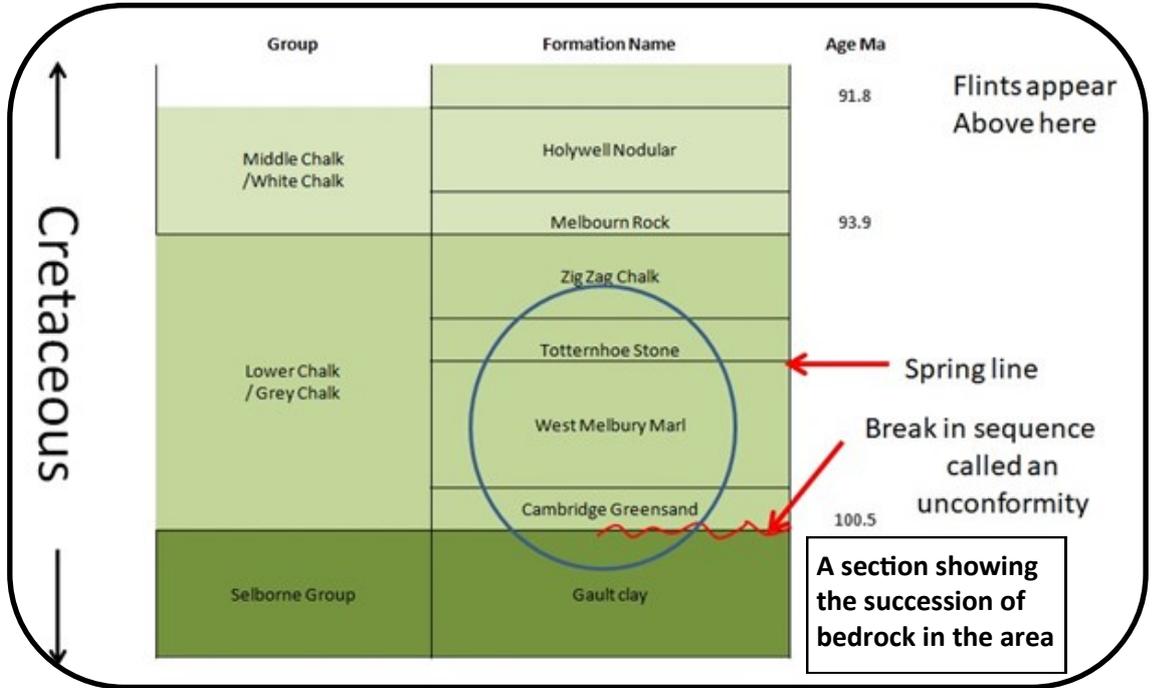
Safety Be aware of risks you may encounter and take note of warnings given by landowners or on pathways. The terrain is generally flat, with some muddy ground. Take particular care with uneven terrain, when near water, on soft or slippery ground, in the presence of livestock or walking along or crossing roads. Some paths can be overgrown, long trousers advised. Ensure your dog is kept under control as needed. All Fen Edge Trail walks are on publicly accessible routes. This walk follows Public Rights of Way when not along roads. Anyone undertaking walks on the Fen Edge Trail does so at their own risk, these notes are for general guidance only.



Places of interest along the Trail

Landscape As with the preceding two walks, this part of the Fen Edge Trail is a good example of the **transition from the fenland** of north and central Cambridgeshire to the **Chalk hills** that are characteristic of the south and east of the county. The 5 metre contour roughly marks the edge of the Chalk escarpments to the south east. To the north west of the contour are the low lying peat, silt and river deposits of the fenland.

The Peat and river (sand and gravel) deposits are present over the bedrock in the west of the area. These are remnants of a time before artificial drainage when larger water channels existed and much of the lowland here would have been flooded, at least seasonally.



This walk is all on the **Chalk bedrock** but patches of Holocene **Peat** can be seen in the bare fields. A spring line within the Chalk, occurring at the base of the **Totternhoe Stone** where there is a change in the permeability of the **Chalk** layers, is a major source of the alkaline water that feeds (and sometimes floods) the fenland. This walk visits two significant spring sites, **Burwell Castle** and **Pauline's Swamp**, and also features some of the waterways including the man-made drainage and navigation channels known as Lodes. These waterways end up reaching the **River Cam**.

1 The walk starts on the picturesque Fair Green in Reach, situated at the northern end of the famous **Devil's Dyke**. Walking along the Devil's Dyke (*ph1.1f*) shows the form of the dramatic earthwork which runs 7.5 miles (12km) northeast to Wood Ditton. It formed a defensive barrier between the marshy fen and the wooded chalk uplands. Thought to be early Saxon in origin (6th-7th century), it is 9m high and 35m wide in places, it consists of a high Chalk bank alongside a deep (to 4m) ditch from which the bank's material was dug. As well as its historic value, it is now valued as an increasingly rare remnant of chalk grassland and was notified as a **SSSI** (Site of Special Scientific Interest) for its **rare chalk flora**. Its protected banks support orchids (including Lizard Orchid and Chalk Fragrant Orchid), Pasqueflower (*ph1.2*) and many other chalk-loving species.



1.2 Pasqueflowers on Devil's Dyke

2 Just beyond where you turn, a dismantled railway line cuts across the Dyke. Constructed by the **Great Eastern Railway Co.**, it ran between Mildenhall and Cambridge from 1884 to 1968.

3 Having walked down off the '**Reach Peninsula**', as you turn right, this is the lowest point of the walk (c.4m). The chalky bedrock can be seen as it is often ploughed up (*ph3.1f*).

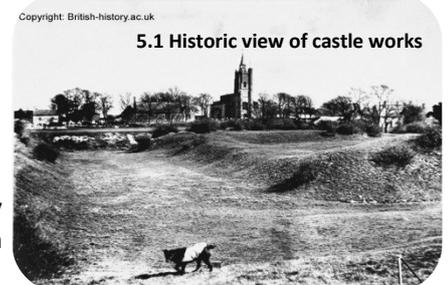
3a At the entrance to **Pauline's Swamp** can be seen an active spring – these springs keep the ponds in the reserve filled. The spring occurs because groundwater seeping through the **Totternhoe Stone** reaches the impermeable **West Melbury Marly Chalk**. This damp area (*ph3a.1*) is a haven for wildlife and bog-loving plants. See interpretation boards (*ph3a.2f*).



3a.1 Pond in Pauline's Swamp

4 The footbridge takes you over the **stream** fed by the springs you are about to visit.

5 Built on a **Roman villa** site, **Stephen's Castle** (*ph5.1*) was begun in 1143 to subdue local bad boy **Geoffrey de Mandeville**. Geoffrey was mortally wounded attacking the castle, so the castle was never finished. Some wall remains were still visible until the 1920/30s when they were demolished by the local fire brigade during a practice! Traces of more buildings have been shown by crop marks during droughts. The castle demolished a pre-existing settlement shown by the crop marks to the northeast



5.1 Historic view of castle works

the northeast (*ph5.2*). It is difficult to make out any structure today. The site of **Burwell Castle** is a now a **Scheduled Monument** (*ph5.3, ph5.4*).



5.2 Aerial view with old village in northwest (crop marks)



5.3 Castle moat now



5.4 Wild flower meadow overlies ruins

5a The spring here is the source for a stream that runs behind the village all year (*ph5a.1f*). It is an excellent example of the springline where groundwater emanates from the **Totternhoe Stone/West Melbury Marly Chalk** junction (*ph5a.2*) and is designated a **Local Geological Site**. This is the origin of the village name 'spring by the burgh'. It is one of the feeder springs supplying the stream (*ph5a.3*) that runs along the fen edge of Burwell. In periods of drought it is augmented by aquifer water from **Swaffam Bulbeck**.



6 As you pass the **clunch wall** in the **Guildhall**, look out for some rare, **Cretaceous fossils** in the building ashlars (*ph6.1*). To the left of the path to the church, the '**Flaming Heart**' gravestone (*ph6.2 and ph6.3*) marks the burial of some of the children who died in a fire at a puppet show in 1727 (see plaque at point 13).

7 **St Mary's Church** (*ph7.1f*) dates from the 12th century and is built from **Barnack Stone** quoins with flint and clunch rubble infill (*ph7.2*). The church is in Perpendicular style and these later additions date from the 15th century. It is thought the same architect (Reginald Ely) also worked on **King's College Chapel**, Cambridge, and it is said some of the stained glass windows in the church, were a practice run. The church is normally open and well worth a view inside (Grade 1 listed).



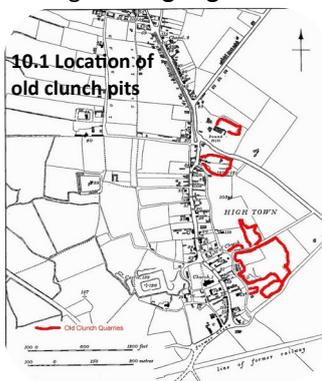
8 Having crossed the road, you will see a plaque to the vanished **St Andrew's** 12th century church (*ph8.1*). The wall along this section shows how drastically some of the clunch stone weathers (*ph8.2*). The flint base has survived well, but the clunch ashlars are decomposing. Holes are often infilled by **yellow Burwell brick**. Some of the blocks show a knobby surface which could be animal burrows.



9 These are some of the oldest buildings in the village: this **High Town** nucleus being populated from **Saxon** times. The **Old Maltings** (*ph9.1*) and the Manor house on the junction are all of the local clunch construction (probably from the quarry you will visit next). Being close to the road, the walls deteriorate quickly. The high pitch of the roofs suggest they were once thatched (*ph9.2*).

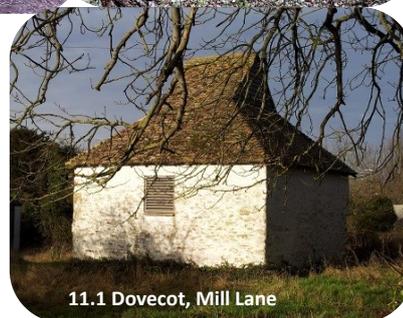


10 This area had several chalk quarries (*ph10.1*) of which few can now be seen. This quarry has a **very rare exposed cliff** of the **Grey Chalk**. It has been worked from Roman times and was still producing stone until the early 1950s (*ph10.2*). It is cut down through the **Zig Zag Chalk** into the harder, more valuable **Totternhoe Stone (Burwell Rock)**. It was much used locally as a building stone and for lime burning. It can also be seen in Ely Cathedral and the Cambridge colleges. The quarry face is still visible showing the blocky and soft nature of the **Zig Zag Chalk** (*ph10.3*). The **Totternhoe Stone** would be at the base, now buried under some infill (*ph10.4*).

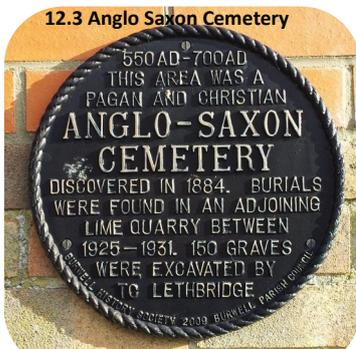


11 The Grade II listed 17th century clunch **dovecote** (*ph11.1*) belonged to an earlier farm house now demolished. At the next junction, **Lime Close**, is the site of another old **clunch pit** that was infilled with broken glass from the local **Burwell mineral water bottling factory**.

12 **Stevens' Windmill** (Grade II* listed) has been restored to working order (*ph12.1f*) and is part of **Burwell Museum** (open spring to Autumn on a few days per week www.burwellmuseum.org). It is one of two mills in the village: the other, Big Mill, has only its lower section visible on Newmarket Road and is said to have been used for **grinding coprolite nodules**. The museum has **many excellent displays** of Fen Edge life, including the quarrying of the Burwell Rock (*ph12.2f*), and houses a good archive.



12.3 Anglo Saxon Cemetery



13.3 Village center plaque

Back on Mill Lane, note the **plaque** (ph12.3) on a wall on right. This marks the general area where a number of **Anglo Saxon graves** and bodies were excavated in 1884. The burials were thought to date between 550 and 700 AD. The majority were unfurnished and uncoffined, having been placed in shallow graves east-west aligned. 12 burials were accompanied by knives and only 4 were richly furnished. The grave goods included iron chains, bone or bronze pins, iron buckles and beads. Noteworthy objects were a **bronze drum-shaped box** and a **gold disc pendant** set with garnets.

13 This is thought to be the site for the **barn fire** that killed 78 villagers - see plaque (ph13.1). The blame was put on a Newmarket man who could not get in to the puppet show being held there and, leaning through the door, knocked over a candle and set fire to the building. The gravestone commemorating the disaster with the inscription can be seen in **St Mary's churchyard** (point 7). The **village centre**, marked with the **Burwell sign** (ph13.2f), is the site of the old **animal pound** (ph13.3). Stray animals were penned here and released upon a fine. On the opposite corner across the main road is a blue plaque to **Margory Stephenson**, a renowned biologist and biochemist and one of the first women elected to the Royal Society.



14 The **Old Lock Up** (ph14.1) was built in 1830 and was used for overnight detention of offenders and drunks up into the 1890s. After that it housed the village fire engine.



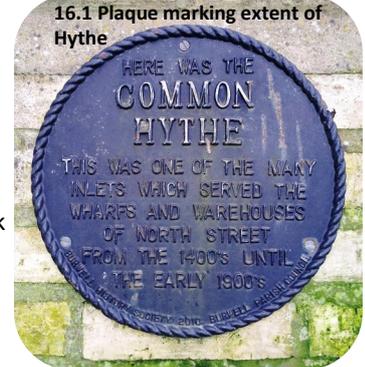
15 This area, called **Newnham**, was a planned infill dating from c.1440, between the older North St (c.1320) and the higher Burwell which stretched down the **Causeway**. North St area was an extension to make use of the growing traffic from the wharves on the lodes behind it. The buildings back onto **The Weirs**.

15a.1 Old buildings, North St



15a Taking the alternative route along North St, shows fine examples of the old merchants houses (ph15a.1). The 17th century **Anchor pub** is made of brick and **clunch** and is Grade II listed.

16 Just before the bridge over lode/catchwater, note the plaque (ph16.1) about the **Common Hythe**. On the far bank of the lode can be seen some remnants of the waterside industry, wharves and granaries. Clunch, hay and fertilizer (from the phosphate nodule industry) were amongst the exports and coal, fish and turves (peat bricks for fuel) were imported. This area is still navigable from the Cam by small canal boats and cruisers. Site of village **Duck Race** in spring!



17 The end of the walk is where **Weirs Drove** meets **Burwell Lode** (ph17.1, ph17.2, ph17.3). The Lodes are navigable all the way **via the Cam into the Wash**. This used to be an important goods transport network up until the arrival of the railways in the mid 1800s. The green signpost to Wicken shows the direction of the **next section of the Fen Edge Trail** which takes you alongside **Burwell Lode towards Wicken Fen**.



Walk: Reach to Burwell Directions map (4.1 miles / 6.6 km)

1 Start at southern end of Fair Green (see signs), keep hedge on left. At first opportunity (c.30m) cut up onto path along centre of hedge and go through kissing gate **along top of Dyke**.

2 After c.1km, at yellow arrow waymarker (near solitary telegraph pole), turn sharp left down steps. Take gate, follow path straight on toward cluster of telegraph poles and hedge. Path becomes **grassy track** between bushes. Keep straight on to road.

3 Turn right along road, reaching footpath in c.300m. After c.100m at green signpost, turn left to castle.

3a To see nature reserve (Pauline's Swamp) follow green signpost to right across road, up **Love Lane** into reserve. Return to green signpost.

4 Turn left off road, follow signpost to **castle**. Head straight between fields, reach hedge on left. On left a few meters more, take **footbridge** across stream and path up onto earthworks.

5 Go into field, keeping **earthworks** close on right, head towards **church**: Take care, this is a **popular dog walking area!** To exit the castle, follow path towards **church**.

5a To see spring, drop down to hollow on right before exit, keep left towards large tree at base of which the spring emanates. Turn back up slope to join path, take exit onto **Mandeville**, facing the back of the Guildhall.

6 Turn left along lane, then sharp right into **Guildhall** car park. Go past front door, turn left into churchyard.

7 Turn left at church (ph7.1f), going around to front porch (interior is rather impressive). Take main drive, exit churchyard at **'Stocks Green'**.

8 Carefully cross main road. Continue south, passing church on opposite side and towards shops.

9 Continue until junction with Isaacson Rd on left. Walk up **Isaacson Rd**, turn left at **Bloomfield**.

10 Turn left into old clunch pit. Keeping to right, pass yellow salt bin: turn right into copse. Follow gravel path into wood and **down steps** (may be a bit overgrown): **PLEASE DO NOT GO TOO CLOSE TO CLIFF WALL**. Follow path through, going back into estate, passing well on right. Climb up back onto road, turn left back to yellow bin. Turn right through estate and right again in c.40m.

11 At end of cul de sac, take footpath on right to zig zag up onto **Green Lane**: turn left to junction with **Mill Lane** near **Dove Cot**. Turn right along **Mill Lane**.

12 Turn right up **Mill Close** then left at top, passing by **windmill** with **Burwell Museum** on right. Go left down grassy track back to **Mill Lane**, turn right to **High St**. Cross **High St** taking care of traffic. Turn left down **Parsonage Lane**.

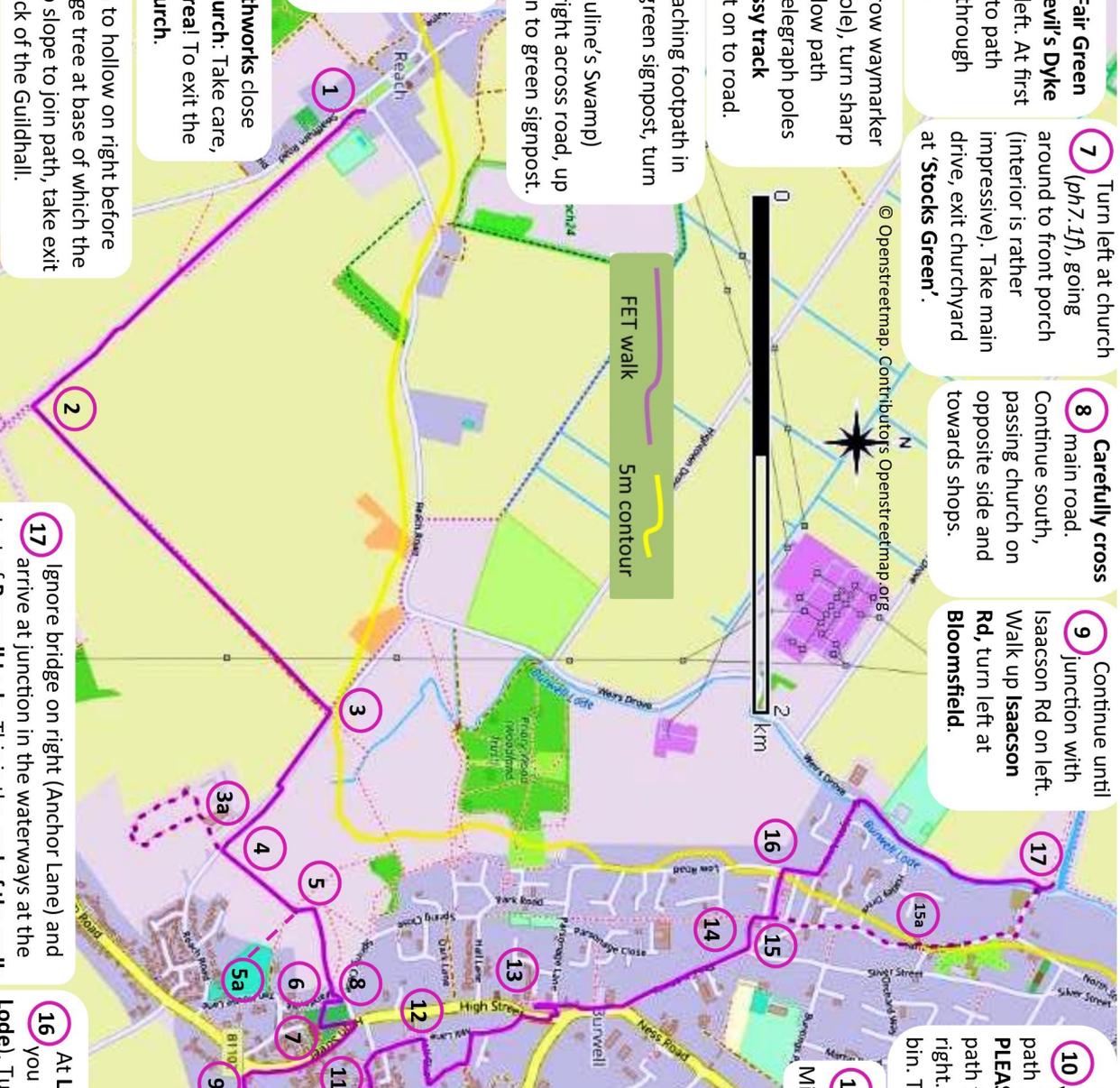
13 A few meters down go left into **Cuckolds Way**: after a few 10s of meters see plaque marking site of **Burwell Barn fire**. Retrace back to **Parsonage Lane** and **Pound Hill**, cross by village sign, go past **Post Office**.

14 Turn left at junction with **The Newnham Lane** just past the "Reading Rooms". Turn left past the 'Lock Up' with road bending to right.

15 Take 2nd or 3rd lane on left down to **Low Rd**. For alternative route to end of walk to see some **very old buildings** go straight on past shops into **North St** and on to **Anchor pub**, turn left, down **Anchor Lane**, cross lode to 17.

16 At **Low Rd**, turn right, then left down **Hythe Lane** until you cross bridge over the **Catchwater drain (Burwell Lode)**. Turn right past recreation ground and follow grassy path along edge of lode, passing old commercial wharves. Keep straight on, keeping to the right through the farmyard.

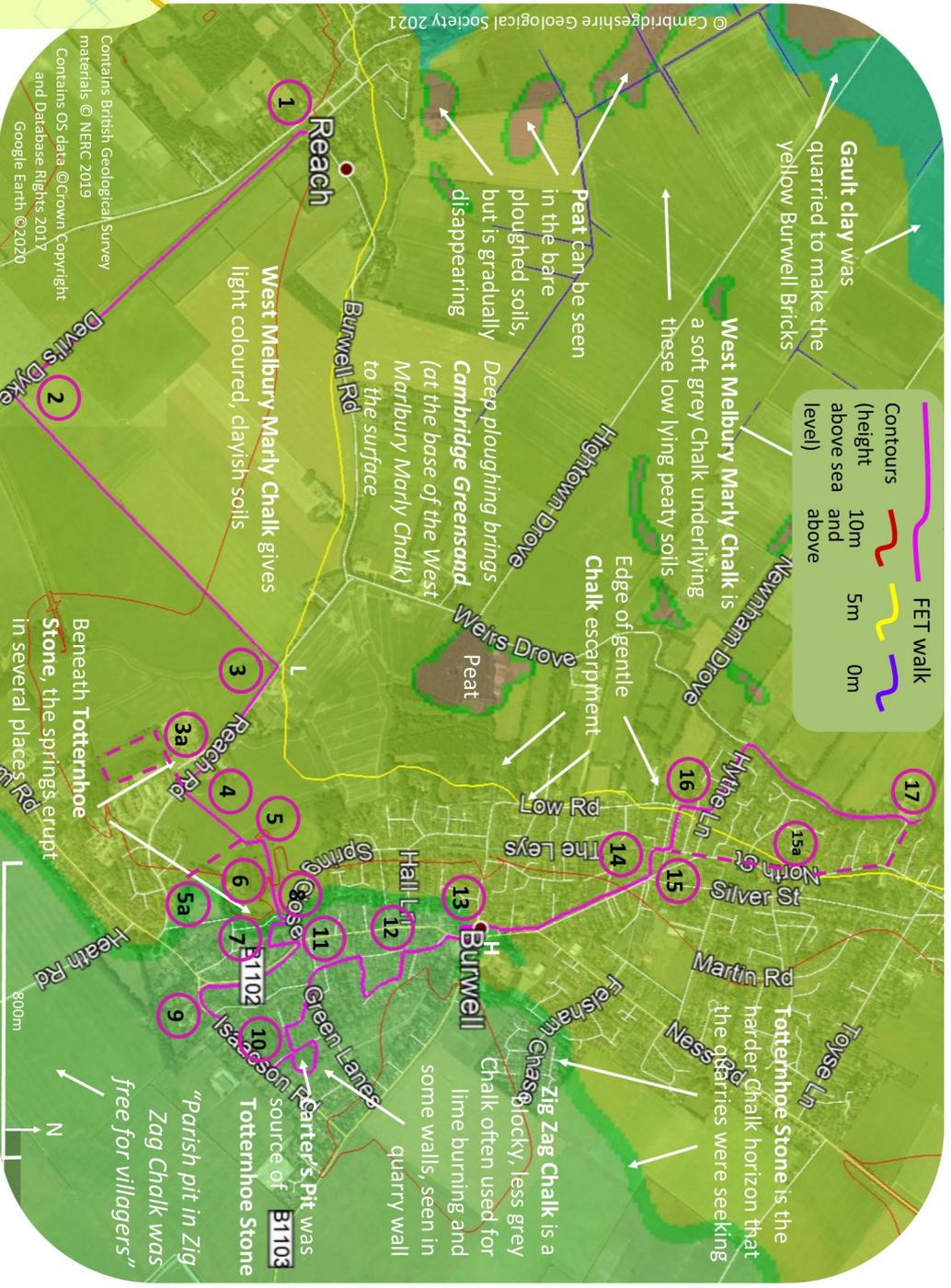
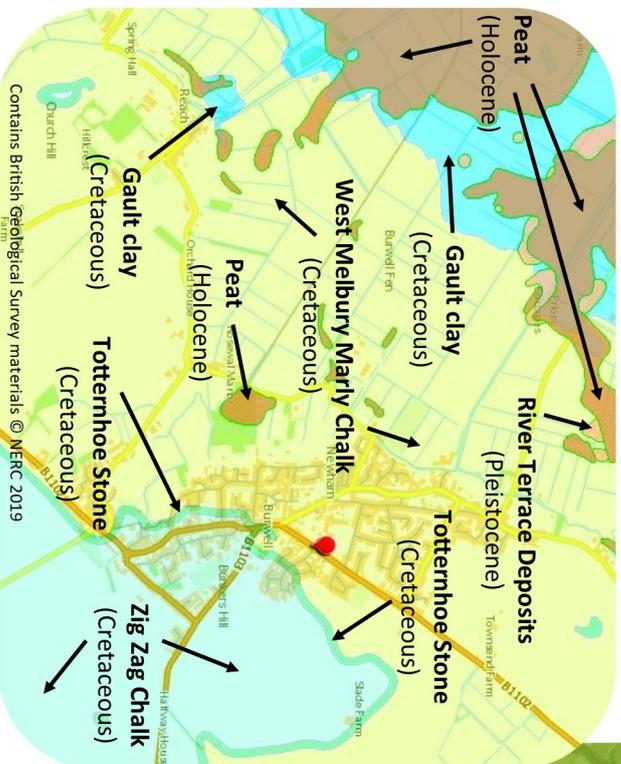
17 Ignore bridge on right (Anchor Lane) and arrive at junction in the waterways at the start of **Burwell Lode**. This is the **end of the walk**.



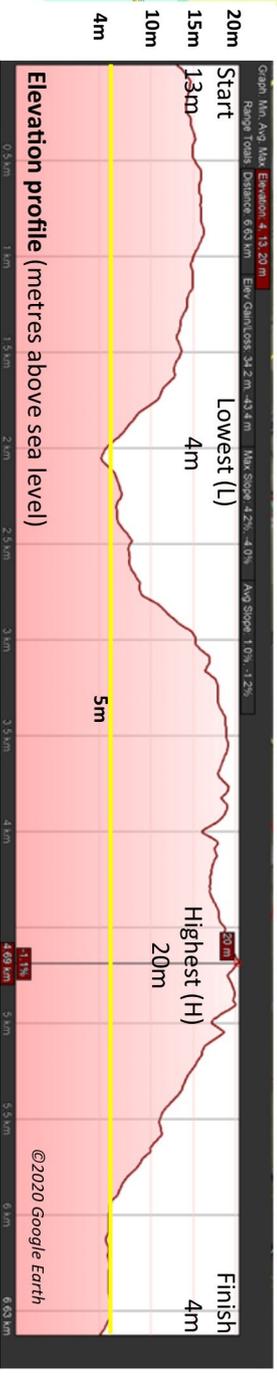
Walk: Reach to Burwell - geology and contours map

Landscape and Geology (see website for more details)

This walk rises from the flat fen onto the Chalk escarpment to the southeast. Reach itself sits on a 'peninsula', connected by a ridge running eastward to Burwell. The oldest bedrock in this area is the **Gault clay**, at the surface in the northwest. On top of this, is the Chalk succession which is composed of several horizons ('layers'). At its base is the '**Cambridge Greensand**', a phosphate-rich, glauconitic marl with pockets of green, sandy grains, that occurs in a limited local area (hence its name). It is part of the **West Melbury Marly Chalk** which is a very soft Chalk (containing lots of clay), greyish in colour, that forms the lower land. This is followed by the **Totternhoe Stone**, a hard band that often forms the prominent high ground facing the Fen Edge. It was widely quarried for building stone (known as clunch). Above, is the **Zig Zag Chalk**, more blocky in nature and containing less clay. These Chalk rocks are all part of the **Grey (Lower) Chalk** and are **Cretaceous** in age (Genomanian **c.95 million years old**). They were deposited in **warm, shallow seas** and are dominated by bioclastic (containing animals or plant remains) sediments. This walk features two visible springs at the junction of the pervious **Totternhoe Stone** and the underlying impervious **West Melbury Marly Chalk**. The overlying **Zig Zag Chalk** can be viewed in the Bloomfield Quarry (point 10, Carter's Pit). The **Totternhoe Stone** has been worked out here and replaced with recent infill (on the floor of the quarry).



The **Zig Zag Chalk** has been used for lime making with historical records of **lime kilns** in Burwell. It has also been used as a raw material in a significant former cement quarry to the north east of Burwell. A large windmill in the village, now a stump (not seen on the walk) was used for grinding the local phosphate nodules ("coprolites") mined from the Cambridge Greensand.



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