

The Fen Edge Trail

Cambridge: Castle Hill to the Sedgwick Museum

3.1 miles (5 km)

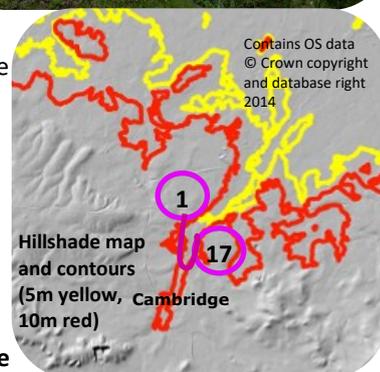
'this walk captures everything I love about Cambridge - a glorious 'town and country' mixture of human and natural history'

Martin, Cambridgeshire Geological Society Geosites team

The route: 'through the fen edge town that became one of the world's most famous cities'



Known for its location on the **River Cam** and its nearby Chalk hills, **Cambridge** is still very much a **fen edge city**. Arriving in Cambridge from the north, along the **River Cam**, the Trail reaches the distinctive landscape feature of **Castle Hill**, the site of an early, and highly strategic, settlement that developed to become one of the world's most iconic cities. This walk takes you down from the hill and across the ancient **Magdalene Bridge**, before winding along the **river valley**, past several colleges and providing quintessential views of the '**Backs**'. After passing through the **characteristic 'fens'** that still survive along the **Cam**, it finishes at the internationally important **Sedgwick Museum of Earth Sciences**. Guiding you through what is now a **mostly hidden landscape**, the walk takes you back in time, giving a glimpse into the city's past and the **natural history** of the area, from '**Ice Ages**' to **sub-tropical swamps** and **fenland rivers**. You will discover how its **natural character** still filters through, seen in the **river side meadows**, the numerous **water channels**, the subtle changes in the **height of the land** and even in the **building stones** used in many of its famous buildings.



6.1f King's College Chapel from the Backs; 4.1f Round Church; 3.2f View downriver from Magdalene Bridge; 12.2f Hobson's Conduit; 5.2f View from Garret Hostel Bridge; 13a.1f Hobson's Monument; 17.2f Barrington hippo, Sedgwick Museum; 9.2f Pollarded willow, Sheep's Green.

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 **Harcamlow Way**, **Wimpole Way** and the **Greenwich Meridian Trail**, and is near to the **West Anglian Way** and the **Fen Rivers Way**. The **Sedgwick Museum of Earth Sciences** has displays on local fossils and geology, check www.sedgwickmuseum.org for opening times. The **Museum of Zoology** has exhibits on evolution and the **Museum of Anthropology & Archaeology** has displays relating to local landscape history.

Length of walk (one way) approx. 3.1 miles (5 km). Walking guide time 1.5hrs plus stops. Grid ref for start TL445592. Maps O.S. Explorer 209. Free, easy to use online geology map viewer (and **iGeology** phone app) on www.bgs.ac.uk/discoveringGeology.

Transport and services There are **buses** between Cambridge and many towns and villages www.stagecoachbus.com and **trains** to several other cities. Parking is available in several city car parks including Castle Hill car park. There are many cafes, pubs and shops in the city. The website has links to places of interest and local organisations.

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.

Places of interest along the Trail

1 **Castle Mound** on Castle Hill strategically overlooks the **River Cam** and has been settled for **over 2,000 years**. Late **Iron Age** structures were followed by a small 1st century **Roman fort**, a **Norman motte** (the present mound of chalk rubble on which a wooden keep once stood) and **bailey castle**, an **Edward I castle** (later used by colleges for building stone), and a **Civil War earthworks** artillery fortress. There are views south over the rooftops towards the city centre (1.1). The hill, rising to c.23m, is at the eastern end of a ridge of Marly Chalk, with the hill top covered by the gravels of **River Terrace 4**, left by an **'Ice Age' river** c.300,000 years ago. What was once the **valley floor is now the top of a hill!** Further west on the ridge, **'coprolites'** (phosphatic nodules formed from animal remains) were dug from the **Cambridge Greensand**—a significant local industry in the 19th and early 20th centuries.

2 As you reach Castle St, the gravels finish and you will now be walking over **Chalk bedrock** until you reach the crossroads. Parts of Cambridge's **smallest church, St Peter's** (2.1), on the right, are medieval, such as the **font** (2.2) depicting four mermen (12th century), the carved south doorway (13th century) and spire (14th century), but it is possibly of Anglo-Saxon origin. Rebuilt in the late 18th century and further restored in the 1930s, it is Grade II listed. Its walls are made from **oolitic limestone** rubble quarried at **Barnack** near Stamford until the mid-15th century, the stone being transported mostly by water. The memorial stone (in the floor) to **Jim Ede** commemorates his and Mrs Ede's bequest to the University of the house and art gallery of **Kettle's Yard** next door. The **Cambridge Museum** (Grade II listed), further down, opened in 1936 with the aim of illustrating the rapidly disappearing old life of town and county, which was considered a neglected field of study and education. The Director of the National Museum of Wales said at the opening ceremony: *'I am inclined to think that in the University of Cambridge there is more exact knowledge of the social anthropology of let us say, Papua, than of Pampisford.'* **St Giles' Church** (2.3), on the left, was established in 1092 in an impoverished, densely populated area outside the town walls (and badly affected by the Black Death c.1350). Much of its land was still pasture until the 1870s. The Victorian building, listed Grade II, is now part of **Cambridge Churches Homeless Project**.

3 Now off the 'Chalk hill', the bedrock has changed to **Gault clay**, older than the Chalk and even more impermeable. It underlies the floodplain of the Cam within the city, including the rest of the walk. **Magdalene College** was founded in 1428 as a Benedictine hostel, then re-founded in 1542 as the College of St Mary Magdalene. The 17th century diarist Samuel Pepys, whose papers and books are kept in the college library, is an alumnus. The college owns the Grade II listed **Pickerel Inn** (3.1) opposite, dating from the early 17th century and claiming to be **the oldest pub in Cambridge**. It is named after the pike (fish) that were once common in the river. The current course of the Cam was established by c.14,000 years ago after the Terrace 1 gravels had been deposited. These had **narrowed the floodplain** here resulting in this becoming an important, **strategic location** on the edge of the fenland marshes as settlements and travel increased. There has been a **'Great Bridge'** at this key river crossing point since Roman times. The cast iron **Magdalene Bridge** (Grade II) was built in 1823 to replace a stone bridge. Until the Cambridge to London railway opened in 1845, the Cam was the main means for bringing goods such as fish, grain, meat, salt, coal, reeds, timber and stone into the city. Many of the barges involved in this trade would tie up alongside the wharves at Magdalene Bridge. **Charles Darwin** used to collect **beetles** here from the bottoms of barges laden with reeds from the Fens. He wrote *'...no pursuit at Cambridge was followed with nearly as much eagerness or gave me so much pleasure as collecting beetles. ... I invented two new methods; ... and likewise to collect the rubbish from the bottom of barges in which reeds are brought from the fens'*. Today the area is popular with tourists and punts can be hired here to go east (3.2f) towards **Jesus Lock** (where the land drops down to **5 metres above sea-level**) or west along the backs of the colleges (3.3) and under the **'Bridge of Sighs'**. Once over the river, on Bridge St, you arrive on the **1st Terrace of the River Cam** (its gravels hidden beneath the road).

4 Just before you reach the road junction with the **Round Church** (4.1f) to the left, you walk from **River Terrace 1** up onto the slightly higher **River Terrace 2**. The Grade I listed church was built around 1130, modelled on the 4th century Church of the Holy Sepulchre, Jerusalem. In the 19th century, the by then dilapidated Cambridge church was restored to look more like its original appearance. While the walls still contain the original **coarse shelly oolite stones**, essential roof renovation in the 1960s replaced the deteriorated Collyweston Stone, a Jurassic limestone that readily splits into thin, light sheets, with the thicker and heavier Stonesfield 'slate', because the Roman era quarry for the former near Stamford, Lincs, was no longer an economical source. On the right, in St John's Street, is the gate tower entrance to **St John's College**. Founded in 1511 by a descendent of Edward III, Lady Margaret Beaufort, its alumni include the slavery abolitionist William Wilberforce and the Romantic poet William Wordsworth. The **Great Gate** at **Trinity College** (4.2) is a little further down, with a statue of its 1564 founder Henry VIII (paternal grandson of Lady Margaret) above the doorways. The cobbles used in the street entrance to the gate (4.3) are thought to be 'field stone', collected from the Chalk hills to the south of the city. They have been studied by Professor Marian Holness from the Dept. of Earth Sciences at the University of Cambridge and, as well as 'local' rocks such as flint, include crystalline (igneous and metamorphic) rocks brought by glaciers from as far away as Norway. Opposite, on the left of Trinity St is the entrance to Trinity College's **Whewell's Court**, for a time home for Trinity's three most infamous alumni, the Soviet spies Kim Philby, Guy Burgess and Donald Mclean.



1.1 View over rooftops; 2.1 St Peter's Church; 2.2 St Peter's font; 2.3 St Giles' Church; 3.1 The Pickerel Inn; 3.3 View upstream from Magdalene Bridge; 4.2 Trinity College entrance; 4.3 Local cobbles used for paving, Trinity College.

5 **Trinity Lane** (5.1) lies between the walls of **Trinity College** and **Gonville & Caius** (pronounced 'keys') College. After the right-angled turn you reach the top of **Garret Hostel Lane**, which leads to the foot and cycle bridge (Grade II listed) over the **Cam**, with views downriver (right) to the Grade I listed **Trinity Bridge** (5.2f) and up river to **Clare Bridge**, also Grade I (5.3). The walk along Trinity Lane-Garret Hostel Lane takes you off **Terrace 2** to go back onto **Terrace 1** before reaching the river where Alluvium covers the riverside meadows up to Queen's Road.

5a King Henry VI began construction of **King's College Chapel** (5a.1) in 1446 using Permian age **magnesian limestone** from the college's own quarry at Tadcaster, in north Yorkshire. Work was continued intermittently by Edward IV, Richard III and Henry VII, first using oolitic Jurassic **Clipsham limestone**, then the more shelly **Weldon limestone** (both quarries in Lincolnshire). This succession of limestones is seen in the different coloured layers in the chapel's base and walls. The building was eventually finished in 1515 during Henry VIII's reign. It sits on the boundary between River Terraces 1 and 2.

6 Queen's Road approximately traces the divide between the clays, silts and sands of the floodplain Alluvium and the gravels of the 1st Terrace to the west. **King's College Chapel** sits on the boundary of the 1st and 2nd Terraces, across the river. This **view from the 'Backs'** along Queen's Rd is a famous one, with the **cattle-grazed meadow** in front, then the river, and then the sweeping lawns in front of the college and chapel buildings (6.1f). The area of rougher grass in the riverside corner on the left is the first stage in a recently started scheme to re-wild the lawns into a wild flower meadow. Some years ago, so the story goes, a foreign visitor to King's, marvelling at its huge, smooth as glass, beautifully green sward, asked one of the college gardeners how this was achieved. *'It's very simple, sir,'* came the reply, *'all it needs is some good seed and then a bit of rolling for the next few hundred years.'*

6a The **University Library**, which frequently puts on free entry exhibitions open to the public in a room close to the library's main entrance, is situated 'up' on River Terrace 2.

7 Excavations along **Sidgwick Avenue** (to right at crossroads) revealed **Terrace 2** deposits containing a **skull of *Bison priscus*** (7.1), a steppe species that became extinct about 5,000 years ago. The skull (now in the Sedgwick Museum) was **dated to c.38,000 years ago**, the middle of the last (Devensian) glaciation, when a large braided river, with shifting channels and gravel islands, flowed here. As you walk across the corner, on the left is the Fisher Building of **Queens' College**, with **Darwin College** to the right across the road. Founded in 1964, Darwin was the first graduate-only college in the University and the first to admit both men and women. The main entrance to **Queens' College** is close to where the path joins **Silver Street** just before the road bridge. The college was founded in 1448 by Margaret of Anjou and again in 1465 by the rival queen Elizabeth Woodville; hence it is *Queens'*, not *Queen's*. It includes some fine late medieval architecture, with **walls of clunch** (chalk) with a red brick skin in Old Court and timber frames in Cloister Court, the latter on the eastern side of the Cam.

8 From the bridge, the weir (8.1) is seen to the right (upstream) whilst to the left (downstream) is the wooden **Mathematical Bridge** (8.2) which links the new and old parts of **Queen's College**. Built in the mid-18th century and rebuilt twice since then to the design of the original, the bridge was not—as legend has it—designed by Isaac Newton nor was it intended to stand without bolts or spikes. Nevertheless, it is often referred to as Newton's Bridge. **Silver St** continues east (8.3) crossing from **Alluvium** onto **River Terrace 1**. **Laundress Lane** is named after the University's washerwomen who used this passage to reach the river and **Laundress Green** on the other side, for washing and drying laundry.

9 Note the many punts and that in Cambridge one punts from the platform end of the craft while in Oxford it is from the opposite end! A tall mill building once stood over the weir, hence the expanse of water on the right is called the **Mill Pond (or Pit)**. In the Middle Ages this was an industrial area with several mills, but it is now part of **Sheep's Green and Coe Fen Local Nature Reserve** (9.1). Managed by the City Council, it is important for wildlife such as **water voles** and Daubenton's bats and has some spectacular **veteran pollarded willows** (9.2f). Part of the floodplain and covered in Alluvium, it is mostly below the level of the Cam and prone to waterlogging. **Peat**, dating up to c.2,000 years ago, has been found in places in the city under the Cam Alluvium (including Jesus Green downstream and Byron's Pool upstream), showing that waterlogging was very significant in the past. At the southern end of Sheep's Green, a 'mill-lead' branches west from the main river, rejoining at Mill Pond. **Millworks** restaurant (9.3), on the opposite bank of this mill-lead, has a visible working water wheel preserved inside. Coe Fen is probably one of the most mapped spots in England, being used by the adjacent University Engineering Dept. for surveying training.

10 **The Fen Causeway** was built in the mid-1920s to replace an existing lane across the fenland. The cattle who graze the fen in summer have their own tunnel under the road to give them access from **Coe (cow) Fen** to **Sheep's Green** on the other side.

11 The path and mill-lead (11.1), to the right, roughly follow the boundary between Alluvium on this side and Terrace 1 on the far side (the popular park on **Lammas Land**). **Lammas** land is a legal term referring to certain land users' right, independently, to grow a crop or hay, after which the land reverts to pasturage for shared or common use.



5.1 Trinity Lane; 5.3 View upstream from Garret Hostel Bridge; 5a.1 King's College Chapel; 7.1 Bison skull dating to 38,000 ya; 8.1 View upstream to weir from Silver St Bridge; 8.2 The Mathematical Bridge; 8.3 Silver St; 9.1 Sheep's Green; 9.3 Millworks; 11.1 Mill-lead adjacent to Lammas Land.

Vicar's Brook soon appears alongside the path. Having eroded the gravels here to expose bedrock **Gault**, it empties into the Cam just south of the river bridge. It is a **chalk stream** originating (as **Hobson's Brook**) in springs at **Nine Wells (a Local Geological Site)** near Great Shelford.



12 Just before the main road, the **2nd Terrace** is reached again, the most extensive of the terraces on this walk, remaining on it until the end. From the main road, you can see, through a (closed) gate, the **University Botanic Garden (12.1)**, which contains over 8,000 plant species. The Garden was established on its present site by **John Henslow**, Professor of Botany 1825-61. He and his most famous protégé, **Charles Darwin**, went on long botanical walks together. The watercourse crossed by Bateman Street, and running along Brookside, is **Hobson's Conduit (12.2f)**, built by Thomas Hobson 1554-1631 (of 'Hobson's Choice' fame) and others during 1610-14. Lined with clay, it brought fresh water into Cambridge by tapping into **Vicar's Brook** near what was once '**Trumpington Ford**', where the old London Road crossed the brook. The Conduit is now a **Scheduled Monument**. The presence of the rare (Red Data Listed) **Water Violet (12.3)** which grows in the Conduit here, shows the water quality must be reasonable. Not a true 'violet', it is in the Primrose family.



13 On the corner of Pemberton Terrace is **19 Brookside**, which has two blue plaques commemorating **Henry Fawcett** and his wife who lived here from 1874 until his death in 1884. Despite being blinded at 25 in a shooting accident, Henry became a Liberal MP who campaigned for women's suffrage and later became a very innovative Postmaster-General. His wife, **Dame Millicent Fawcett**, after whom the Fawcett Society is named, was a prominent politician who led Britain's largest women's rights association.

13a On the corner of **Trumpington Rd** and **Lensfield Rd** is a (**Scheduled**) **Monument to Hobson (13a.1f)**. Once part of a fountain (the Conduit head) that stood in the market square in Cambridge, it was removed in 1856. The **railings** around it are Grade II listed!

14 Many of the **houses, gates and railings (and telephone boxes!)** along **Trumpington St** are **Grade II listed**, as is the '**Construction in Aluminium**' outside the Dept. of Engineering (on the left). In this area, passing under the street, is a **deep, buried channel** filled with gravel, sand and mud from a very ancient course of the river (**Terrace 3**), which is at the surface further east (past Parker's Piece).

15 You pass (on the right) **Fitzwilliam St** where, at no 22, **Charles Darwin** lived for a few months from the end of 1836 after his voyage on the *Beagle*—he sorted many of his specimens here! The **Fitzwilliam Museum**, on the left, is one of the UK's great museums, with fine collections of art and antiquities. It is built of the famous white (Late Jurassic) **Portland Limestone** from Dorset. Further along Trumpington Street, on the same side, is **Peterhouse**, Cambridge University's oldest college, founded in 1284. Note the 'inverse' relief of the very worn entrance step. A short walk into the back of the **garden** of the adjacent **Little St Mary's Church** gives views of the Chalk clunch used as building stone in the walls of the college (**15.1**). Finer stone, such as **Barnack Stone** (a limestone), is used in the walls and buttresses of the church. On the corner of **Pembroke St** is **Fitzbillies**, Cambridge's most famous teashop, founded in 1920 by two brothers using their WWI 'demob' money. Always worth stopping to buy a sticky bun or two!

16 The **Museum of Zoology** (through archway on left side of **Pembroke St**) has excellent displays on evolution including Darwin's finches. The skeleton of a **Fin whale** hangs in its foyer (**16.1**). Further along, on the right, the **Museum of Archaeology & Anthropology** has finds from major Roman cemeteries at Great Chesterford and Litlington, and other regional Roman, prehistoric and Anglo-Saxon items, including an **Anglo-Saxon gold and garnet cross pendant** found in the '**bed grave**' at Trumpington Meadows (**16.2f**).

17 Note the **bears (17.1)**, carved in **Clipsham Limestone**, on the steps of the **Sedgwick Museum of Earth Sciences**, where the walk ends. This **internationally famous museum** has over 2 million specimens from throughout the world. Displays include many local items as well as historical collections such as rocks and other artefacts from **Darwin's Beagle voyage**. It also has the skeleton of '**the Barrington hippo**' (**17.2f**), found in gravels of the Cam's **3rd Terrace** at Barrington village, to the southwest of the city, and dating from the **Ipswichian warm period** about **120,000 years ago (17.3)**, as well as fossils of **Pterosaurs** from the fossil-rich **Cambridge Greensand** and large **ammonites (17.4)** found in the Cambridgeshire Chalk (one, found in 1961 at East Pit in Cherry Hinton, measures 70cm).



11.2 Path by Vicar's Brook, take left fork; 12.1 Old Gate of Botanic Garden with Hobson's Conduit in front; 12.3 Water violet in Hobson's Conduit; 15.1 Chalk clunch in walls of Peterhouse; 16.1 Fin whale skeleton in Museum of Zoology; 16.2 Anglo-Saxon Cross at the MAA; 17.1 Bear carved in Clipsham Limestone; 17.3 Information at the Sedgwick on the gravels from the warm period 120,000 ya; 17.4 Ammonites at the Sedgwick.



www.cambsgeology.org

www.fenedgetrail.org



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www.fen.land

The Fen Edge Trail

Cambridge Castle Hill to Sedgwick Museum

Directions map (3.1 miles / 5 km)

www.fenedgetrail.org

www.cambsgeology.org

1 Start on **Castle Mound** on top of **Castle Hill**. Descend to car park near Shire Hall, turn left through cut to **Castle St** past **Castle Hill Inn**.

2 Descend **Castle St** to junction with **Chesterton Rd** with **St Giles' Church** on left.

3 Cross junction to continue onto **Magdalene St** then **Bridge St**, crossing the river.

4 At junction with **Round Church** on corner, turn right onto **St John's St** and follow onto **Trinity St**.

5 Turn right down **Trinity Lane** round bend, turn right into **Garret Hostel Lane**.

5a To see **King's College** chapel, continue along **Trinity Lane** instead of turning down **Garret Hostel Lane**, bearing right past **Trinity Hall** and then **Clare College**. Retrace steps to rejoin walk.

6 Cross **Cam** over **Garret Hostel Bridge** and continue onto 'The Backs'. Before reaching **Queen's Rd**, turn left onto **path** running along Backs parallel to river.

6a To visit the **University Library**, continue straight on to pedestrian crossing on **Queens' Rd**. Cross and walk straight on to gate on left. Retrace steps to rejoin walk.

7 After passing the rear entrance to **King's College**, take path to left across grass to cut corner to **Silver St**. Go left towards river. To visit **Queen's College**, before joining **Silver St**, enter the college via **the porter's lodge** on left.

9 Turn right, cross over **weir**, turn left to follow towpath, with river on left. Take first path on right to cross **Sheep's Green**, coming out opposite **Granta pub** on other side of pond. Bear left past **Millworks** (on opposite bank of channel).

10 Cross road on pedestrian crossing going diagonally over **Fen Causeway**, turn left over bridge, take path immediately on right.

11 Continue on path, with channel on right, until you see **pedestrian bridge** over ditch on right (**11.1**). Turn left at bridge,

(don't cross it) and take path towards another **pedestrian bridge** (metal) a few yards ahead. Cross bridge (over **Cam**), continue until path forks forward (ignoring backward fork reached first), taking left fork signposted to Station and Cherry Hinton (**11.2**).

12 Reaching **Trumpington Rd**, turn left until reaching pedestrian crossing near **Bateman St**. Cross to walk short way along **Bateman St**, past entrance to **Botanic Garden**. Take first left onto **Brookside**.

13 At corner with **Pemberton Terrace**, turn left along path back to **Trumpington Rd**. Cross **Trumpington Rd** at **pedestrian crossing**.

13a To see **Hobson's Monument** carry on up **Brookside**, go left and then left again to the crossing on **Trumpington Rd**.

14 Once across road, go right and then turn left into **The Fen Causeway** to use crossing before returning to turn left back onto **Trumpington Rd**, which becomes **Trumpington St** once past **Lensfield Rd**.

15 Pass the **Fitzwilliam Museum**, cross **Mill Lane**, then immediately turn right onto pedestrian crossing to other side of **Trumpington St** (**very busy junction, keep eye out for cars and bicycles**). Turn right then left to enter **Pembroke St** (becoming **Downing St**), on corner by **Fitzbillies**.

16 Pass entrance to **Zoology Museum** on left and **Tennis Court Rd** on right, then go through archway on right to the **University's Downing Site**. Turn left to the **Sedgwick Museum**, the end of the walk.

8 Cross bridge and, after passing **Anchor pub** on right, immediately turn right down **Laundress Lane** to join **Mill Lane**, opposite **Mill pub**.

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300m

FET walk

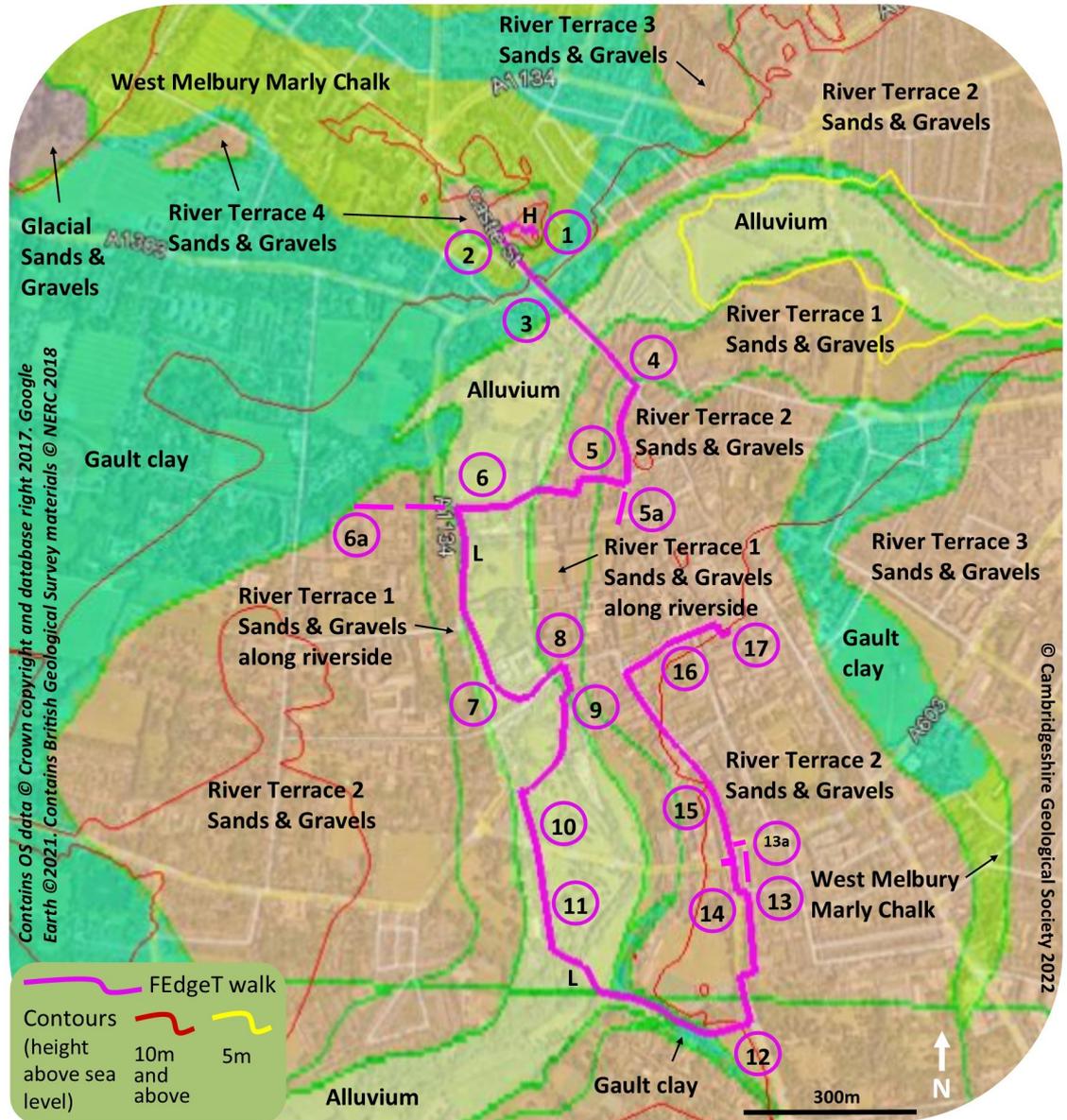
5m contour

Walk: Cambridge Castle Hill to Sedgwick Museum - geology and contours map

Landscape and Geology

The 'high' top of Castle Hill contrasts with the **flat river terraces** and **floodplain** in the valley of the **River Cam**.

The bedrock under almost the entire walk is **clay** of the **Gault Formation**. This sedimentary rock was formed in warm, shallow seas **c.113 to c.101 million years ago (mya)** in the **Cretaceous Period**. The younger **West Melbury Marly Chalk** lies over the Gault and forms the 'high' ridge on which Castle Hill sits. The Marly Chalk is a relatively impermeable Chalk, lying at the base of the Gog Magog Hills. It formed **c.101 to c.94 mya** when sea level was high and the climate much warmer than today. It was once dug for '**coprolites**' (phosphate), particularly from the fossil-rich **Cambridge Greensand** at its base. The diggings have significantly changed the topography of the city. Except for small areas of Chalk and Gault on Castle Hill, and Gault by Vicar's Brook, the bedrock on this walk is covered by **much younger, river deposits**. Now flowing south west to north east through the city, the river has changed its



course a few times over the last c.500,000 years, during 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 left a complex collection of sands and gravels (with some clay) that form a series of River Terraces. Four **terraces** have been broadly identified, representing different stages in the river's history, with the **oldest (the 4th)** lying furthest from the river and (generally) at the highest elevation. The **4th Terrace** gravels here date to c.300,000 ya when a large river flowed northwest (over Castle Hill), possibly through the 'Oakington Gap', and on to the Wash. The **3rd Terrace**, under c.200,000 years old, formed during cold periods and, later, the **warm Ipswichian Interglacial Stage**, when a large floodplain developed in the valley. About 50,000 ya, the river was diverted to flow northeast leaving the **2nd Terrace** gravels. The **1st Terrace** dates from the end of the last glaciation, the Devensian, **c.20,000 ya** and narrowed the river near Castle Hill creating the **crossing point** that became so important years later. During the **Holocene (the last 11,700 years)**, the river has left fine **Alluvium** over its floodplain, providing **fertile pastures**. When waterlogging persisted, **Peat** formed in low areas and still underlies parts of the river valley. Significant **fossils** have been found in the city including mammals from cold and warm stages of the Pleistocene: **Hippopotamus, Horse, Bison, Reindeer, Woolly Mammoth, Woolly Rhino, Straight-tusked Elephant, Red Deer, Aurochs, Lion and Spotted Hyena**.

Starting on the **4th Terrace** capping **Castle Hill**, the walk descends onto the bedrock (**Marly Chalk** and **Gault clay**) before reaching the **Alluvium**. After crossing the riverside **1st Terrace**, it 'climbs up' onto the **2nd Terrace** before returning to **Alluvium** along the river. After a brief walk on the **1st Terrace** at **Silver St**, it returns again to **Alluvium** before following a narrow area of Gault, exposed due to erosion by Vicar's Brook. Finally, you return to the **2nd Terrace** on which much of the City centre lies, including the rest of the walk.



*Highest point is top of hill at start. This profile is distorted by structures, with some places shown higher than they are.