

The missing river

A self guided walk from Durham City into the surrounding countryside



Explore a wide and deep valley without a river
Discover how ice sheets shaped the landscape
Find out why the River Browney changed its course
Walk over a giant pile of glacial debris

www.discoveringbritain.org

*the stories of our landscapes
discovered through walks*







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Cover image: River Browney © Rory Walsh

The missing river

Discover why one of Durham's rivers completely changed its course

A river valley without a river? Surely that's a contradiction in terms. But not in Durham.

Find out the fascinating story of how ice sheets left great piles of debris that blocked the path of the River Browney and changed its course.

This great walk takes you out from Durham city through a nature reserve and into open countryside.



Along the way you'll discover all the signs of the missing river – a distinct valley shape and even particular street names. Then you'll climb up and over the ice sheet deposits into another valley to find the re-routed river.

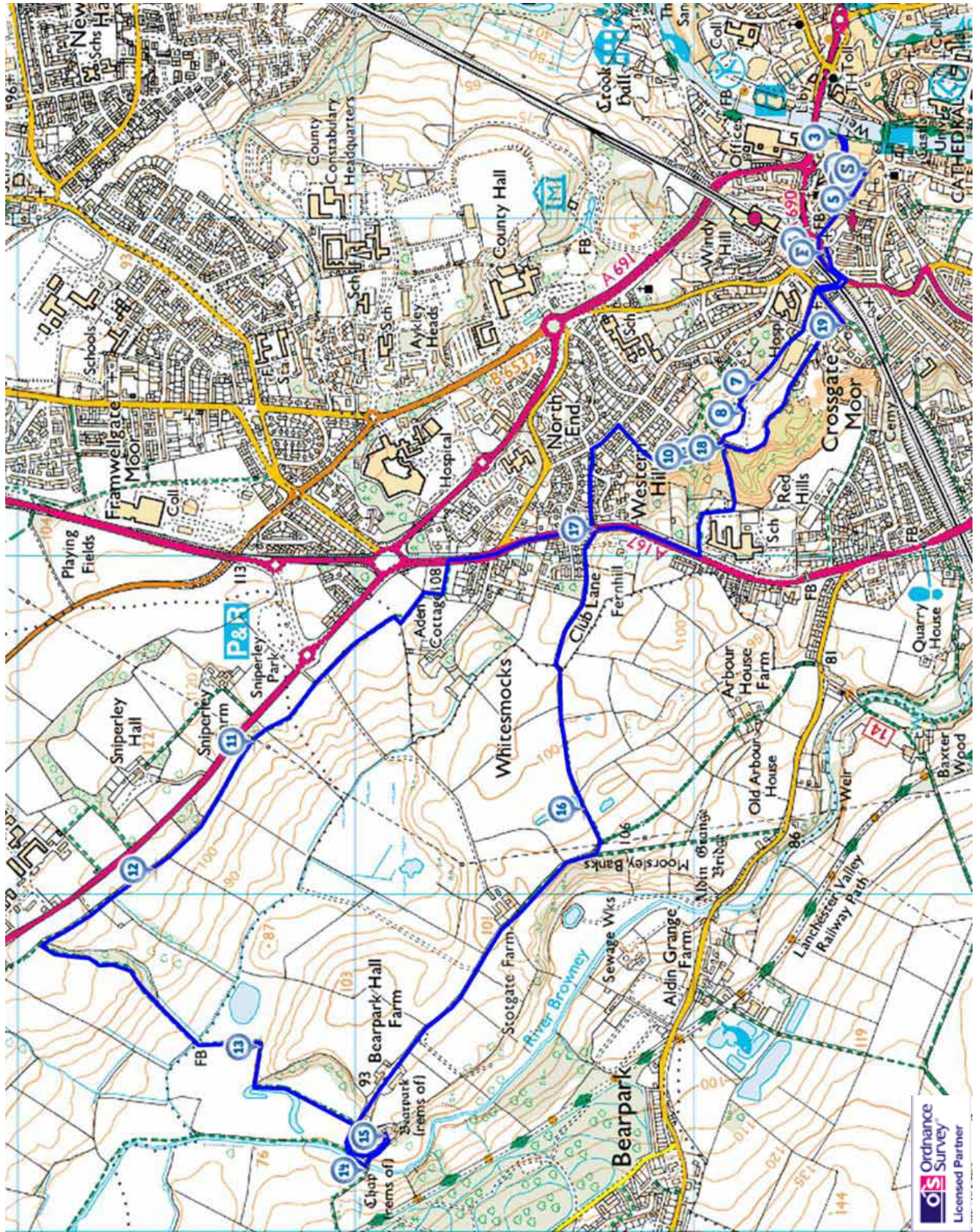


Find out how this landscape has been used and exploited by humans: deposits of sand quarried, layers of coal mined, and rivers dammed to power mills. Also discover how locals have fought to protect a bog!

You'll also see ruins of a medieval manor, a former pit village and see a lesser-known view of the magnificent cathedral.

Top: River Browney © Rory Walsh / Bottom: Flass Vale © Rory Walsh

Route overview



Practical information

Location	Durham, Northeast England
Getting there	<p>Car - Durham is easily accessible from the A1(M) (exit at Junction 62) and the A167. City centre parking is available at The Gates, Sidegate, Durham station and location but charges apply.</p> <p>Train - Durham station is on the East Coast mainline and served by long-distance services from London Kings Cross and Edinburgh Waverley as well as regional services from Newcastle and Middlesbrough.</p> <p>Bus - Durham is served by buses from across the northeast region as well as local routes; alight on North Road.</p>
Start point	Bottom of North Road by the Gates Shopping Centre, DH1 4SJ
Directions from railway station to start	From the station entrance follow the road down Station Approach. After the road bends round to the right, look for the pedestrian bridge on the left over the main road. Cross the bridge and go down the curving ramp. At the roundabout turn left into North Road. The shopping centre is at the end of North Road.
Finish point	North Road roundabout, DH1 4UE
Onward journey	The route is almost circular. To return to Durham train or bus stations from the final stop please use the Directions 19.
Distance	5 ½ miles
Level	Moderate – There are some climbs and descents but they are mostly steady; there are also a handful of stiles along the route
Terrain	City pavements, paths through woodland and fields, gravel tracks
Conditions	The paths in the woods and fields can be muddy after wet weather

Suitable for

Families - Spotting different birds and butterflies in the Vale might appeal to children

Dogs - Keep on leads near busy roads and on grazing land

Refreshments

Once the walk leaves the city centre there is nowhere to stop for refreshments on the route. We suggest purchasing supplies in Durham before starting the walk. There are various cafes and shops on North Road near the start of the walk.

Facilities

The only public toilets on the route are at The Gates Shopping Centre (start of walk)

Places to visit

Durham Cathedral - the greatest Norman building in England Open to visitors 7 days a week (Monday to Saturday until 6pm; Sundays until 5.30pm). Entry is free but donations are welcome. Tours are available and it is possible to climb the tower for excellent views of the city.

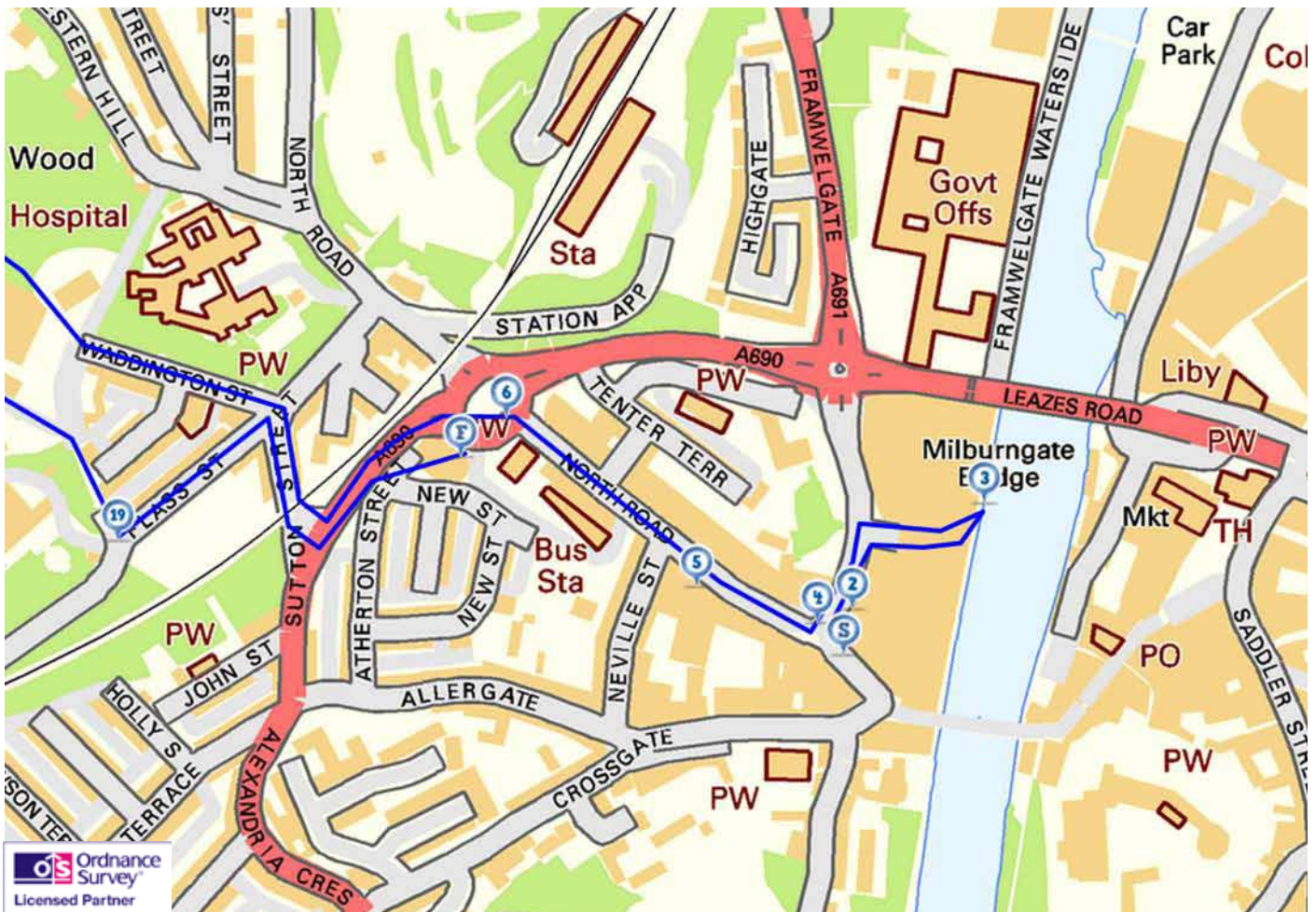
Durham Castle - the 11th century castle provides accommodation for students during term time but public tours are available.

Prince Bishop River Cruiser - Enjoy a boat trip which gives views of the cathedral, castle and 5 bridges; the commentary includes history, natural history and geography. Departs from Brown's Boathouse near Elvet Bridge (Tel: 0191 386 9525).

Tourist information

Durham World Heritage Site Visitor Centre
Owengate, Durham, DH1 1HB
Tel: 03000 262 626
www.thisisdurham.com

First part of route - city centre



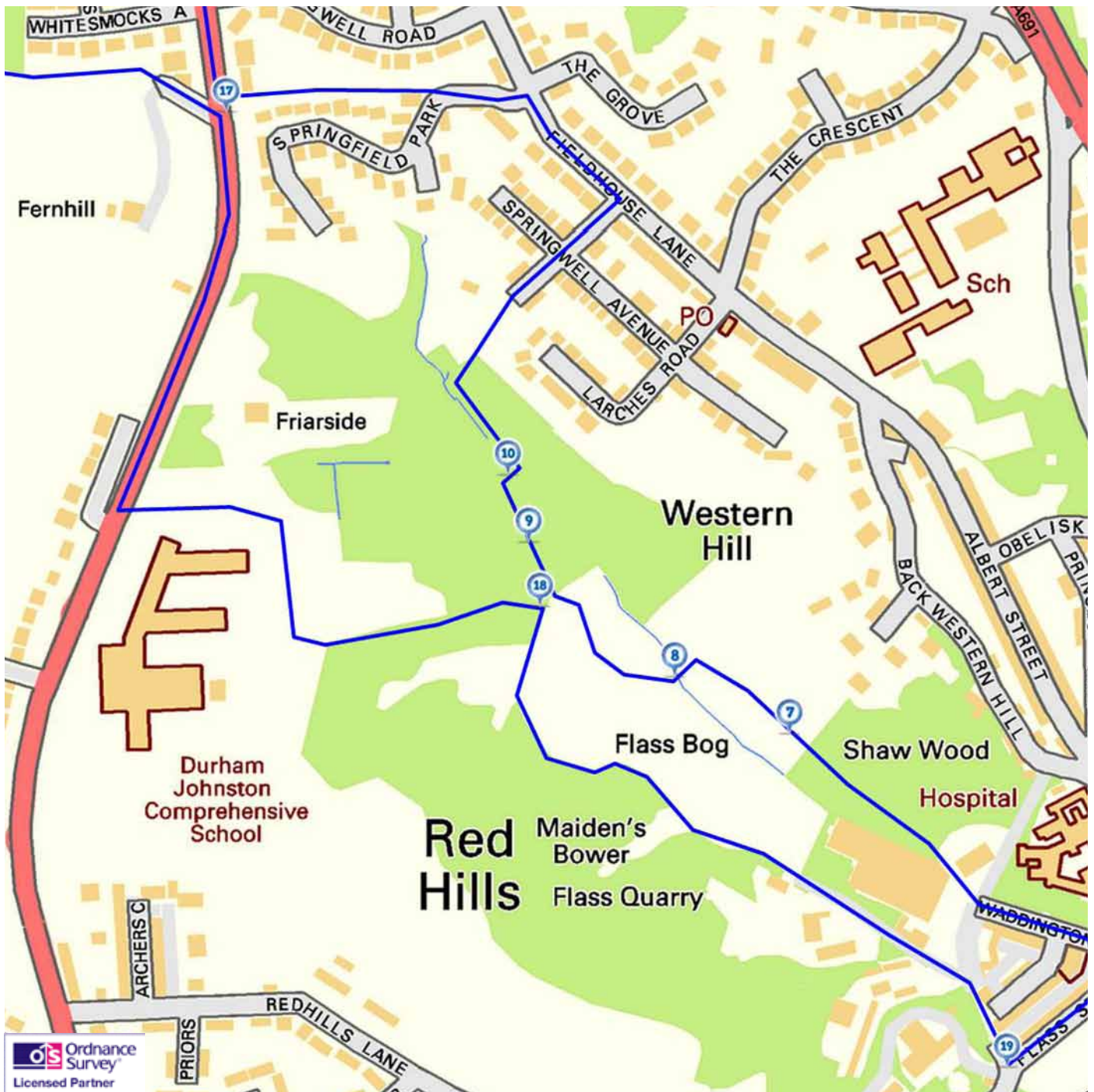
Stopping points

- Start** Bottom of North Road
- 2.** North Road entrance to The Gates Shopping Centre
- 3.** Riverside footpath
- 4.** North Road entrance to The Gates Shopping Centre
- 5.** Former cinema, North Road
- 6.** North Road roundabout

- 19.** Corner of Red Hills Lane and Flass Street

Finish North Road roundabout

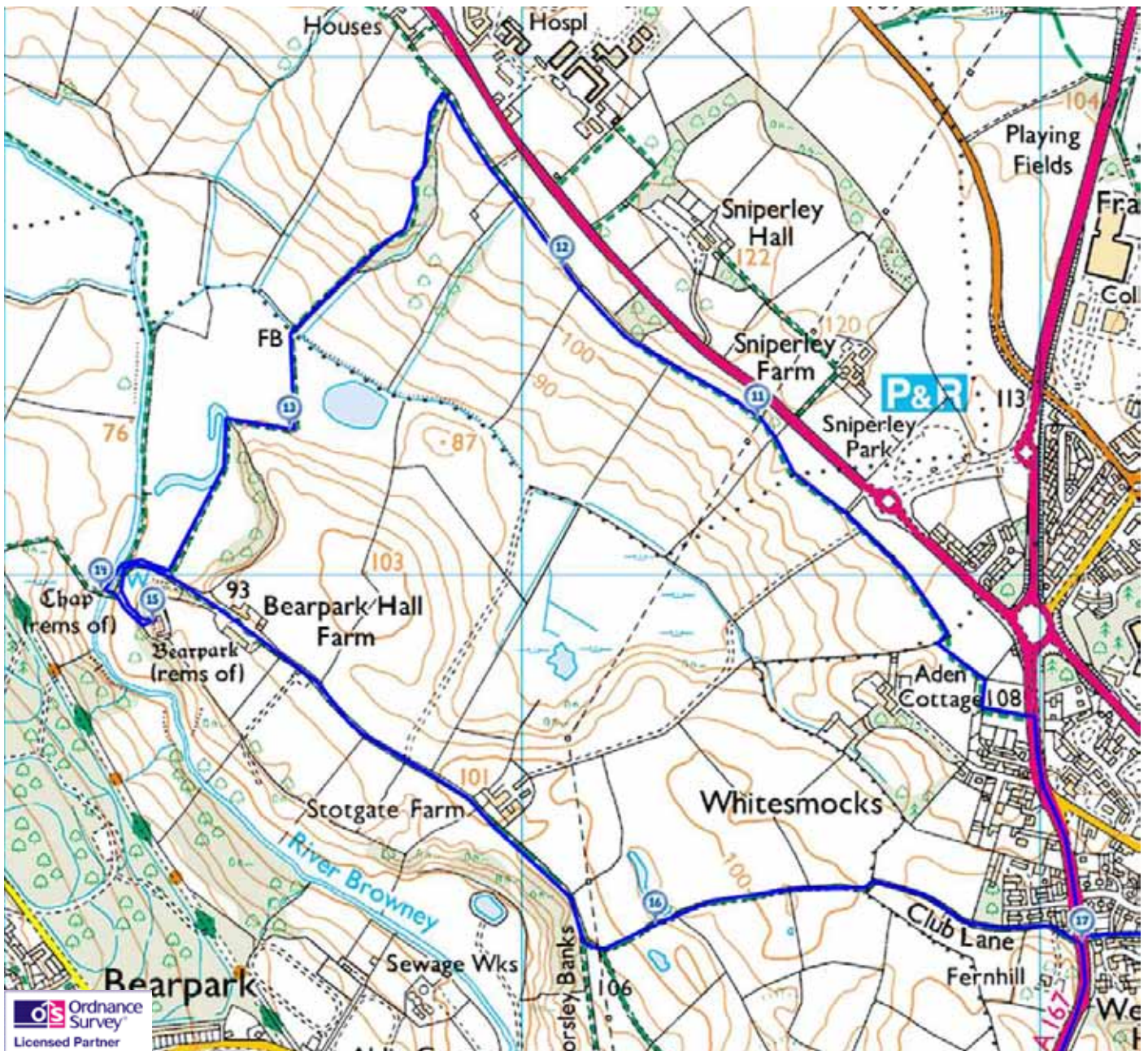
Second part of route - Flass Vale



Stopping points

- 7.** Information board, Flass Vale
- 8.** Culvert over Flass Burn, Flass Vale
- 9.** Close to overturned tree stump, Flass Vale
- 10.** On footbridge, Flass Vale
- 18.** Footpath crossing, Flass Vale

Third part of route - open countryside



Stopping points

- 11. Field path
- 12. Field path
- 13. Solitary tree
- 14. Bridge over the River Browney
- 15. Beaufort ruins
- 16. Dip in the track
- 17. Beside the A167 at Whitesmocks

1. Welcome to Durham

Bottom of North Road

Welcome to this Discovering Britain walk in Durham! This walk was created by Alan Rose. Alan is a computer network engineer but in his spare time he's a keen naturalist and geographer.

Alan: "I was born a towny, but when I was 20, I lived in the Yorkshire countryside for a year. I loved being out in the country; and I was fascinated by the physical landscape and the way it had been shaped by the Ice Age. In particular I learned that many Northern rivers had their courses changed by the ice, and by stuff left by the ice."



Durham: the cathedral city shaped by ice
© Rory Walsh

"When I came to Durham University, my Geography dissertation investigated one of these Yorkshire river diversions; then I settled in Durham and came to realise that this area had its own diverted rivers too."



The River Browney, Durham's 'missing' river
© Rory Walsh

"I love the way that, in Durham City, the countryside comes right into the centre of the town and I like thinking about how the physical landscape has helped to shape the city's rich history".

This walk follows a river valley that has 'lost' its river and now has only a small 'misfit' stream.

From the city centre, we go out into the countryside to see how and where the river was diverted, and where it was diverted to. Along the way we pass through some green and tranquil places.

Directions 1

Make your way to the start of the walk at the North Road entrance of The Gates Shopping Centre.

2. The Gates - aren't gates!

North Road entrance to The Gates Shopping Centre

Here we are in Durham City. It's a city with a very long history – founded by Anglo-Saxon monks, raided by Danes and Scots, conquered by the Normans, ruled by Prince Bishops and enriched by pilgrims.

All made their mark on the built landscape here. And it is this modern shopping centre that you are standing outside that takes us straight back to the Viking settlers.

The Gates Shopping Centre takes its name from two old streets – Framwellgate and Milburngate. Nearby were Crossgate and Allergate.



Street names are evidence of Viking heritage
© Rory Walsh



The dip indicates the original course of Mill Burn
© Rory Walsh

In many other Northern cities there are also streets called 'gate', such as Deansgate in Manchester, Coppergate in York, Eastgate and Kirkgate in Leeds. These names date from when Vikings settled in northern England – 'gate' in Scandinavian languages means 'street'.

However, here at Milburngate, it's the other part of the name that provides the introduction to our story of lost rivers. The line of Milburngate – or Mill Burn Street – follows the course of the Mill Burn – burn, of course, meaning stream.

Look to the right towards the roundabout – the road drops quite steeply down and then up again between here and the roundabout. This was the valley of the Mill Burn.

Directions 2

Go down the hill to the right, then round the corner under a building and down to the riverside. Be careful – there are two car park entrances here so watch out for traffic. Stop on the river bank.

3. The run of the mill

Riverside footpath

This river is the Wear. It starts up in the hills in the west of County Durham and runs into the North Sea at Sunderland

A map made in 1820 shows that there was a watermill where you are standing and a mill pond where the road is now.

The stream was small, but you can see here what a large drop there is between the road and the river.

Of course, the bigger the drop, the more power there is to drive a mill. The mill was used for grinding wheat into flour.



The River Wear overlooked by Durham Castle and Cathedral
© Rory Walsh



The outlet of Mill Burn into the River Wear
© Rory Walsh

Nowadays this stream, the Mill Burn, is hidden in a culvert under the road; it empties into the River Wear from a pipe in the concrete river embankment.

Walk left about 20 metres and look over the railing. There's a rather twisted metal ladder and just beyond it a large rusty outlet. That's where the Mill Burn now flows into the Wear.

So we begin our walk where the Mill Burn empties into the Wear. Now we're going to walk upstream following its course.

Directions 3

Retrace your steps to the shopping centre entrance. Stop, and look up North Road.

4. How green was the valley

North Road entrance to The Gates Shopping Centre

North Road roughly follows the line of the Mill Burn. Originally this area was a green meadow with the Mill Burn flowing through it.

The road was built and the area developed in 1831, which is when the Burn was put into an underground culvert.

But as you walk up North Road look to the left and right. You will be able to see slopes rising on both sides that show how we are in the bottom of a valley. In particular, look out for steep, cobbled Neville Street on the left.



North Road - once a lush meadow either side of the Mill Burn
Malc McDonald, Geograph (CCL)



The streets either side of North Road rise steeply marking the valley sides of the Mill Burn
From left: Neville Street, New Street, Station Bank
© Rory Walsh

Directions 4

Go up North Road for about 100 metres. Stop outside the former cinema on the left side, which is a large stone building with an arch above the doorway.

5. The pits?

Former cinema, North Road

Although this is a story about rivers and the physical landscape, we're also going to see how this has affected human activity.

Looking at the architecture of this building, you won't be surprised to learn that this building was once a cinema.

When it was a traditional single-screen cinema it had a drainage problem: in the deepest point, at the bottom of the screen, water constantly seeped in and a pump had to be on permanently to stop the water filling the pit!



Former cinema, North Road
© Rory Walsh

This was because the cinema was built on sand. In this part of Durham there is sand just about everywhere! Piles and piles of it. And where, you might wonder, did all this sand come from? Well, we'll find out about that a bit later in the walk.

Directions 5

Continue up North Road, noticing the steep slopes of Neville Street on the left, then of Station Bank on the right. When you reach the roundabout at the top of North Road, stop at the area to the left at the side of the chapel.

6. Built on a bog

North Road roundabout

The Viaduct, built in 1857, is impressive. More impressive, perhaps, when you know what lies under it – bog!

It was so wet and soft here that, to build the viaduct, massive piles of oak had to be driven into the ground to form foundations.

They've lasted over 150 years now, and the bridge carries the London-Edinburgh main line. Quite an achievement for those Victorian engineers and builders.

But now, look at the gap that the viaduct spans. It's a deep and wide valley, much bigger than the section we've just walked up.



Construction of Durham railway viaduct (c.1855)
Reproduced by permission of
Durham County Record Office (Ref: D/CI 27/277/296)



The impressive height and length of Durham viaduct indicate the substantial valley that it bridges
Adam Brookes / Raymond Knapman, Geograph (CCL)

It's a substantial valley, but without a substantial river. You can search long and hard but you won't be able to find much sign of a river in the bottom of the valley.

Actually the stream is tiny and completely hidden in its culvert. In the 1980s there was an intense cloudburst followed by a flash flood. The burn burst out of its culvert, lifted a manhole cover and for a short time there was a fountain in the middle of the road! But that was exceptional.



Durham viaduct towers over the houses of Sutton Street
© Rory Walsh

Downhill from here – the route that we’ve just walked – the stream is known as the Mill Burn, as we heard before, but further up the valley it’s called the Flass Burn. ‘Flass’ is a northern word for a bog. Flass Vale is our next goal.

Directions 6

From the side of the chapel, go clockwise around the roundabout to take the second exit. Go under a building and then cross the road at the traffic island.

Turn right under the viaduct into Sutton Street. Then take the second street on the left, which is Waddington Street. On the right of the road is the former County Hospital and on the left is Waddington Street United Reformed Church.

At the end of the street is Kings Lodge Hotel. Go through the hotel gateway – it’s a public right of way – and straight ahead is a path that climbs into woodland.

Follow this path until it leaves the shade of the trees. Stop when you reach the display board on the left of the path which tells some of the history and ecology of Flass Vale.



Go through the entrance to Kings Lodge (top)
Follow the footpath
Stop at the information board (bottom)

7. A rural haven

Information board, Flass Vale Local Nature Reserve

We are now in Flass Vale. As when we looked at the railway viaduct, we can see that we're in a substantial valley. In fact, it's even bigger than it looks because here, too, there are great piles of sand everywhere.

There are many old sand quarries; you'll see some of them later when you come back down the far side of the Vale. In places this sand is 60 metres deep! Deeply buried below where you are standing is the original river valley, cut into rock. This was only discovered in 1928!

Here in the vale the stream is called the Flass Burn. Compared with the size and depth of the valley, the burn is tiny. A proper river flowed here once, but not now.



Flass Vale
© Rory Walsh



Flass Vale
© Rory Walsh

Down in the bottom is a marshy and waterlogged area. It's called the Flass Bog – which, of course, means 'the Bog Bog'! The drier areas were used for agriculture and orchards until they were abandoned in the 1950s and '60s. Since then, scrub and woodland have encroached but this is now being managed by the Friends of Flass Vale.

Alan: "The Friends first came together in 1973 when they fought – successfully – to prevent house-building in the vale. A few years ago, the vale was given formal legal protection when it was designated a Local Nature Reserve by the local council."

"It's a rural gem, surrounded on three sides by Durham City and its suburbs. I think it's a wonderful place and I recently joined the Friends of Flass Vale to help preserve it and improve it".

Directions 7

Continue along the path, after a time descending a flight of steps. Continue to a crossroads of paths. Take the left path and stop after about 5 metres by the culvert.

8. For peat's sake!

Culvert over Flass Burn, Flass Vale

Look on the left side of the path where the pipe comes out on the downstream side. Climb down if it isn't too wet. In summer you'll have to clear away some vegetation. Look for a dark, almost black layer. This is peat. It's only a few inches deep here but further into the Flass Bog it's a lot deeper.

Peat is formed from layers of dead vegetation. It can only build up, slowly, when the ground is permanently waterlogged, which prevents the plant remains from decaying. Scientists from Durham University have analysed remains of pollen that are found in this peat. They found that the bog started to form around 11,000 BC, at the end of the last Ice Age.



Over time, dead organic matter will compress into peat
© Rory Walsh



A buttered crumpet is a helpful illustration for thinking about how ice sheets shape the landscape
LoopZilla, Wikimedia Commons (CCL)

During the Ice Age northern Britain was covered repeatedly by huge sheets of slowly-moving ice. In some places the ice was like a huge bulldozer, scraping away rock and soil, then pushing great heaps of ground-up rock around – clay, sand and gravel.

In some places this material filled up valleys and hollows, a bit like when you spread butter on a crumpet. When the ice melted, fast-flowing streams spread the sand and gravel around: that's how Flass Vale, North Road – and other parts of Durham City, too – came to have so much sand. Even over thousands of years, the Flass Burn has been too puny to wash this sand out of the Vale, and that's why it's remained – a bog.

Directions 8

Continue along the path, up the steps and into the wood again. At the crossroads of paths, go right. In season you may notice the scent of honeysuckle here. Continue for about 100 metres then stop and look to the right.

9. Highland Games

Close to large overturned tree stump, Flass Vale

The valley here is much narrower but the valley bottom is flat – although in summer the vegetation makes it hard to see.

Do you remember passing a church on the left of the street before you came into the vale? It was founded as a Scottish Presbyterian church, serving a population of Scots who came to Durham in the nineteenth century to work in the carpet industry.

Just about here they built a low dam across the stream to make a curling pond and skating rink in winter. In the summer they let the water out and used the same space as a tennis court!



Site of curling pond and tennis court, Flass Vale
© Rory Walsh

Sadly, there are no old photos of this; from old maps it seems to have been in use from about 1880 to 1910.

Directions 9

Follow the path for another 100 metres and stop when you reach a wooden footbridge.

10. Under the surface

On footbridge, Flass Vale

We know that, during the Ice Age, the ice advanced and retreated a number of times. It's difficult to be sure exactly what happened in a particular place because each time the ice returned it tended to rub out the traces of the last advance.

We do know that a particular type of clay was spread around, like butter spread on bread, with the ice being the knife blade. This clay is smooth and slippery but it contains pieces of rock of all sizes, from sand grains to large chunks - hence its name, 'boulder clay'.

Wherever there's boulder clay we know that the ice has passed over at some time; sand and gravel mean that ice melted here, creating fast-flowing streams.

In this part of the valley the stream has helpfully dug away the topsoil so that we can see 'what lies beneath'.



Position of ice over British Isles 23,000 years ago
© Professor Chris Clark, University of Sheffield



Climb into the stream bed for a close up view
of the layers of sand and clay on the banks
© Rory Walsh

Look at the banks of the stream where you can see a layer of light brown boulder clay. Walk a few metres upstream, stopping halfway between the bridge and some brickwork. The far bank of the stream is vertical and a metre or more high.

Here is a good view of the sand that makes up so much of this landscape and, in the stream bed, there's lots of gravel because the stream has carried away the lighter sand. We can see that the sand lies on top of the clay, so it must be more recent.

We can now say that this spot was covered, at least once, by moving ice; then, when ice melted, there were fast-flowing streams that deposited sand.



The stream bank in Flass Vale reveals layers of sand and clay (left) and boulder clay (right)
© Rory Walsh

Now we're going to climb up the biggest sand pile of all, emerging into Durham's suburb of North End.

Directions 10

Now go back to the bridge, cross over and turn left, passing another interpretation board. Follow the path as it climbs and bends to the right until you emerge onto a residential street, which is Flassburn Road.

Go straight over the first crossroads and turn left at the next junction onto Fieldhouse Lane. Take the first left into Springfield Park. Where the road bends to the left, go straight along a footpath that goes between the backs of houses.

When you reach the main road, turn right. After about 200 metres cross the road at the traffic island. At the far side, turn right and continue up the hill. Shortly after a large road sign for a roundabout, there is a footpath sign to the left.

Go over the stile and follow the path as it twists and turns. After the second stile, keep to the right hand side of the field. Go over the next stile in the bottom corner of the field and then turn left into the next field. Follow the edge of the field round to the right.

You should end up walking parallel to, but one narrow field away from, a main road. Continue until you go under a line of pylons.

11. All is revealed

On a field path, looking out over open countryside

At the bottom of the valley is a marshy area known as Bearpark Bog. As in Flass Vale, the ground there is wet, there's a small, slow-moving stream and a lot of peat.

With your back to the pylons, you are looking up the valley of the River Browney. The river begins about 20 kilometres northwest of here.

Can you see that the small valley containing Bearpark Bog lines up with the Browney valley? That's because it lies along the original course of the Browney, that's now clogged with vast piles of sand and clay.



Bearpark Bog in the bottom of the valley
© Rory Walsh



Looking down the Browney valley
© Rory Walsh

Turn back to face Bearpark Bog: to the left of the bog the land rises – this is part of the huge 'dam' of Ice Age deposits – sand and gravel and rocks dumped by the melting ice sheets – that blocked the river's path. We came up the other side of this dam at the top of Flass Vale, after we came up North Road.

So Bearpark Bog, Flass Vale and North Road together mark the route that the Browney took before the last Ice Age. The present valley of the Browney is out of sight between us and Bearpark Village, but we will see it soon.

Directions 11

Continue along the footpath through another two fields and stop in a convenient place. In April and May this path is popular with butterflies because it's sunny and the hedges provide shelter from cold winds. Watch out for peacock, tortoiseshell, orange tip and cabbage whites.

12. Scars of the past

On a field path, looking out over open countryside



Bearpark colliery
<http://bearpark-online.co.uk>

Durham, as you probably know, was well known for its rich coalfields. Look across the valley. About 2 kilometres away is the former pit village of Bearpark. Bearpark and many villages like it only came into existence because of coal mining.

The pit at Bearpark was one of the last deep coalmines in County Durham to close – in 1984 – after 110 years of operation. Its underground workings were extensive and reached at least to where you are standing.

The wooded hillside to the right of the village marks the landscaped remains of the pit heap. Here and elsewhere in the county, millions of pounds were spent to heal and conceal the scars of its coalmining past.



Landscaping on the site of Bearpark colliery
© Rory Walsh

Directions 12

Continue along the footpath. At one point the path becomes very narrow as it goes between two fences and may be quite overgrown. On the left is a farm storage area and you may meet a friendly horse. Continue through two more fields, crossing over their stiles. After the second stile turn left down the field, keeping a row of trees and a stream on your left hand side. At the bottom, go over the stile or through the gate and continue along the path to stop at a solitary tree.

13. Pitfalls of life

Solitary tree

Look back along the track we've just come on and then look to the right. Can you see that the vegetation is quite different in colour and shape and height from the crops that surround it and that the land is quite low and sunken down? There's a pool there but it has only existed for about 30 years.

Earlier we saw the former pit village of Bearpark. Mine workings under this spot have collapsed underground, causing the land here to subside and then fill with water. Locally, a hollow like this is known as a 'pitfall'.



Pitfall near Bearpark village from above
© Rory Walsh

Wild ducks are shot here in season and you can see a couple of shooting butts. If you are walking in spring, you may be treated to a display of lapwings, with their aerobatic flight and bubbling call. They regularly nest in these fields.



Pitfall near Bearpark village from the solitary tree
© Rory Walsh

Directions 13

From the solitary tree, follow the path around to the right. Go through another gateway, then the path turns to the left with a copse on the right and an open field on the left. At the end, go over the stile and turn right onto the farm track. Stop when you reach a bridge over the river.

14. The missing river!

Bridge over the River Browney

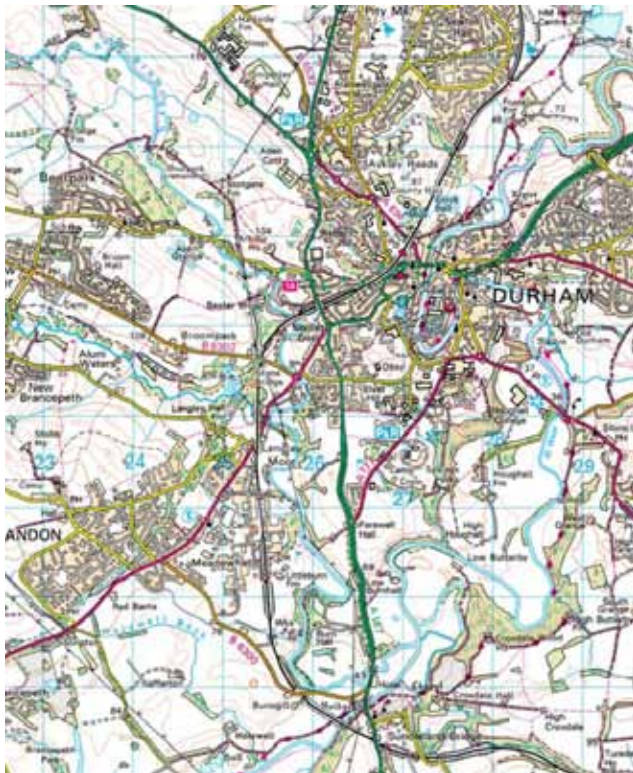
Here at last is 'Durham's missing river', the river that once flowed along the route that we have walked – Flass Vale and North Road.

Its original course, to the left behind the ridge, was blocked by the large deposits of sand and clay that we heard about earlier. Here we can see the beginning of the diversion it was forced into. The valley here is narrow, especially compared with the upper part of the Browney valley.

As the ice sheets melted, this meant that there was more water in the river. A river with more water flows faster and has more force. It can pick up pebbles and rocks – and as we have seen, the ice had left a lot of ground-up rock.



First glimpse of the River Browney
© Rory Walsh

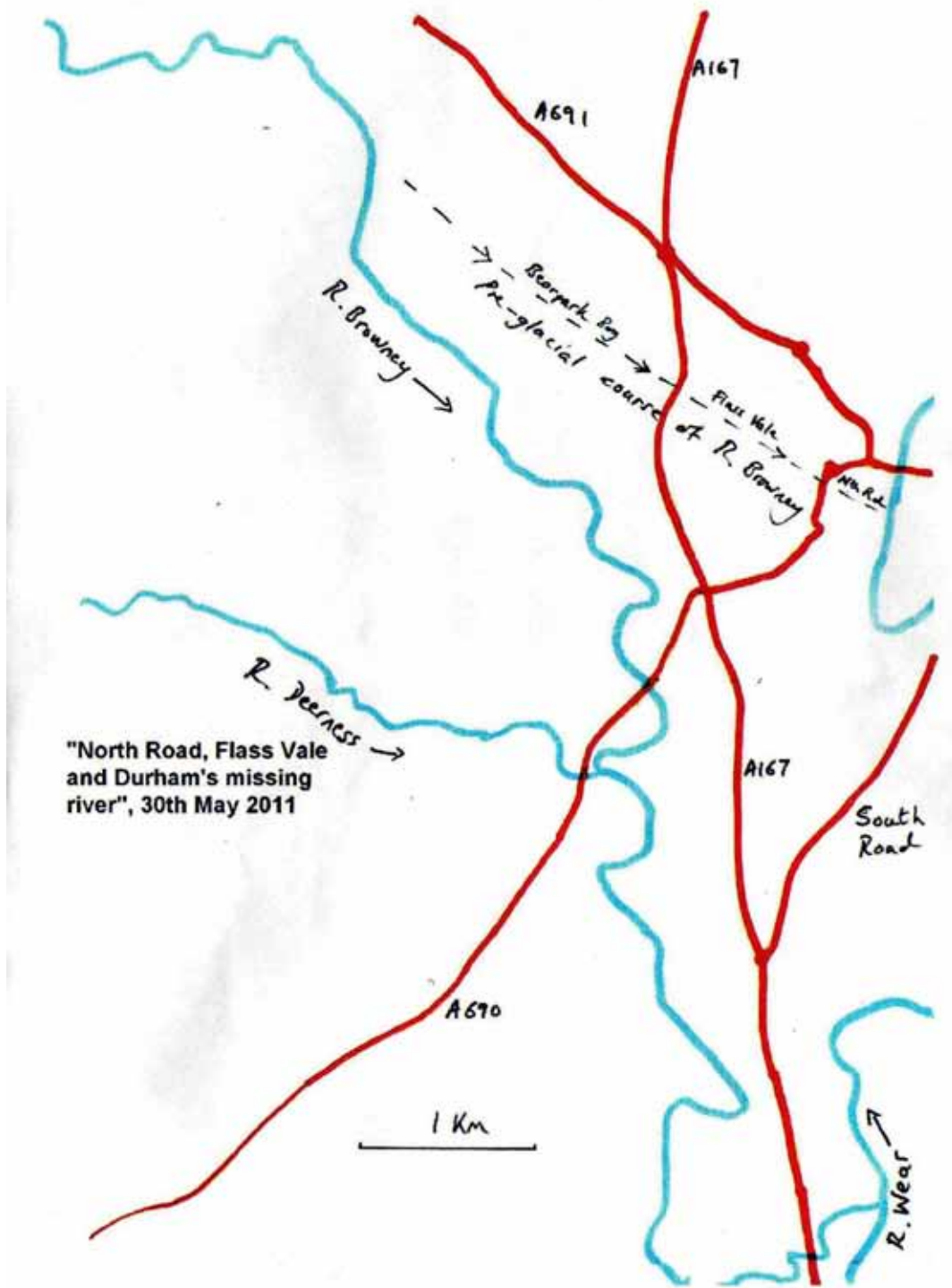


The River Browney now runs from north to south
© Ordnance Survey, licensed by RGS-IBG

This meant that the Browney was able to cut a new course which started here. Further downstream the valley becomes a narrow gorge as it cuts through the local sandstone bedrock.

The narrow valley and bedrock created an opportunity for local people and once there were five watermills along this stretch of the river. Unusually, they were mostly paper mills, making paper out of rags. There were also quarries that produced good building stone.

If you look at the Ordnance Survey map, you can see what happens to the river downstream from here. The Browney is joined by the smaller river Deerness, 2.5 kilometres from here at Langley Bridge. It then flows another 3 kilometres before flowing into the River Wear east of Browney Bridge. The ice as it melted created a long narrow ridge of sand hills running north to south and the A167 follows this ridge, with the Browney below and just to the west of it.



Map showing the former and current course of the River Browney
© Alan Rose

Directions 14

Retrace your steps a few metres to the bend in the track. Go over the stile on the right and follow the footpath up to the top of the hill. Stop when you reach some ruins.

15. Beautiful retreat

Beaurepaire ruins

Here the monks of Durham had a country retreat, a manor house where they could go to relax. They called it Beaurepaire which means 'Beautiful Retreat' in French. The estate was famous for its livestock and wild game. These are the remains of that manor house.

Do you remember seeing Bearpark village earlier? There were never any bears there! Instead, centuries of use turned 'Beaurepaire' into 'Bearpark'.



Engraving of the ruins of Beaurepaire (1784)
© SINE Project, University of Newcastle-upon-Tyne



The ruins of Beaurepaire
© Rory Walsh

In October 1346, a Scottish army of 15,000 men encamped here with their king, David, son of Robert the Bruce. They were about to join battle with an English army that had marched north from Yorkshire.

They ate all the famous Beaurepaire livestock and wild game! We will hear more about this later.

Directions 15

Retrace your steps back down to the farm track and turn right. Follow the track up hill, past a converted barn and farm house on the left, and after some time past another house on the left. Continue onwards over the stile or through the gate and follow the track.

At the highest point, where the electricity pylons on the left hand side come closest to the track, you are standing above the narrow valley of the Browney. Depending on the state of the vegetation it may be possible to see the river from here; but we are about to leave its valley and return to Durham.

Go through the gateway on the left hand side. Follow the footpath under the pylons and through the field. Just before the lowest point in the track, look left though a gap in the hedge.

16. More pitfalls

Dip in the track

Here is yet another pitfall – this was formed about 15 years ago. This is very much a dynamic landscape - new pitfalls appear every few years while older ones develop from waterlogged grassland into permanent ponds with real aquatic ecosystems.



Either side of the path are more pitfalls - look for the characteristic depressions
© Rory Walsh

While the former coalmine has left traces in the landscape, the track that we have been following is far older. It is known as Club Lane and was used in medieval times by the monks to travel between Durham and Beaurepaire Manor that we saw earlier.

Directions 16

Continue along the field path. When you reach a gate and stile on the left, go over and follow the track until it meets the main road.

Directly ahead, across the road, is the exit of the path you came along on the outward journey but you aren't going back down it.

Cross the road here with care. If you prefer, you can cross at the traffic island to the left. Stop here, standing with your back to the Whitesmocks road sign.



17. England 1, Scotland 0

Beside the A167 at Whitesmocks

Once again, we are standing on the enormous pile of sand and clay that separates the Browney valley from Flass Vale and Durham city centre. Looking right there's a deep dip. This is just a place where the former valley isn't filled to its full depth.

Now look left, uphill. Ahead, the road follows the north-south ridge referred to earlier. The Scots army advanced along this ridge, to meet the English, six and a half centuries ago. The narrowness and steep sides of the ridge put the Scots at a disadvantage and contributed to their crushing defeat – that and the unexpected appearance of 1,000 lethal English archers.



The Battle of Neville's Cross, 1346
From Froissart's Chronicle (CCL)

The Scots lost not just the battle and 5,000 of their number but also their king, David. It is said that he was found hiding under a nearby bridge over our River Browney and that his reflection in the river gave him away. Whether that's true or not, he still managed to knock two teeth out of his English captor.

The English king demanded a ransom of £66,000, equivalent to £15 million in current value – quite literally a king's ransom. He spent 11 years south of the border before he was allowed to return home. Apparently the canny Scots didn't pay a penny, but won him back through a treaty!

Directions 17

Continue uphill along the main road. Shortly before a bus stop there is a gravel driveway on the left leading to a large house. Don't go down the drive but instead down a path that's squeezed between the drive and the grounds of Durham Johnston Comprehensive School. This path will take you back down into Flass Vale.

Look out for a gap in the trees on the right that gives a fine view of Durham Cathedral. Continue downhill until you come to a crossroads of paths.



Look out for a glimpse of the Cathedral
from the top of the Vale
© Rory Walsh

18. In the Vale again

Footpath crossing, Flass Vale

We're now in Flass Vale again, but on the opposite side from the outward journey. In spring and summer the dense vegetation blocks the view across the Vale.

As the path starts to take us out of the Vale, watch out for signs of former activities. On the left of the path there are brick walls marking the site of a piggery, and a few ancient fruit trees where once there were orchards. On the right of the path are the remains of many small sand quarries. Look out too for culverts under the path, built in the last few years by the Friends of Flass Vale.



In the seemingly natural setting of Flass Vale, look out for evidence of human activity including small sand quarries (top left) and the remains of a piggery (top right). Also look out for the Activities of the Friends of Flass Vale including building culverts (bottom left) and removing invasive weeds to plant saplings (bottom right).
© Rory Walsh

Directions 18

From the crossroads, turn right and follow the path through the woods out of Flass Vale. Go down the road through the trees to another crossroads. Take the footpath opposite and to the right. Climb the steep steps up to Red Hills Lane and stop at the entrance to the Durham Miners building.

19. When the hills ran red

Corner of Red Hills Lane and Flass Street

The road to the right is Red Hills Lane – named, it is said, because it once ran with the blood of the slain Scotsmen that we heard about earlier.

To the left the road becomes Flass Street. You will be able to guess where that name came from. Can you see the line of a small valley crossing the road? You'll be able to guess what valley it is, too!

This is the last stop on our walk. We've come along North Road, walked along both sides of Flass Vale and seen how both are in a valley whose river no longer flows there.

Following the line of this valley out into the countryside we've seen how the upper Browney valley is closely aligned with Bearpark Bog and Flass Vale; that demonstrated that the Browney is Durham's missing river. Towards the end of the Ice Age, the valley was blocked with sand and clay and the Browney was diverted from its former path.

Although traces of the coal industry have been carefully hidden from view, we've also seen along the way how collapsed mine workings are still influencing the landscape.

Along the way we hope you've enjoyed the glimpses of Durham City's greenbelt and its wildlife. And if before this walk your mental picture of Northeast England was populated with pit-heaps and grimy-faced miners, we hope that mental image is now greener and more interesting!



Tranquil woodland and rolling fields on the edge of Durham city conceal a dramatic story of Ice Age erosion and deposition
© Rory Walsh

Directions 19

Turn left down Flass Street. At the bottom turn right into Sutton Street and go under the viaduct. Turn left at the main road, cross over at the traffic island and go under the building back to North Road roundabout. From there you can return to the railway station, bus station or car park that you started from.

Further information

Friends of Flass Vale

www.fofv.org.uk

Durham Mining Museum

www.dmm.org.uk

Keys to the past - Beaurepaire

www.keystothepast.info/durhamcc/K2P.nsf/K2PDetail?readform&PRN=D1308

Credits

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