EAST HETTON walk – approximately 21 minutes duration

Audio 1

Welcome to one of County Durham's highest viewpoints. This often windswept spot at the start of our walk gives us a chance to survey, in one glance, many centuries of change. Before we set off to discover the details, let's get our bearings.

Directly in front of us lies a broad expanse of trees. Only 25 years ago, our view would have been very different: we'd have been looking at the huge East Hetton pit heap, the debris of nearly 150 years of mining.

Either side of us are two small villages – Quarrington Hill to the right, Cassop to the left. They sprang up because of that pit – and they're still here, though that work has now all gone.

Look ahead beyond the trees; can you glimpse, in the distance, the new form of energy generation that's springing up? Four wind turbines now generate power - we'll find out more about them as we get closer.

And they followed a truly pioneering example, which you may see if you turn around. Did you notice it behind the school as you arrived? Cassop Primary School was the first in the UK to introduce its own wind turbine. It was opened by the local MP – who happened also to be the new Prime Minister –Tony Blair.

Turn back to face the hills and dales of southern County Durham. Our walk will take us through the centuries and the millennia. We'll spot clues that tell us about the lives of our ancestors, and the seeds of change, preparing this area for our descendants.

All this in just an hour … that's if you can resist the tempting paths and stiles you'll spot along the way. There's a stile to our right now, leading into the Crowtree Nature Reserve. Take a detour if you like! – but otherwise, let's set off along the bridle path. Our next stop will be at the bench where the path forks, after an earlier path to your right. You can settle down on the bench, for more information.

Audio 2

After walking through the hedgerows, our view has now opened up again. We're about to walk on the ground where the trees are very slowly establishing themselves, their roots in the poor soil on the remains of the former pit heap.

Below ground is the geological heritage that created the coal. But it also created much more than that. It has shaped our whole environment, and our lives here, over millions of years.

- Imagine the area behind our bench, stretching all the way to the North Sea. This land was once almost on top of the equator, submerged beneath a wide, shallow, tropical sea, where beds of limestone were accumulating.
  This was about three hundred million years ago, in a time called the Carboniferous era. Sand and mud drifted in, which allowed swamp and lush tropical rainforests to develop. Plant remains, like tree stumps, didn't decay completely in the wet conditions, and built up into layers of peat. Flooding brought in more layers of mud and sand, repeatedly, over millions of years. Eventually, the weight of

the sediment above, combined with the intense heat, hardened the peat deposits to become coal measures.
We'll be looking soon at how mankind set itself the challenge of digging out that coal, millions of years later.
But there's been one more geological phase which is still influencing our lives, and is very special to this area. About 280 million years ago, the North Pennines were created, at same time as a large area of desert in this part of County Durham. Another shallow sea flowed in, and the result was the formation of layers of Magnesian Limestone. One treasured example here is the Littlewood Local Nature Reserve – thankfully untouched by the upheaval of the mines so close by. This contains a small pocket of Magnesian Limestone grassland, one of the UK's rarest habitats.

Perhaps rather less picturesque are the local quarries, which also arose from this geological heritage. But limestone makes an attractive building material and some of our most celebrated buildings, even a world heritage site, have risen from these great scars on the landscape. Can you guess which is the nearest? Its Durham Cathedral – Magnesian Limestone was used to cement together its stones.

Time now to move on. As you take the right hand path, look over to the right. This is a reminder that, despite the demands of six days a week down the mines, there was still the energy to enjoy the pleasure of sport. This was the site of the football ground, before the Second World War. It must have been one of the highest in Durham – doubtless frozen on many occasions – and after the Second World War, it was relocated lower down in the valley.

Our next stop will be close to the heart of the colliery. Please pause when you reach the fork where the path drops down to your right, about 20 minutes through the plantation.

Audio 3

You are now standing at the start of the main area of mine workings. Look to your left: the whole of this area would have been covered by buildings. To your right on the lower ground was the brickworks. Looking straight ahead, crossing your view from right to left would have been trains on the railway branch line. They travelled from the railway sidings here, along the valley to your left, and all the way out to the coast.

This huge colliery works began back in 1836 when the first shaft was sunk by the East Hetton Coal Company. Within a year, two more followed. The mines went from strength to strength, attracting so many workers that a whole new village had to be built.

A miner from a century later describes for us his life underground, experiences which help us picture the conditions faced by those earlier miners.

I worked down a coal mine, dark, if your light went out you couldn't see anything, you couldn't even see your finger like that, in front of you, an inch in front, you had to feel your way around. It was smelly. But we didn't notice much of that because we were little, I was only 14 when I went down the coal mine.

When the mine's ownership changed hands in 1880, it was estimated there were nine million tons of coal They thought it was likely to last around 35 years. In reality the mine continued for another century. At its peak, it employed more than 15 hundred people, and at the start of the 1900s, there were over a hundred coke ovens and a gas works.

Imagine the cacophony of noise:

AUDIO BURST – approximately 20 seconds

Such powerhouses of production saw constant technological change. Within thirty years, the pit ponies were no longer needed. Coal was cut mechanically rather than by hand, with conveyors replacing horse-drawn wagons.

Let's share the nostalgia of one local person for the ponies which went underground.

That field there would be where the pit ponies came out the field for a rest. We used to sneak up there and have a ride on them like. Roy Rogers, we used to pretend we were. We used to ride round the field on the back of the pit ponies, they were friendly little animals, used to come out every so often and everybody used to go down with crusts of bread and feed them, they got to know you. Very intelligent things.

This intense activity is quite a contrast with the sights and sounds of our walk now. The hoof marks we see along these walks are now the horses used for leisure, not labour.

As you stroll to the next spot, listen carefully. See if you can spot some of the wildlife we'll be finding out about in a moment. Deer and hares may well be hiding, and you'll have to be very quiet if you want a chance to see them. Our next pause will be just before we drop down, by the interpretation board.

Audio 4

Our walk is showing us the large scale of the area covered by the mine works. Here we get some insight into the huge impact on the lives of generations of people.

Look down the path and beyond the road – half a mile further on, a whole new village had to be built to accommodate the influx of workers. What this area saw in miniature was happening on a vast scale all around the county: Durham's population rose from about 70,000 people in the early 1800s to 600,000 just over a century later – that's more than twice what the population is now.

East Hetton, or 'Old Kelloe' as it was known by local people, consisted of about 300 houses in eight colliery terraces.

Let's read the memories of a resident of the village: *The pit was called East Hetton Colliery and was a mile away from the village, so we were away from pit noise and smell. It was built for the miners who lived in cottages or houses made of lime and stone. Only the main road had a proper surface. The rest of the paths were "undeveloped" and so very rough.*

The miners went to work with picks, and with their cans and bait tins with water and food to be eaten down the pit or at bank.

We heard the buzzers blow four times a day because there were four shifts. One started at 3.00 a.m. for coal workers and we heard the 'knocker' at the right doors. There was a slate with a time on these doors. The blacksmiths, mechanics, etc. who worked above the mine went to work at 6 a.m. They were knocked up at 5 a.m. The man who did the knocking up was a 'caller'.

The coal went from the pit to Coxhoe Bridge Station, about 2 miles. I learned my 3 and 9 times table by adding up the numbers on each coal truck as they went past.

A hundred years ago, the new village was thriving; in 1906 there were 6 public houses, a hotel, 3 grocers, 2 newsagents, a shoe maker, an insurance agent and fruiterer.

But just 40 years later, the village was demolished. The houses were of poor quality, and nearby Kelloe gradually grew instead. The area it occupied is now empty fields and allotments.

It's a contrast with the building opposite us, which we've been glimpsing on and off since the start of the walk. Kelloe Hall Farm was here long before the mines. It's on the site of the original fortified manor built by a French lord, who arrived with the invading William the Conqueror – in fact the farm still has the original cellars, from a thousand years ago.

The story goes that the local Anglo-Saxons had problems pronouncing the name of their new French ruler. So he adopted a name derived from the local hill. "Kell" was probably a local family or tribal name, and "Law" was a mound. Kell's Law became Kelloe – the name we still use.

Those farming families on the hill have seen a village grow from scratch, then die. They also witnessed the vast expansion of the mining works, which have now almost vanished.

Let's walk down to the road now. Our next stop is by the new gate.

Audio 5

We're about to enter the Kelloe Beck Valley – watch out, this area can be boggy.

What you're seeing is an astonishing recovery of nature. For many decades, parts of this valley vanished under huge quantities of coal slurry – black greasy sludge, with dead trees poking through.

Here's how one person remembers it.

…at this point we have a large open valley that was once where the slurry pits were for East Hetton colliery, there's hundreds of thousands of tons of slurry taken out of here, it was quite notable for the woodland that was dead or decaying as the trees were encompassed in pit slurry, it had a very surreal view of it. Now we can see, since the reclamation, real nice tranquillity

What's left is thin poor quality soil – but this echoes the kind of soil which is typical of the limestone landscapes. So it means the species which are slowly recovering are natural to the area: orchids, fair flax, autumn gentian and many more, create colourful meadows in summer. In turn, this attracts butterflies – 18 species have been counted to date, including the rare brown argus.

You'll notice that small ponds are being created; these are to help bring back habitats for frogs, toads and newts.

You may have noticed different types of bird on your walk - here are some examples of their songs to listen out for. The first is a skylark, followed by a goldfinch.

AUDIO BURST:

Other calls you may hear are longtailed tits and green woodpeckers.

AUDIO BURST:

The restoration of the wetlands may bring back other species for stopovers – lapwings, curlews and snipe – attracted as more ponds become established.

Today's return to nature makes it hard to imagine that a railway once ran along this valley. It followed the curve to the right – and eventually joined up with the North Eastern Railway Hartlepool line.

Our next stop will be after we leave the valley. As soon as you cross the brook, swing to the left, and head gradually uphill. After the gate, you'll find a bench, just after a crossroads in the path.

Audio 6

Although the path to our right looks the main one, it is the smaller path straight ahead up the hill which takes us back to the main road.

Before we start to stroll back to the present day, let's rest on the bench and reflect on what we've seen and learned.

Signs of water are all around us – the stream, the culverts, the new ponds. They're now helping enrich the local wildlife, but over the last 200 years, this same water was a constant threat for the mines, and eventually was to cause their closure, with the loss of livelihoods for 900 workers. Flooding meant there was a constant need to drain the limestone water from the collieries.

In 1855 a disused shaft at Kelloe Colliery was sunk down to the Main Coal seam to pump out the excess water encountered in these workings.

A diary entry remembered the event: a new special engine had to pump out fourteen hundred gallons a minute.

Despite these efforts, the waters led to tragedy. In 1897, there was an inrush of water from 'Cassop Harvey' old workings. Ten men lost their lives.

The Times of the 7th of May 1897 reported:
An accident occurred at East Hetton Colliery, in the early hours of yesterday morning, by which 11 lives are supposed to have been lost. The night shift men had left the pit, and one overman named ***Thomas Morley*** *and 13 workmen descended to prepare the mine for the next shift.*

About 4 o'clock ***Morley*** *heard a rumbling sound, and realised that a flood had burst into the seam. The flood had come from the disused Cassop workings, in which the water had apparently accumulated to a tremendous extent.*

It at once involved the men. ***Morley*** *escaped, with* ***John Foster*** *and* ***John Stanton****. Nothing was heard or seen by the three survivors of their 11 companions.*

Remarkably, a pit deputy, John Wilson, was rescued alive four days after the incident. He survived being in the flooded workings for nearly 100 hours.

Following his discovery, he was taken to the colliery offices and given Valentines Meat Juice and brandy at regular intervals.

These events came just 15 years after another accident. In 1882 there was an explosion at Trimdon Grange caused by a gas escape. The collieries were connected, and it cost six East Hetton men their lives. However this sadness was overshadowed by the scale of bereavement at Trimdon Grange: 68 men and boys. 26 of those were from nearby Old Kelloe. There is a memorial to the disaster in the churchyard there.

Despite these tragedies, a hundred years later, at the beginning of 1983, the colliery was still busy, and investigations were being carried out into expanding further. But a shock was in store.

As the new seam was drilled, water flowed through the roof from the disused Thornley Colliery. It was discovered that the men were working 90 feet below 173 million gallons of water. So, instead of expanding, East Hetton Colliery was closed, in June 1983, with the loss of 873 jobs.

The noisy hubbub, which had surrounded this place for nearly 150 years, fell silent.

Our next stop is the bench, on the high point of the path.

Audio 7

We've had various views of the four wind turbines on our walk. These were installed in 2008, but not without a fight. There were local protests, and as a result, the height was reduced from 125 metres to 75.

However, it's interesting to compare this with the destruction and deaths arising from the mines.

We're now starting to see more sections of the thousands of saplings being planted here. To your right is part of the Jubilee woods, one of sixty woodlands created to mark the Queen's Diamond Jubilee in 2012. An amazing eighty thousand trees have been planted here over more than 60 acres; it's a mix of native broadleaf trees such as oak, beech and hawthorn. County Durham has involved schools and local communities more than almost anywhere in the UK, and it was a school which came up with the name chosen – Harvey Wood. It was based on one of the coal seams in the East Hetton colliery.

Fifty years from now, this view will be very different, harking back to the forests which covered medieval Britain and gave shelter to wildlife.

Audio 8

We're almost back where we began.

We've been walking today through routes trodden by feet many centuries before the mines were sunk.

The reintroduction of these public walkways is an echo of a network of paths that was unusually busy in this area back in medieval days. Although the population here was small, local people had no choice but to regularly make their way over these hills. That was because they were obliged to pay their form of local tax – called tithes – at a church. And the only one here was the small church at Kelloe. It was one of the earliest in the country, built after monks from Lindisfarne visited around the year 700 to spread the new Christian gospel. So it became a sort of crossroads, with people walking from all directions to ensure they kept within the law and paid up on time.

As we come back to the here and now, you may be tempted to take a detour through the nature reserve. But here's a final reminder of the demands of the mines, marked in verse by a poet from Kelloe.

Despite the tragedies, and the toil, the abiding theme for this man, James Carter, is in fact a celebration. For him, the special spirit of collective life – in the pit, in the unions, in the villages – transcends all else.

Here are some excerpts from his poem, about the daily targets for hewing coal, written in 1872.

"Fifty Score a Day (and how we get them at Kelloe)" James Carter, Kelloe, May 30th, 1872. (source: Durham Mining Museum)

Ye Kelloe folks, list to my rhyme, I will not dwell much on your time, For all that I have got to say, Belongs to Fifty score a day.

At two o'clock a.m. (sometimes before). You hear a knocking at your door; Get up my lads, and gan away, And let's have Fifty score to-day.

Full well you know old Jackey's shout, For he for years has gone about, Knocking and shouting in this way, Trying for Fifty score a day.

Each hewer from his bed must rise, Put on his claes and rub his eyes, Then to the colliery haste away, To work for Fifty score a day.

Into your places you must tramp, With picks and drills and davy-lamps; Some with jumpers, candle and clay, Go in for Fifty score a day.

At half-past five the lads come down, Some, perhaps, not quite so soon, To put and drive the coals away. And get the Fifty score a day.

At six o'clock the pit hangs on, Horses and ponies then must run, And engines must be put away, For Fifty score we want today

Five men to keep the boilers right, Three through the day and two at night; "Keep up the steam," the brakesmen say, "And let's have Fifty score a day."

The weighmen, also, do their share, For every day they must be there, To weigh the coals that comes away, And count the Fifty score a day.

Screenmen and underkeepers, too, Have each their share of work to do, They screen and send the coals away, That's got by Fifty score a day.

Some boys on to the trucks are sent, To pick our brasses, stones and splint; And here we all must join and say, They help for Fifty score a day

But I have not yet got them all, Some boys there are who put the small, They push the tubs along the way, To get the Fifty score a day.

Blacksmiths and joiners at command, At work they go, both heart and hand; The buzzer's gone, so work away, And let's have Fifty score to-day.

The masons we must not pass by, Should wall give way, for them we cry; Hindmarch must come without delay, And help for Fifty score a day.

The lampmen, too, must have their turn, They trim the lamps to make them burn; Were they not there with truth I say, We would'nt get Fifty score a day.

At five o'clock the pit will stop, And then the work is counted up; And Robert Humble, perhaps will say, "We have'nt got Fifty score to-day."

And now, kind friends, my rhyme is done, (Perhaps you think its not too soon), But just before you go away, Another word I wish to say, About this Fifty score a day.

Unlearned tho' my rhyme appears, Throughout the piece one fact is clear, In matters either great or small, We each require the aid of ALL

And if we each on each depend, While on this earth our time we spend Should not our rule and motto be, To live in love and unity?

Far from us, then be jars and strife, Let peace and concord mark our life; And let us all now join and say, Hurrah! For Fifty score a day.

Fade into medley pit sounds then birdsong then music then fade out – approximately 20 seconds.