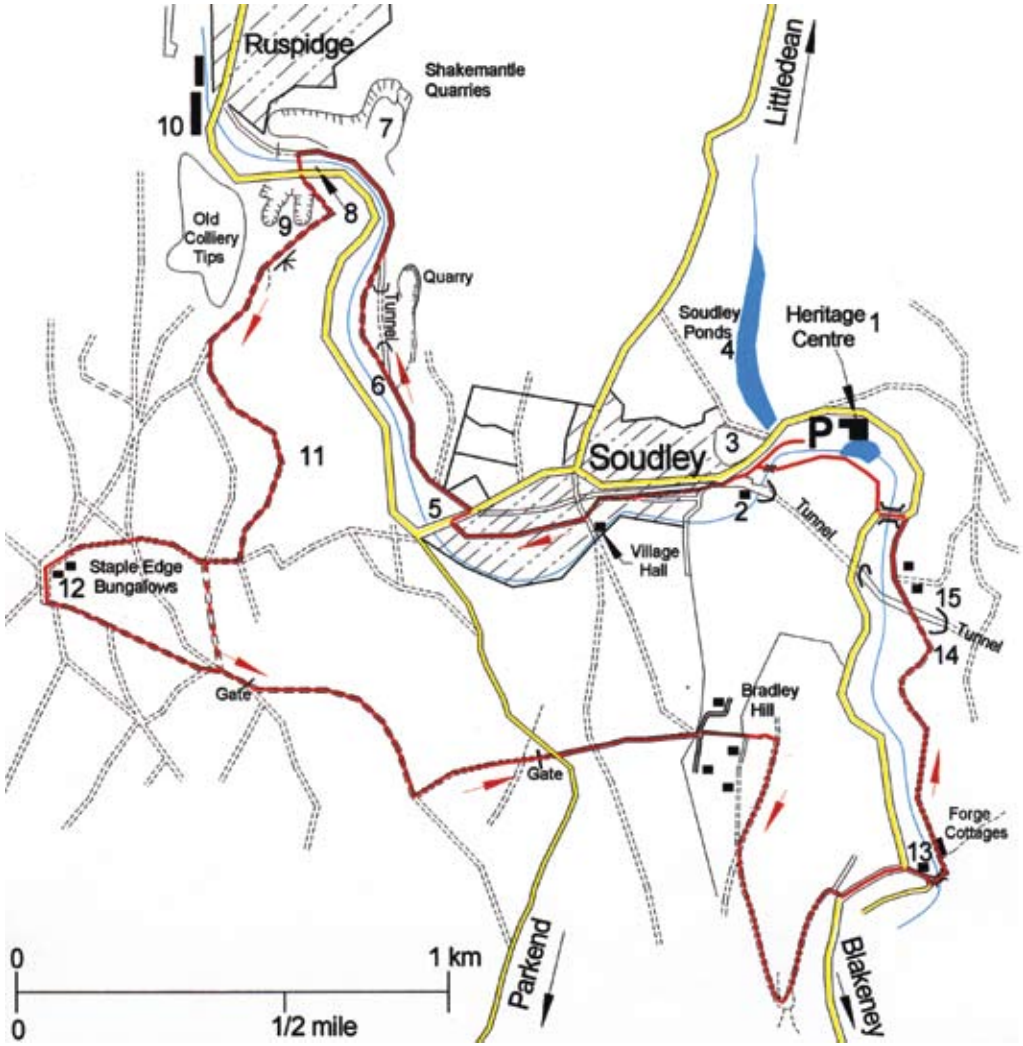
Walk 3

5½ miles (8 km)

Soudley, Staple Edge, and Bradley Hill

Coal and iron mine remains, geology, attractive woodland (particularly in the bluebell season), and a heritage museum. The walk is mostly on forest tracks and old railway trackbeds, with two fairly gentle ascents, but steeper descents; 1 stile.

START at the Dean Heritage Centre car park at Lower Soudley on the Blakeney to Cinderford Road (small charge for those not visiting the museum or café): GR SO 664106. **Refreshments:** Café at Dean Heritage Centre; White Horse pub, Soudley. **Bus:** 717 (Lydney–Cinderford) to Soudley.



THE DEAN HERITAGE CENTRE is housed in the former Camp Mill *(1)* and is well worth a visit. Leave the far end of the parking area, near the childrens' playground and woodworking area, over the plank bridge, and bear right to climb steps leading to a footpath. Turn left and then bear right after about 100 yds, noting the small stone bridge over the stream and the railway embankment on your left. Continue to a tarmac lane, with the Bradley Hill Tunnel and crossing keeper's cottage of the former Great Western Railway's Forest of Dean Branch *(2)* on the left. Soudley Camp (an ancient earthwork, *3*) and Soudley Ponds *(4)* are a short distance to the right along the main road. Turn left along the lane, but soon bear right on the second (less overgrown) of two grass tracks, which soon rejoins the lane near some houses. The lane becomes a footpath (with the site of Upper Soudley Halt on the right), then a lane again, bearing left downhill. Continue ahead at the crossroads, eventually curving right to a T-junction at the main road. Turn right here, then go left after 30 yds onto a track past a barrier.

This is the old railway trackbed, which is now part of the Soudley Valley Geology Trail *(5)*. After some 500 yds (just before Blue Rock Tunnel, with Blue Rock Quarry up steps on the right), down on the left is a sculpture *(The Hod Boy, 6)*, which commemorates the use of child labour in the collieries; there is also a memorial to the sheep culled in the foot-and-mouth epidemic of 2001. Continue past the far (northern) end of the tunnel (on your right), and keep left at a fork. The right-hand track was originally a short railway branch into Shakemantle Iron Mine and Limestone Quarry *(7)*; note the remains of sleepers and the stone bridge over the stream. About 60 yds before a metal barrier and footbridge, turn left up a steep, narrow path onto a road. In the undergrowth below the road about 100 yds to the left is the covered-in shaft of Perseverance Iron Mine *(8)*.

Cross the road with care, and bear left up the track opposite, past a metal barrier. This track gradually bends right uphill, with old sandstone quarries *(9)* on the right and views of Shakemantle Quarry on the left. After a while, where the track goes under power lines, views of the Soudley Valley and part of the Geology Trail, with the Cotswolds in the distance, can be seen on the left. The track now bends left past the old waste tips of Eastern United Colliery *(10)* on the right. Just after the track bends right, take the first of two grassy tracks on the left. After about 300 yds (as the track starts to bend right), look out for a stone chimney some 60 yds away in the woods on the left. This is a ventilation chimney for Findall Iron Mine *(11)*. It is worth a short detour to look at the old iron workings or 'scowles' beneath the chimney, which can best be viewed by following the fence a few yards downhill to the left, before retracing your steps to the main track. Continue for another 300 yds to a cross track, and turn right. After 100 yds another cross track, at a marker post, is reached. The walk may be shortened at this point by turning left, then left again after 250 yds. Otherwise, continue ahead uphill, soon entering pine forest, over a forest road, and past an open area on the left to emerge onto a gravel road near some buildings (Staple Edge Lodge, *12*), here keeping left. Continue bearing left, ignoring stiles on the right, to reach a straight length of the forest road. After about 400 yds the short cut comes in from the left. Keep generally ahead through a gate (with a stile on its right) across the road, and immediately bear left onto a grass track. This eventually curves right downhill (more views of the Cotswolds), turns sharp left following a fence, and continues to a gate (and adjacent stile) just before a tarmac road.

Cross the road and follow the lane opposite, signposted Bradley Hill. The woods here have a stunning display of bluebells in the spring. At a crossroads, continue generally ahead up a rough track to the left of a house. Where this track turns right, keep ahead up a track for 60 yds to a T-junction. Turn right here, then fork left after about 350 yds onto a crossing track which soon heads downhill. On reaching a small clearing, turn sharp left

onto a broader track, still heading downhill. Turn right at the bottom, then left onto a main road. Follow the road (with care) for 200 yds to a left-hand bend, where you go right down a lane past Bradley House *(13)*. Turn left at the bottom of the hill onto a bridleway (signed), which follows the valley past Forge Cottages. This was originally a tramroad. It soon becomes a footpath, then a gravel track again. The site of Soudley Ironworks *(14)* is passed, followed by Haie Hill Tunnel (on the right, *15*) and Bradley Hill Tunnel (on the left, the other end was seen near the start of the walk) on the Forest of Dean Branch. Turn left at the main road, then after 100 yds take the second track on the right, heading uphill on a grass track. Keep the boundary fence of the Dean Heritage Centre on your right until you come to the stone bridge seen at the start of the walk. Cross this, turn right, then right again down the steps to return to the car park.

Camp Mill (1)

The first recorded use of the site on the Soudley Brook (in 1823) was an iron foundry, which was later run by Samuel Hewlett of Bradley; however, the site is probably much older. The present building, first used as a corn mill, dates from 1876. It soon became a wood turnery, and the Dulcote Leatherboard Co. used it from 1902–11. James Joiner ran a sawmill here between 1920 and 1952, after which it became a piggery and then a scrapyard. In 1981, Stanley Joiner purchased the site to house the Dean Heritage Museum. This describes the history of the Forest from the Ice Age to the present day, and should not be missed. There are displays describing the geology, prehistoric and Roman periods, the medieval hunting forest, industries (notably coal and iron mining), and cottage crafts. A pre-1830s beam engine from Lightmoor Colliery, built by Hewlett's Iron Foundry at Camp Mill, is now preserved here. Outdoor exhibits include a Forester's Cottage, woodworking area, charcoal burner's camp, and a replica of a free mine. There is also a blacksmith, library, café, picnic area, and adventure playground.

Forest of Dean Branch (2)

The Bullo Pill Railway Co. Act of 10 June 1809 authorised construction of a horse tramroad from Bullo Pill to Cinderford Bridge and Churchway, with several short branches. The first section opened in about 1810, and the tramroad was used to transport coal, iron ore, stone, timber, and bricks down to the Severn at Bullo. By 1826 the tramroad was almost at a standstill, and it was bought by Edward Protheroe, a prominent coal owner and chairman of the Severn & Wye Railway ***(Walk 7)***. A new company, the Forest of Dean Railway Co. was formed with Protheroe as chairman. This was taken over by the South Wales Railway (SWR, see Walk 4) in 1851 and the tramroad was replaced by a broad-gauge locomotive railway to Churchway, which opened to goods traffic on 24 July 1854. The SWR became part of the Great Western Railway in 1863, and the line (by then the FoD Branch of the GWR) was converted to standard gauge

in 1872. Passenger services, using steam railmotors, from Newnham, on the SWR main line, to Steam Mills (soon extended to Drybrook) began on 3 August 1907, and a loop to enable branch trains to reach Cinderford station (opened by the Severn and Wye Railway in 1900) was opened in April 1908. There were intermediate halts at Ruddle Road (short-lived), Bullo Cross, Upper Soudley, Staple Edge, Ruspidge, and Bilson. Passenger services to Drybrook ended on 7 July 1930, and to Cinderford on 1 November 1958, but goods traffic lasted until 1967. In 1953 there were three services each way between Newnham and Cinderford, with more on Saturdays.

Soudley Camp (3)

The origins of this small earthwork on the end of the ridge near the southern end of Soudley Ponds are uncertain. It may have been used in Iron Age, Roman, and medieval times, as it is situated near an ancient trackway that was certainly in use by the Roman period.

Soudley Ponds (4)

The ponds were built as a water supply for the ironworks a little way down the Soudley Valley. They are now a haven for wildlife, including birds, beetles, and dragonflies. The surrounding woods are dominated by alder, oak, and birch, with coppiced hazel, as well as conifer plantations. The path around the ponds is suitable for wheelchairs.

Soudley Valley Geology Trail (5)

An excellent leaflet, published by the Gloucestershire Geology Trust, describes the geology of this part of the Soudley Valley, with details of 10 sites. Only a few of the more important features will be mentioned here, and the Trail is well worth walking on its own. The rocks on the left of the cutting belong to the Devonian Old Red Sandstone and were deposited in a large river system. They are quite steeply dipping, but the Brownstones (mudstone, sandstone, and conglomerate) are overlain by, and are therefore older than, the pebbly Quartz Conglomerate. The two rock units are separated by an unconformity, which represents a period of erosion, and therefore a time gap. Outcrops further along on the right, before the old railway tunnel, consist of Tintern Sandstone (the upper, youngest part of the Old Red Sandstone), followed by the Lower Limestone Shale and Lower Dolomite (both part of the Carboniferous Limestone Series). The composition of the latter rocks shows that the area had by then been covered by the sea. They can be seen in Blue Rock Quarry, reached up steps on the right before the railway tunnel, and near the far end of the tunnel.

The Hod Boy (6)

Cyril Hart describes the use of hod boys in the collieries in his Industrial History of Dean (1971). "Owing to the thinness of the seams it was necessary to be sparing in the driving of roads, and where the gradient of the seam was steep, say above 6°, hod-roads were driven to the rise. The underground haulage system was of a primitive character, and in the steep measures coal was brought down to the loading stages in hods, shallow wooden boxes

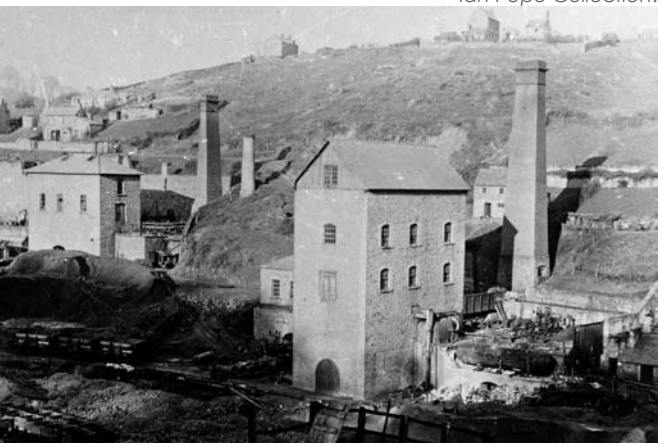
about 2½ft long x 1½ft wide x 4in deep, mounted on two slides or trotters in the style of a sleigh. The hods were generally drawn by boys (paid about 6d [=2½p] a ton in 1889) with a harness, called a girdle – a wide leather strap, split in the middle to slip over the head, so that part rested on each shoulder; the two ends were brought together at the bottom, before and behind, and a chain with a hook was attached. The hod-roads were usually cut 4½ to 5ft high by 5ft wide, but owing to the heaving-up or 'pucking up' of the floor the height did not usually exceed 2½ft. Such exacting conditions in which young boys had to work (women up to about 1810 also did the same task) are difficult to imagine. Fortunately this often cruel and always exhausting operation was abolished before the close of the nineteenth century." The sculptor of the Hod Boy was John Wakefield, who, together with Graham Tyler, also produced the Miners' Memorial at New Fancy picnic site.

King's Furnace was erected here in 1612–3, during the reign of James I. It had a stack 28 ft square at the base and utilised a 22 ft diameter water wheel. The ironworks supplied shot to Royalist forces during the siege of Gloucester in August 1647. It was probably demolished soon after the trial and execution of Charles I in 1649, when Parliament ordered the destruction of all the ironworks in the Forest. A short distance downstream, on the opposite side of Soudley Brook, is Brinchcombe Limestone Level, which seems to be the one shown as an "Ironstone Level" on the 1878 Ordnance Survey map. It has wide passages (about 7 x 8 ft) and is thought to have been used as a source of limestone for flux in nearby blast furnaces.

Shakemantle Iron Mine and Limestone Quarry (7)

Shakemantle Iron Mine, which has a complex history, was the southern point in an extensive area of iron-mine workings which extended 2½ miles to the north. In 1829 the Cinderford Iron Co. sank a shaft (Lime Kiln Iron Mine), which may have been on the Cinderford Iron Mine gale on which the Shakemantle shafts were situated. Several other gales were added to the area to form part of Buckshaft Iron Mine, about ½ ml to the north, which was leased to Richard Cooper in 1834; a shaft was sunk here in 1835. In 1841 the gales were awarded to William Crawshay of Cyfarthfa Castle and Moses Teague of Cinderford, who were also involved with Cinderford Ironworks and Lightmoor Colliery. A shaft was sunk in 1849 on the St Annal's gale, about 2 mls to the north, which was added to the area, and a second shaft (Deep Pit) at Shakemantle in the 1850s. Shakemantle Mines thus comprised four shafts: St Annal's (657 ft deep), Buckshaft (or Buckshraft, 620 ft), Shakemantle Land (at least 230 ft), and Shakemantle Deep (about 470 ft). There were four levels, driven in the Crease Limestone, connecting these workings, together with two crosscuts to ore in the Drybrook Sandstone. As the workings extended to a depth of nearly 900 ft there were problems with water, and a 36-inch pumping engine was installed on the Land Pit and a 60-inch engine on the Deep Pit. There was a siding on the GWR's Forest of Dean Branch, but most of the ore was sent to Cinderford Ironworks on

Shakemantle mine in about 1900. *Ian Pope Collection.*



Crawshay's private tramroad. Output declined during the 1890s due to closure of the ironworks in 1894, the increasing difficulty of extraction, and cheap imports of Spanish ore. An attempt at further development in 1898 was unsuccessful, and the mine was closed in September 1899, the remaining 160 men and boys being paid off. The total output of the Buckshaft–Shakemantle–St Annal's group of mines between 1841 and 1899 was 1 650 000 tons of ore.

The iron mine site was purchased by Arthur Morgan, a director of H. Crawshay & Co., in 1907. The intention was to develop an old quarry near the site to produce railway ballast and road metal. Following a dispute with the Crown over royalty fees, the quarry was assigned to the Basic Lime & Stone Co. Ltd in 1911. The stone was to be loaded onto wagons at Shakemantle Siding on the Forest of Dean Branch, but there was another dispute with the Crown, who wanted the use of these facilities for loading timber. The lease of the quarry was transferred to the Porthywaen Lime & Basic Co. Ltd in 1916, but it was some years before it was working. This company was taken over by the Steetley Lime & Building Stone Co., who operated the quarry until 1948. It was being worked by the Shakemantle Quarry Co. by 1962, although a proposal to send railway ballast from the quarry was foiled by closure of the branch. It belonged to Foster, Yeoman & Co. Ltd by 1971. Shakemantle Quarry worked almost the entire thickness (168 ft) of the Lower Dolomite and 35 ft of the overlying dolomitic Crease Limestone, both part of the Carboniferous Limestone Series. The rocks dip westwards at 50–60°. Remains of some buildings and structures (e.g., loading facilities and screens) survive.

Perseverance Iron Mine (8)

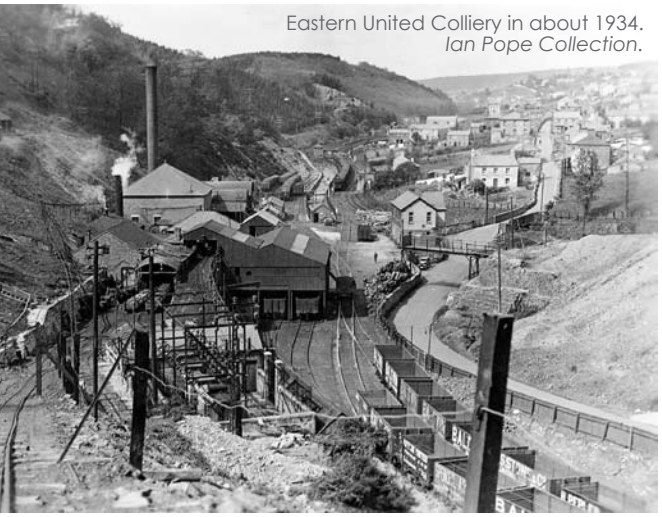
The Perseverance and Findall Iron Mine gale was owned by Edward Protheroe and William Crawshay by 1841, although Perseverance Pit and Findall Level ***(see 11)*** were worked separately at that time. The Perseverance shaft (sunk at some time before 1855) was 385 ft deep and there were two levels, each nearly a mile long. There were also two surface levels, including Findall Level, which were used for drainage. All the underground levels were driven in the mineralised Crease Limestone. In later years the mine was worked by Henry Crawshay & Co. Ltd and a cut-out was driven from the bottom of Perseverance Shaft to Shakemantle Mine. 1537 tons of ore were produced in 1880. There was a siding on the Forest of Dean Branch, but much of the ore may have been sent to Cinderford Ironworks on Crawshay's private tramroad. The mine closed at the same time as Shakemantle, in September 1899.

Sandstone Quarries (9)

These quarries were dug in the Drybrook Sandstone, the upper, youngest part of the Carboniferous Limestone Series. The sandstones, with minor shales and conglomerates, are thought to have been deposited by a large river, which indicates that the area had by now been uplifted above sea level.

Eastern United Colliery (10)

The Eastern United Colliery gale was one of seven areas into which the deep gales of the coalfield were amalgamated by the 1904 Dean Forest (Mines) Act. It was acquired by Henry Crawshay & Co. Ltd in 1907. Driving of two sloping adits or 'dipples', the larger 10 ft wide by 7 ft high, on the site of the old Findall Colliery began in 1909, but the Walmer's shaft was retained for ventilation. The object was to work the lower part of the Upper Coal Measures, containing mainly steam coals, including the Coleford High Delf Seam. Sidings connected to the Forest of Dean Branch were completed in 1909, and the first coal was sold in 1910. However, it was not until 1916 that serious geological problems were overcome: the seams were lost in the main headings due to folding of the strata and were only re-located by driving lengthy cross dipples. The larger dipple was used for tub haulage, using a steam-powered endless rope system (electric locomotives


Eastern United Colliery in about 1934.
Ian Pope Collection.

were later used in some parts of the mine), and electric pumps were installed. Coal output increased from 58038 tons in 1920 to 239747 tons in 1930 and 283666 tons (the peak) in 1937, by which time new screens had been installed. Thereafter, costs rose due to declining production (112187 tons in 1955), geological difficulties, and water ingress. The colliery, by then owned by the National Coal Board, closed from 30th January 1959. 23 fatalities are known between 1911 and 1957. As can be seen, an attempt was made to rework the tip for coal and stone. The colliery site is now used by light industrial firms, although a two-storey house by the site entrance, which was originally the mine offices, and the brick pithead baths building (across the Cinderford–Blakeney road) survive.

Findall Iron Mine (11)

The Perseverance and Findall Iron Mine gale was owned by Edward Protheroe and William Crawshay by 1841, although Perseverance Pit ***(see 8)*** and Findall Level were then worked separately. Findall (or Scilly Point) Level had been driven before 1841. It produced ore for Protheroe's blast furnaces at Soudley, but these temporarily closed in 1842. The level was sold to a Mr James of Lydney in 1845, and may have passed to Benjamin Gibbon when he bought the Soudley furnaces in 1857. Both the level and furnaces went to Maximilian Low in 1873, but production ceased in about 1877. There was a connection, via a tramroad, to Scilly (or Silly) Point Siding on the Forest of Dean Branch. Findall Level was connected underground to another level in Perseverance Mine. The 45-ft sandstone ventilation chimney, complete with firebox, on the hillside above was connected via stone flues down a scowle hole (part of Cudleigh Holes) and underground workings to Findall Mine. The ancient near-surface workings known as 'scowles' ***(see Walk 9)*** closely follow the outcrop of the Crease Limestone, which hosts most of the iron ore in the Forest. In later years Perseverance Mine was worked by Henry Crawshay & Co. Ltd and Findall Level was used for drainage of Perseverance and possibly Shakemantle, both of which closed in September 1899. The chimney and firebox were restored in 1975–6.


Findall iron mine ventilation chimney and 'scowles'.

Staple Edge Bungalows (12)

After excessive timber felling by Sir John Wintour (or Wynter) in the mid-17th century, the Dean Forest (Reafforestation) Act of 1668 allowed the enclosure of 11 000 acres, divided into six Walks, each with a lodge, which housed a keeper ***(see Walk 5)***. Further problems led to a new Enclosure Act in 1808. This allowed construction of 24 new lodges, including one here at Staple Edge (dated 1809). The original lodge was demolished (only an outbuilding remains) and a bungalow built on the site in 1926.

Bradley House (13)

Bradley Forge dates from 1628, and was rebuilt in about 1770. In 1820 Samuel Hewlett converted the old forge into a foundry, which supplied tram plates and mileposts for Forest tramroads. There was a tramroad connection to the Forest of Dean line at Haie Hill Tunnel. The works were later acquired by the Great Western Ironworks, owners of Soudley Ironworks. Bradley House was the home of Samuel Hewlett.

Soudley Ironworks (14)

Iron has been worked in the Soudley area since 1565. A pair of blast furnaces was erected by Edward Protheroe in 1836–7, but only worked until 1842. The works were served by a branch tramroad of the Forest of Dean Railway. For the next 30 years, the ironworks had a chequered history, with long periods of closure, under several owners. The Great Western Iron Co. Ltd was formed in 1875 and a modernisation programme begun. Waste gases from the furnaces were recycled through the blast furnace stoves and the boilers of the blowing engines, thus saving fuel. Unfortunately the venture was not a success, and only one of the modified furnaces was ever used, and that only until 1877. The cost of importing Spanish ore had become prohibitive, and the company was wound up in 1879. The site was later use by the Cinderford Crushing Co., which produced ballast derived from ironworks slag, exported via newly-constructed sidings. In 1899 such ballast was used in construction of the Severn and Wye Railway's Cinderford extension and the new Ruspidge–Blakeney Road. The ironworks chimneys were demolished in the same year, but the site was not finally cleared until about 1907.

Haie Hill Tunnel (15)

The major engineering feature on the Forest of Dean Railway was the 1064 yard long Haie Hill Tunnel, originally constructed in 1809 as part of the Bullo Pill Railway's tramroad and enlarged to accommodate broad-gauge trains in 1851–4. When built, it was one of the longest railway tunnels in the world ***(see also Walk 12)***. The nearby Bradley Hill (299 yds) and Blue Rock (109 yds) tunnels were only constructed at the time of the conversion to broad gauge to avoid the tight curves of the tramroad.