

DELVING IN DEAN: THE DELVES AN AREA OF UNRECORDED EARLY COAL MINING

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Introduction.

The densely wooded Delves Inclosures nos.1 and 2 lie north west of Cinderford, bounded to the north by the A 4136, to the east by the Northern United Colliery site, and to the west by the Forestry Commission tarred road which runs south west into the forest from the A 4136 near the filling station at Brierley; to the south, the trees extend to the modern forestry track which, starting from the south east corner of the Northern United site, runs south west, joining the cycle way, to the above mentioned forest road from Brierley. However, the southern boundary of the Delves is shown on the modern O.S. 1:25,000 map OL 14, and on earlier large scale O.S. maps (1) as being generally a little to the north of this, following the line of the former branch tramroad, opened in 1810, which ran eastwards from the main line of the Severn and Wye tramroad at Mirystock to Churchway, a former colliery adjacent to Northern United.

Fieldwork (2) to trace the line of this tramroad coincidentally revealed evidence of what appeared to be early small scale surface workings for mineral extraction. Enquiries at the Gloucestershire Archaeology Service Sites and Monuments Record revealed many sites recorded in the surrounding area, but none in the Delves. A GSIA organized walk in March 2004, visiting tramroads in the area, entered no.1 Inclosure for a short distance and inspected some workings, but the party was too large to penetrate far into the woodland. Following this, a team of three members, Penny Fernando, Frank Colls and the author was formed with the object of making a preliminary survey before new woodland growth made the task impracticable until early 2005.

Geology

Penny Fernando writes:- "I have re-read the chapters on iron and coal in Dreghorn's *Geology Explained in the Forest of Dean and Wye Valley*, and the iron scowles and churns are mainly associated with Carboniferous Limestone, i.e. the Crease limestone and also the Lower Dolomite. However, iron is found in Drybrook Sandstone along the line from Mitcheldean south to Ruspidge (Shakemantle and Bucksrafft mines). And, "there is one area where iron was mined in the coal measures, Barnhill Plantation near the Bixslade stone works at Cannop Ponds. Iron occurs as haematite along the joint faces of the Pennant Sandstone". So it is not impossible that the Delves are iron workings, but my feeling is that it would be coal. You will see [referring to the geological map] that there are three thin coal seams outcropping between the main road [the A 4136] and the forest/cycle track which is roughly parallel to the tramway. These seams are separated by a vertical height of about 300 feet and dip into the hillside at an angle of 15 degrees which looks ideal for shallow mines, until they go under the high ground on the far side of the forest/cycle track. The deep mines like Northern United were going into the Coleford High Delf seam which is nearly 1,000 feet down. Dreghorn also mentions that some commercial open-cast mining started in 1967 at Nofold Green at Steam Mills and "three seams in the Supra Pennant group are being worked" (3)- these look to be our same three seams.

Historical Background.

The Delves are situated towards the northern edge of the Dean coal basin. According to Dr. C. Hart, “a major feature of the coalfield is the outcrops of the seams around the edge of the basin – where the early mining took place” and “weathered outcrops of the coal made its winning easy” (4). However, he gives no detailed information on specific sites, or on the methods used to extract the mineral. Jon Hoyle of the Gloucestershire Archaeology Service, writes “.....Apart from the fact that irregular surface coal workings would be expected in the area (the name “the Delves” is a big clue to that apart from anything else) we have no information on the nature or extent of any features in that area and I would welcome any information you manage to record. These sorts of workings are fairly extensive in parts of the Forest, but we have very little real information about them”.

“As regards dating – this is always difficult with surface features, and early coal extraction sites are particularly not well understood. We know that coal was used from Roman times as it has turned up in excavations of some Roman Villas. This was probably for domestic heating, although possibly for some industrial processes which did not need very high temperatures (ore roasting has been suggested), and we also know that it was exploited during the medieval period”.

“Individual surface workings, or areas of surface working are however very difficult to date, although they are usually assumed to be late- medieval/early post-medieval in date as deep mining did not become the norm until drainage techniques improved from the 17th century. A reasonable summary of what is known can be found in Cyril Hart’s Industrial History of Dean, chapter 6. The only thing I could add to that is an idea David Bick mentioned to me once which was that he thought the earliest exploitation of coal was likely to be in the areas closest to the iron ore outcrops (i.e. around the edges of the sandstone) on the grounds that they would have been making use of the existing communications infrastructure set up for iron ore exploitation in these areas. We do not know this for a fact, but it is as good an idea as any, and would suggest that any workings in the Delves are likely to be later rather than earlier”.(5)

A work on the coal mining enterprises of the 3rd Duke of Bridgewater (6) deals with early coal extraction methods:- “The craft of mining coal developed from the domestic quarryings at outcrops to working deeper seams. “Bell pits” or “day holes” were the method of extraction These were shallow shafts sunk on the dip side of the outcrops, and the coal was worked in feeble daylight – hence the name – until water problems or the threat of collapse and poor ventilation forced their abandonment. A further shaft would then be sunk nearby and the process repeated.” The pits found in The Delves seem to follow this pattern.

The earliest reference to The Delves found so far is a map of 1787, Driver’s Survey of the Forest of Dean (7), which shows it as an unenclosed area. Hart (8) quotes the Assistant to the Deputy Surveyor in 1788 as writing “There are several levels in the Bottom from Beechenhurst Hill along the Delves up to Nailbridge..... very little timber is growing in any of these Delves; and inclosures might be made in the Forest, so as to exclude all the principal coal works”. The purpose of the inclosures was to permit re-forestation by excluding the commoners’ livestock, but avoiding inclosure of the still working pits or “levels”- shafts driven more or less horizontally into a hillside to reach the coal. It seems that this was done, no doubt as a result of the Dean Forest (Timber) Act of 1808, for maps of 1847 and 1856 (9) show the Delves as Inclosures. Unfortunately, none of the maps includes any reference to mineral workings.

Preliminary Survey.

The team visited the Delves on the 14th April 2004. Progress and navigation in the woodland being difficult, it was decided to follow the known line of the tramroad, exploring to left and right as far as practicable. The woodland was entered at SO 6350:1528, following the tramroad which here leaves the modern track to head west on a low embankment. Within a few metres, a number of shallow depressions (dubbed “delves” by the team, a convenient term adopted in this report), linear banks and some trenches were seen. Further on, at 6340:1523, the tramroad skirts the edge of a delve on a stone faced embankment. More delves were close by, and spoil heaps. Further on, a few metres before meeting a modern cross track, by a tramroad culvert over a drain, pieces of iron, slag and a black substance that appeared to be coal (though rather lightweight) were found. A parallel linear bank alongside had a V cut across it to carry the drain. Several linear banks were seen; some more or less parallel with the tramroad, others at various angles to it, and some shallow delves. At 6318:1500 the tramroad skirted a large steep-sided, irregularly shaped, scowle-like delve, with more nearby.

Further on, close to the road a stream passed under the tramroad through a culvert. Black silt and fragments of coal were seen downstream, but not upstream, suggesting that coal spoil was used in the tramway bed. Nearby, on the south side of the tramroad, a fairly large spoil heap was seen, with a fenced shaft adjacent; a few metres to the north was a circular delve with a spoil heap around it. At approximately 50 metres along the tramroad from the point where it left the modern track, two deep delves were seen. Also seen were linear banks and trenches, on the north side at first, then on both sides. At SO 6310:1507, south of the tramroad, the walls of a ruined building or enclosure were visible, the remaining walls being rendered in part; a single-hole tramway sleeper block was built into one wall. There was a bank to the south. Clumps of coloured primroses suggested that a garden might once have been here. At 6301:1507 the right angle of the no.2 Inclosure boundary, marked on the O.S 1:25,000 map was identified, in the form of a linear bank. This bank followed the tramroad on its north side. Many deep delves were found, all to the north of the boundary bank except four in a line on the south side, near a spoil heap. More fragments of the black coal-like substance were found. At 6280:1492, a three-hole tramroad block with, unusually, an iron spike in it was discovered. At 6271:1487 were more delves to the north. After the junction with the original Strip-and-At-It Colliery tramroad at 6264:1485, more delves were visible to the north. Where the tramroad rejoins the modern track near Brierley, at 6246:148 [digit missing] is an old stone lined shaft. It appears to have been back filled to within about two metres of the top. It is not round, perhaps due to erosion. To the north were many deep delves, one on the edge of a ravine with spoil around it. Fragments of coal were found.

Discussion

The delves in the eastern part of Inclosure no.1 were comparatively small and shallow, with the exception of the scowle-like feature near the Inclosure’s western boundary, which is large enough to be shown on the OS 1:25,000 map. They increase in size and depth towards the west, with the quite large features of Inclosure no. 2 and the early, eroded stone lined shaft at the western end of the area. Around twenty delves were located, and probably at least as many more await discovery (a later visit tended to confirm this). It is tempting to see the eastern features as the earliest, with activity moving westward over time, ending with the stone lined shaft representing one of the first deep pits. However there seems to be no other evidence to support this. There seems to be little doubt that the “delves” were dug to extract coal, but the purpose of the linear banks and trenches is problematical. One’s first thought is that they are associated with the tramroad construction, but their number and disposition make this unlikely. Boundary banks are another possibility, and indeed the boundaries of both

inclosures, shown on the maps referred to, can be traced on the ground in the form of a low continuous bank, around one metre high, parallel with the tramroad. There are similar but much shorter banks which, however, cannot be seen as boundaries.

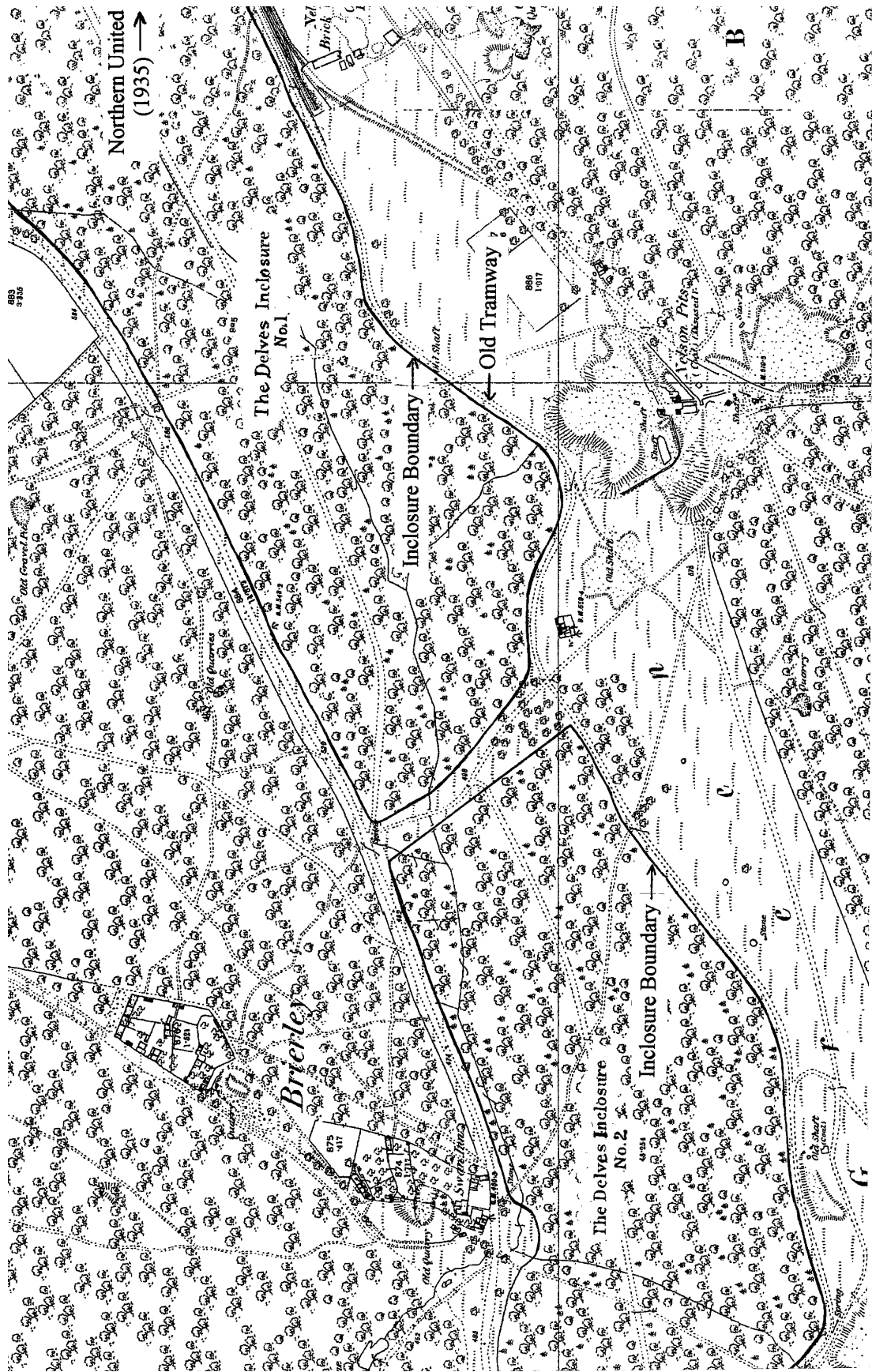
The somewhat sinuous line of the tramroad (opened in 1810) was probably due to the necessity of threading a path through older workings, for instance the stone faced embankment on the edge of the delve referred to above. A line a few metres north to avoid the necessity for this structure, would encounter greater difficulties among the workings. The boundary banks, on the ground as on the map, follow the tramroad line closely, on its north side, suggesting that their construction followed that of the tramroad. It seems likely that when attention turned to implementing, at the Delves, the 1808 Act which provided for establishing new inclosures, it was found most convenient to follow the line of the newly built tramroad where possible.

Further Work

A GSIA project is envisaged to record the number of workings and their distribution. This will be a serious undertaking, due the difficulty of the terrain. An attempt at comparative dating would be desirable but, bearing in mind the comments of Jon Hoyle, above, it might not prove possible. An investigation into the adjacent area marked on the old maps as “Delves Inclosure no.3”, but on modern maps as “God’s Acre”, is also intended. Finally, research will continue into this fascinating but little known area.

References

- (1) OS dated 1880 and 1925, printouts at 1:5000 supplied by Jon Hoyle of Gloucestershire Archaeology Service
- (2) Youles, Tony, *GSIA Journal* 2002 page 41
- (3) Fernando, Penny *pers. comm.*
- (4) Hart, Cyril, *The Industrial History of Dean* David and Charles 1971 pp 253,254.
- (5) Hoyle, Jon, *pers. comm.*
- (6) Atkinson, Glen *The Canal Duke’s Collieries* n.d. ISBN 0 9506257 7 9. Published by Neil Richardson, 88 Ringley Road, Stoneclough, Radcliffe, Manchester M26 9ET.
- (7) Gloucestershire Record Office D 3921/iv/8
- (8) Hart, page 264.
- (9) Atkinson’s Survey of the Forest of Dean (1847), copy displayed in Dean Heritage Centre; Cinderford Board of Guardians map (1856), GRO PC 1992



The Delves. COGIS computer plot at 1:5000 of OS 1880 map produced by J. Hoyle. Additional lettering by A. Youles.