The Roman road between the forts at Brough on Noe by Bradwell and Little Chester in Derby via Wirksworth

The Derbyshire Portway: An archaeological assessment report

Margery road number: RRX130a

Wirksworth Archaeological Society

19th September 2021

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A word of thanks

First and foremost, we would like to thank all the farmers, quarry managers and staff, landowners and residents who have so kindly permitted us access to look for evidence of the road and who have responded so well to our requests to examine or record some feature on their land. We also wish to thank the staff of the Local Studies Libraries (Derby and Matlock), the Derbyshire Record Office, the Sites and Monuments Record, Derby Museum and the Peak District National Park for their assistance. The following people have kindly attended examinations or assisted in reconsidering the route in some capacity or other and we are most grateful to them all: Ivan Wain, Chris Hills, John Wheeldon, Fiona Drake, Simon Mold, David Killer, Mary Wiltshire, and Sue Woore; Also David Budge (Mercian Archaeological Services) for assistance with pottery.

Anton Shone and Dean Smart
Wirksworth Archaeological Society

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www.wirksworthromanproject.co.uk

Overview

It is nearly ninety years since the renowned Derbyshire historian RWP Cockerton observed:

"*There is one connecting link which is obviously missing from the Roman road network of the Peak District and that is a road connecting the Roman stations at Brough and at Little Chester*."

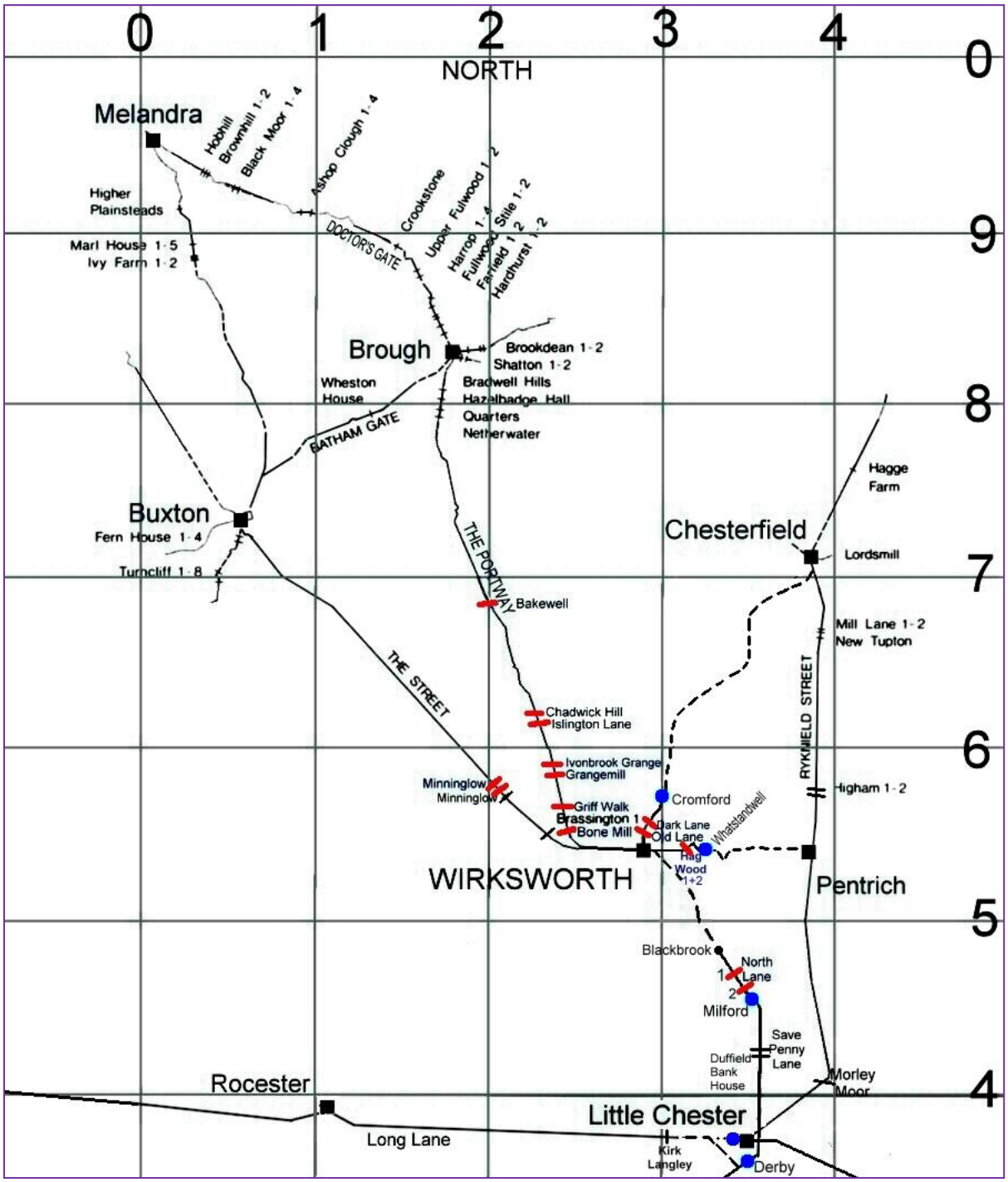
Cockerton had examined all the documentary evidence that was then available to him (1932) and felt a Roman road ran southwards from Brough to Wardlow, then past Bakewell to Wirksworth and a crossing of the river Derwent at Milford, where it joined Ryknield Street just as that road approached the fort at Little Chester in Derby. He considered that the road might be named the Portway. Although discussions of the issue continued in the county in archaeological circles, no fieldwork took place until Peter Wroe examined a number sections of a Roman road he found heading south from Brough towards Wardlow some 50 years later. At the Derby end of the route, archaeologists carrying out a watching brief on a sewage pipe at Duffield Bank House, between Little Chester and Milford in 2017, found a Roman road heading north along the Derwent riverbank buried under a metre of silt. This report looks at the efforts of the Wirksworth Archaeological Society to fill the gap.

What is the Derbyshire Portway? This question has dogged local historians and scholars for many years. Some might view the Derbyshire Portway as a confection of ideas assembled by Richard Cockerton in the 1930s, but he was trying to prove a point, and was trying to fill a known gap in the Roman road network of the Peak District, using the limited tools which were then available, coupled with his interest in old documents and maps. What is clear about the Portway is that there are more documented Portway references in Derbyshire than there appear to be known routes to support them. For this reason, we have sought to isolate the section of this road about which the most was known, and about which the best archaeological evidence is available. This approach supports a route from the Roman fort at Brough, southwards to Wirksworth and Little Chester.

Although Cockerton's work was detailed for its time in documentary terms, he was a scholar not an archaeologist: he did no fieldwork that we know of, save perhaps walk the route. It was not until many years later that the first fieldwork examinations were carried out near Brough, by Wroe and Mellor in the early 1970s. It was to be another forty years before our own fieldwork strove to fill the gap between the point at which Wroe felt he could go no further (from Brough to Ashford in the Water) and to where the Portway joins Ryknield Street just as the latter approaches Little Chester.

At our current level of knowledge, we feel, and on the basis of the fieldwork we have done on the road at Bakewell, Islington Lane, Ivonbrook Grange, Grangemill, Bone Mill near Brassington Lane and North Lane, taken together with Wroe's work near Brough, as well as the road discovery at Duffield Bank House and with the long-lived nature of the Portway name in historical documents and charters, that

the Derbyshire Portway between Brough and Little Chester is in origin a Roman road connecting those two forts via Wirksworth.



Archaeological examinations of the Peak District Roman road network
After Hart (1984)
Sections after Mellor, Wroe and Hart, and sources in the Derbyshire Archaeological Journal in black
Sections by Wirksworth Archaeological Society in red
Crossings of the River Derwent as blue dots

Introduction

The Wirksworth Roman Project was set up to consider whether Wirksworth might be the "lost" Roman city of Lutudarum. Initial archaeological and documentary research was promising but inconclusive, and archaeology extremely difficult in an urban area which has only a very slow pace of site redevelopment. Therefore the Project turned to the Roman road network in the area, to see if the network was focussed on a particular centre. If Wirksworth was found to be at the centre of the network, it would add to the evidence that Wirksworth was Lutudarum. That Lutudarum might be of considerable Roman significance may be implied by its presence as a civitas in the Ravenna Cosmography, although Ravenna is rather obscure in its use of the term (Verreth, 2013). Regardless of this outcome, such an examination of the road network would be useful in itself. In archaeological terms, no systematic programme of investigative fieldwork was carried out on the pre-turnpike road network of Derbyshire until that done by Wroe and Mellor in the 1970s, and later by Wroe and Hart, and that excellent and important work concentrated primarily on the routes around Brough and Buxton. That work being published in the Derbyshire Archaeological Journal of 1982. We have used their approach as a springboard, and have attempted to progress their work on the road identified "running south from Brough".

Historically, Cockerton was not the first to raise the issue. JC Cox suggested the existence of a Roman road from the Roman fort at Navio (Bough on Noe) to the fort at Derventio (Little Chester) via Wirksworth in 1886, but he provided neither documentary nor fieldwork evidence to support his case. Cockerton, however, wrote about the Derbyshire Portway in a series of fifteen articles in the Derbyshire Countryside Magazine from 1932 to 1936. However, he tended to ramble (in the literary sense, to engage his readers more) and he also, perhaps mistakenly, associated Iron Age and Saxon material with the Portway. Later, AE and EM Dodd, in their well-known and popular book dating from 1974 "Peakland Roads and Trackways" also mentioned the Portway, using Cockerton as their basis. They included it in both the chapter "Prehistoric Pathways" and the chapter "The Dark and Middle Ages", suggesting it was prehistoric and also Saxon. Importantly, "Portway" as a place or route name does not represent a Saxon understanding or remembrance of Iron Age origins; it represents a Saxon name for "main road".

In the modern world, Stephen Bailey in "The Derbyshire Portway", published in 2008, a pleasant walking and history guide, concluded "it seems likely that a prehistoric track way existed from the Trent valley northwest into the Dark Peak and probably further… This track was probably used by the Romans, especially before they built their own road network and was later named the Portway, possibly by the Saxons". Bailey also considered that the route might be of Iron Age or even Bronze Age origins, but we must be clear: Our work here seeks to address the archaeological evidence. The archaeology indicates no Iron Age or Bronze Age route. We agree with Barnatt (2002) who says there is: "No convincing evidence that one long-distance route with pre-historic origins traversed the Peak District". The archaeological evidence for the route is a Roman road connecting Roman forts and settlements along it.
However, when touching the issue of Portway names, we should not close our eyes to work done in other counties. In some cases, such as the Portway in Shropshire, no investigative fieldwork has been

done resulting in the view that the Portway at Long Mynd simply represented a Mercian drove road. However, in other counties it is equated that Portway names may refer to Roman roads and this is the case, for example, in Herefordshire, where Portway near Burghill lies on a Roman road, now the A4110, from Leintwardine to Kenchester (Ordnance Survey, 1995); in Wiltshire, where the Portway at Old Sarum is the Old Sarum to Silchester Roman road (Wiltshire Archaeological Society, 1964); and in Oxfordshire, where Crawford and Dodd (2008) state: "Evidence for growing markets in the later Anglo-Saxon period, as well as routes for accessing these markets, lies in a number of 'port' place-names: Akeman Street and former Roman roads across Boarshill and Otmoor, for example, were termed 'Port-way' and 'Port-street' in Saxon charters". Sauer, 1998, however observed that it is important not to be misled by hearsay or unfounded speculation, and fieldwork is best used to determine the real course of Roman roads and to eliminate false assumptions of the location of routes where "port" names occur. There are a lot of Portway names in Derbyshire, in sometimes seemingly odd locations.

There is a reasonably high level of cartographic and documentary evidence for this road as as a major pre-turnpike route, including Burdett's Map of Derbyshire of 1767, which shows principal features and roads of the time and is considered to be the first detailed, accurate and tolerably reliable map of the county. Burdett is important because he gives us a snapshot of some, at least, of the pre-turnpike road network, although the map does have some gaps and is not of the level of detail we would find on a modern map by any means. Interestingly, Cockerton does not seem to have had Burdett's map available to him, so it acts as an additional check on the maps and documents which Cockerton referred to. The various names applied or used locally are also perhaps a source of confusion. Parts of this route, arguably even all of it, are known as "The Derbyshire Portway" or "Old Manchester Lane" or "The Chariot Way". Parts are known as "Castlegate" or "Derbygate". The Portway name is applied to the route of the Roman road we have examined, but the popular understanding of the Derbyshire Portway is of a much longer route. We could simply call this road the Brough to Little Chester Roman road, but the public likes names and it aids understanding.

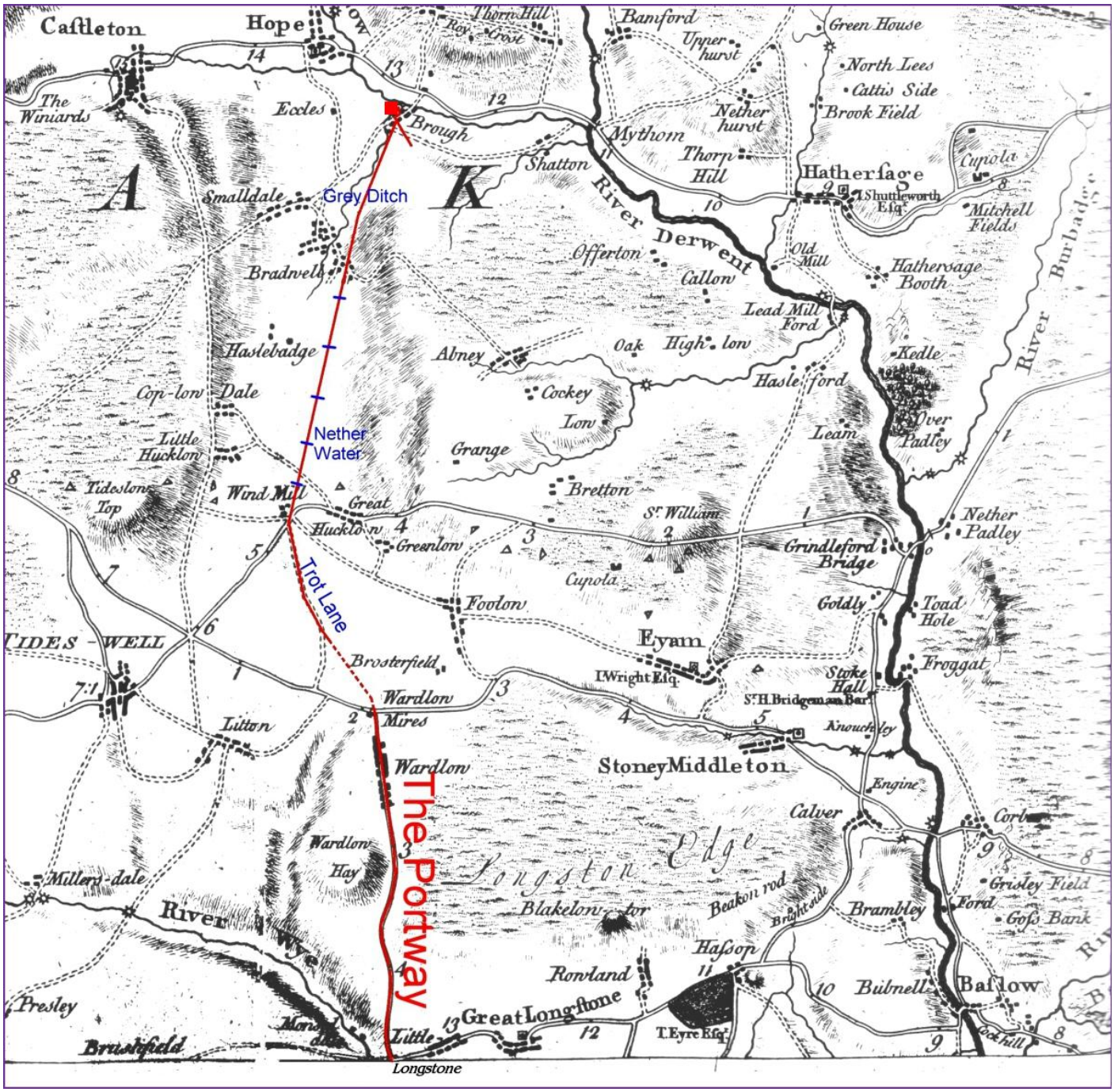
Burdett's 1767 map of Derbyshire

The red line indicates the route of the Roman road from Brough southwards overlaid on Burdett's Map.

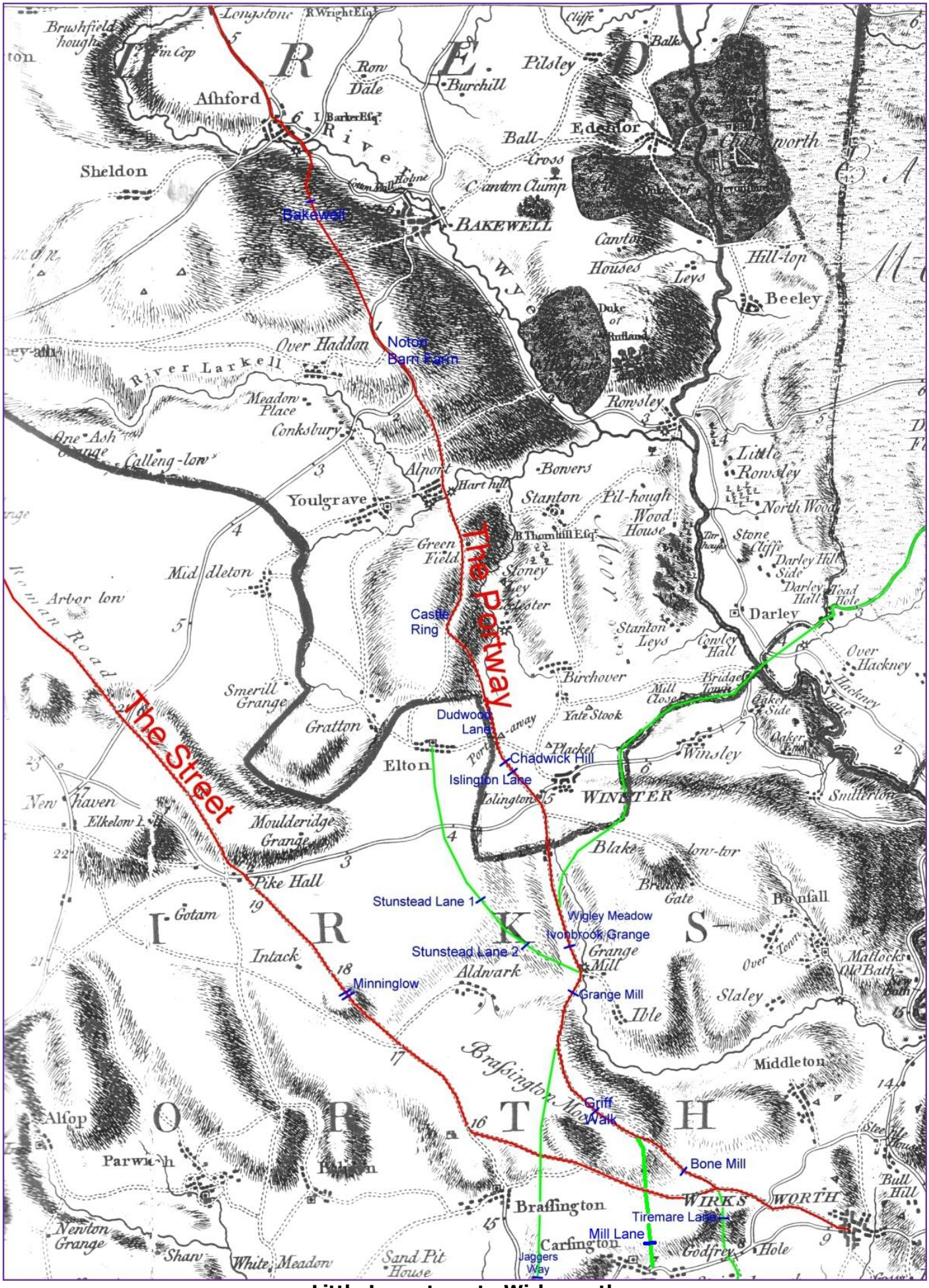
Green lines indicate mediaeval routes.

Blue dash markers with names indicate archaeological examinations of the road.

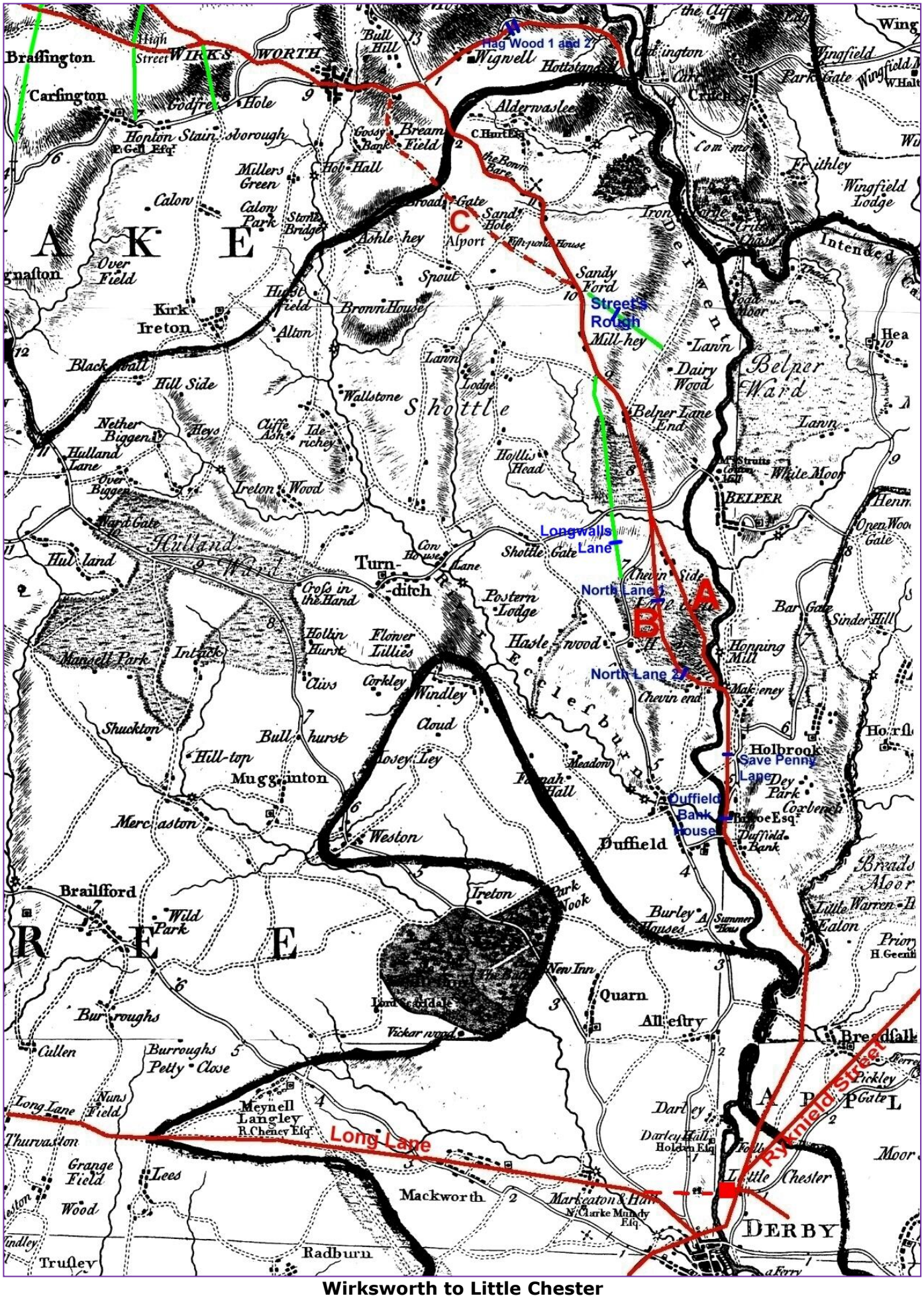
Additional place-names in blue.



Brough on Noe to Little Longstone



Little Longstone to Wirksworth

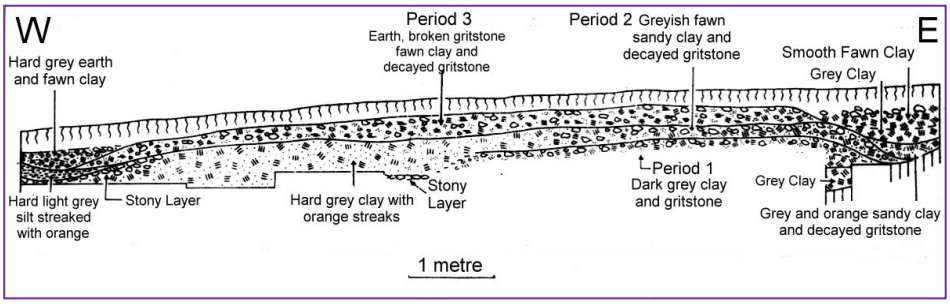


Wirksworth to Little Chester

The route of the road

Brough on Noe to Ashford in the Water

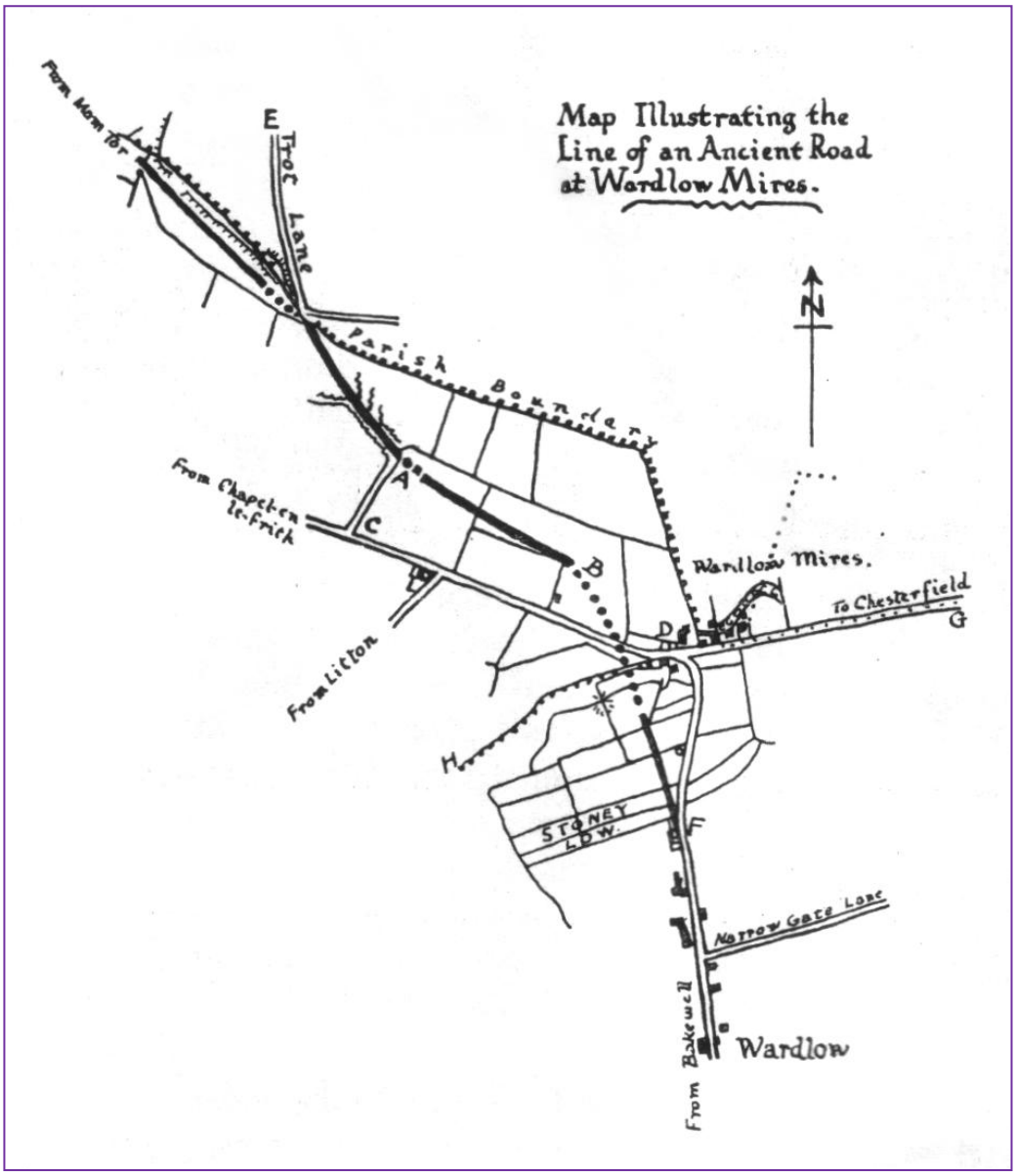
Mellor and Wroe cut six archaeological sections of this road to identify its origins, of which the one at Nether Water at SK 1728 7887 was illustrated by Wroe, who stated that this was the Roman road from Brough to the south. They note that it was above average width for a Roman road in the Peak District, thus suggesting it was a road of importance and that the route was well-known in mediaeval times, as discussed by Cockerton.



Archaeological section of the Wirksworth to Brough Roman road taken by Mellor and Wroe in 1974 (after Wroe 1982).

The archaeology of this length gives us a Roman road with more than one period of construction and a general width which Wroe had felt to be of the order of 6 metres. Five sections were cut along an approximately 3 kilometre stretch of the road with the crossing of the Bradwell Brook confirmed by probing. The road left the fort at Brough by the south east gate along a short section shared with Batham Gate, which diverged almost immediately with a possible road to Chesterfield, which diverged eastwards after crossing the Bradwell Brook. From the Bradwell Brook crossing it runs on a slightly west of south course for a little under a kilometre to Grey Ditch where it makes a slight turn to a more southerly direction. Grey Ditch is thought to be a boundary earthwork of immediate post-Roman date, (National Monument Record 29813 of 1998). From Grey Ditch it runs along Bradwell Dale, "laid out," as Wroe noted, "so as to cross the lowest point of the pass at the end of the valley" at Windmill, an approach to the topography of its route, which it maintains in many locations. Wroe felt it was likely to change direction at Windmill and continue to a second pass at Wardlow, and then proceed to the south east towards Ashford. South of Windmill a short section of the route at Trot Lane remains in use, but at Windmill itself Trot Lane has had a new alignment since 1767, which now takes it past Grundy House Farm. Whereas it was clearly mapped in 1767 by Burdett, leaving directly from Windmill and on that line a field boundary wall still partly exists. It was routed from Grundy House by the time of the Enclosure Map of 1810. Burdett's 1767 map agrees with the considered route from Windmill to Ashford, except for a short missing section at Wardlow Mires. This section appears to be the result of a diversion at the south end of Trot Lane to bring traffic past the tollhouse at Wardlow Mires, constructed as part of the 1759 turnpike (Hopkinson, 1979) under the 1758 Chesterfield to Hernstone Lane Head Turnpike Act. In Cockerton's view the road ran through the gate and then turned gently south (right in the picture below) to Wardlow Mires. It was probably severed by the turnpike company to compel travellers to pay the toll.

Looking eastward from the corner of Trot Lane towards Wardlow Mires.



Cockerton's map from Trot Lane to Wardlow Mires

This turn is just south of Stanley Lodge at SK 1750 7599, Cockerton marks the missing section A-B-F, but it is possible that the current road F-D is essentially correct and the route crossed over the turnpike and ran between B and D, there is some visual evidence of what appears to be an agger at D, but we were unable to find the landowner at the time of our surveys to obtain permission to investigate it. In any case, the known road carries on southwards from Wardlow Mires and the entire length to Ashford in the Water is in use as the B6465. It passes through Wardlow along "Castlegate", past Monsall Head and so to Ashford and the crossing of the Wye, which is as far as the published work of Peter Wroe had taken it.

Ashford in the Water to Little Longstone and Alport

From the crossing of the Wye at Ashford, the road was considered by Cockerton to come up through John Bank Lane and cross several fields, called in Cockerton's time Near and Far Derbygate, towards the road junction at Crowhill Lane just west of Bakewell.

A long-standing puzzle about Bakewell is the weakness of an understanding of the routes which served it in antiquity. An example of this is the knowledge that King Edward established a burg (fort) there in the 920, having apparently marched his army from Nottingham. An interesting question is how Edward got to Bakewell. Neither the Mercians nor the West Saxons are known for their road building, they are still using a road network constructed by the Romans. In short, Bakewell or its immediate environs must have a least one important Roman road close to it in order for Edward to regard it of being sufficient strategic importance to build a burg: whose purpose appears to be to guard the crossings of the Wye and the Lathkill and act as a barrier between the Vikings and the valuable lead field of the Peak District.

The 1750 guide stoop at Crowhill Lane end.

The remains of an agger and a boundary berm appear to exist all the way to Noton Barn Farm from John Bank Lane at Ashford. There is also a guide stoop of pre-turnpike date at the junction of Crowhill Lane and the Bakewell-Sheldon road at SK 2030 6825. This stoop gives its respective directions as: Tideswell; Buxton; Winster; Bakewell. The modern junction only has three routes. The stoop therefore gives "Winster" as the direction of the road agger, this would have been correct when the guide stop

was put up about 1750, as at that time Winster was briefly a small market town. Today the stoop is on the opposite (west) side of the road to where it was in Cockerton's articles.

Barnatt (2002) observes that the "Derbygate" was abandoned by 1810 around Bakewell but that it could be traced as earthworks, and this is the case, the clear and well-defined berm is present, although the section between John Bank Plantation and the guide stoop is now barely evident and can only be seen as a line in the stubble looking north westwards from Crowhill Lane as a change in the density of the stubble line. It cannot be seen when looking at it end-on from the Crowhill Lane - Sheldon Road junction, because of it having been ploughed down so severely in recent years. Initially we thought the berm which continues southwards towards Noton Barn Farm was the agger of the road, although it seemed rather narrow, but it became clear from the examination that the agger runs on the west side of the berm, and that the berm appears to represent the residuary of a hedge boundary.

The boundary berm of the Roman road near the Crowhill guide stoop, looking south towards Burton Moor

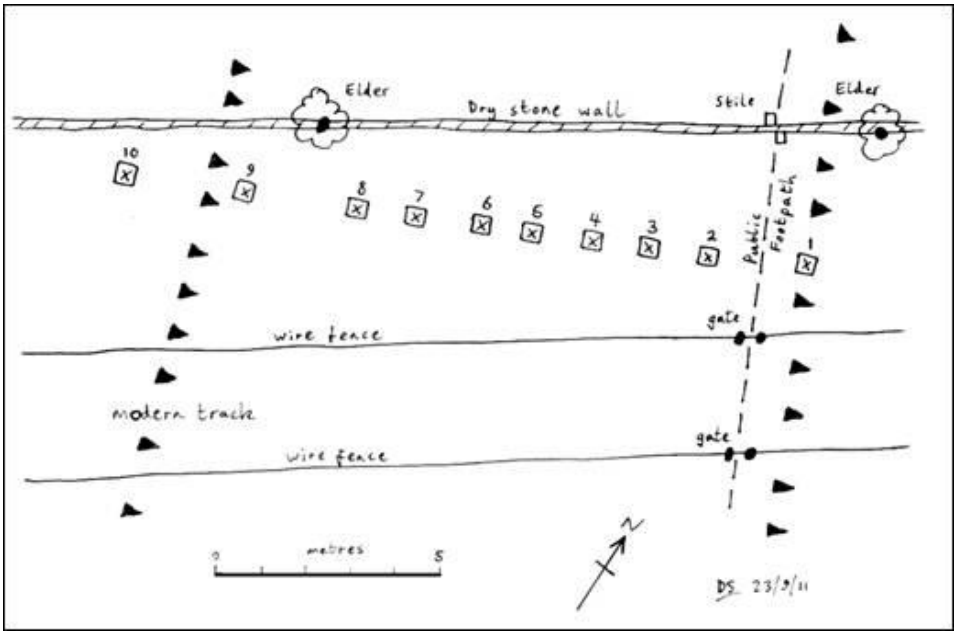
Notwithstanding the physical remains of the road at between Crowhill Lane end and Noton Barn Farm at Ditch Cliff, there is no road mapped in Burdett between Ashford in the Water and Noton Barn Farm except via Bakewell, a gap of some two and half kilometres. The reason for this is that the turnpike road which has done the damage (so to speak) was constructed by 1759, so it pre-dates Burdett's map, the old road had therefore gone out of use for major traffic before Burdett mapped the area. Cockerton took a particular interest in this section and his narrative deals with the section in some detail, based on other extant maps and documents. Notwithstanding Burdett, the route by then was in use only as a minor road, but still marked on a plan of the Bakewell Manor (Anon, 1796). The line of the road at this point can be followed using the footpath and the field boundaries which run with it.

So, this brings us to the examination south of Crowhill Lane. The Wirksworth Archaeological Society put in a sequence of test pits in a line across what appeared to be the agger (the surface of the road). The

"agger" turned out to be a berm - a soil feature at the edge of the road – a vestige of a boundary hedge, and the road itself proved to be in a small dip between that and a former field wall on the west side. The road here is composed of chert gravel with some small limestone, and is in excess of 50 cm deep. The road is more than 5 metres 70 cm wide, these being the bounds of the test pits, and these measurements are similar to those of Islington Lane. There is a layer of white limestone on the west side and a residual and less obvious layer on the east side. Both these features may, of course, represent kerbing, perhaps a mechanism to stop the gravel spreading, but neither are really deep enough to do so, they almost form a kind of edge dressing. Of course, it may be that this is what they really are - a means of marking the edge of the road, and we should perhaps take them at this face value.

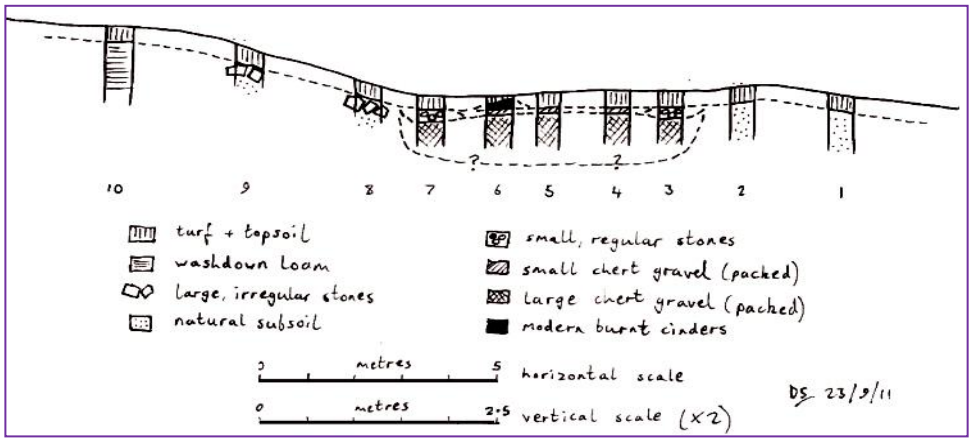
Test pits being examined at SK2040 6815 south of the junction of Crowhill Lane and the Sheldon Road near Ditch Cliff, Bakewell.
The farm track crosses the Portway at right angles and rises over a berm where the modern footpath runs (the horse is standing on it).
The berm is the remnant of a boundary hedge by the roadside, giving the impression of being an agger.
The road agger is in the dip on this side of the horse.

Here below is a location plan of test pits put in across the feature and a list of the materials within them. All test pits were approx 50cm square and ran along a base line which was put in at right angles to the line of the feature to cut across it without exaggerating its width. This is the reason the line of test pits are not parallel to the field wall.



Location of examination at SK2040 6815 and numbering of test pits.

Annotation
Control – 20cm turf and topsoil; 50cm reddish brown subsoil with infrequent chert pieces = natural: 20 metres NE of pit 1 Pit 1: as for control Pit 2: as for control Pit 3: 20cm turf and topsoil; limestone and chert pieces (4-10cm) mixed with chert gravel = Road edge Pit 4: 20cm turf and topsoil; 5cm depth hard-packed small (1-2cm) chert gravel and reddish brown soil; then hard-packed (2-5cm) chert gravel and reddish brown soil Pit 5: 20cm turf and topsoil; 5cm depth hard-packed small (1-2cm) chert gravel and reddish brown soil; then hard-packed (2-5cm) chert gravel and reddish brown soil Pit 6: 15cm turf and topsoil; 10 cm modern burnt cinders; 5cm depth hard-packed small (1-2cm) chert gravel and reddish brown soil; 10 cm hard-packed (2-5cm) chert gravel and reddish brown soil Pit 7: 20cm turf and topsoil; 10 cm white limestone pieces (4-10cm); a lesser depth of hard-packed small chert gravel and reddish-brown soil) = Road edge Pit 8: 20cm turf and topsoil; surface of large irregular limestone pieces of collapsed field wall Pit 9: As for 8 Pit 10: 20cm turf and topsoil; 1m of loamy soil and hillside washdown: plough-end lynchet.



Section diagram of the Portway at Mr Naylor's Horse Establishment at SK2040 6815

Now it will be seen from the contents of these test pits that the structure and width of the road is like that examined at Islington Lane. The road is at least 5.70 m wide as it extends beyond test pits 3 and 7, but less that 7.50 m wide as the road edges do not reach test pits 2 and 8. In the picture below we can

see test pit 6 which shows the hard-packed surfaces of small 1-2 cm chert gravel (right of line) and the large 2-5 cm chert gravel (left of line). Mr Naylor, to whom we extend our grateful thanks for permission to do this work, noted that the bedrock was at a depth of about five feet.

Test Pit 6


Test Pit 7

In test Pit 7 we can see the white edging stone of the road. The road is also rather below the berm of the former hedge. This suggests that the hedge was a major feature for a very long period of time as the rise would be due to the accumulation of dropped and windblown foliage composting over time. We observe that in the 1528 delightfully pictorial map of Youlgrave, the field boundaries are very distinctively drawn as if they were wattle (plaited) fences or perhaps laid hedges. Regardless of whether we regard the berm as being the memory of a hedge or fence, the result, the accumulation of soil of the berm from composted material, would still be the same. These features give us the picture of a made road at Ditch cliff and almost as far as Noton Barn Farm where the modern road (the former 1759 Bakewell to Newhaven Turnpike) still runs. After a short distance the modern road turns away to Conksbury Bridge, but the Portway continues in a straight line ahead through Haddon Fields.

The line of the road through Haddon Fields is well-known archaeologically and is noted by Bevan (1995) and was recorded in 1717 in a Barmaster's Plan of Harthill, Nether Haddon, Rowsley and Youlgrave. In the 1995 archaeological report's illustrations relating to Haddon Fields, the label "Feature 49 - Line of the Portway" has been transposed and is wrongly shown as the road to Conkesbury Bridge. Makepeace in a report on settlements in the Peak District (1998) also felt that there was cause to suspect a Romano-British settlement at Haddon Barn, possibly because of the finding of the Roman Altar now at Haddon Hall (English Heritage Pastscape Monument 311203). The presence of this Portway as a Roman road would perhaps both support Makepeace's observation and be supported by it. Coin finds are also common close to this road including a 4th century hoard from a tumulus opposite Conksbury in Haddon Fields (Monument 311198); further finds including a quern-stone from a tumulus on Haddon Bank (Monument 311230) and a hoard of 4th century coins "between Bakewell and Winster" (Monument 311159), thought to have been found adjacent to Dark Lane, which descends to the ford (now the bridge) at Alport.

Alport to Islington Lane

From Alport towards Robin Hood's Stride Burdett indicates the line of the road as carrying on more or less in a direct line past Green Fields Farm at SK 2255 6380. From opposite Castle Ring it leaves the road between Alport and Elton now called Cliff Lane. There is a divergence of opinion between Burdett's map and Cockerton's opinion for a short section of the road, perhaps 500 metres only, around Robin Hood's Stride. Our judgement in this case is that the balance of probability is that the road ran as Burdett suggests, as there is a line of field gates corresponding to this mapping, in which we find the road appears to aim directly from Robin Hood's Stride from Castle Ring, the line taken by the modern Limestone Way footpath. Setting this to one side, Burdett and Cockerton are in agreement, with that small exception, all the way between Alport and Brassington Lane, some ten kilometres.

Robin Hood's Stride has been the subject of limited archaeological fieldwork mostly referring to a Romano-British settlement at the Stride, starting with JC&JP Heathcote in 1935: Makepeace notes it again in 1998 and so does Bevan (2005). Bevan in a slightly earlier work (1996) observes that there was no evidence of the road in the immediate survey area, but this covered only 300 metres around the southern and eastern slopes of the Stride, where there is evidence of the settlement. Bevan did note that the road was still "paved" (stoned) further to the south but didn't specify where. The route however comes down to a stream crossing where it joins Dudwood Lane.

At Dudwood Lane the road southwards as mapped by Burdett takes it past the Portaway mine. Burdett is also sufficiently precise in marking the mine that we can locate it at SK2295 6104 as it would have been then. It does appear on modern O/S maps as a disused mine, but north of where the original workings had been in Burdett's day. From Dudwood Lane we continue on Burdett's line of the route to Islington Lane, crossing the Winster to Elton Road at Elton Cross. Islington does not appear on modern maps, but it was supposedly a miner's shanty town close to Bank Top farm, which is marked.

Islington Lane looking south

The road was also examined at SK 2305 6074 where it crests a small hill and it runs between boundary walls 6 metres apart at this point. Due to the collapse of the wall on the west side it was impossible to identify an edge there, but below an overlay of topsoil and leaf mould, there is a thin layer of 10cm rough and slightly friable white limestone similar to that found in other examinations, mixed with some pieces of 5cm chert and with various shards of brown glazed stoneware and other Georgian period pottery pieces. Below this was a considerable depth of gravelly angular 2cm chert in a sandy substrate for a depth in excess of 70 cm. This feature continued on the east side where it appeared to be cut by an infilled modern ditch.

The natural contour of the ground falls away gently to the east side. Where the substrate had been cut by the ditch it appeared to contain larger pieces of chert, typically 5cm, mixed in with the predominantly smaller material, and perhaps as a means of levelling against the contour: which may have been dug out of the upside and tipped on the downside to give the road a cross-level. We say tipped as there appeared to be voids and organic patches interspersed with the chert. The ditch was composed of loose loam and contained modern materials such as nylon fibre, suggesting the ditching was recent. Islington Lane was recorded as Portaway Lane in the Winster Enclosure Award of 1764.

At the next examination site about 100 m south of where Islington Lane is crossed by the farm access track to West Hill Farm there was about 20 cm of soil build up on either side of the rough path which wanders down the middle of the lane. From the west side wall the soil covers a section of probable field wash-down which has built up on the side of the road. This is a metre wide and in excess of 50 cm deep without there being a change in the composition. Next to this below the topsoil is about half a metre width and 10 cm depth of late Georgian tipped road "repair" with assorted loose stone, chert and both blue and white and brown glazed stoneware pottery shards. It was not obvious that the road needed this repair but it was done in such a way as giving the impression of building up the road edge to prevent wash down and flooding, that it was easier to build up the edge by tipping than dig out a ditch. Equally it may be that this later very rough repair was a response to the road being encroached upon on the east side and had the effect of moving the running surface to the west, before the road fell out of use. Below this late work is a layer 80 cm wide 10cm deep of medium packed rough limestone rammed into clay, the clay being in excess of 30 cm deep before becoming soily. The western edge of the clay is diffuse with the adjoining soil suggesting long-term worming action has taken place, otherwise the edge would be sharp. Adjacent a clay/limestone shoulder is a significant depth of clean pea gravel, chert and sand, in parts over 30 cm deep, which appears to form the principal road surface. This contained almost no finds apart from a little very calcified bone. This gravel is so formidably well packed that it is almost impossible to extract and strikes sparks off trowels (note the hardness of the road at Ditch Cliff, above). In addition, there is a narrow soil horizon at about 15cm depth within the gravel suggesting that it was laid in two phases with the road being in use between the phases for sufficient a length of time for there to be a build up of organic material (e.g. leaf mould). Often such soil horizons are interpreted as the road "being out of use", this is, of course, not correct, the road is in use, it is simply that long gaps take place between building and rebuilding allowing leaf mould and small grass to cover some or all the

surface. The gravel surface continued as far as the eastern boundary wall, and this necessitated a second examination.

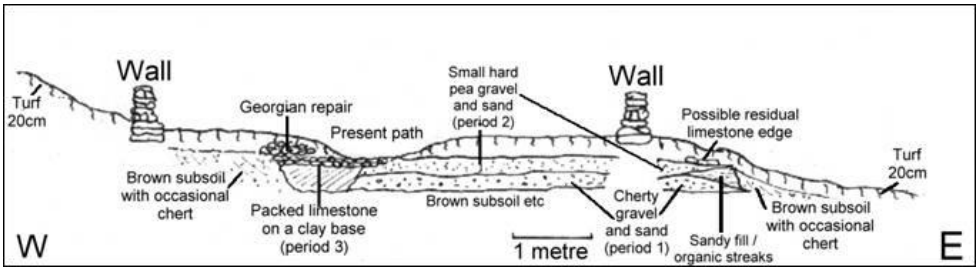
Examination in the adjacent field.

As considered in the lane investigation at the same place, the road surface continued beneath the boundary wall a further metre into the field. The east boundary wall has therefore encroached on the road and may give us a dating associated with the Enclosure Award of 1764 for the wall, indicating the road as being certainly earlier than the wall.

The Enclosure Award notes that the commissioners staked out a public carriageway road at 40 feet at the south end of Islington Lane (called the Bakewell Road on the award plan). There are certain caveats. Firstly the award does not reach the point of Islington Lane where the examination was undertaken, and so it cannot be inferred that the whole lane was staked out to 40 feet. Secondly, when considering the wall encroachment this may be much later than the Award, perhaps even some time after 1816 when the Quarter Sessions closed the original route at the south end of Dudwood Lane to compel people to use the turnpike (Cockerton, 1934: noting that Cockerton gets the turnpike date wrong, probably a misprint).

Field side examination trench: Boundary wall beyond top of picture
The trowel marks the edge of the gravel layer

The gravel layers in the field are clean of any pottery or extraneous material and the two periods of work are much clearer, as the soil horizon found in the centre of the road develops into two definite strata at its eastern edge, with a build up of sandy material between the two which has organic streaks within it. It was also much more obvious that the gravel was different within these two strata, the upper being a finer more pea gravel material say 1 cm and the lower being larger and chertier say 3 cm. There was also, on the top of the upper strata a possible residual amount of medium chert and limestone 5-10cm, which might have represented a further later period of repair, though this was not as obvious on the eastern side of the road as was the limestone layer found on the western side.



Section diagram for Islington Lane; Road width 6m 20cm (from limestone on W edge to E edge)

Islington Lane looking north towards Chadwick Hill

Islington Lane to Grangemill

The route bypasses Winster along Islington Lane, emerging onto the modern B5056 a little south of the Miner's Standard pub, and carries on in the course of the B5056, the former Haddon and Bentley Turnpike of 1811 (Radley and Penny, 1972), coming down past Shothouse Spring, where the Jagger's Way joins it, and carries on southwards past Ivonbrook Grange on the right and Wigley Meadow Farm on the left, diverging from the turnpike to the right a little south of Wigley Meadow Farm, and rising up towards a hill crest on the west side of the Mill Pond at Grange Mill, before descending into the farmyard at Ivonbrook Grange Farm (also Mill Farm) at the back of the Hollybush Inn.

The Portway on the west side of the mill pond looking south towards Grangemill.
At this point the road runs on a terrace which falls away on the left.

The examination carried out with the kind permission of N and W Heathcote, of Ivonbrook Grange Farm, looked at the terrace which was bypassed in 1811 by the turnpike (locally called New Road), this terrace contains one of the best constructed Roman roads we have yet found, comparable in all respects to The Street at Minninglow.

The road is extremely well engineered. It consists of two phases, the first phase is a rather lightly constructed section 2.3 metres wide, of small 1-3 cm small sharp limestone chippings mixed with sand and very fine sharp gravel. This matrix of material adheres together giving the impression almost of mortared patches. The edge of this phase is slightly overlaid by a major road agger (phase 2) composed of a 3.85 metre width of road, with an under surface of large 10-30 cm stone to a depth of 30cm topped with a band of 4-10cm worn stone. The terrace edging is noticeably built of flat well-laid stones

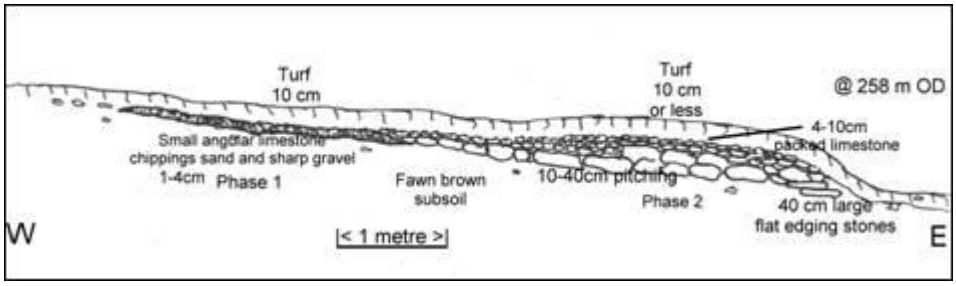
placed at right angles to the road enabling the upper surface of the road to bear down on them and keep the edge in place. The total width of the road is 6.15 metres to the outer edges of both surfaces. It may be that the first phase acted as a horse road and the second phase as the carriageway for wagons. Alternatively, the first phase may represent a lightly engineered and quickly built road, perhaps suggesting a military purpose (a penetration road), and the second being a heavier, more considered and well built road, as time and resources permitted. The natural ground here is a fine loamy soil with a few pieces of small friable limestone.

Phase 1: The gravel section

Phase 2: The stoned section

Large edging stones "pitching" supporting the terracing

Agger of the road section at Ivonbrook Grange Farm



The Portway at Ivonbrook Grange Farm

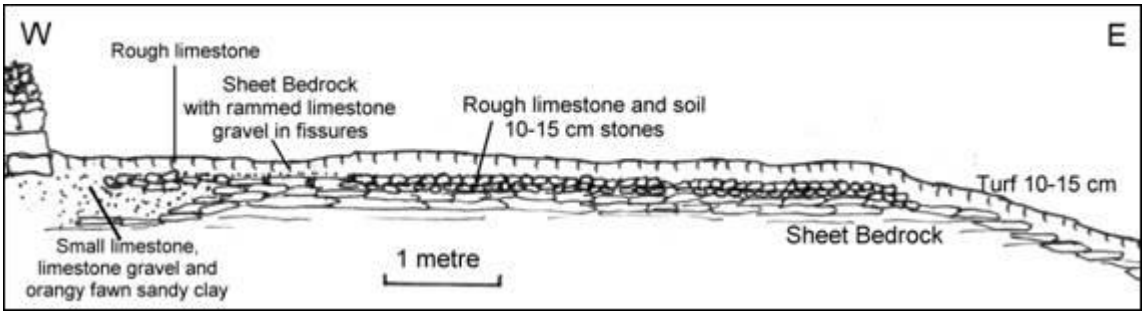
Separately, Cockerton mentioned a nearby earthwork at Wigley Meadow Farm (SK 2433 5861) as being a possible Roman marching camp. An assessment of this site in 1988 by the University of Sheffield regarded the dating of the earthwork as inconclusive, but tended towards the view that it was a mediaeval enclosure associated with Ivonbrook Grange: no Roman artifacts were found. However, one of the reasons given for this "default" position of a mediaeval enclosure was that there were no other Roman features known in the locality. Had the Sheffield team examined the Roman road at this location then the conclusion might have been different. It has to be borne in mind, and we note this for the consideration of future workers, that Roman marching camps are in use for such short periods of time that the deposition of artifacts is very rare, none are found even when the camp itself is known to be Roman by context, proximity or stratification to a known Roman feature. The enclosure at Wigley Meadow Farm is not in an especially strong defensive position, but it is convenient to a good water source and level. Recent developments in the investigation of marching camps have identified the arrangements of the gates (with a "clavicula" or offset gate) as a means of differentiating them from mediaeval enclosures, this was not known when Sheffield University carried out their work and they did not look for any gates to the enclosure.

Grange Mill to Griff Walk

The Chariot Way name, which is used in relation to the section of The Portway between Grangemill and Wirksworth, is probably Georgian in origin: a chariot was a four wheeled horse-drawn carriage of the post-chaise variety, that is to say a light and fast half-boxed coach with a driver in the front and with two seats for passengers in the box, normally pulled by two horses (think of it as a small stage coach). These originated in France from about 1650 and were very popular. Johnson (1979) includes a historical

account touching on these vehicles being used at Pikehall. That the road passed through Chariot Wood (Chariot Nursery in the 1837 O/S map) at approx SK 257 548 and by Chariot Mine (Rieuwerts, 2012). The Chariot Way name possibly sheds this light though – the road is suitable for wheeled traffic in pre-turnpike days, it is no bridle way. Secondly for it to be called old Manchester Lane (another local name for it) perhaps also sheds a little light on its importance in the mediaeval and post-mediaeval periods – it is also no local route, you have to be able to get to Derby (and London) going south and to Manchester going north – it is part of a major through route – this is also supported by the ford at Alport needing to be replaced by a County Bridge as early as 1718, apparently because of weight of traffic - the weight of traffic being "great drifts of packhorses".

It was the principal road between Wirksworth and Bakewell before the opening of the 1804 Turnpike (Wirksworth via Middleton to Grangemill) and the later 1811 turnpike (Grangemill to Hadden and then Bakewell). Even in 1934 Cockerton noted it was still in use by local and farm traffic, and the part of it near Griff Walk is still used by farmers, quarry lorries, walkers, ramblers and cyclists. From the Hollybush Inn, the route crosses the current road junction and proceeded southwards up through what is now a field gate, climbing a terrace on the east side of the expanding Grangemill Quarry (the route is now severed here, and the footpath makes a diversion before returning to its correct course). The road junction at Grangemill is completely different to its historical layout, which is shown on a 1763 map of Ivonbrook Grange.



Descriptive section diagram of the Chariot Way south of Grangemill

A section was taken at SK 2435 5749 on the rise of the terrace, with the kind permission of Mr Dennis Brown. The location was chosen because the road runs on the terrace against a pre-enclosure field wall at this point. Most field walls are of enclosure period date (that is anything from the late 1600s to the early 1800s, and with some local variations) and these walls are built of small gathered regular stones and tend to be A shape when looked at end on. The pre-enclosure field walls date from before this period and are characterised by very large basal stones, older ones are represented by double orthostat walls.

A road surface overlays the limestone bedrock at this location, adjacent to a small delph on the west side, which may represent a "borrow pit" for stone for the road. The bedrock here is at approx 40 cm depth but sometimes less, in parts at the surface. On the west side there is a possible lower layer 20 cm – 40 cm deep, only complete nearer the wall, being composed of small graded 5cm limestone in a sandy clay matrix, which also runs beneath the pre-enclosure wall itself. On top of this is a partial layer

varying approx 20 cm deep, of larger stones. Moving eastwards across the section, a metre away from the wall, this changes and the bedrock briefly becomes the top surface (or more likely, the remains of it, with limestone gravel apparently rammed into the bedrock fissures. Two and a half metres from the wall and directly on the bedrock is then a layer of large stones 10-15 cm size, with a little topsoil, so well packed that it was only with the greatest difficulty that they could be extracted. Interspersed with this is smaller limestone and again a little gravel. These residual gravel remains and those rammed into the bedrock fissures may indicate the "shadow" of a top surface of limestone gravel eroded or washed away down the hillside. The width of the road between the west edge rough white limestone and a pronounced edge of the roadway on the east side is 6 metres 20 cm. No finds came out of the section, which was entirely clean.

Edge of the road marked by the trowel
The sheet bedrock is on the left and is a whiter, grittier stone than the roadstone, which is rough limestone with soil on the right of this picture

The road formation looking southwards near Grangemill, the terrace clearly falls to the left

The route carries on towards a junction with Griff Walk, where a route joined it from Aldwark via Griff Walk Farm, this latter is no longer present in its whole length, but is shown in its entirety on the 1723 map of Brassington Moor (Anon, 1723). The Chariot Way can be walked from SK 2548 5500 to SK 2425 5670, about two kilometres. The route passes through a landscape of intense Roman activity. The area to the north and west of Wirksworth contains a large number of recorded Romano-British sites, tumuli, farms and small settlements, as well as the "marble" quarries at Hopton Wood. A kilometre or so north of the junction of The Chariot Way and Brassington Lane, a Romano-British farm is known to exist close to Mootlow, adjacent to the road but on the east side of it, and a second Romano-British farm and settlement is known at Pearsons Farm (Pastscape Monument Record 606868). At the request of the landowner we cannot identify the precise location of the former in a public report, the site is on private land and should remain undisturbed. At Great Mootlow, which overlooks the road on the west side, there are three tumulii and the Mootlow name suggests it may have been one of the meeting places of the Hundredal assembly or Wapentake of Wirksworth. Its location is conveniently close to where The Street, the Portway and the Jaggers Way pass by together.

We also attempted to examine the route immediately adjacent to its junction with Griff Walk, but at this point the road has been rebuilt recently and it was not possible to find a prior surface below about 30 cm of limestone dust and aggregate which makes up the new surface. However, we were not able to look at the centre line the road would have taken, so it is possible the original surface may still exist at this point. Around the junction the geology is one of sandholes and brown dolomite pits as if the area were a beach or rock pools in geological time.

The Chariot Way looking north at Great Mootlow (SK 2444 5634) still in use for farm vehicles, quarry lorries, pedestrians and cyclists

Griff Walk to Wirksworth

From Griff Walk the road curves gently past new Harborough Farm towards its junction with Brassington Lane. It has to do this because of the topography and it takes a very careful line in doing so, using the contour to the best advantage and having left Grangemill at the very first point that it is possible to negotiate the Ivonbrook Valley, ("Via Gellia") which becomes precipitous east of the junction. We have noted that the "straight line" theory of Roman road building has to be dismissed when dealing with many of the Roman roads of the Peak. There are various reasons for this, including topography as well as a seeming need to moderate gradients. Although this part of the route curves gently, the gradients and levels are well laid out and provide no steep inclines.

The section examined at Bone Mill about 2km south of Griff Walk took a considerable time to understand and resulted in six consecutive visits to the site, which Mr Nigel Weedon and his colleagues at Longcliffe Quarries were kind enough to permit us access to. Initially we felt that the road here was modern - a post-mediaeval farm track, and that the documentary evidence of something much older was not matched by what was in the ground. However, this impression was due to there being a relatively deep covering of post-mediaeval repair work, consisting of assorted tipped rubble, soil and stone with small amounts of brick, as well as mine waste. This was over the whole of the surface of the road to a depth of 15cm. In addition, the east side of the road had been cut away to a depth of two metres to enable the construction of a quarry road, which runs beside the old route.

A marks the line of the Chariot Way, B marks the modern quarry road.
Looking north towards Griff Walk and Grangemill

A field wall runs on the west side of the road and excavation at the wall shows it to be constructed directly on the hillside washdown. An edging sequence of small 4-10cm white limestone only one layer deep runs partially under the wall and is a feature of the road we have encountered in several places.

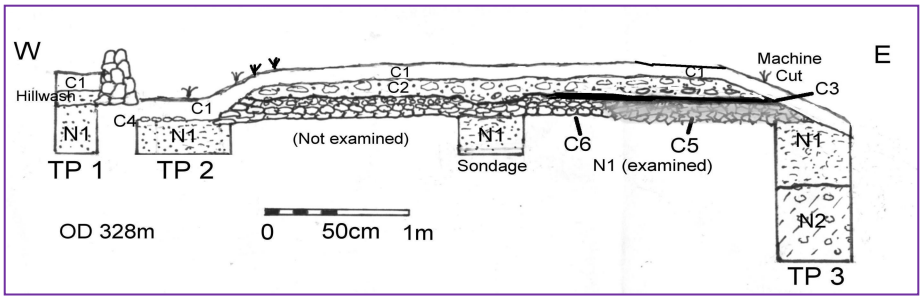
West edge of road

Along the trench there is a built west edge of large limestone pitching stones up to 25 cm and the agger of the road starts at this point. It was first necessary to remove the modern tipped surface of various material to expose what we regard as the primary surface of the road, which is composed of small packed worn and somewhat rounded limestone typically 4-10cm with a black colouration which may be due to organic action. Below this is the natural substrate consisting of sandy packed loam with organic spots and small white cherty pieces. The width of this primary agger is 2m 40cm and is 25 cm deep. I note the "first phase" of the section we took at Ivonbrook Farm at Grangemill was 2m 30cm, though more lightly constructed. Construction materials vary over the length of these roads, depending on local materials.

Primary surface

The east edge of this phase of the road is abutted by a further adjacent layer of brown dolomitic limestone in a brown sandy clay matrix, with two possible layers, one of slightly larger stones below,

but all of a single activity, as the matrix is the same. This surface runs from the edge of the primary agger, at the same depth until it was machine cut at its east side a metre from the butt joint. It also lies beneath the post-modern repair as well as a thin layer of compacted limestone dust, which might also represent another repair or which might represent a further, late surfacing, for this reason it has been given it own context number: its separate from the dolomite. It is not possible to say what the complete width of the dolomitic limestone section was, it is shallower, and is completely gone in the machine cut. In order to ensure the road was not resting on some other feature, the east edge was dug out in its totality, as was the substrate to a depth of 80cm beyond which the natural base layer composed of friable pieces of limestone 8-10 cm with light grey sand pockets was found in test pit 3. The remaining width to where the road has been machine cut is therefore four and half metres including the white edging on the west side. We cannot determine the original width of the road at this location.



Section Diagram of the road at Bone Mill Quarry at SK 2549 5508

Normally we annotate our section diagrams descriptively, but here the diagram is reproduced with its context numbers, as it is slightly more complex than some of the others we have examined.

Annotation
C1. Topsoil
C2. Modern surface "repair" of tipped mixed stone, soil, brick, and mine waste
C3. Thin layer of hard-packed limestone gravel to dust and tending to cover the C5 C6 joint
C4. Edge marking of a single course of white limestone pieces, some also covering the edge of C6
C5. Hard-packed layer of brown angular dolomite in sandy clay matrix
C6. Hard-packed layer of rounded blackened dolomite
N1. Natural reddish-brown soil, sandy with small chert pieces and organic spots
N2. Natural reddish-brown soil, sandy with small chert pieces, more clayey than N1 with blueish grey dolomite pieces so friable they can be worn away in the hand
TP1 Test Pit 1; TP2 Test Pit 2; TP3 Test pit 3

There was no dating evidence from the road, no pottery, coins or other material except in the overlaying modern tipped repair surface. In documentary terms, the Portway north of this point (and there are no other candidates) is recorded as a boundary in a charter of 1260 granting lands from Cecelia de Ferrers to the canons of Stanley Park (Dale Abbey). These lands at Griff Grange were bought on the dissolution by Ralph Gell, after which they remained in the Gell's ownership until the estate was broken up. Lomas (1955) records Roman Derbyshireware pottery finds at SK 258 547 "by the Chariot Way."

The Chariot Way formerly descended gently (it has been quarried away) to a curving east-facing junction with Brassington Lane at High Street near Enniscloud Meadow Farm at SK 2584 5463, now under the High Peak Trail, and only obvious because of a blocked bridge next to the vast eyesore of

Bone Mill works (Ryder point). This section is not accessible to the public at the present time. Brassington Lane here is known as High Street in a Feoffment of 1613 dealing with a land sale by Ralph Gell. Looking only at a modern map it was possible to believe that the route of the Chariot Way didn't turn into Brassington Lane but continued in a straight line across it to Tiremare Lane and so bypassed Wirksworth on the west side. This is effectively what RWP Cockerton had suggested in the 1930s. However, we had examined Tiremare Lane and found it to be packhorse route with a single narrow carriageway of tipped stone, wholly unlike the two phase Roman road section of the Chariot Way at Bone Mill. This is supported by Burdett's map, which also shows the route as Brassington Lane into Wirksworth, not Tiremare Lane towards Callow.

Brassington Lane then ascends over the former Doglow Ditch a short distance to Gallows Knoll, on the crest of Wetherwick Hill, before beginning a long descent into Wirksworth via Four Lane Ends south of Broxendale Farm, and past Norbreck Farm before running into the town down West End and entering Market Place.

The alignment of this section of the route from Four Lane Ends seems to us not to be as originally laid out. Lead mining has certainly affected its course, it is ragged and wretchedly encroached upon. Indeed the road which descends to West End with it, Hopton Lane, has similar problems and was the subject of a court case at the Court Leet of Wirksworth in 1558, when John Wigley was brought before the court for blocking the road and turning its course through the land of Anthony Gell; and this was merely one episode in encroachment. There is no way of knowing whether the court was successful in having Hopton Lane cleared and restored to its rightful course, without yet more archaeological fieldwork. There is also another obscure Portway reference at this point (The "Porteway in Dalefield", Dodds, 2000) which has generally been taken to refer to Porter Lane, which runs east-west to the crossroads at Four Lane Ends. However, Dalefield in the tithe map also abuts Brassington Lane, so "the Portway in Dalefield" might equally be Brassington Lane. A prime example of the difficulty in securely locating portway references.

We had considered that the alignment from Gallows Knoll to Four Lane ends might also have been wrong, but in 2011 a pipeline was cut immediately north of Broxendale Farm as far as Middleton Top and no trace of another road was evident in the cut of the pipeline which we inspected in its totality. The whole of the short distance between the Broxendale end of the pipeline and Gallows Knoll was then probed, and again, no other road was found. This therefore would support the view that Brassington Lane is indeed the correct route of the Portway into Wirksworth, however badly encroached upon or diverted it might have been by the likes of John Wigley.

Immediately south-east of Four Lane Ends (the crossroads between Brassington Lane and the B5035), we noted in The Street report that several burials were found in 1828 about 250 metres west of Norbreck Farm and adjacent to the north side of Brassington Lane (Flindall, 2005), these also contained what may have been jet beads or buttons (it was described as a kind of black material). Were these burials Roman, they would be in a location which we would expect to find them. They are adjacent to

the road, a short distance outside the town and in a high location which overlooks the valley. It is a matter of record that the laws of lead mining (as maintained by that most ancient of organs, the Barmote Court) stated that lead mining was not permitted in a number of specific places, one of these being holy ground or "churchyards". In order for this law to be effective, it seems to us that the lead miners would need to know where the holy ground was and therefore these places must have stated that they are holy by name. There are three such locations near Wirksworth, each about 1 km from the town centre and beyond the settled limits of the town: Holy Close by Slatfield on the former Dale Lane (long ago destroyed by quarrying); Upper and Nether Holy Close between Hopton Lane and Brassington Lane, west of Norbreck Farm (still intact); The Holy Lands, largest of the three sites and now under the Kingsfield Industrial Estate on the Miller's Green Road (possibly intact). It may be these place names simply represent glebe lands or other lands formerly under church ownership. But it may be that they represent the location of ancient burial grounds associated with the town. Upper and Nether Holy Close are the relevant ones in our examination of the Roman road at Brassington Lane here.

Close to where the road runs into Wirksworth, there is also a known alteration in the alignment, between Norbreck Farm and West End, adjacent to a former house and grounds known as The Lees. The alteration was constructed in 1880 and it can be seen on the 1880 Ordnance Survey map, which shows the original alignment and the proposed new alignment (a little to the west of the original). The original alignment gives a slightly straighter approach to Wirksworth than is now the case.

Wirksworth to Milford

The road exits Wirksworth Market Place in an easterly direction via Wash Green. Above St Helen's Lane junction it runs on the south side of, but not in the course of, the present road which goes up to the Malt Shovel Inn. The likely Roman alignment turns south at the old Noah's Ark Inn, past Breamfield Lane end and is overlain by the 1756 turnpike, now the modern road via Alderwasley Bear Inn, past, but not especially close to, Alport Height (with its Roman pottery kiln), then Sandyford (close to the quern making sites in Pitholes Plantation), Milnhay and Belper Lane End to Dalley Lane and Blackbrook. A possible alternative route turns off this above Wash Green, known as St Helen's Lane and then High Lane, shown as route C on the introductory map: it also returns to the turnpike route at Sandyford. Route C cannot be examined it is also in use as a modern road, but given the limited documentary evidence for this section, the course via the Noah's Ark appears to have been regarded as the major pre-turnpike route.

Some years ago we had first considered that a route of Roman origins ran from Wirksworth to Little Chester along a ridgeway near Alport Height towards Farnah Green, whose most important element was Longwalls Lane at Blackbrook, which had every appearance of a straight well-aligned road and ran through a known Roman site at Blackbrook. However, exemplary work by Palfryman and Ebbins (2011) found that Longwalls Lane was a mediaeval packhorse route which passed over the Romano-British quern making site at Starbuck House at Longwalls Lane but was not a constituent part of it: Longwalls Lane was not Roman. The impact of this caused us to review our work and we suspected that the difficulty in finding a Roman connection between Wirksworth and Little Chester was because it was overlain by modern roads so extensively that it had escaped attention, that is to say we should have looked at Dalley Lane (the 1756 turnpike) to Blackbrook and then the route via North Lane to Milford, where it crossed the River Derwent. Due to this error, we let the matter of this section of Roman road rest until new evidence came to light. Eventually, that new evidence proved to be a watching brief on a sewage pipe. The pipe concerned was at Duffield Bank House on the east side of the Derwent where a Roman road, running north, was found beneath a metre of silt.

Returning to the documentary sources, roads were mentioned in the medieval records of the Duffield Frith. The "Belper to Wirksworth" road was recorded in 1296 as the "Kings highway to Wirksworth" in the Duchy of Lancaster papers (Rich, 2005). It is important to note that this road forms part of the Blackbrook route, it is essentially the section from Belper Lane End to Wirksworth. Later, in 1314, the Duchy was making payments to have a road called the "Road of the Cross" guarded on Derby market days for the protection of travellers using it (Rich, 2005). The route of the road is not clear in the documents except it is a road to Wirksworth and what is significant about the payments is that they were being made for three of the four wards of the Frith. In the case of other roads in the Frith, the ward through which a road went was paid to be guarded on Derby market days specifically for the ward concerned. So, for example, the "Road to Corkley" was only paid to be guarded by the Hulland Ward. Corkley was in the Hulland Ward and the route of the road from Derby to Corkley is known and the boundaries of the wards are also known (Wiltshire, 2005). The implication, therefore, is the "Road of the

Cross" was that it must pass through all three wards that were paid to guard it. These wards are the Colebrook Ward (Wirksworth); the Duffield Ward and the Belper Ward. Of these, the Belper Ward is the one that tells us the most. It is on the east bank of the Derwent and its southern boundary terminated at Duffield Bridge: it included Milford. If the "Road of the Cross" came from Wirksworth via Shottle (for example) it would only pass though Colebrook Ward and Duffield Ward, not Belper Ward. On the other hand, if the "Road of the Cross" came from Wirksworth as the Blackbrook route it would pass through all three wards, provided it diverged from that route at Blackbrook and crossed the river at Milford: it would then, necessarily, have to be guarded by Belper Ward as well as the other two.

There is also a documentary hint that the ford at Milford might have been important. In documents for 1253 (Cameron, 1959) there is a place-name reference to Bury Croft (Buricrofte) at Milford, if this were indeed valid, it might represent the presence of a burg fort near the ford, in the same way that a burg fort at Burley Hill appears to guard the fords south of Duffield. Milford is recorded in Domesday book in 1086 as part of Duffield Manor and called "Muleford" (Cameron, 1959, p589). Its progress to being an important mill site for the Strutts appears to begin in 1554 when Burchart Kranich set up the world's first smelting mill on the east bank of the ford (Bennell, 2004), where he was smelting lead from ore obtained at Barrel Edge at Wirksworth. This was quite short lived, but the two locations are interesting, both are potentially connected by the Blackbrook route. In 1581 the site appears to be being used by Sir John Zouch for a forge (Cooper, 1983), which made wire for nails (destined for Belper nailmakers) and for ore sieves (destined for Wirksworth). The forge continued to expand under the later ownership of Walter Mather until it occupied both banks of the river and was eventually sold to Jedediah Strutt in 1777 as the "Ironworks at Milford" (National Archives, D1564/S115). Strutt began to develop the site, initially connected by the ford, then by a chain ferry and finally by a bridge constructed in 1790.

In other documents, the boundaries of Wigwell Grange are recorded at Derbyshire Record Office (D369 G/ZE/92) which states that its western boundary crossed "the Great Road from Derby to Wirksworth" north of Colebrook House, near the Bear Inn at Alderwasley. Darley Abbey, whose Grange this was at Wigwell, was dissolved in 1538. If this document represents an accurate copy of its medieval predecessor, then it would support the Blackbrook route as the main historic "Derby road".

The Rev. JC Cox, one of the most prolific of archaeological writers of Victorian Derbyshire, had this to say in 1886: "*The only Roman road in the county to which I have given anything more than the most casual attention is the one from Wirksworth to the Ryknield Street, a road that, I believe, had been altogether un-noted. When at Hazelwood, I had frequent opportunities of noting the part nearest to the Derwent. It crossed the Derwent, I believe, at a ford that is still occasionally used between Milford and Duffield Station. Thence it mounted the Chevin being observable in grass fields at the back of Moscow Farm. Crossing the ridge of the Chevin at a very obtuse angle, it keeps the rough road on the Belper side of the ridge (*North Lane*), close to the rifle butts for about half a mile…"*

This description is, however, a bit confused and contains some observations which cannot be reconciled 130 years later, for example, the comment about Moscow Farm means *you could see it on the Chevin from the fields on north side of Moscow Farm*.

So the route runs from Wirksworth past the Bear Inn at Alderwasley and proceeds somewhat eastwards avoiding some boggy ground and turns on the north side of the Colebrook (where there were a series of medieval fishponds) and it turns again at Fishponds Farm back to a more south-south east course, runs past the Packhorse Cricket Ground and onward to Sandyford, then Milnhay Farm and past Belper Lane End where it runs directly into Dalley Lane and past the Dalley Wash (a well and a possible carriage / mail coach primping - adjustment - point on the route of the turnpike) and onward along Dalley Lane to Blackbrook. All this section is in modern use, covered in tarmac and cannot be examined.

From Blackbrook crossroads southwards, the examined Roman alignment is along North Lane to Milford, which has been archaeologically sectioned by the Society (Route B on the maps at the start of this document). However this is a steep route, especially at the Milford end, and it is possible that what is now Chevin Road actually represents an original Roman route as this takes a much more level and direct approach to Milford (Route A). It can't be examined, as again we have a road in modern use covered with tarmac. This used to be called Swainsley Lane it does not ascend the Chevin, nor does it need to. It is perfectly possible that Chevin Road represents a true direct line: we know from early maps of Milford that it existed before any turnpikes and that when the Duffield – Heage Turnpike was built in 1793 the turnpike used Swainsley Lane to connect itself to Wirksworth and to bypass the earlier and competing 1756 turnpike. If it was genuinely the case, Chevin Road may have been the original Roman direct route and North Lane represents a strategic diversion built to serve the Derbyshireware Pottery kilns at the Chevin, Lumb Brook, Hazelwood and Farnah Green.

North Lane now begins within Farnah Green off a short side lane to the east of the Bluebell Inn. The modern village is almost entirely aligned to the 1756 turnpike and the Bluebell Inn was constructed in 1766. The apparent loss of a section of North Lane at Chevin Mount house is due to the turnpike having severed the older route. This severing is quite typical behaviour of turnpike companies, to make sure that travellers were compelled to use their turnpike and pay: older routes and potential diversions were often severed or blocked up without lawful consent. In this case the turnpike company created a roadstone quarry just north of Chevin Mount at Farnah Green, this would have cut the old route. South of Chevin Mount, North Lane is wide and well engineered and proceeding southwards climbs gently along the east side of Firestone Hill on a straight alignment a little below the ridge. Having mounted Firestone Hill, North Lane then remains a little below the ridge and in the lee of the prevailing wind for a kilometre, where it passes the former target wall of the old rifle range ("Belper Rifle Butts"). Along this stretch are, within a very short distance, many of the Roman kilns providing Derbyshireware pottery.

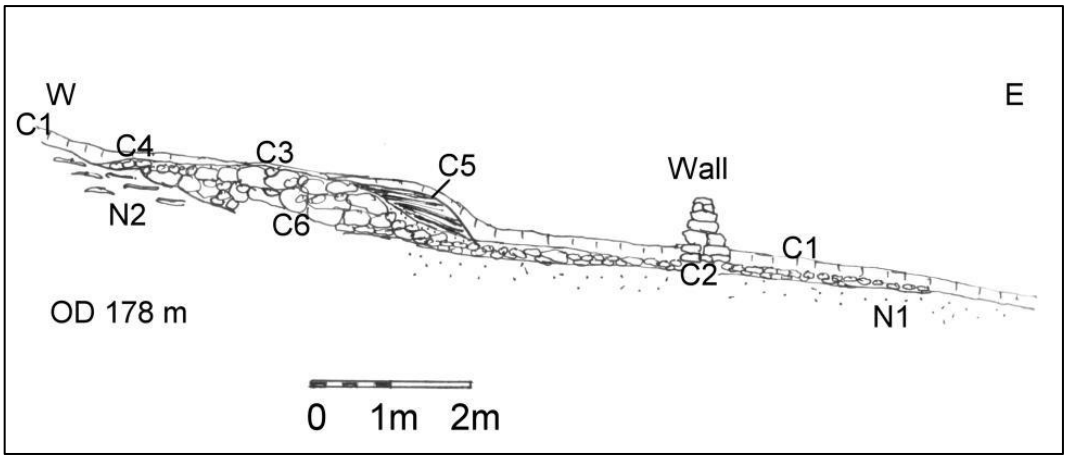
Nine Roman coins were found under a field wall adjacent to the Rifle Butts (Reynolds, 1886). The road then begins to turn in a series of short bursts towards Milford, descending along a ridge of the Chevin past Jacksons Lane down Sunny Hill. This series of turns in short bursts is contributory to dating this

section of the route, because the mechanism of turning is extremely characteristic of and unique to Roman road building: that is turns are achieved in short corners interspersed with sections of straight alignment, followed by a further short corner and so on; so there is no continuous graduated curvature in a turn (Davies, 2002; Margery, 1967). Notwithstanding this characteristic, a number of sherds of Roman pottery were found in different parts of the road surface along this stretch, giving certain dating evidence for this being a Roman road.

North Lane on the Chevin at Firestone Hill looking north towards Farnah Green

Two examinations were carried out on the road between Farnah Green and Milford. The first was at SK 3378 4633, which is towards Farnah Green. The second was at SK 3395 4566, which is towards Milford. Here are the examination sections:

Section 1: Towards Farnah Green:



The section diagram for North Lane, Farnah Green.

Annotation

C1 Turf

C2 Wide loose stoning 10-15 cm gritstones, this appears to be why the road had to be repaired or rebuilt. The spread of stones, assumed to be the first road, appears to have slipped down the hill.

C3 Black, almost ash-like thin hard surfacing, which carries on over the west side agger and also lies beneath C4 and C5, suggests the road was rebuilt and was then in use for a period before the abutment was built to stop it slipping down the hill again.

C4 Narrow (30cm) single layer of smaller stoning which appears to denote the west edge where the natural bedrock rises up to meet it, may represent a kerb at this point.

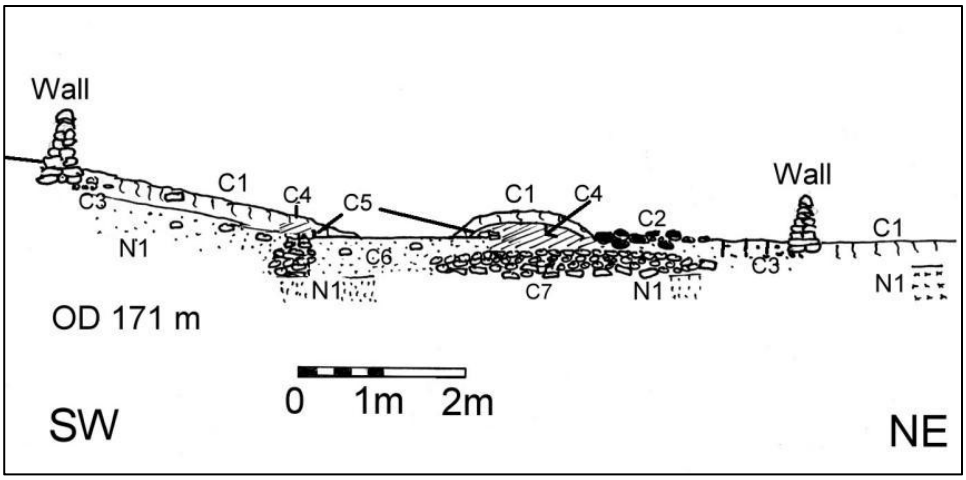
C5 A layer of very sandy grey striated soil, apparently of cut turf. This appears to form an abutment to hold the stoning in place, which lies on top of C3, so is likely to be the result of a further repair.

C6 The core of the road rebuild, comprised of very large stones (up to 30cm), some of which protrude through C3, but which are worn smooth on their upper (road) surface.

N1 Natural substrate of fawn sandy loam

N2 Natural bedrock of fawn brown gritstone

Section 2: Towards Milford:



The section diagram for North Lane, Milford.

Annotation

C1 Turf

C2 Rough very loose stoning 10-15 cm gritstones in black organic fill perhaps tipped as if it were a parish repair.

C3 Understoning of field walls, small stone mixed with soil

C4 A layer of sandy mid grey soil. This is an abutment similar to that in the first examination. There is a slighter version on the upside (south west side) which overlays the kerbing and might represent work to prevent the road getting wet from wash-down on that side. Oddly the abutment at this point appears to overlay the running surface of the second phase road, perhaps due to it having been weathered down over time.

C5 Deeply bedded stone kerb or edge very pronounced on the south west side.

C6 The road rebuild comprised of rammed reddish fawn gritty sand which appears to be the fill of a trench over 50 cm deep cut into the substrate of N1. This is comparable to C6 of the first examination, just a different form of aggregate.

C7 The core of the first constructed road, comprised of very large stones (up to 30cm). The base stones of this context are thinner and flatter, and there is some similarity between this context and the bottom of the kerb, which is strangely deep for a kerb and which also has thin flat stones at its base.

N1 Natural substrate of fawn sand with grit and occasional fawn yellow micacious small gritstone. Note in the field on the north east side, the sand is very red immediately below the turf and soil, which is 30cm deep.

Section 2 trench in progress

The two sections of road, although they are constructed on different steepnesses of slope, are the same. Both have alike features, that is two phases of road building, a kerb or edge on the west side and an abutment on the other. The only difference is in the material used in the second phase, where at Farnah Green it is fawn gritstone and at Milford it is rammed sand. The edge or kerb on the west side of the road would appear, from the Milford section examination, to be integral to the construction of the second phase road and the abutment on the east side of the second phase would appear, from the Farnah Green section examination, to have been added at a later date to prevent the road agger slipping away down the hill.

The total width of the whole feature, both roads and their edges, where it hasn't slipped, is 5 metres 45 cm. The road in the first examination has slipped so its width is not representative of its original state. In the second examination the running surface of the original road is 2 metres 80 cm and the surface of the rebuilt road is 3 metres including the kerb. In the first examination the running surface of the original first phase road cannot be determined due to slippage, the rebuild is 3 metres 10 cm including the kerb. The width of the running surface of the road found by Cobbold and Thorpe at Duffield Bank House was 2 metres 90 cm.

Dating evidence: Roman finds from the surface of North Lane
1-2 Derbyshireware; 3 Greyware; 4 Rim shard (Shottle Kiln); 5 Body shard (Lumb Brook Kiln).

There were various post-medieval finds from the examination and we fieldwalked the road from the Milford end to the Rifle Butts and have five shards of Roman pottery from on the surface in different places. Of these, two are from within 50 metres of the Milford end examination site and they are both definitive pieces. The first is a rim shard of Roman Derbyshireware, which is identifiable by its shape with those from the Shottle kiln. This kiln operated from the late second century to the early third century, or to speak plainly, approximately 175 AD to 225 AD. The second shard is a (jar) body shard from the Lumb Brook kiln site. These kilns operated from the mid to late second century to the late third century, or to speak plainly, approximately 150 AD to 275 AD. As these shards lay on the top of the second running surface this tells us that the earliest date at which there could have been a rebuild of this road is perhaps 150 AD. There appears to be a clear linkage between the placement of kilns sites and Roman roads, this is also observed by de la Bedoyere (2000) in terms of the potteries at Brockley Hill which are adjacent to Watling Street, Brockley Hill also illustrates the tendency of Roman kiln sites to cluster together. Like those of the Derbyshire ware sites here near the Chevin and Lumb Brook.

The work on this road gives every impression of thoughtful engineering. It has two phases, perhaps comprised of an original rapid build (which is why it slipped) and a rebuild which was itself followed relatively quickly with an abutment to stop it moving once and for all. This is three activities.

We may ask why the surface was sand on part of the road because it is unusual. This caused a bit of head scratching and a rethink of our first impressions. In the case of the section we cut on North Lane at Farnah Green (North Lane 1), this is on fairly level ground and is all stone, in the case of the section we cut on North Lane at Milford (North Lane 2), this is on a long descent down to the ford from Firestone Hill on the Chevin and effectively is where there is a lane of stone and a lane of sand. We thought when we cut this section that this represented two periods of work, however, the sand question, or its answer, may throw an interesting new light on this interpretation.

The use of sand is common in sand drags, that it to say places where we need to slow vehicles down, because sand increases rolling resistance. Its use in a Roman road is relatively unusual but it is notable

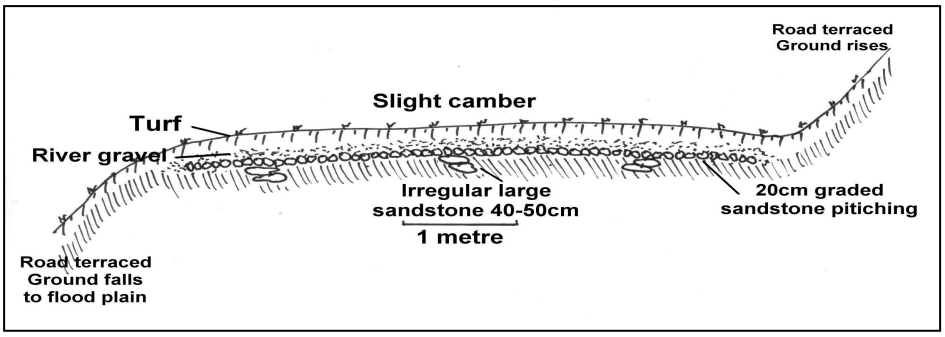
that here it is present only on the downhill section of North Lane. This is where things get interesting. Before the advent of the internal combustion engine, horse drawn traffic was slow moving but ascent of hills was less of a problem than descent, because brakes were primitive or were comprised of nothing more than a scotch or sprag inserted in the wheels. Once a gradient exceeded 1 in 15 (Davies, 2011) the braking problem became acute because you could not rely on your horse preventing your vehicle running away downhill without additional brake force. This problem was most severe where road surfaces were smooth because the rolling resistance would be less and the vehicle would travel faster than on a surface which was gritty and provided more resistance. The presence of a lane of sand on the downhill section of North Lane suggests that this drag effect was understood by Roman engineers and that the sand was there to help slow loaded wagons or sledges (of pottery) going downhill from the Lumb Brook kilns to the ford at Milford. This is fascinating and also may explain why there is a lane of conventional stone next to the sand lane, that is for vehicles travelling up the hill where rolling resistance or drag is certainly not needed (even if the wagons are empties). This being so, our conclusion that this road was built in two phases may be wrong, the road may actually have two lanes built at the same time. JC Cox's (1886) view was that North Lane constituted part of the route from Ryknield Street to Wirksworth and felt the section "along the Chevin by Belper was quite remarkable", which it is. Indeed, it is possibly the best extant section of "untouched" Roman road in the whole of Derbyshire still in use for walkers and cyclists.

Milford to Little Chester

North Lane comes down to Milford. The ford was originally somewhat south of the bridge, the Strutts removed the ford after constructing their bridge in 1790, to compel travellers to use the bridge and pay the toll. The bridge first shown in a 1792 map, replaced the ford and a chain ferry. Also shown is Jackson's Lane, which was called Hopping Dale Road in 1787 and at that time it went right down to the river, perhaps implying that there may perhaps have been a small wharf or loading place there in past times. Once on the east bank of the Derwent the route turns immediately south and proceeds along the lane formerly known as Save Penny Lane and past Duffield Bank House and Duffield Bridge on its way towards Little Eaton and Little Chester. The Enclosure Map of 1791 also shows Save Penny Lane running continuously between Makeney Hall and Duffield Bridge.

The only historical fieldwork was done by Smithard at Save Penny Lane. Smithard reported on this in the Derbyshire Archaeological Journal (DAJ) of 1913. The excavated section was found to consist of a wide well-constructed substrate of large stone topped with river gravel. The river gravel was 10cm deep under which was a foundation layer of firm packed coarse local sandstone an average thickness of 25cm. Below this were some larger "irregularly located" blocks of sandstone which varied in size but were variously about 40cm x 18cm x 25cm, the same size as those later found at Duffield Bank House. At the point at which Smithard took the section, the road ran on a terrace, on the east side of which the land climbed, on the west side of which the land fell to the flood plain and the river. The width from edge to edge was 5.1 metres and was below a depth of 12cm of turf and soil. Smithard took the view this was of Roman origins on the basis of its engineering and that it was no longer in use at the time of the Duffield

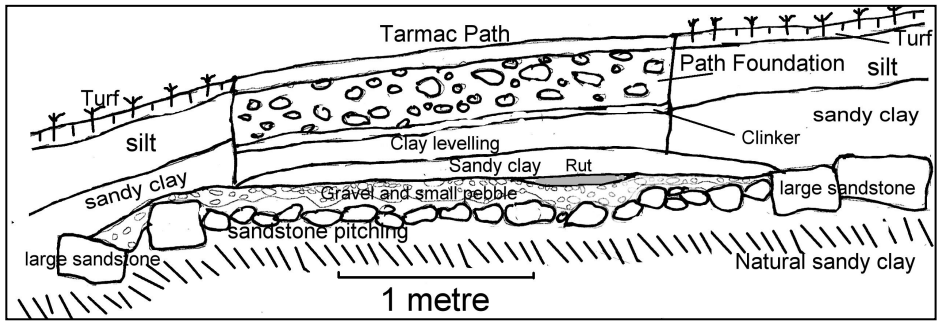
Enclosure Award of 1789. Its width and construction is relatively consistent with its nearby fellow, Ryknield Street, at Morley Moor which was later examined by Munslow (1949).



Road Section: Save Penny Lane. After Smithard, 1913. (W-E)

Smithard in writing up his examination said that it was part of a Roman road from Little Chester "represented by old roads and field-paths along the 200 foot contour through Breadsall, Little Eaton and Duffield Bank to Milford, where it crossed the Derwent and proceeded along the Chevin".

In February 2017 Archaeological Research Services of Bakewell were undertaking a watching brief on the east bank of the Derwent in Duffield (Makeney side of the river), just north of the Bridge Inn pub and in the grounds of the Rolls Royce Conference Centre at Duffield Bank House, SK 3512 4338. This watching brief was to oversee the construction of a small sewage plant and its outfall to the Derwent.



Buried road at Duffield Bank House. After Cobbold and Thorpe, 2017. (W-E)

The watching brief included the monitoring of pipe trench which ran from the plant to the river outfall. At the point at which the pipe trench crossed a modern tarmac path, it was found that the path overlay various contexts of previous paths and tracks the exposure of which, working gradually down, reached the metalling of a road at just short of a metre depth. Archaeological Research Services held the view that the construction of this road was "strongly reminiscent of Roman construction techniques", with small rounded pebbles and gravel in a clay matrix overlaying a foundation of medium large 25cm sandstone pitching and some kerb edging. The total width of the road from edge to edge was 4.5 metres, with the running surface being 2.9 metres containing two ruts 1.3 metres apart. The road was running in an approximate north-south alignment and appears to be a continuation of Save Penny Lane.

The two road sections, although taken a hundred years apart, are quite consistent, the materials used are the same and the width reported is sufficiently similar for this to be the same road, with the sections being taken perhaps 300 metres apart (Smithard's section does not have exact reference points, only a

sketch location). The running surface of the section at Duffield Bank House appears to be 2.90 metres, Smithard does not appear to have differentiated a running surface so his width is for the entire structure.

The section on the east bank, Save Penny Lane, runs just above the flood plain of the Derwent. Save Penny Lane derives its name from it having had a lane to another ford which crossed the Derwent to the north side of Duffield railway station, associated with it and thus saved people the cost of paying the toll over Duffield Bridge. Save Penny Lane is now completely overgrown and forgotten, but its course and the ford to Duffield is clearly shown on Burdett's map of 1767 and on maps of the 1780s and 1790s.

From Duffield Bridge the route was considered by Smithard to proceed along the east side of the Derwent to Little Chester and the received wisdom was that it ran in the course of Eaton Bank and Duffield Road at Little Eaton and then via Alfreton Road as far as Croft Lane, where Brassington (1981) suggested it joined Ryknield Street. However, to do this it has to climb Eaton Bank - something it doesn't do at Duffield Bank. Consideration for future fieldwork should perhaps be given to the footpath which runs by the Bridge Inn car park southwards towards Peckwash Mill. The path now terminates next to Peckwash Mill, but in the 1789 enclosure map of Little Eaton this path carried on, in a noticeably long straight alignment and only returned to Duffield Road at the north end of what was formerly called Holme Lane at SK 3564 4200. What is now Duffield Road at Little Eaton was originally three separate lanes: Edge Cott Lane, then Long Lane, then Holme Lane. Between Peckwash Mill and a field gate at Holme Lane end, at a slight turn where Duffield Road now comes down off Eaton Bank, a terrace runs through the two intervening fields about halfway down the hillside and just above the flood plain. From Holme Lane the line of the road is probably followed by the south end of the current Duffield Road, including where the Bottle Brook comes into the Derwent flood plain at Little Eaton. The Bottle Brook isn't so obvious, but it runs under the road about 50 metres north of the New Inn. The need to run around the edge of flood plain is also the reason why the road turns in general between Duffield Bridge and Little Chester.

From there, Alfreton Road appears to be the course of the route as far as the modern A61/A38 roundabout at Ford Lane. The course of Alfreton Road south from the roundabout is not original until it returns to its historic alignment south of the Alfreton Road railway bridge at SK 3607 3869. The reason for this is a sequence of re-routing changes of this section, beginning with the 1793 Derby – Little Eaton Canal, which moved it a little from its historic course (Cillet 1792; Outram, 1792); then changes for the construction of the Midland Railway in 1840, which ran over a section of it and moved it again, and finally further changes associated with the construction of the A38 roundabout in 1977. Nevertheless, once at SK 3607 3869 and off the railway bridge, Alfreton Road is back on its original alignment (O/S map of 1882 and O/S map of 2008) and so its junction with Ryknield Street, would be at SK 3586 3817, but not where Brassington presumed it to be. A considerable amount of archaeological work has taken place around Little Chester fort and Ryknield Street runs immediately past the east side of the fort and then continues in a southward direction to a point at which there was considered to be a Roman bridge over the Derwent.

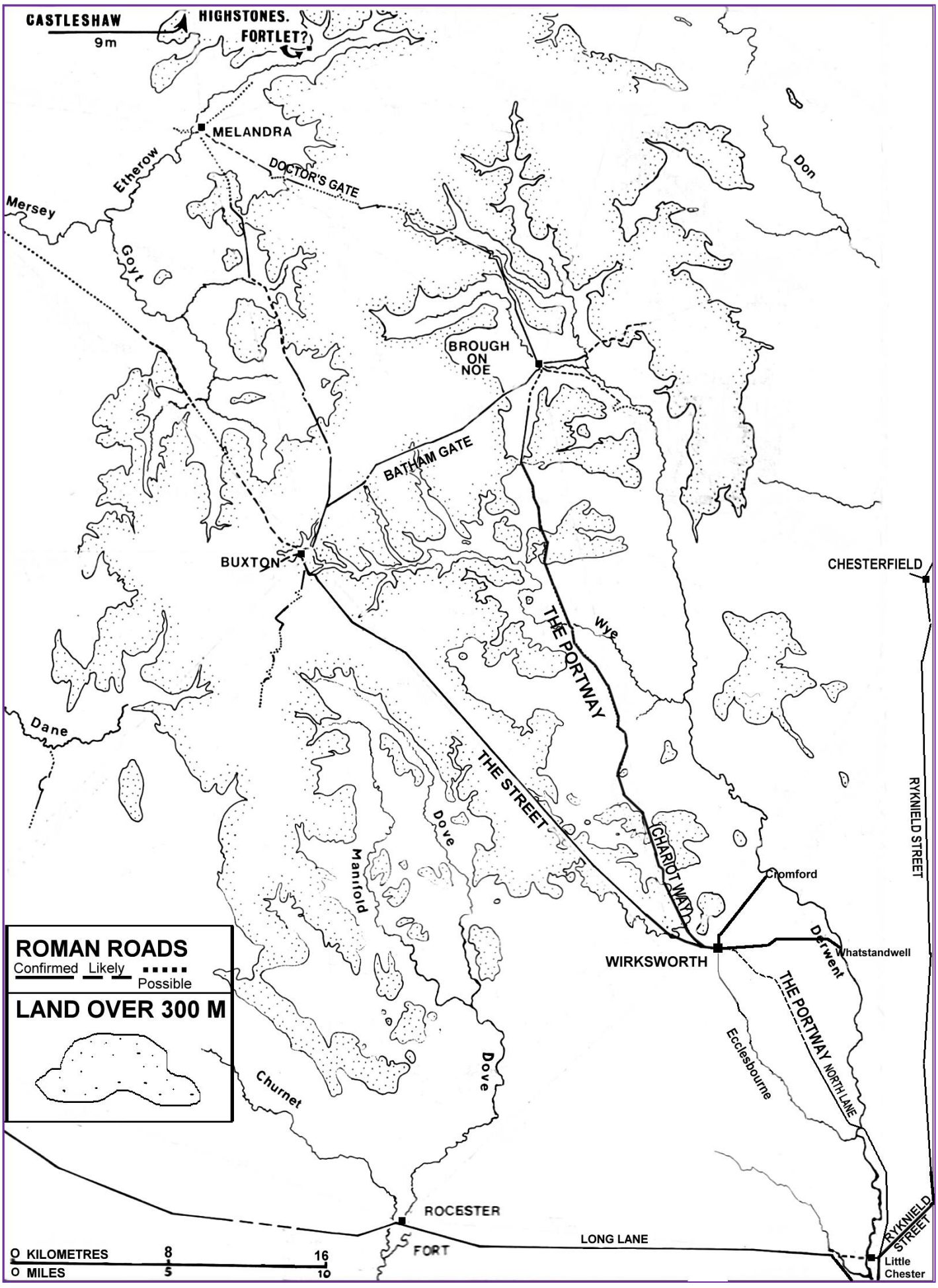
Discussion and issues

Approach to the topography

Much Roman road archaeology developed in locations like the Cotswolds and the Eastern Counties where long straight roads run through gentle rolling or flat countryside, so the straightness of Roman roads is fixed in the popular imagination and is difficult to dislodge. The Peak District isn't flat and topography is an issue in road building. However, there may be other reasons for the manner in which a road passes through the landscape and these may include limited surveying, engineering or constructional resources when the road was built; or the road was following some previously established track or path (hence the theories about conjectured Iron Age origins of the Portway). However, The Portway's approach and alignment are relatively consistent, and in a few places, such as Haddon Fields, where there is dry level ground, it does take a straight course. But in general, the Portway demonstrates an awareness of the topography and a very deliberate approach to dealing with it, suggesting surveying expertise was engaged in its construction. Examples are the avoidance of the Ivonbrook Valley at the south end and the avoidance of Cressbrook Dale at the north end, in both these cases the road crosses these features at the very first feasible crossing points and both result in changes in the alignment of the road which curves around them. The Portway also seems to make use of water sources along its route, something which its companion "The Street" cannot do being as it is on the limestone plateau. There are several water crossings and these are also of potential use to travellers and animals as sources of water along their journey, and some may have been a feature in the consideration of its route.

Materials and construction

In reading much of the literature about road construction in former times, one might gain the impression that if a road was constructed "in one piece", that is to say all at once, one might expect the materials used to be all the same. For the Portway this is certainly not the case, the construction materials differ along it, and appear to be taken from what is immediately available. For example at Grangemill the section constructed is of graded limestone on limestone bedrock, and this may well have been taken from a borrow pit which appears still to exist next to the road. Most borrow pits would long ago have been filled in though. In some cases, especially at Ivonbrook Grange Farm, it is obvious that there is more than one phase of road construction being undertaken. At this location there appears to be an initial very modest surface of material which involved little more than spreading aggregate along it. Only later, in a second phase, was what might be regarded as heavy or considered engineering involved. This might represent a military penetration road, later rebuilt as a major thoroughfare. We may also have to be cautious at Ivonbrook Farm, for a second interpretation could be made, and that is that there are two roads which happen to converge at this point. These are the Portway and the Jaggers Way. The Portway we now have a good understanding of, but the Jaggers Way (see appendices) presents a range of issues all of its own, and at our current state of knowledge we cannot exclude that the Jaggers Way may also have antique origins or may simply be a medieval packhorse route. On balance however, The Portway exhibits an original build and a reconstruction.


CASTLESHAW
9m
HIGHSTONES.
FORTLET?
MELANDRA
DOCTOR'S GATE
Etherow
Mersey
Goyt
Don
BROUGH ON NOE
BATHAM GATE
BUXTON
CHESTERFIELD
THE PORTWAY
wye
THE STREET
Dane
Dove
Manifold
CHARIOT WAY
Chomford
RYKNIELD STREET
Derwent
Whatstandwell
WIRKSWORTH
THE PORTWAY NORTH LANE
Ecclesbourne
Churnet
Dove
ROCESTER
FORT
LONG LANE
RYKNIELD STREET
Little Chester
ROMAN ROADS
Confirmed Likely Possible
LAND OVER 300 M
O KILOMETRES 8 16
O MILES 5 10

The road edge

We have remarked on the presence of a course of white edging stones in almost all the examinations we have undertaken along the Portway, in some cases mainly on one side, in some cases both sides with only vestiges in others. Although these might have some role in drainage, they are not really deep enough for this, nor are they deep enough to represent kerbing. They may simply delineate the edge of the road for boundary purposes. If we take them at face value they act as a kind of white line and might perhaps aid travellers in the dark. It must be remembered that the countryside in olden days was extremely dark with no lights, even in occasional farmhouses or hamlets except candles or oil lamps, consequently people got lost just by wandering off the road, so these white edges may be a measure to alleviate this problem.

Width of the road

We can also say something of the width of the road: we have several road sections to compare, the widths of these sections are:

1. Grangemill Quarry: 6.20 metres
2. Ivonbrook Grange Farm: 6.15 metres
3. Islington Lane 6.70 metres
4. Chadwick Hill in excess of 6 metres (impossible to find one edge under field wall).
5. Bakewell between 5.7 metres and 7.5 metres (edges not found between test pits).

The Chariot Way at Bone Mill cannot be included, it has been machine cut away after 4.5 metres. The width of these sections are within 10% of each other and in so far as the Ivonbrook Grange section was taken in a location where there were no field walls to interfere with the measurement, that 6.15 metres is probably the most accurate width. This is similar to Doctor's Gate and wider than both Akeman Street and Foss Way (Davies) and much wider than The Street which is only 2.8 metres. The Street also consists of only one phase of work, compared to The Portway's two phases, though the strange edging might represent further work of some kind. Wroe quoted his sections along Bradwell Dale as being 6 metres wide. It is possible that the apparent two phases of construction and reconstruction of this road might coincide with the occupation and re-occupation of the fort at Brough on Noe: that is first occupied approximately 70-80AD, then abandoned by 120AD, then re-occupied 154-158AD to about 350AD.

Traffic using the road

In many cases when looking at Roman roads, our understanding of the traffic using them is rather limited, but in this case the road gives every impression of having a strategic purpose in promoting industrial activity. It runs across the Peak District lead field and Roman lead production is quite well understood from the many finds of lead items and in particular lead ingots from the Lutudarum lead field. In addition, the extent of Roman industry along the road between Wirksworth and Milford is

astonishing. The area is the centre of production of Roman Derbyshireware pottery with a large number of kiln sites known along the route, there are also quarrying sites, quern making sites and evidence of lead smelting.

Pottery kilns

Alport Height, one kiln, at SK 3057 5158

Farnah Green, one kiln, at SK 3338 4732

Hazelwood, three kilns, at SK 3267 4687

Holbrook, two kilns, one at SK 3628 4451 and the other at SK 3626 4431

Lumb Brook, six kilns, at SK 3294 4676. Note: some published reports give this wrongly as 4576

Milford, The Chevin, one kiln, at SK 3450 4509 and pottery found on North Lane noted in report

Shottlegate, one kiln, at SK 3186 4710

Shottle Hall, one kiln, at SK 3141 4755

Quarrying

Belper Lane End, Wyver Wood, stone quarry, at SK 3400 4934

Quern Making

Alderwasley Pitholes Plantation, quern making site at SK 3322 5119

Alderwasley Springfield Farm, quern finds at SK 3413 5138

Alderwasley, Slade Farm, Whitewells Lane, quern finds at SK 3359 5065

Alderwasley Street's Rough, quern making site at SK 3331 5087

Blackbrook, Starbuck House, quern making site at SK 3317 4829

Lead smelting

Lumb Brook, lead hearth and possible dwelling at the kiln site at SK 3294 4676

Ox Cart carrying barrels from a Roman bas relief frieze

Although some of this traffic might be hauled by ox cart, our knowledge of the medieval period, which is better, suggests freight traffic is being carried by pack horses or pack mules and this extends not only to industrial goods, in this case lead, pottery, querns etc, but also domestic supplies, food, personal items, jewellery, cloth, beer, malt and so on. Even towards the end of the lead industry in the first quarter of the nineteenth century, lead was still being carried by mule and an anecdotal account of a farmer living at Crossroads Farm at Blackbrook relates his remembrance of "pack horses carrying lead coming down from Wirksworth" on Dalley Lane on their journey towards Milford and Derby in the 1820s. In general, public comments about the use of horses, mules or donkeys don't tend to differentiate about the kind being used. In the Roman age, the wealthy or officials (such as the post) would be able to afford or use a riding horse or horse and chariot and there are also examples of horse drawn carriages for people. Mostly, horse or mule traffic on roads such as the Portway would be goods and freight though and people on foot.

Conclusions

To summarise, the Roman road between Brough on Noe and Little Chester is substantially built and gives every indication of being thoughtfully engineered. It was a major pre-turnpike route, perhaps the most important pre-turnpike route through the Peak District, and twice the width of The Street, its better known Peak District counterpart. It is associated with a long-lived historical record, notably references to the Portway in charters and other historical documents. It would, of course, naturally benefit from further assessment and we commend it to colleagues for that purpose, for example between Wardlow Mires and Trot Lane, and Dark Lane on the approach to Alport.

This well-engineered road is constructed of local materials, and these materials vary along its length, including limestone, chert gravel and gritstone. The very changes in these materials from section to section caused us initial confusion, as we expected one cohesive route to be constructed in one cohesive material, except that it is cohesive: not necessarily in its material but in its approach to the topography, and its tendency to seek easy gradients and the lowest parts of the escarpments or hill lines which it has to traverse, even at the expense of having curves rather than a dead straight line of route, though in all cases the curvature is gentle where the topography permits. On the one hand, in typical Roman road examinations there is almost no dating evidence from the road itself: for example finding a coin in a non-urban road examination is almost unknown, but in the case of this road, it serves the Derbyshire ware kiln sites around the Hazelwood, the Chevin and Lumb Brook and a number of sherds of Roman pottery were found directly on the road surface. On the other hand, where the road is constructed of a known and understood material, such as limestone, which is present in other previously known Roman roads, the construction is of a family likeness. At Ivonbrook Grange Farm, the section of The Portway examined was of an almost exact match to The Street at Minninglow, indeed the Society had made a special effort to re-examine The Street at Minninglow, because the reports about The Street were themselves fifty years old. This gave a constructional match (as a Roman road) which is remarkably different from medieval road construction, such as that at Stunstead Lane.

Therefore the considered view is that The Portway is in origin the Roman road between the forts at Brough and Little Chester and it serves a number of important and major Roman sites in between. That the Portway formed a principal and important route through the Peak District from north to south (and vice versa) is supported by its presence in early charters and other documents: it remained in use throughout the mediaeval period and only met its demise as a major through route at the hands of turnpike roads after 1756. Even today much of it remains in use, either as principal roads, byways or footpaths. In a few places it has been severed by quarrying activity and taking a long-term view (as archaeologists do) when these quarries close, the severed sections should be re-joined, provision made to do so and the route restored, wherever practical. It also seems to us, taking a view which the sweep of history permits, that even if an element of an engineered road such as The Portway is diminished, where any traffic remains, be it on foot, horse, cycle or by wheeled vehicle efforts should be made to maintain the road as open. For it is clear to us that in some locations its decline is not due to lack of use, however modest, but to neglect on the part of the responsible authorities to maintain the thoroughfare:

an example is Islington Lane, where the road continues to exist beneath several years of detritus and soil accumulation, and its "loss" is a result of a sustained but recent failure to control the roadside undergrowth and keep the way properly open for such travellers who may wish to use it.

Appendix 1: Comparison with The Street

In an effort to find a comparative piece of road to the Portway, we have examined a section of The Street (the Wirksworth – Buxton Roman road) near Rockcliffe Farm at SK 2088 5754 with the kind permission of the landowner, Mr. M Cooper.

The section is similar in all respects to that taken by Lomas at Mininglow in 1958. At this point The Street curves gently round Mininglow and is still extant and obvious for perhaps a kilometre. South of Minninglow towards Longcliffe it appears to have been ploughed out and northwards the agger gradually fades out in the fields further from Minninglow.

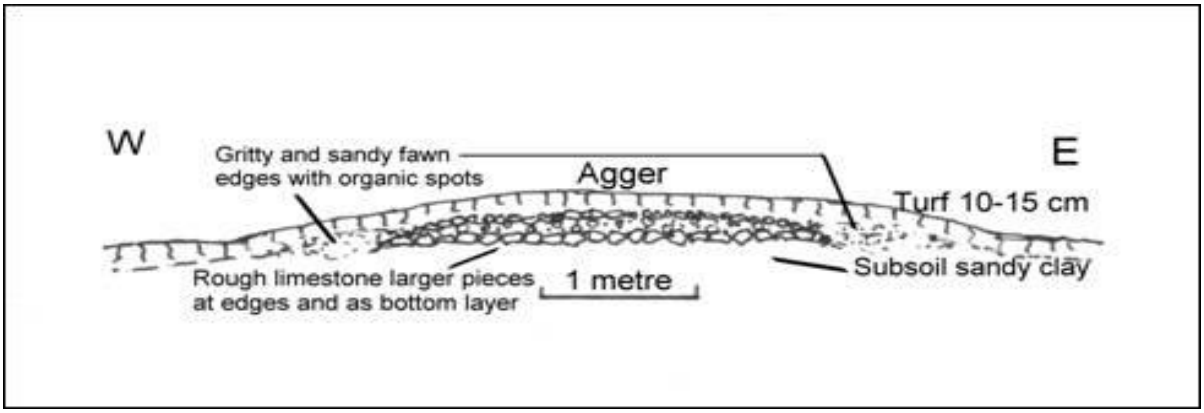
The Street at Minninglow looking northwards

The section was taken on exactly level ground. The agger is just below the topsoil with a width of 2m 80cm to its edges. It is composed of limestone with larger stones at the bottom (called by Lomas "Pitching"), then with a core of mixed sized limestone, sandy and with a little chert, and an upper surface of larger stones with the remains of a small limestone and cherty gravel top in a sandy clay matrix. In so far as these components appear to be the same material, the limestone being veined and with a little galena and barytes (suggesting the source as containing these materials, or even that mining waste was being used), there was no obvious work beyond the one period of construction. The agger lies directly on top of a fawny-brown sandy clay subsoil (and appears to have been slightly rammed into it, either during construction or by the weight of the agger on the subsoil and traffic), the subsoil becomes slightly redder, browner and more clay the deeper it goes: but without us finding bedrock, though there are occasional random pieces of limestone in the subsoil. The centre of the agger at this point is 25 m from the western field wall and two control pits were put in 8.8m from the wall and

14.4 m from the wall to check that there were no other road traces. In these pits only turf and sandy clay subsoil were found, though the pit nearer the road contained a 5 cm layer of unidentifiable burnt material suggesting it had been a the site of a small roadside fire, possibly of travellers, or given that the burnt layer was at a slight colour change in the subsoil, it may even have been a fire made during the construction of the road, as its depth was consistent with the bottom of the road surface. There were no finds.

Section of The Street at SK 2088 5754 in process of cutting looking north east.

For perhaps 50cm on either side of the agger, which is about 25cm deep, there is a sandy, slightly gravelly clay matrix which may be the result of the top surface being washed down or the wear effect of traffic, but which does not represent another period of construction or constructional feature. This overlies the natural subsoil, and at these edges the subsoil is mixed with small patches of black organic material for about a depth of 20cm, which might represent vestigial ditching on either side of the agger, but these features are probably too shallow for that purpose and may simply indicate the extent to which the ground was originally cleared to lay the road.



The Street – width on dead level ground of 2.8 m

In so far as we compared this width with the sections taken by Smithard in 1910 and Lomas in 1958 (see Street report) Smithard and Lomas found slightly wider sections to 3.75 m and 4 m, we initially thought ours inexplicably narrow and the result of some error in our measurements, but the section was taken at a location which was in all respects dead level. We then measured a section 100 metres further north where the course of the road lay more obviously on a slight W-E gradient and the width of the agger here was 3.8 metres, suggesting the variation in widths reported is due to the width of the agger needed to support the level of the road against the slope of the contour, and in the case of our more northerly examination the lower (downside edge) was more pronounced and more built up with larger edging stones than the upper edge. Hence the greater width is needed to support an otherwise relatively level road surface where the underlying contour falls across the width of the road (this is sometimes called the cross-level) and this is most obvious where the road is terraced into a hillside.

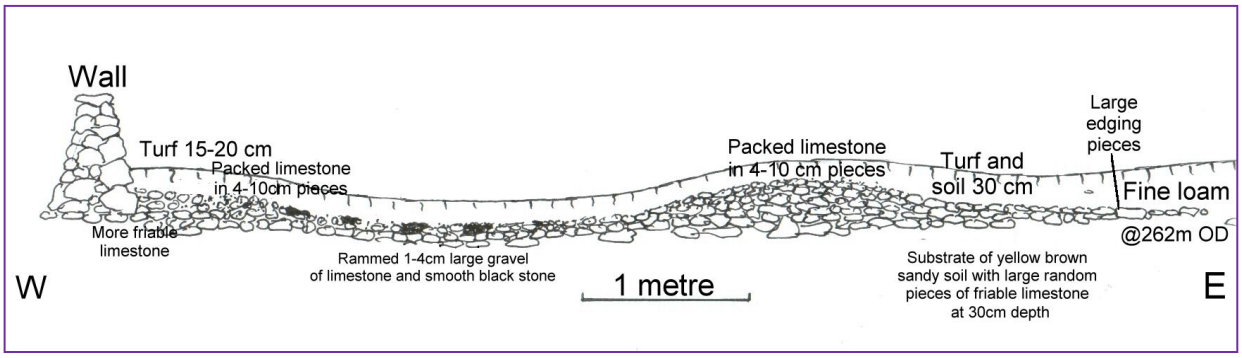
Eastern end of the section with sondage to test underlying subsoil

In term of the direct comparison we took several sections of The Portway and at Ivonbrook Grange Farm, a section exists which was exactly comparable to The Street at Minninglow both being constructed in the same manner and of the same material (limestone). However, The Street is only one construction phase and no rebuild, and is less than half the width of The Portway. Even if we simply compare the second phase of The Portway this is still 3.85 metres wide, compared to The Street at 2.8 metres, suggesting The Portway was a more important road.

Appendix 2. Associated roads and notes: summary of archaeological assessment work by this Project in connection with The Portway.

Jaggers Way: Uncertain date

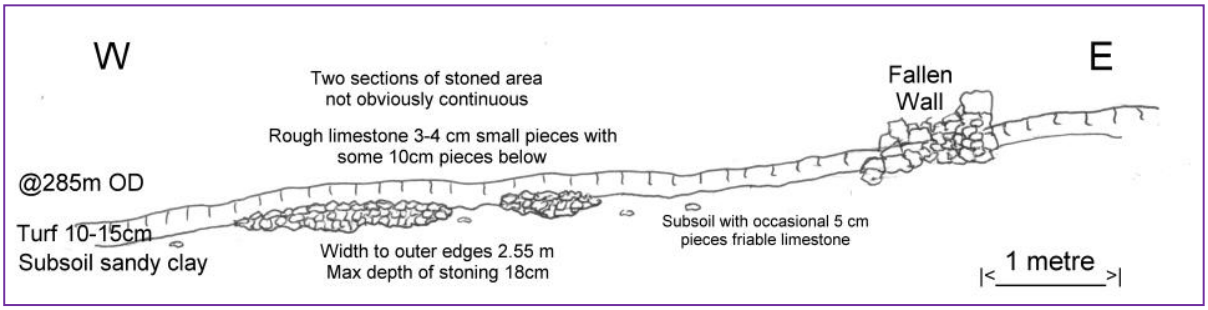
Theoretically a pre-turnpike road running from Chesterfield to Ashbourne, suggested as a lead mining route by some authors such as the Dodds, and suggested as possibly Roman by Cockerton, based on local opinion. We have made several attempts to consider the section between Grangemill and Wall Lands south of Brassington. We are not able to draw a satisfactory conclusion – the evidence conflicts. In some cases we can find no extant surface or structure, such as in the Wester Head Valley, in others, such as at Wall Lands and possibly a little to the south and west of Harborough Rocks (Harbour Hall 1650 in D258/33/14/14), a constructed surface exists. The route requires much further assessment.



Section of the Jaggers Way at Wall Lands, Brassington.
The east edge lies under a mediaeval ridge and furrow plough section

Stunstead Lane: Medieval

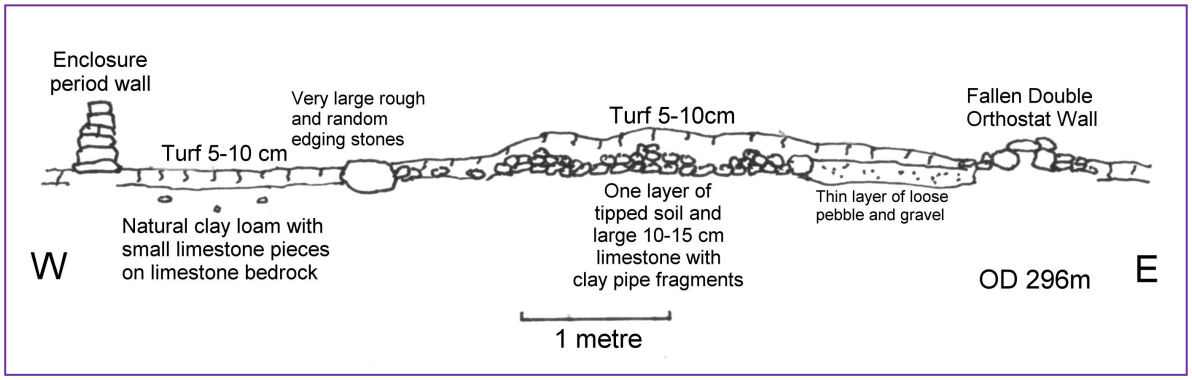
Runs from Grangemill via Sacheveral Farm to Elton. This is beyond doubt a local or mediaeval pack horse route. A made surface exists but it is comprised of tipped stone into pre-existing ruts. The lightness of the stoning suggests local or agricultural construction efforts during the mediaeval period as the lane seems to be apparent on a map of Aldwark of 1618 leading from Aldwark Grange northwards. Two sections were taken, one on either side of Ivonbrook Quarry and both provided only a thin layer of stoning tipped into two pronounced ruts.



Section of Stunstead Lane south of the quarry.

Tiremare Lane: Medieval or Post Medieval

Runs from Stainsborough Lane to Brassington Lane at its junction with the Via Gellia at Ryder Point (originally known as Doglow Ditch). Is a poorly constructed, late, packhorse or lead mining route with a single carriageway of tipped rough stone built up against the field wall boundaries (i.e. it was built after the boundaries). It only occurs in its whole length on the map of Hopton of 1846.

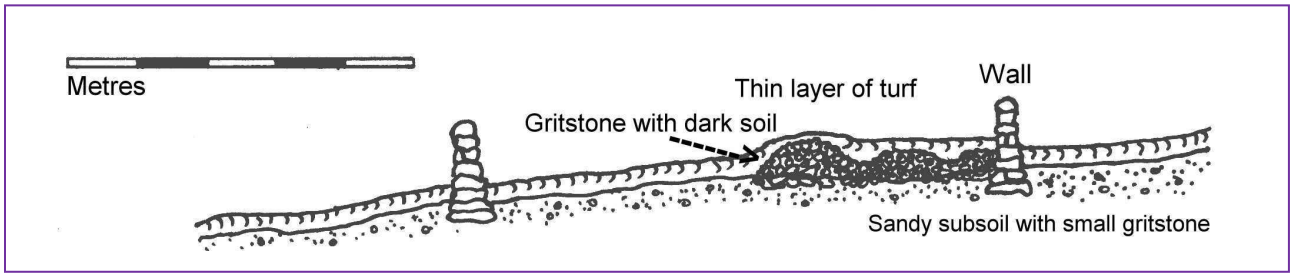


Section of Tiremare Lane

Street's Rough: Medieval or Post Medieval

Near Sandyford a possible former packhorse route runs down to the Derwent from the direction of Wirksworth going towards Heage.

At Streets Rough we took a section through the apparent agger at SK 3302 5096, shown below:



Section of Street's Rough (S-N)

We can best describe what we have found as a fine example of shoddy workmanship. It is a single carriageway between two parallel walls which are far enough apart for two carriageways. The agger runs against the northern of the two walls and it is built against the wall. It has two clear cart ruts running along it and is comprised of tipped, rough ungraded unpacked stone mixed with soil suggesting a local repair or farm track.

Road Section: Street's Rough at SK 3302 5096

In so far as the work does not comprise any domestic or farm related rubble, the balance of probability is that it is a Georgian period local repair rather than farm work. This begs the questions of why and when. To explain this is it necessary to remember that there is a period after 1690 when road repairs were being both scrutinized and enforced by increased parliamentary activity (Smith, 1996). These repairs were carried out under the rather haphazard instructions of the Surveyors of the Highways (who reported to the Justices of the Peace at the Quarter Sessions). In consequence it is possible that the repair to the Street's Rough road is a result of this enforcement. By the 1750s, however, the Derbyshire lead trade was beginning to decline due to the expansion of Welsh lead mining and by 1820 was virtually at an end due to cheaper foreign ore being imported. It is possible that this route was being used until sometime between these latter dates because it was cheaper than using the turnpike and toll bridges. Slightly to the north, the line of Jackass Lane comes down to the 1792 Halfpenny Bridge at Ambergate, prior to which there appears to have been a ferry over the Derwent at that point ("Ferry House" is by the bridge), for which there would also have been a charge.

The lack of stoning prior to the Georgian work does not necessarily mean there isn't a mediaeval or earlier route at Street's Rough. We know that before the opening of the second turnpike road in the area (Wirksworth to Nottingham in 1759) that lead was being transported by packhorse between Wirksworth and Nottingham along an unspecified route for which this is a candidate. (See: "Petition by lead and other goods carriers between Wirksworth and Nottingham against the bill for the making of the Derwent navigable". House of Commons, 1696).

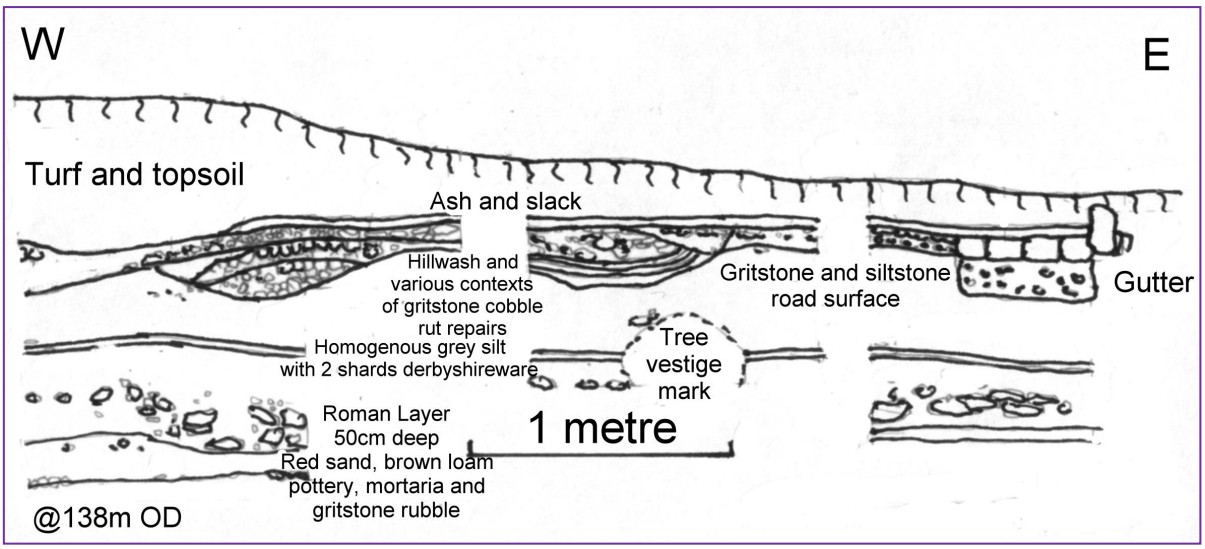
In so far as its route can be identified by the walling beyond the line of the apparent agger, it appears to run down to the Derwent and would mount the east bank towards Heage and Boothgate (Boothgate was a westerly entrance into Morley Park), Broxtowe and Nottingham. The Street's Rough road is observed by Rich (2005), as a forgotten route from Wirksworth towards Morley Park and who notes the ford of the Derwent, just south of the present Dairy House Farm, was probably called "Strongford" a name occurring in a charter amongst the Duchy papers as a boundary of fishing rights south of Ambergate in 1498. Suggesting this route is of some antiquity, as a named ford is not likely to exist in isolation.

However, any stone surface from an earlier period appears to be absent. The boundary walling of the road at Street's Rough could be rather earlier than the general enclosure walling, because of a difference of purpose, perhaps as an initial step in delineating the boundaries and line of the road so as to keep repair costs down, help determine ownership or simply stop animals straying. The repair, which is limited in all senses, followed at a later date. There was clearly not enough money or inclination to repair the full two carriage width of the road, and this would be entirely typical of a Georgian repair. The reason for repairing this section at all is that it seems extremely boggy in comparison to the rest of the possible alignment. So, in this case, the agger at Street's Rough is not Roman but is an eighteenth century surface. The single carriageway stoning stops abruptly at a cross wall at SK 3300 5100 and there is no stone on the line of the boundary wall continuation as it carries on in a north-westerly direction towards Sandyford and Sandyford Lane.

At Pit Hole Plantation there is an area of pits apparently used for the digging out of stone (there are lots of curious round pits, rather than a single quarry) and which is adjacent to the road at Street's Rough, a

number of uncompleted Bee-Hive Querns of Romano-British date were found in April 2008 (Mary Wiltshire pers comm) and have been added to the Derbyshire SMR, suggesting that an original purpose of the pits was to provide stone for quern-making. It should also be noted that the Hurts of Alderwasley owned a large estate around Alderwasley Hall nearby. It cannot be excluded that the road repair, possible activity at Pit Hole Plantation, and some highly unusual metre breadth walling and drainage structures on the south side are some kind of estate work.

Longwalls Lane: Medieval



Section on Longwalls Lane after Palfreyman and Ebbins 2011.

Longwalls Lane looking north near Starbuck House

Refer to article in Derbyshire Archaeological Journal for details of the examination carried out by Palfreyman and Ebbins.

Stone Bridge Road: Uncertain date

A Test Pit containing an intact gritstone road surface runs south-west between stone walls and through fields on a terrace, for over a kilometre from SK 2962 5275 (where a test pit was put in) to SK 2865 5216. Its course continues towards Stonebridge Farm apparently as an agger, but this has not been sectioned and its stoning is only evident from probing and one test pit. The purpose of this road is not obvious but it may be a diversionary route for the annual movement of livestock, from lowland to highland grazing to avoid droving through Wirksworth: it is relatively gently graded and it avoids the steep approaches to the town. It may alternatively serve a villa or farm of unknown location en-route, perhaps Stony Butts field would merit attention, which this road runs through. Drainage work took place in 2012 on the north side of the current Derby Road where the line of this road come down the hill from the direction of Pratthall Lane.

Test Pit in the Stonebridge Road at SK 2962 5275

Stonebridge Road at Hardhurst Farm looking westward

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Derbyshire Record Office maps and documents of interest by area:

Maps

Aldwark – D53Z/P1a+b Aldwark Tithe Map and Award, 1848+1849
Brassington – Q/RP/1/72/1 Plan of proposed Brassington to Haddon turnpike, 1807
Brassington – Q/RIc5+6 Brassington Enclosure Map and Award, 1803+1808
Brassington – Q/RP/1/26 Plan of Cavendish Bridge to Brassington turnpike, 1826
Griffe Grange – D258/33/14/14 Plan of Griffe Grange, C17 "porthway"
Griffe Grange – D258/17/24/3 Veins in Worke, 1725
Griffe Grange – D258/41/29 Map of Griffe Grange and Hopton Moor, 1803
Hopton – D258/41/28/1 Map of Mr Stufings House, Hopton, 1684
Wirksworth – D258 M/18/6 Samuel Hutchinson Wirksworth Township Map of the Gell Estate (rough draft), 1709

Documents

Brassington – D258/7/1/9 Grant by Serlo de Grendon, c1240 "highway to the monks' mill at Ivenbroc"
Brassington – D258/27/1/9 Grant by William le Burguinun, C13 "way to the west"
Carsington – D258/23/10/6 Sub-lease by Richard Buxton, 1612 "Jagger Waye croftes"
Carsington – D258/23/10/6 Bargain and sale by Raffe Gell, 1613 "Highe Streete...Brassington and Wirksworth"
Griffe Grange – D258/27/1/13 Grant by Erbert, 1246-1255 "road between Wirksworth and Bacwelle"
Griffe Grange – D258/7/1/1 Grant by William de Ferrars, 1247-1254 "Portweye"; "Portweie"
Griffe Grange – D258/7/1/3 Grant by Robert le Wyne, 1247-1260 "road from Wirkwrthe and Bacheswell"
Griffe Grange – D258/7/1/4 Grant by Robert le Wine, 1247-1260 "road from Wirkeswrthe and Bacheswelle"
Griffe Grange – D258/7/1/9 Charter of William de Ferrers, 1247-1254 "highway to the mill of the monks of Yvenbroc"
Griffe Grange – D258/7/1/7 Grant by Cecilia de Ferrars, 1260 "Porthwaye"; "Porthwaye"
Hopton – D3287/42/2/1-12 Shaw of land, 1655-1675 "highway leading from Hopton to the windmill"