

LIME KILN, PUNCHARD GILL,  
ARKENGARTHDALE, NORTH YORKSHIRE

ARCHAEOLOGICAL SURVEY



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## EXECUTIVE SUMMARY

*In January 2019, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Mr Miles Johnson, Senior Historic Environment Officer of the Yorkshire Dales National Park Authority (YDNPA), to undertake an archaeological survey of a lime kiln in Great Punched Gill, to the south-west of Punched House farm, Arkengarthdale, North Yorkshire (NY 96069 04420). The lime kiln is situated within the lower part of Great Punched Gill, some 835m to the west of the confluence of Great Punched Gill and Little Punched Gill. It is set on the northern slope of the gill, at an elevation of c.410m AOD. The kiln, and in particular the retaining walls flanking it, is in poor structural condition and is currently deemed to be 'at risk' by the YDNPA. The work is required to provide a pre-intervention level of survey prior to undertaking repair and/or management schemes.*

*The kiln exhibits many of the typical characteristics noted by a previous major study of surviving examples in the Central Pennines. Ordnance Survey map evidence suggests that the kiln was built between 1857 and 1894, and that it had become disused by 1914; the drystone wall preventing access to the upper level was apparently present by the latter date. There are numerous coal pits in the area which could have supplied the fuel for the kiln - those at Punched Head and William Gill are directly connected to Great Punched Gill by trackways, whilst the site would also have been easily accessible from the Reeth to Tan Hill turnpike road to the east. The majority of the limestone would have come from the quarry to the kiln's immediate north.*

*The kiln has two draw arches serving a single, firebrick lined, bowl, and such an arrangement is typical of kilns worked on a commercial basis but which were generally located in more rural surroundings rather than being associated with commercially operated quarries. Where one bowl fed two draw holes, a mechanism known as a downcomer was necessary to direct burnt lime to one draw hole or the other; however, surviving evidence for the exact form of these is now rare. Platforms in front of the draw holes presumably provided sheltered areas for loading the processed lime onto wagons.*

*The surviving structural evidence suggests that, at least initially, the kiln was a free-standing structure. It is not known how long after the kiln was first built that the flanking retaining walls were added, and it is possible that the western wall was added before the eastern. The purpose of the flanking walls is also unclear - perhaps after a certain period of use, the kiln began to display signs of movement or instability, or perhaps the working area around the top of the bowl was thought to be too small, and so the area either side was increased.*

# 1 INTRODUCTION

## Reasons and Circumstances of the Project

- 1.1 In January 2019, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Mr Miles Johnson, Senior Historic Environment Officer of the Yorkshire Dales National Park Authority (YDNPA), to undertake an archaeological survey of a lime kiln in Great Punched Gill, to the south-west of Punched House farm, Arkengarthdale, North Yorkshire (NGR NY 96069 04420). The kiln, and in particular the retaining walls flanking it, is in poor structural condition and is currently deemed to be 'at risk' by the YDNPA. The work is required to provide a pre-intervention level of survey prior to undertaking repair and/or management schemes.
- 1.2 The work involved the collation of a small amount of existing documentary material, coupled with detailed drawn and photographic survey. The extent of the project was defined by discussions between the YDNPA and EDAS, and the project was funded by YDNPA.

## Site Location and Summary Description

- 1.3 The lime kiln is situated within the lower part of Great Punched Gill, some 835m to the west of Tongue End, which marks the confluence of Great Punched Gill and Little Punched Gill (see figures 1 and 2). It is set on the northern slope of the gill, at an elevation of c.410m AOD. The nearest farms on the western side of Arkengarthdale are Punched House, 1.26km to the north-east, and Moor Intake Studfold, 2.20km to the south-east. The kiln lies adjacent to a public footpath leading up Great Punched Gill, and is situated within open access land, defined by the Countryside and Rights of Way (CROW) Act 2000. Map evidence suggests that the kiln dates from the second half of the 19th century.
- 1.4 The lime kiln is not designated as a Listed Buildings of Special Architectural or Historic Interest, and it is not a Scheduled Monument or otherwise protected. However, it does fall within the Yorkshire Dales National Park, and so is recorded on their Historic Environment Record (monument MYD37479), and is also listed on Historic England's PastScape website (monument 1498802; NY 90 SE 371) ([www.pastscape.org.uk](http://www.pastscape.org.uk)). The kiln falls within the eastern limit of an extensive survey of surviving lime kilns undertaken in the Yorkshire Dales National Park by Dr David Johnson (Johnson 2010); David Johnson's original notes were made available by the YDNPA.

## Aims and Objectives of the Project

- 1.5 The aims and objectives of the project were:
  - to produce a detailed measured archaeological survey of the two kilns, to inform repair and/or management schemes.

## Survey Methodologies

- 1.6 The archaeological recording equates to a Level 3 analytical survey, as defined by Historic England (2016, 26), and three elements of work were involved. The survey fieldwork was undertaken on 24th January 2019.

### *Collation of Documentary Material*

- 1.7 The YDNPA did not require any new documentary research to be undertaken, although existing readily-available material held by the YDNPA HER was provided, and this was incorporated into the project as appropriate. Relevant secondary sources on lime kilns within the Yorkshire Dales and adjoining areas, such as those written by David Johnson (2010; 2013), were also consulted.

### *Archaeological Building Survey*

- 1.8 A 1:50 scale plan of the lime kiln (including the later wall around the upper level) was produced using traditional hand-measurement techniques. The plan shows the lower and upper level of the kiln, one superimposed on the other - some measurements for the upper level of the kiln had to be estimated, as parts were too structurally unsound to safely access. The resulting plan include details of the interior of the draw arches, and also records features such as sockets, recesses, evidence for repair or rebuilding etc. Given the isolated location of the kiln, the plans were not tied into the Ordnance Survey grid, nor were they levelled into an Ordnance Survey datum. A 1:50 elevation drawing of the kiln's main (south) face was also prepared, using the same techniques. Sufficient notes were taken in the field to produce a detailed written description of the kiln.
- 1.9 All drawings were produced according to the guidelines established by Historic England (2016). The final products arising from the survey were a hand-drawn wet ink plan and elevation drawing. Larger scale plans were used to put the survey area into context.

### *Photographic Survey*

- 1.10 As part of the survey work, a detailed photographic record was made of the kiln. External and internal elevations of the structural elements were taken both parallel to the elevation (within the constraints of the site) as well as from other vantage points to include oblique general views of the structure and showing it in its setting. Close-up photographs were also taken of significant detail, as appropriate. These photographs show not only the structure's present appearance but could also be used when drawing up any repair works. Other photographs were taken to illustrate specific well-preserved site elements, details of specific areas of erosion or decay etc, as well as the general landscape context.
- 1.11 The colour photographs were produced using a digital camera with 12 mega-pixel resolution. Historic England photographic guidelines were followed (Historic England 2016, 19-21) and each photograph was provided with a scale (subject to access). All photographs were clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and have been cross-referenced to digital files etc in a photographic catalogue (see Appendix 1).

## **Survey Products**

### *Archaeological Survey Report*

- 1.12 An EDAS archive survey report for the kiln was produced, based on the results of the documentary research and field survey. The report is a standard A4 typed and bound document, which assembles and summarises the available evidence for the kiln in an ordered form, synthesises the data, comments on the quality and

reliability of the evidence, and how it might need to be supplemented by further site work or desk-based research.

#### *Archaeological Survey Archive*

- 1.13 An archive of material, comprising paper, magnetic and plastic media, relating to the project has been ordered and indexed according to the standards set by Historic England. This was deposited with the YDNPA HER at the end of the project (EDAS site code PGK 19).

## **2 ARCHAEOLOGICAL AND HISTORIC BACKGROUND**

- 2.1 Arkengarthdale has a long history of settlement and habitation which is reflected in the surviving field and place names, earthworks and standing buildings, although to date it has been less thoroughly investigated than for example Wensleydale or Swaledale. Extensive prehistoric co-axial field systems have been recorded within upper Swaledale, including to the immediate south of Calver and Cringley Hills (Fleming 1998; Laurie 2011), but their presence or absence within Arkengarthdale is not documented. Early medieval Norse settlement appears to have been concentrated on the south-facing north slopes of the dale, with the southern slopes around the survey area remaining unenclosed into the 19th century.
- 2.2 During the medieval period, much of Arkengarthdale fell within the 'New Forest' of Arkengarthdale. The term 'forest' should be taken to denote an administrative unit, rather than an actual continuous belt of woodland, and although partly formed by a hunting reserve, it also contained coal mines from at least the end of the 13th century. There is also evidence for the presence of early wood pasture at Eskeleth (Wright 1985, 127; Fleming 1998, 82-91). Some distance to the south-east of the survey area, Arkengarthdale corn mill was let in 1285, and was valued at 10s in 1436/37 when it was 'in the hands of the lord through want of tenants' (notes supplied by Joceyln Campbell). Without further detailed research and survey, one cannot be certain that the medieval mill was on exactly the same site as that which survives today, but it is possible, if not indeed probable. When considering the location of a medieval corn mill, it is important to understand that they were a manorial monopoly, the tenants being obliged to grind their corn at the landlord's mill, and so it was the manorial structure rather than the township structure that dictated the distribution of corn mills; the siting of a mill was obviously dictated in part by an adequate supply of water, and mills placed at a distance from those who were obliged to use them would require routes to them (Moorhouse 2003, 323 & 327). It is noticeable that, within the manor of Arkengarthdale as it is defined in 1718 (NYCRO ZQX 5/1 - MIC 2023), the settlement centres (Langthwaite, Booze, Eskeleth and Whaw) fall within its central and southern parts, with the corn mill located broadly equidistantly between Whaw to the north-west and Booze to the south-east. It could therefore have served the main manorial settlement centres, although it would be interesting to know why it was not located closer to the Arkle Beck, which would presumably have provided a more reliable and easily accessible source of water (Dennison & Richardson 2016, 8-9).
- 2.3 By the early 18th century, much of the land on the lower valley flanks to either side of the Arkle Beck had been enclosed (NYCRO ZQX 5/1 - MIC 2023). During the late 17th and early 19th centuries, the route across the Stang formed an important part of the droving network used for moving vast numbers of cattle between Scotland and England (Raistrick 1967, 132-133), and locals testified to the continuing movement of sheep and cattle even as late as the 1890s (Wright 1985, 143). The drove road came in from the north-west, crossing the Arkle Beck at

Eskeleth. On the opposite side of the beck, Plantation House on the east side of the road was in the late 18th and early 19th centuries a drovers' inn know as Lilly Jocks. Overnight halts, usually 6-12 miles apart and with pasture available for grazing, were an important part of the droving network. The drove road then swung to the south-west to follow the line of the existing road down Arkengarthdale (Wright 1985, 143 & 151). There were important local collieries at Tan Hill worked from at least the later medieval period until the early 20th century and, as Wright (1985) has demonstrated, many of the routes in the area, whether they were for moving cattle, associated with industry or linking large estates, are likely to be medieval in origin. The Reeth to Tan Hill road was turnpiked in 1770, when one of the principal justifications was to be able to exploit the Tan Hill coal more easily (Wright 1985, 133).

- 2.4 A 1718 map of the Manor of Arkengarthdale (NYCRO ZQX 5/1) clearly shows a large oval enclosure named 'Punchard Pasture'; within the enclosure 'Punchard House' appears to have been added in a later hand (see figure 3). Great Punchard Gill is also shown, with the area to the north-west named 'Rowth'; 'Roun Vein' is marked to the north of the Gill. On a later 1799 survey (NYCRO ZQX 5/5 - MIC 2023/348-362), the large oval enclosure is again shown, but is now labelled as 'Mr William Peacock's land'. On the northern slope of Great Punchard Gill, close to the beck, an un-named sub-rectangular feature is depicted in approximately the same position as the lime kiln, but perhaps closer to the watercourse, although no indication is given as to its function (see figure 4); it may be the sheepfold that is shown on later maps.
- 2.5 The lime kiln does not appear on the Ordnance Survey first edition 6" to 1 mile map, published in 1857, but it is shown on the later 1895 edition (see figure 5 top). On the latter, the kiln is not named, but is marked at the eastern end of a trackway branching off the northern side of the main track up the gill. There is a quarry to the immediate north of the kiln and 'Routh Level' is marked to the north of this. By 1914, the structure is named as 'Old Limekiln', with the existing wall to the north side of the upper level perhaps already present (see figure 5 bottom); Routh Level was also disused by this date. Unfortunately, there is no available 25" to 1 mile Ordnance Survey historic mapping for this area.

### 3 ARCHITECTURAL DESCRIPTION

#### Introduction

- 3.1 The kiln is described below in a logical manner, starting with location and setting, plan form, elevations and any surviving internal detailing. The kiln is set on a slight north-east/south-west alignment but, for the purposes of the following description, it is considered to be aligned east-west.
- 3.2 Throughout the text, the digital photographs are referenced using square brackets and italic type, the number before the stroke representing the film number and the number after indicating the frame e.g. [2/1]. Appendix 1 provides a catalogue of all the photographs taken during the project, and a selection have been used to illustrate this report. Finally, in the following text, 'modern' is taken to mean dating to after c.1945.

#### Architectural Description (see figure 6)

- 3.3 The kiln is located to the immediate north of the main track leading up Great Punchard Gill from the east, at an elevation of c.420m AOD, just past a bridge



crossing the watercourse [1/937, 1/939]. It is terraced into the natural slope of the valley side [1/886, 1/887, 1/930, 1/938] (see plate 1). As shown in 1895, a trackway approaches the upper level of the kiln from the west, branching off the main track which runs up the gill (see figure 5 top). The trackway is c.3m wide, and slopes gently downwards towards the upper level of the kiln, widening where it meets the base of the quarry which lies to the north of the kiln. It then continues east towards what appears to be a large spoil heap, possibly emanating from Routh Level. The quarry itself is a surface working, quarried into the natural valley slope and open to the south side; it covers an area measuring c.23m east-west by c.13m north-south. The working faces stand up to c.3m in height and are shallowly benched, with strong horizontal bedding planes [1/916] (see plate 2).

- 3.4 The external elevations of the lime kiln are essentially divided into three parts or sections; the central kiln itself, a retaining wall to the east and another retaining wall to the west. The kiln is built mainly of roughly coursed and squared sandstone, although there is also some limestone; there are traces of lime mortar to some of the joints, and some large sandstone quoins to both the south-east and south-west corners. The west retaining wall is again built of roughly coursed and squared sandstone, slightly larger overall than those used in the kiln, and mostly laid without mortar. The east retaining wall is built of more thinly coursed flagstones, again laid largely without mortar, although there are large sandstone quoins to the upper half of the south-east corner. The north elevations of all three parts of the kiln rise relatively vertically, as does the east elevation of the east retaining wall, but the west elevation of the west retaining wall has a slight batter, sloping inwards from the base to the top. Both the retaining walls butt the main body of the kiln, and are later additions.
- 3.5 The south elevation forms the main or front elevation of the kiln, the kiln itself facing south-south-east. The elevation is 15.20m wide in total across the base; this divides into 4.10m for the west part, 7.45m for the kiln itself, and 3.70m for the east part [1/883, 1/913, 1/914] (see plate 3). The south elevations of the retaining walls contain few features of interest [1/890]. However, the east retaining wall is in dangerous structural condition, with a large area of collapse adjacent to the main body of the kiln, exposing the loose rubble infill behind; the fallen stone lies in front of the elevation [1/888, 1/889] (see plate 4). Photographs taken by David Johnson in July 2005 show that the area of collapse has increased significantly in size since that date (see plate 6).
- 3.6 The south elevation of the kiln survives to a maximum height of 4.90m, although there has been some collapse to the centre of the upper part. The elevation contains two draw arches, both serving a single bowl; to the side of and between the draw arches, the elevation rises from a shallow stepped plinth [1/884, 1/885, 1/912] (see plate 7). The west draw arch is 2.35m wide across the base, tapering inwards to 1.95m across the broad segmental head of sandstone rubble voussoirs; it stands to a maximum height of 3.50m [1/891]. Internally, the draw arch is a maximum of 2.35m wide by 4.10m deep; the roof over is an impressive construction of corbelled sandstone slabs, comprising alternate courses of two angled slabs with a single slab laid across them [1/893] (see plate 5). It may contain a single, central, poking hole, although this seems awkwardly placed in relation to the bowl for it to have functioned as such. At the time of the survey, the interior was partly filled with soil and rubble, and so it was not possible to tell if it was provided with a floor surface, such as, for example, flagstones. However, towards the rear of the draw arch, there is a low platform, 1.65m deep and standing 0.60m high [1/894] (see plate 8); it was formerly fitted with a timber kerb or edging across the top, but this has largely rotted away, although the recess

where it once lay remains [1/896-1/898]. There was once a single draw hole or opening to the northern end of the east wall of the draw arch, but this has largely collapsed [1/895]. There may also be a recess towards the top of the wall at the west side of the platform, but it could equally have been where a stone has fallen; there is not a corresponding hole in the east draw arch

- 3.7 The east draw arch is of similar dimensions and form [1/899] (see plate 10); the initials 'FP' are carved into the east wall [1/931] (see plate 9). It is also provided with a platform to the rear, which retains its timber kerb or edging [1/900, 1/902] (see plate 12). The surface of the platform appears to be formed by worn flagstones, at least to the north-west part [1/904]; three solid bags of cement are placed adjacent, which were also present in July 2005. Above, the roof is of the same corbelled construction as to the west arch, and also contains a possible poking hole [1/901] (see plate 11). The draw opening is placed at the northern end of the west wall. It is formed by a round-headed arch, 0.43m wide and 0.53m high, built from neatly handmade firebricks with a yellowish/light-brown fabric and average dimensions of 235mm by 105mm by 65mm (see plate 13). Some *ex situ* examples bear the impressed mark 'STOBART' [1/932]. They are very similar to an illustrated example found in the vicinity of the former Newton Cap Brickworks at Bishop Auckland (County Durham), which was established in the early 1880s by Stobart and Partners. However, Stobart bricks produced here were generally marked 'N.C' or 'N-Cap', and so it was suggested that the illustrated brick (and therefore also those used in the lime kiln) may have come from Stobart's earlier firebrick works at nearby Old Etherley colliery, which had been working since the 1850s (<https://www.flickr.com/photos/97926191@N08/12743310633>; <http://www.brocross.com/Bricks/Penmorfa/Pages/england20a.htm>). The colliery appears to have been active by the 1840s when owned by Henry Stobart and Company, and it was formerly known as George Pit. Brick works are noted in connection with it in 1894, and it closed in 1917 (<http://www.dmm.org.uk/colliery/e028.htm>). The firebricks are laid as headers, and there are 17 in total. They are strengthened internally by the use of a pair of cast-iron hoops or bands [1/907] (see plate 14); in 2005, David Johnson noted that a similar *ex situ* hoop was visible lying in the west draw arch, indicating that the draw hole here was once of similar construction, although this was not present at the time of the current survey. There are three courses of firebricks laid as stretchers above the draw opening to the east draw arch.
- 3.8 The west elevation of the west retaining wall is plain in appearance although, as previously noted, the coursing appears slightly more irregular and massive compared to that of the east retaining wall [1/928, 1/929] (see plate 15). The east elevation of the east retaining wall has partly collapsed to the centre, exposing the rubble fill behind [1/915] (see plate 16). Towards the upper part of the south end, there is a sub-square recess that appears too regular in appearance to mark where a stone has fallen out, although it is unclear what purpose a socket or similar feature would serve here. It may represent an open putlug hole, and there is a similar infilled example in the south elevation. At the top surviving course of the south-east corner, there is part of an iron wall-tie [1/933].
- 3.9 The upper level of the kiln was accessed via the aforementioned trackway to the west [1/917] (see plate 17). It is now separated from the trackway by a curvilinear drystone wall, built to prevent stock from falling either off the top of the kiln or into the bowl; map evidence suggests that this wall was built between 1895 and 1914 (see figure 5) [1/918-1/920]. The former east side of the main body of the kiln may be visible in plan only at the upper level, again demonstrating that the east retaining wall is a later addition. The bowl itself is slightly oval in plan, measuring

c.3.80m north-south by c.3.40m east-west [1/921-1/923] (see plate 18). The interior was visible to a depth of c.2.5m below the top at the time of survey; for approximately half of this depth, the sides are vertical, and then begin to very gently curve inwards. The bowl is lined with a single course of firebricks, laid as headers, with an outer lining of coursed squared sandstone behind them [1/924-1/927] (see plate 19). In 2005, it was noted by David Johnson that the firebricks used to line the bowl were the same as those described to the draw hole of the east draw arch.

## 4 DISCUSSION AND CONCLUSIONS

- 4.1 The recorded kiln falls within the major study of surviving lime kilns in the region (within the Central Pennines) previously undertaken by Johnson (2010), and where relevant, comparisons are also made with the kilns in Johnson's Westmorland and Cumberland study area (Johnson 2013). Johnson suggests that the burning of lime for soil improvement may have been more prevalent in the Central Pennines during the 16th and 17th centuries than has previously been appreciated. Nevertheless, across the area as a whole, there was a burgeoning of lime kiln numbers during the 18th century, many of them associated with the period of Parliamentary enclosure (Johnson 2010, 234). Although the 1799 map of the manor of Arkengarthdale appears to show a feature in approximately the same position as the kiln, the Ordnance Survey map evidence suggests that the kiln was built between 1857 and 1894, and that it had become disused by 1914; the drystone wall preventing access to the upper level was apparently present by the latter date.
- 4.2 The Punched Gill lime kiln conforms to many of the typical patterns noted by Johnson's earlier surveys. It is sited in an area where limestone is the dominant surface geology. In both the Central Pennines and Westmorland, there was a strong correlation between the siting of kilns and where limestone is the dominant surface geology. However, even in the Central Pennines, where 79% of kilns were sited on limestone, this was not always the case, with access to fuel (usually coal), and proximity to a large building site or to newly enclosed moorland also sometimes being important (Johnson 2010, 240; Johnson 2013, 200). There are numerous coal pits in the area which could have supplied the lime kiln; those at Punched Head and William Gill are directly connected to Great Punched Gill by trackways, whilst the site would also have been easily accessible from the Reeth to Tan Hill turnpike road to the east. The majority of the limestone would have come from the quarry to the kiln's immediate north. The placing of the kiln within open or unenclosed moorland is typical of only 7% of kilns within the Central Pennines, and of these many were set close to the limit of the enclosed pasture (Johnson 2010, 251-252).
- 4.3 The lime kiln also shares several structural characteristics with those previously recorded. The provision of two draw arches to serve a single bowl (specifically two arches set into the broad front face) was noted at 21 sites in the Central Pennines. Kilns of this form were worked on a commercial basis but were generally located in more rural surroundings rather than being associated with commercially operated quarries. Where one bowl fed two draw holes, a mechanism known as a downcomer was necessary to direct burnt lime to one draw hole or the other; however, surviving evidence for the exact form of these is now rare (Johnson 2010, 255-258). Both of the draw arches face south-south-east. In both the Central Pennines and in Westmorland, it was found that the majority of kilns had draw arches which faced between north-west and south-east, into the prevailing wind directions (Johnson 2010, 244-245; Johnson 2013, 204). The use of

firebricks, in the east draw arch and bowl lining of the kiln, was more common in Westmorland than in the Central Pennines, with many taken from bowl linings having identifiable manufacturer's marks (Johnson 2013, 207) as at Punched Gill. The platforms to the draw arches would appear to be less commonly occurring features, but they were presumably used to provide sheltered areas to move processed lime from the draw holes to a wagon or similar for distribution; similar platforms were noted at commercial kilns in Smardale (Cumbria), although these extended out to the front of the kilns for loading into railway wagons (Dennison & Richardson 2018, 12-14).

- 4.4 In terms of the size of the bowl, although it is not possible to make exact calculations of the volume, a very rough estimate would be that the bowl volume of the kiln is c.30 cubic metres; this would place it close to the volume of some commercial kilns noted by Johnson (2010, 246). The surviving structural evidence suggests that, at least initially, the kiln was a free-standing structure. It is not known how long after the kiln was first built that the flanking retaining walls were added, and the differences in construction might suggest that the western wall was added before the eastern. The purpose of these flanking walls is also unclear. Perhaps after a certain period of use, the kiln began to display signs of movement or instability, or perhaps the working area around the top of the bowl was thought to be too small, and so the area either side was increased.
- 4.5 In conclusion, it is suggested that the Punched Gill lime kiln was built in the second half of the 19th century. It was almost certainly worked on a commercial basis, with close proximity to limestone and coal, and good connections to the wider area via the Reeth to Tan Hill turnpike road. It became disused between 1895 and 1914.

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<https://www.flickr.com/photos/97926191@N08/12743310633> = Arthur Brickman

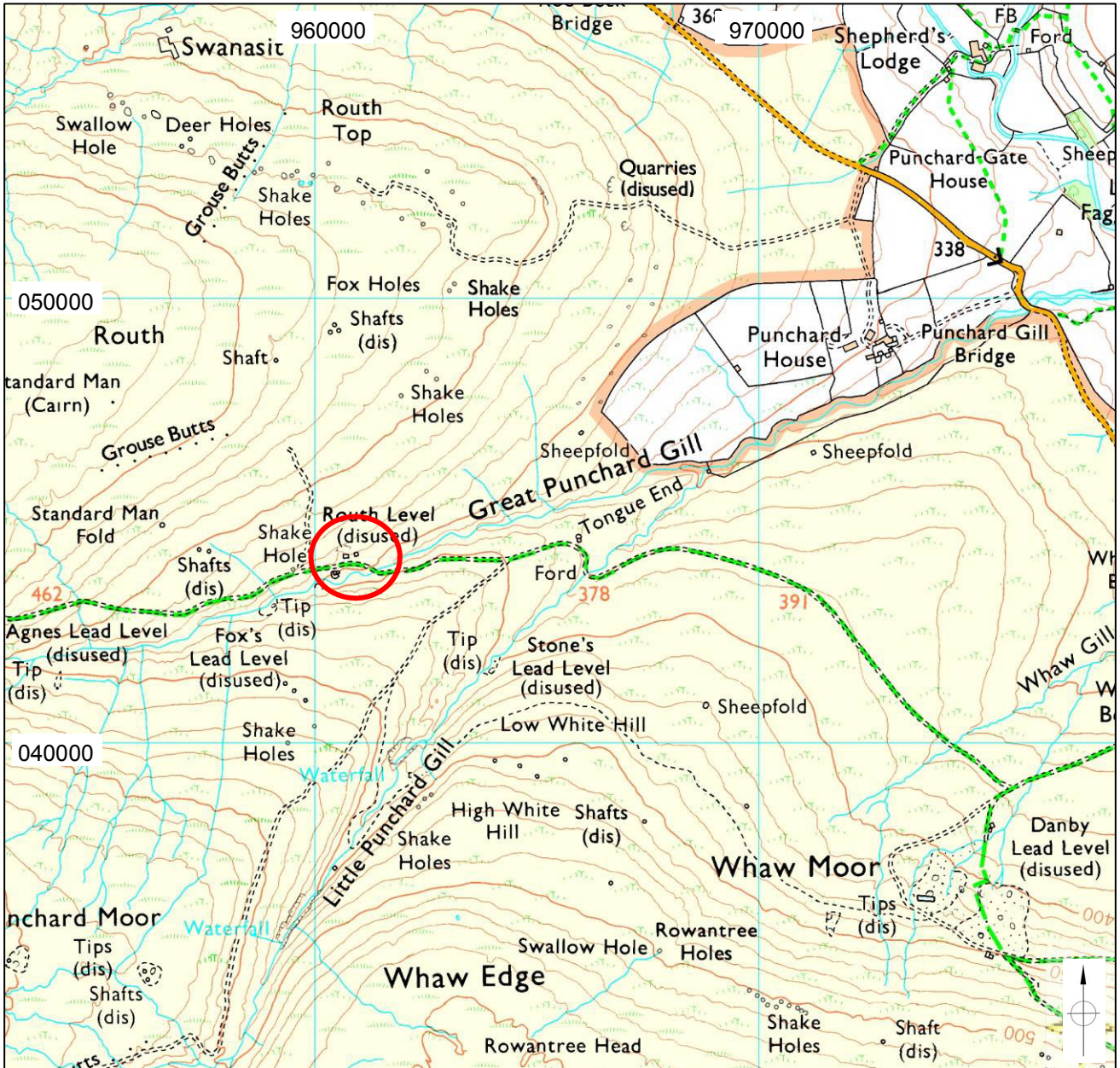
<http://www.brocross.com/Bricks/Penmorfa/index.htm> = 'Old Bricks - history at your feet' 'A celebration of old named British Bricks' created by Dave Sallery

<http://www.dmm.org.uk> = Durham Mining Museum

<http://www.pastscape.org.uk> = Historic England Pastscape Database

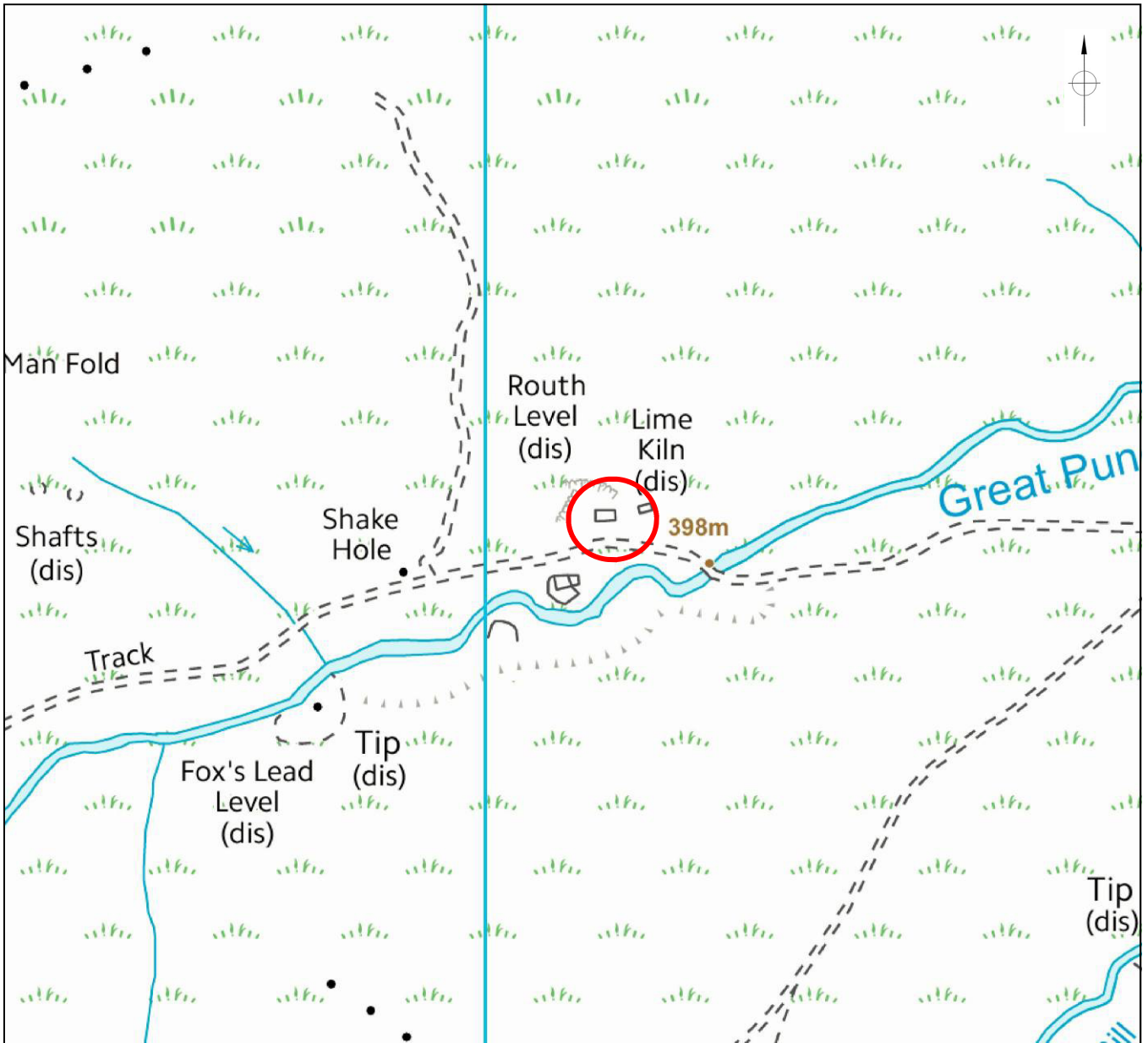
## 6 ACKNOWLEDGEMENTS

6.1 The archaeological surveys were commissioned by Mr Miles Johnson, Senior Historic Environment Officer of the Yorkshire Dales National Park Authority (YDNPA). The on-site survey work was undertaken by Shaun Richardson with the assistance of Richard Lamb. Permission for access was given by the West Arkengarthdale Estate. The final report and other drawings were produced by Shaun Richardson and Ed Dennison, with the latter taking responsibility for any errors or inconsistencies.



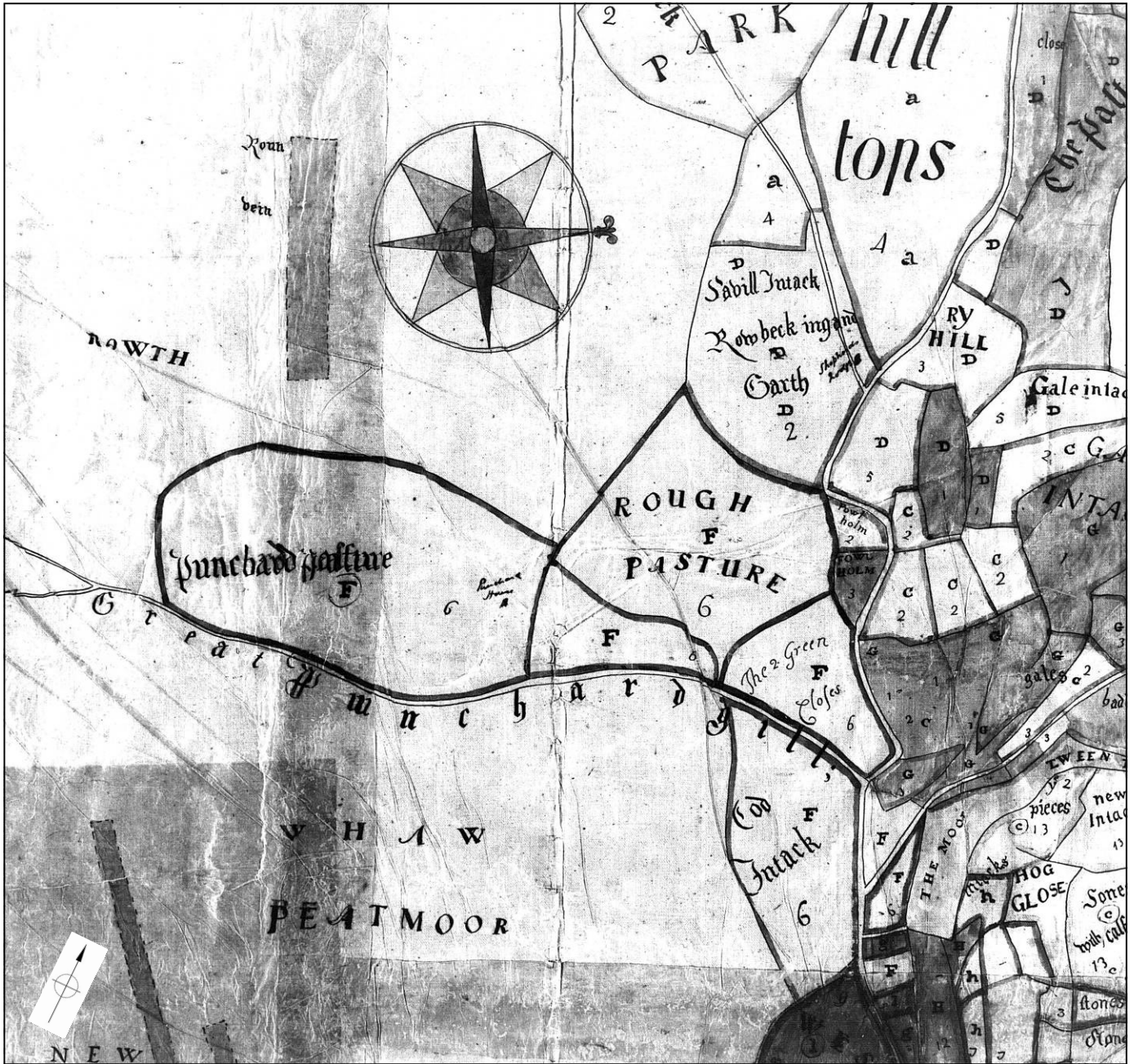
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PROJECT		PUNCHARD GILL LIME KILN	
TITLE		GENERAL SITE LOCATION	
SCALE	AS SHOWN	DATE	MAR 2019
EDAS		FIGURE	1



Base plan provided by YDNPA.

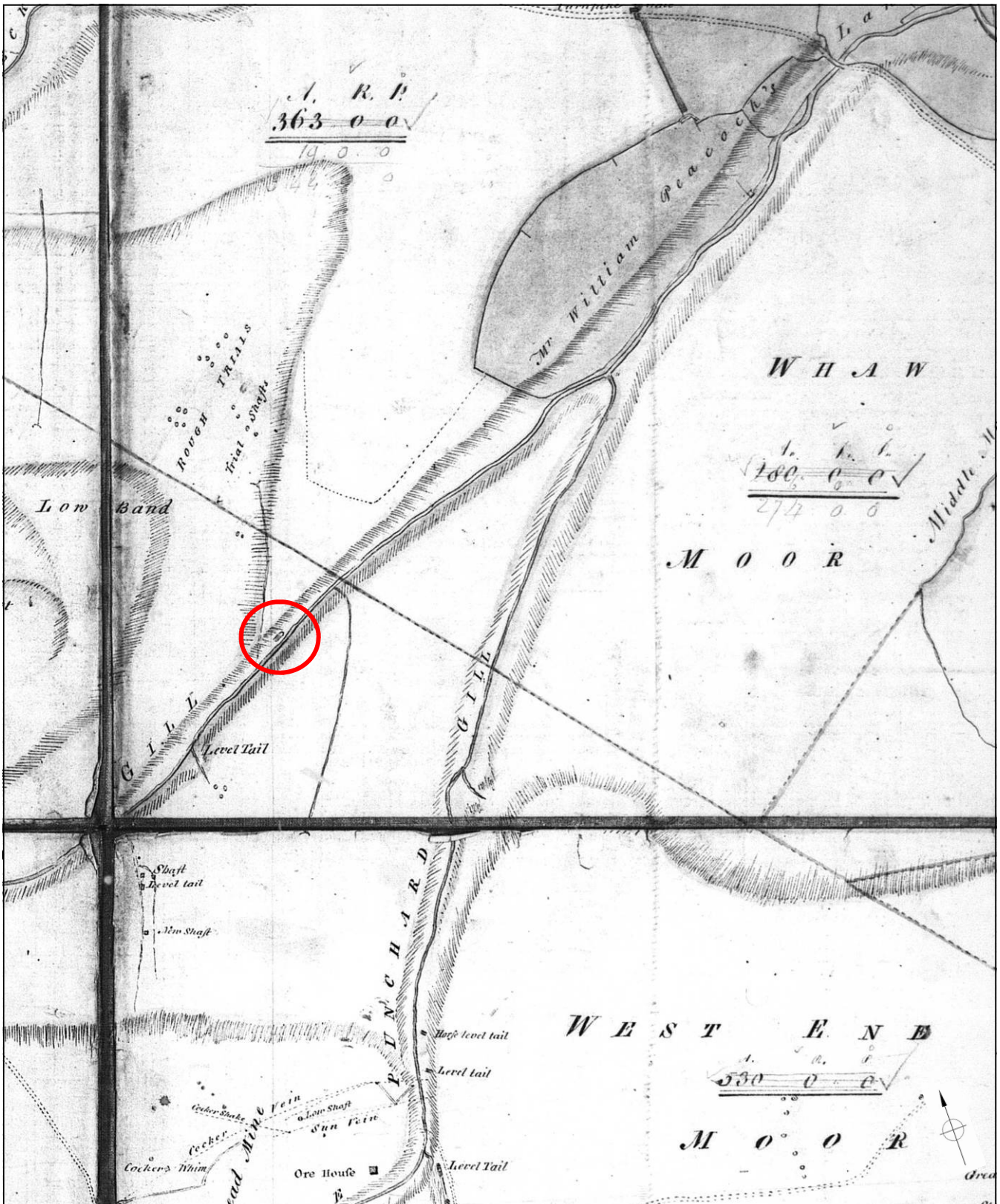
PROJECT		PUNCHARD GILL LIME KILN	
TITLE		DETAILED SITE LOCATION	
SCALE	NTS	DATE	MAR 2019
EDAS		FIGURE	2



Source: 1718 A Survey of the Manor & Parish of Arkengarthdale belonging to Charles Bathurst Esq (NYCRO ZQX 5/1 - MIC 2023/324).

PROJECT		PUNCHARD GILL LIME KILN	
TITLE		SECTION OF 1718 MAP	
SCALE	DATE	NTS	MAR 2019
EDAS	FIGURE		3

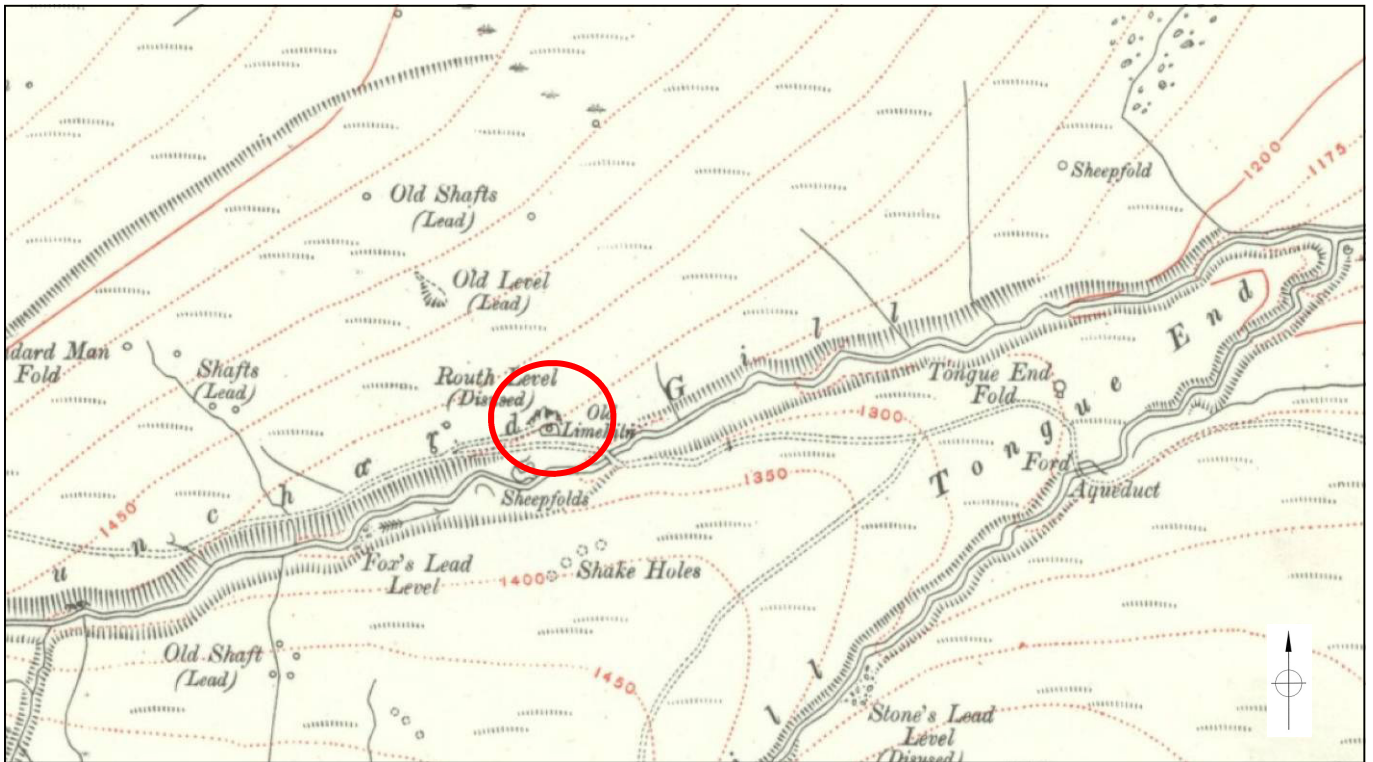
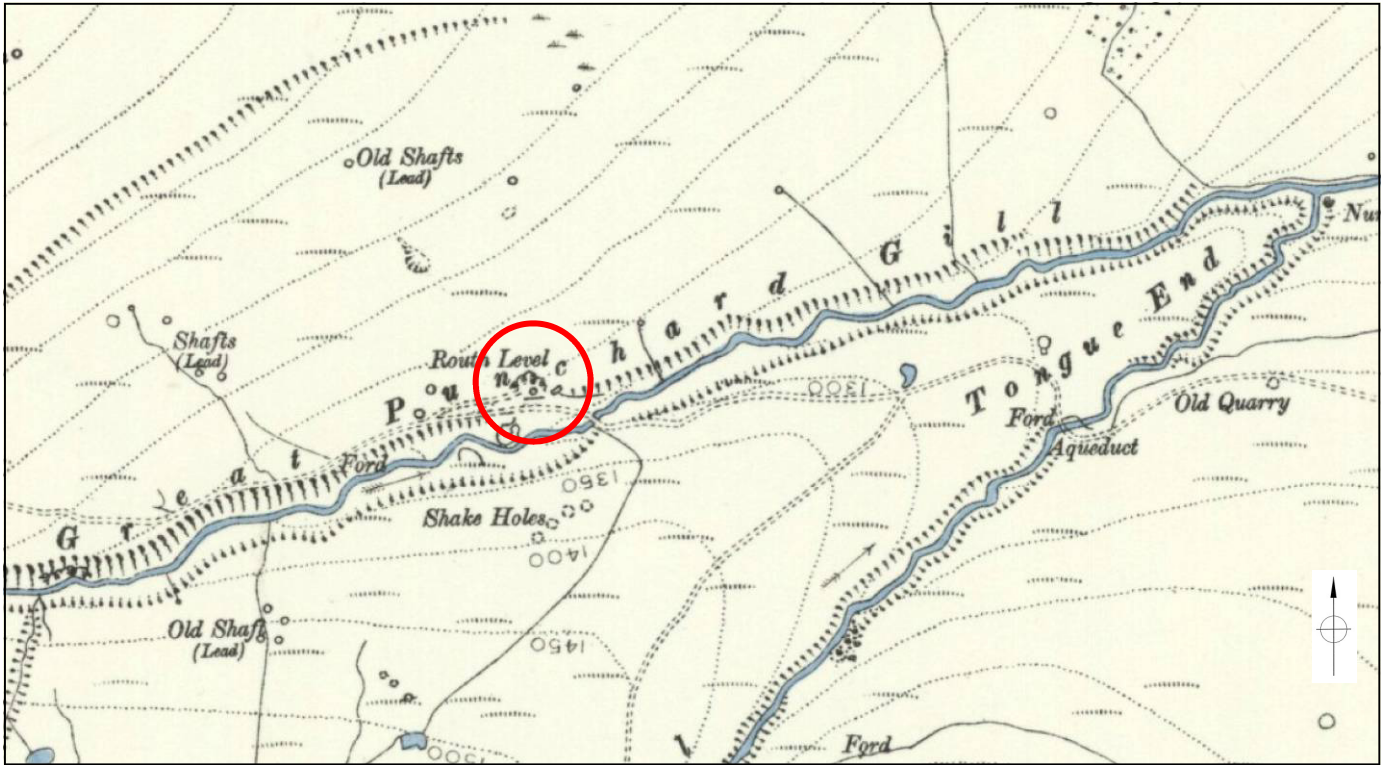




Source: 1799 *A Plan of the Manor of Arkengarthdale, the property of Sir Charles Turner, Bart. - Willm Sleigh - and Chas. Francis Foster Esq., shewing the direction of several veins, strings and floats discovered therein* (NYCRO ZQX 5/5 - MIC 2023/362).

Probable sheepfold shown in red circle, kiln not shown.

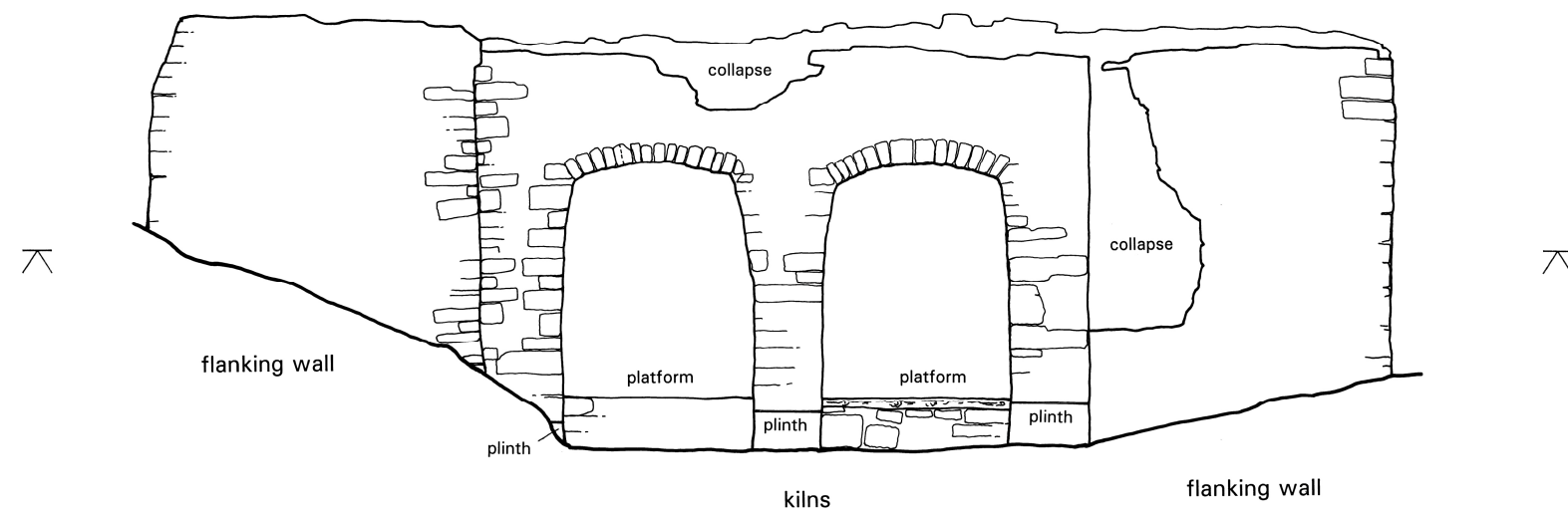
PROJECT		PUNCHARD GILL LIME KILN	
TITLE			
SECTION OF 1799 MAP			
SCALE		DATE	
NTS		MAR 2019	
EDAS		FIGURE	
		4	



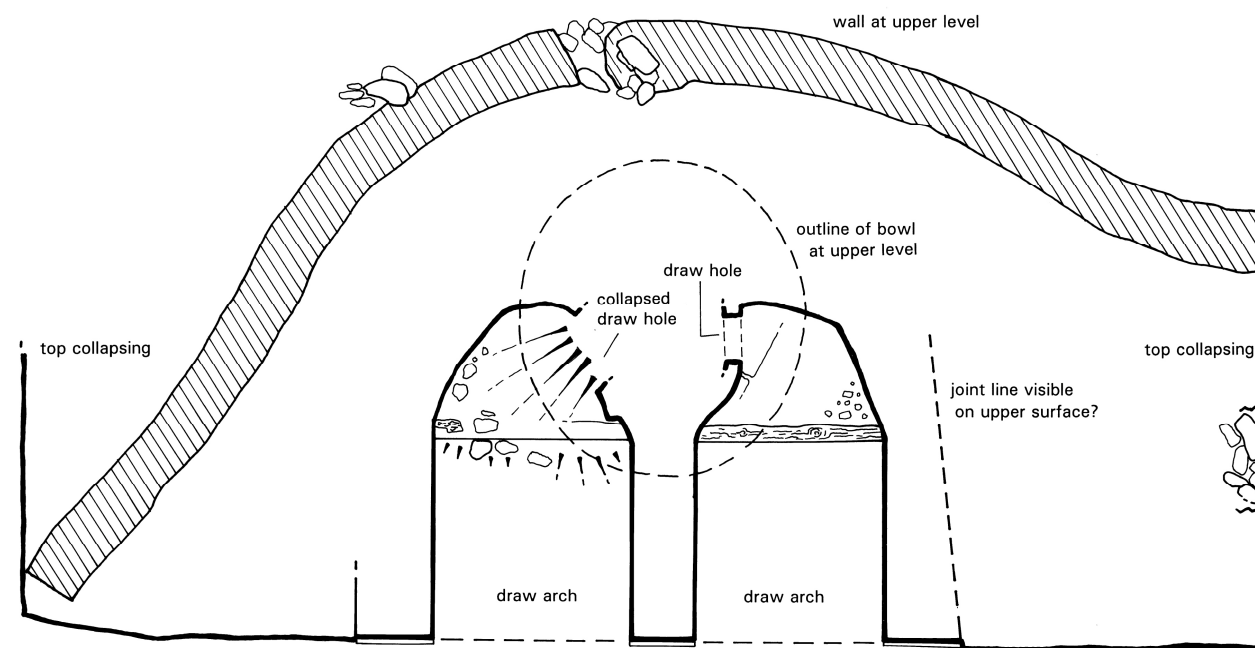
Top: 1895 Ordnance Survey 6" to 1 mile map Yorkshire sheet 36NE (surveyed 1891).

Bottom: 1914 Ordnance Survey 6" to 1 mile map Yorkshire sheet 36NE (surveyed 1910).

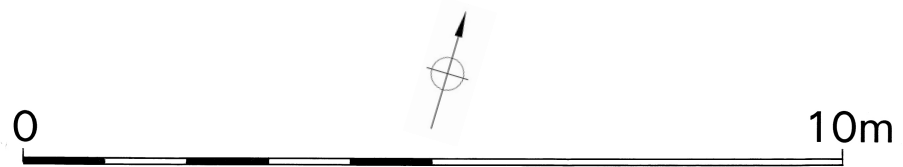
PROJECT		PUNCHARD GILL LIME KILN	
TITLE			
		ORDNANCE SURVEY MAPS	
SCALE	NTS	DATE	MAR 2019
EDAS		FIGURE	5



South elevation



Plan



PROJECT		PUNCHARD GILL LIME KILN	
TITLE		PLAN AND ELEVATION	
SCALE	AS SHOWN	DATE	MAR 2019
EDAS		FIGURE	6



Plate 1: General view of kiln in Great Punchard Gill, looking NW (photo 1/938).



Plate 2: Quarry to north of kiln, looking NW (photo 1/916).



Plate 3: General view of kiln, looking NE (photo 1/913).



Plate 4: South elevation, E retaining wall, looking NE (photo 1/888).

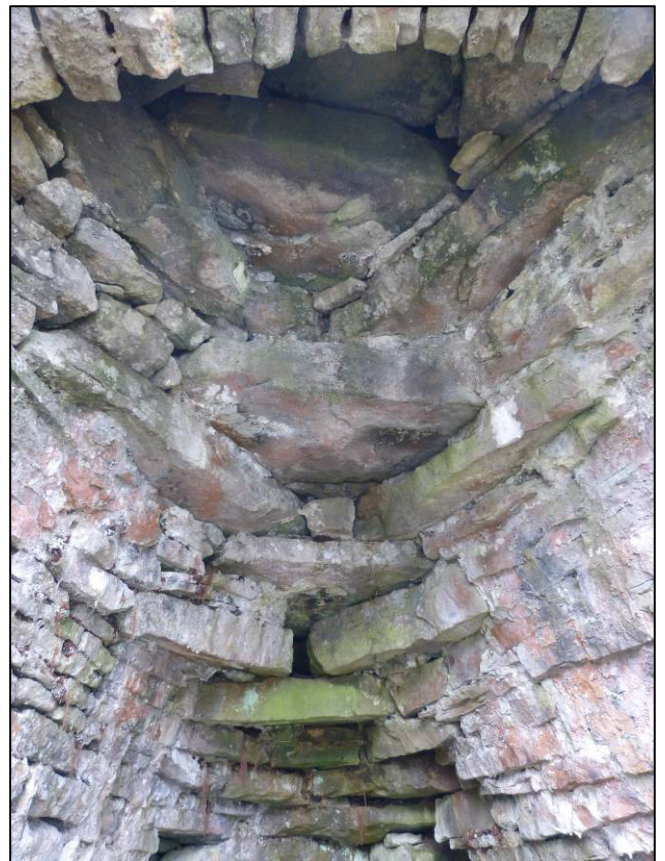


Plate 5: West draw arch, roof over with possible poking hole, looking N (photo 1/893).



Plate 6: South elevation kiln and retaining walls, taken by David Johnson, July 2005.



Plate 7: South elevation of kiln, looking N (photo 1/912).



Plate 8: West draw arch, draw hole and platform, looking N (photo 1/894).



Plate 9: East draw arch, 'FP' graffiti to east wall, looking E (photo 1/931).



Plate 10: East draw arch, looking N (photo 1/899).

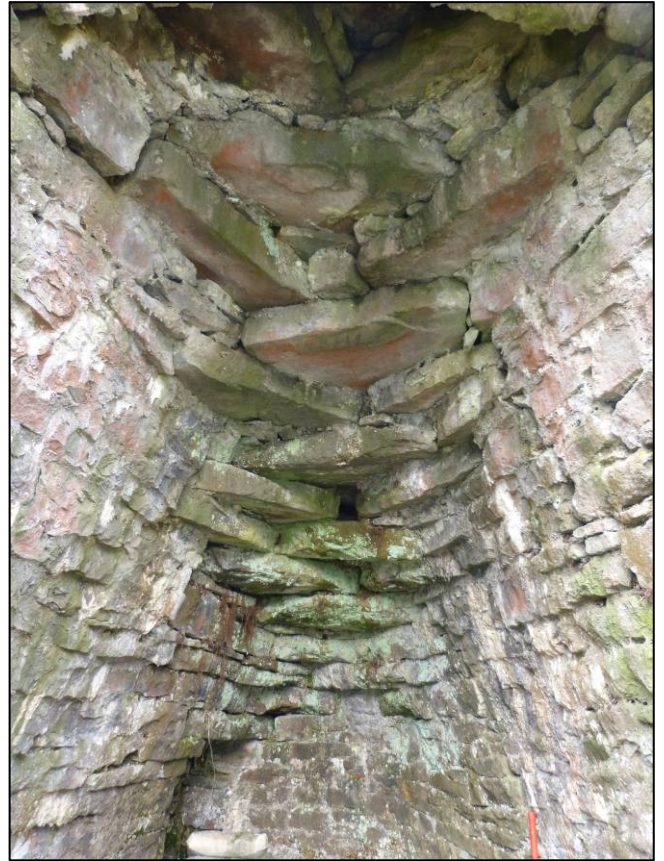


Plate 11: East draw arch, roof over and possible poking hole, looking N (photo 1/901).



Plate 12: East draw arch, draw hole and platform, looking N (photo 1/900).





Plate 13: East draw arch, draw hole, looking NW (photo 1/904).



Plate 14: East draw arch, iron bands to draw hole, looking NW (photo 1/907).



Plate 15: West elevation, west retaining wall, looking E (photo 1/928).



Plate 16: East elevation, east retaining wall, looking W (photo 1/915).



Plate 17: Upper level and trackway, looking W (photo 1/917).



Plate 18: Upper level, bowl, looking N (photo 1/923).



Plate 19: Upper level, bowl lining, looking W (photo 1/927).

APPENDIX 1  
EDAS PHOTOGRAPHIC CATALOGUE

## APPENDIX 1: PUNCHARD GILL LIME KILN PHOTOGRAPHIC CATALOGUE

Film 1: Colour digital photographs taken 24th January 2019

<i>Film</i>	<i>Frame</i>	<i>Subject</i>	<i>Scale</i>
1	883	South elevation, looking N	2 x 1m
1	884	South elevation of kiln, looking N	2 x 1m
1	885	South elevation of kiln, looking N	2 x 1m
1	886	General view of kiln, looking NE	2 x 1m
1	887	General view of kiln, looking NW	2 x 1m
1	888	South elevation, E retaining wall, looking NE	2 x 1m
1	889	South elevation, E retaining wall, looking NE	2 x 1m
1	890	South elevation, W retaining wall, looking N	2 x 1m
1	891	West draw arch, looking N	2 x 1m
1	893	West draw arch, roof over with possible poking hole, looking N	-
1	894	West draw arch, draw hole and platform, looking N	2 x 1m
1	895	West draw arch, draw hole, looking NE	-
1	896	West draw arch, timber recess, looking NE	0.3m
1	897	West draw arch, timber recess, looking NE	0.3m
1	898	West draw arch, timber recess, looking NW	0.3m
1	899	East draw arch, looking N	2 x 1m
1	900	East draw arch, draw hole and platform, looking N	2 x 1m
1	901	East draw arch, roof over and possible poking hole, looking N	-
1	902	East draw arch, platform, looking N	2 x 1m
1	904	East draw arch, draw hole, looking NW	0.3m
1	907	East draw arch, iron bands to draw hole, looking NW	0.3m
1	912	South elevation of kiln, looking N	2 x 1m
1	913	General view of kiln, looking NE	2 x 1m
1	914	General view of kiln, looking NW	2 x 1m
1	915	East elevation, east retaining wall, looking W	2 x 1m
1	916	Quarry to north of kiln, looking NW	-
1	917	Upper level and trackway, looking W	-
1	918	Upper level, drystone wall, looking SW	1m
1	919	Upper level, looking E	-
1	920	Upper level, drystone wall, looking E	2 x 1m
1	921	Upper level, bowl, looking NE	-
1	922	Upper level, bowl, looking E	1m
1	923	Upper level, bowl, looking N	1m
1	924	Upper level, bowl lining, looking W	-
1	925	Upper level, bowl lining, looking W	-
1	926	Upper level, bowl lining, looking W	-
1	927	Upper level, bowl lining, looking W	-
1	928	West elevation, west retaining wall, looking E	2 x 1m
1	929	West elevation, west retaining wall, looking E	2 x 1m
1	930	Approach to kiln up Great Punchard Gill, looking SE	1m
1	931	East draw arch, 'FP' graffiti to east wall, looking E	-
1	932	Impressed bricks, ex situ	-
1	933	Former wall tie, east retaining wall, top of south-east corner, looking S	-
1	937	General view of kiln in Great Punchard Gill, looking NW	-
1	938	General view of kiln in Great Punchard Gill, looking NW	-
1	939	General view of kiln in Great Punchard Gill, looking NW	-