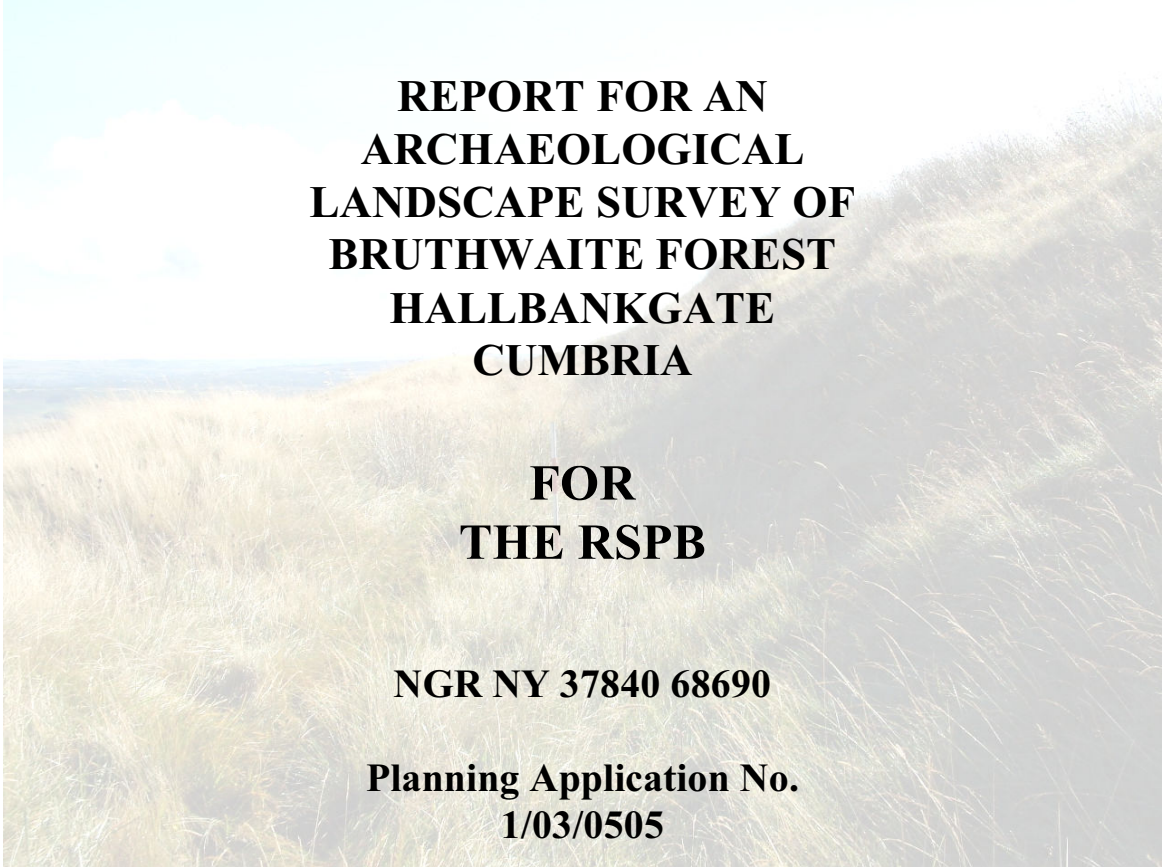


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# **NORTH PENNINES ARCHAEOLOGY LTD**

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**Project Designs and Client Reports No. CP/100/04**



**REPORT FOR AN  
ARCHAEOLOGICAL  
LANDSCAPE SURVEY OF  
BRUTHWAITE FOREST  
HALLBANKGATE  
CUMBRIA**

**FOR  
THE RSPB**

**NGR NY 37840 68690**

**Planning Application No.  
1/03/0505**

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## NON TECHNICAL SUMMARY

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North Pennines Archaeology Ltd was commissioned to undertake a desk-based assessment and archaeological survey in August 2003 on the survey area of Tindale Fell and part of Brown Fell, centred on NY 597 573. The work was carried out on behalf of the RSPB and Forestry Commission in response to a proposed scheme to establish a mixed woodland on the fellside at Bruthwaite to provide a suitable environment for rare bird species. The project was undertaken on land owned by the RSPB, located to the south of Hallbankgate at the western edge of the North Pennines.

The assessment comprised a desk-based assessment of all available documentary, cartographic and photographic material held within all appropriate records offices, relevant to the study area. This was in order to place the landscape within its known historical, archaeological, geographical and topographical context. Following on from this a field survey was undertaken, which identified a total of 27 sites within the survey area, ranging from the prehistoric to the post medieval and modern periods. These sites included a possible barrow, the remains of medieval pastoralism and post-medieval mining and quarrying, including Lord Carlisle's waggonway, an early tramroad across Tindale Fell (SMR 11227).

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## ACKNOWLEDGEMENTS

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North Pennines Archaeology Ltd would like to thank the staff at the Cumbria Sites and Monuments Record in Kendal and County Records Office, Carlisle. Thanks also to Malcolm Stott and the staff of the RSPB, and the Forestry Commission.

The project was undertaken by Chris Jones, BA, MA, PIFA, Assistant Archaeologist, North Pennines Archaeology Ltd. The field survey was undertaken by Chris Jones and Ken Denham, BA. The project came under the overall management of Frank Giecco, BA, Dip. Arch, Principal Archaeologist, North Pennines Archaeology Ltd. The report was edited by Juliet Reeves, BA.

## 1 INTRODUCTION

- 1.1 In August 2003 North Pennines Archaeology Ltd was commissioned by Mr Malcolm Stott of the RSPB to undertake a desk-based assessment and survey within Bruthwaite Forest, Geltsdale, Hallbankgate, Cumbria, centred on NY 597 573 (Figure 1). The project aimed at providing valuable archaeological information regarding the nature of visible archaeological remains on an area of open fellside exceeding 1 km<sup>2</sup>. The project arose in response to a proposed scheme by the Forestry Commission and the RSPB regarding a scheme to establish a mixed woodland pasture on the fellside at Bruthwaite to provide a suitable environment for rare bird species. The archaeological survey was undertaken in accordance to the requirements of the brief prepared by Dr Richard Newman, Cumbria County Archaeologist.
- 1.2 The desk-based assessment consisted of a search of both published and unpublished records held by the Cumbria Sites and Monuments Record (SMR) in Kendal, the Cumbria County Record Office in Carlisle (CRO/C), the National Monuments Record, Swindon (NMR) and the Local Studies Library, Carlisle. A search was also made of all records held in the offices of the RSPB, Hallbankgate and North Pennines Archaeology Ltd, Nenthead.
- 1.3 This report follows a standard format and sets out the methodology employed during the course of the work, the results of the work and the potential of the area with any recommendations for further work. A gazetteer of sites recorded in the survey is provided in Appendix 1.
- 1.4 The survey area is located within the North Pennines Area of Outstanding Natural Beauty and the Countryside Agency's North Pennines Landscape Character Area. It is characterised by steeply sloping fellside, consisting primarily of rough grazed grass and rush. The survey area reaches a maximum height of 450 m AOD.

## **2 METHODOLOGY**

### **2.1 Project Design**

2.1.1 A project design was prepared in response to a brief prepared by Cumbria County Council Archaeology Service for a programme of survey to record the archaeological landscape along the fellside of Bruthwaite Forest. This included a detailed specification of works to be carried out, which consisted of a desk-based assessment prior to a landscape survey.

### **2.2 Desk-Based Assessment**

2.2.1 This involved the consultation of the County Sites and Monuments Record in Kendal in the first instance. This included the collection of all available and pertinent information regarding the locations and type of current sites held within the SMR database, including grid references and descriptions. Following this the County Records Office in Carlisle was consulted in order to consult maps and documents relevant to the study area. This included the collection of historic maps, including Tithe or Enclosure maps and early Ordnance Survey maps. Early cartographic evidence, such as the 1603 Survey of the Barony of Gilsland, was studied in order to achieve an understanding of the medieval and early post medieval landscape. 18<sup>th</sup> and 19<sup>th</sup> century mapping was given particular emphasis given the nature of land use changes during this period. All relevant historical documentation was also studied in order to provide information concerning tenure and ownership and the general history of the survey area. Several secondary sources and journals, such as the Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society, were also consulted. Collections briefly consulted for pertinent references included Directories, Business Records, Miscellaneous Records and Diocesan Records.

2.2.2 A collection of vertical aerial photographs used for the purposes of an upland vegetation survey and held in the archive of the RSPB in Hallbankgate was consulted for research purposes. This collection formed a comprehensive coverage of the survey area. Owing to the short timescale for the work, the results of an electronic enquiry of the National Monuments Record, Swindon, were not forthcoming. A number of key sites, including the Tindale Fell waggonway and numerous roads, tracks and mine workings, were identified from aerial photographs and verified in the field.

2.2.3 Some use of the internet was made including a search of Genuki (<http://www.genuki.co.uk>) and the National Monuments Record (<http://www.english-heritage.org.uk>).

2.2.4 The desk-based assessment was undertaken in accordance with the Institute of Field Archaeologists *Standards and Guidance for Archaeological Desk-Based Assessments* (IFA 1994).

## 2.3 Identification Survey

- 2.3.1 An identification survey corresponding to Level 1 (RCHME) was undertaken across the fellside. The principal aim of the survey was to identify previously unrecorded sites and included information on the location, extent, character, condition and primary significance of each site.
- 2.3.2 The fellside was divided into three main areas: Area A consisted of the far eastern extent and included the area between Tarn House and Stag Syke; Area B consisted of the central part between Stag Syke and Howgill, and Area C comprised the western extremity between Howgill and Brown Fell. Each area was walked in transects of between 10 and 30 m, depending on the topography and ground cover. The archaeological detail was mapped using a Fujitsu pen computer connected to a Hawkeye differential GPS receiver, working to a two-dimensional accuracy of +/- 1 m. The digital survey data were transferred via DXF file format into AUTOCAD (Release 14 system) and superimposed onto digital Ordnance Survey data. The descriptive records were input on site using field notebooks and *pro-forma* record sheets. A photographic record was produced using digital colour and 35mm monochrome formats. The digital photographs have been used to accompany this report.
- 2.3.3 There were a number of constraints to archaeological survey due to poor visibility on the higher slopes and shelves through an absence of stock grazing these areas since 2001. There were also areas of known quarrying and mining, which were unsafe and were surveyed from a distance on health and safety grounds. Where possible, areas, which could not be surveyed directly, were examined from a distance and where linear sites ran through areas which could not be walked, the extent of these were traced as far as possible.

## 2.4 Gazetteer Of Sites

- 2.4.1 Each of the sites identified through both desk-based assessment and field survey were collated into a gazetteer (Appendix 1). This has been produced originally in MS Access format in order to be compatible with the Cumbria SMR and exportable into a MapInfo Environment. The fields used included Site Number, Location, Site Type, Land Use, Potential, Group Value, Significance, Site Name, NGR, Period, Source, Rarity, Fragility and Condition. A description of each site is also included.

## 2.5 Project Archive

- 2.5.1 A full archive has been produced to a professional standard in accordance with English Heritage guidelines (1991). The archive will be deposited as the client wishes with two copies of the report deposited in the County SMR in Kendal. A synthesis of the project has been produced for inclusion in the National Monuments Record and for submission to the OASIS project.

### **3 TOPOGRAPHY AND GEOLOGY**

#### **3.1 Topography**

3.1.1 The survey area is situated at the north-western edge of the North Pennines Area of Outstanding Natural Beauty, in Cumbria, to the south of the village of Hallbankgate and approximately 8 miles east of Carlisle. The site was considered extra-parochial in medieval times but in modern times is annexed to the parish of Naworth (Bulmer 1884, 407). In the medieval and early post-medieval periods, the forest was bordered by a wall to the north and west, by Brown Fell and Cold Fell to the south and by the Black Burn in the east.

3.1.2 The present survey area is restricted to the north facing slopes of Tindale and Brown Fells to the 450m contour line, centred upon NY 597 593. The land falls from above 450m in a south-north direction, sharply at first, then more gradually, forming natural terraces in the landscape.

3.4.1 The land was used until most recently as rough pasture, although since the recent Foot and Mouth outbreak, the vegetation has been allowed to recolonise the fellside.

#### **3.5 Solid Geology**

3.5.1 The survey area lies to the west of the North Pennine uplands, a region characterised by carboniferous rocks forming a single, large, central outcrop, extending the length of the region and also into the North and Irish seas (Jarvis et al 1984, 6). The main rock types are limestone, mudstone, shale, sandstone and coal, arranged in cyclic sequences called cyclothems (Ibid.).

#### **3.3 Drift Geology**

3.3.1 Superficial deposits, collectively termed ‘drift’, are the result of natural erosion and deposition which took place in the Quaternary period, and is derived from solid formations (Ibid.). The drift geology of the North Pennines is characterised as peat, a formation from decaying plant residues where there are insufficient soil organisms to decompose and incorporate them into the soil (Ibid. 15). The largest and thickest mass of peat formation is on the Pennine plateaux.

### **4 PREVIOUS WORK**

4.1 For three seasons between 1988 and 1990, P J Nebergall directed the excavation of a number of test pits and the survey of the road through Howgill across Tindale Fell. These excavations uncovered material remains with dates ranging from 1400 to 1840 AD (Nebergall 1990; SMR 6695). These included a possible kiln or industrial oven and a stock wall or cattle pen. The investigation of the road suggested a possible medieval date, with the road upgraded by the Duke of Cumberland in 1745.

4.2 Nebergall’s investigations were largely confined to Howgill and the road. No previous work has been undertaken on Tindale Fell or Brown Fell.

## 5 HISTORICAL BACKGROUND

### 5.1 Place Name Evidence

- 5.1.1 The earliest reference to Bruthwaite or *Brerethwaite*, or *Brierthwaite* dates back to 1387. The word *brere* derives from the Middle English meaning briar, and *thwaite* (Old English) meaning a cleared patch of land (or Forest clearing), enclosed or a low meadow (Armstrong, et al 1950).

### 5.2 Prehistoric

- 5.2.1 Unlike the fells of the Lake District, there has been little investigation upon the fells of the North Pennines. There are few examples of prehistoric activity close to the survey area, but nothing is known within it. These nearby examples of prehistoric activity include the Tortie Stone (SMR 6508), a cup and ring marked stone close to Tortie cottage, north of Howgill, discovered in 1987. Excavations around the stone revealed a clearly defined socket hole and have suggested it was either part of a now defunct stone circle or an isolated upright monolith. A second stone was discovered on the fell opposite in 1988. This stone is almost certainly part of a little known Late Neolithic-Early Bronze Age landscape.
- 5.2.2 Barrows have been identified on the fells outside the survey area, including one at Cold Fell (SMR 588), the top of which has been damaged by a trigonometrical station. The cairn is 14 – 17 m in diameter and 1.30 m high and there may be traces of a ring ditch 2 m wide by 0.60 m deep. Cairn material had been later reused to construct three rough shelters. A second barrow was identified on Tindale Fell (SMR 587), constructed from narrow slabs with a (reputedly) domed top, although this has suffered much damage. Two barrows or raised mounds were identified by Rev G Rome-Hall in 1882, at Hespecke (SMR 554, 555), west of the survey area within the parish of Castle Carrock, one of which is almost certainly a natural mound, of the other no trace survives.
- 5.2.3 Rome-Hall also alleged to have identified a number of cultivation terraces within Geltsdale parish (SMR 569, 572 and 580), south-west of the survey area. No traces of the terraces at Castle Carrock (569) survived within either the wooded area, or adjacent fields which had been levelled and improved. The Greens terraces (572) identified by Rome-Hall were disregarded as natural terracing, as were those at Gairs (580).
- 5.2.4 There have been a number of banks identified from vertical aerial photography including those at Bishop Sike (SMR 7992), immediately east of the survey area. These comprise discontinuous banks some 0.60 m in height and 2.5 m wide. No stones are visible, however, these could be the remains of former field systems. Similar banks were identified from aerial photographs at Tarn Beck, (SMR 7991) to the north of Bishop Sike, east of Tindale Tarn.
- 5.2.5 Rome-Hall also identified a number of ‘pit-dwellings’ and ‘earth ovens’ in Geltsdale, although some distance away from the present survey area. However, none of these appear on the SMR database and cannot be verified.

### 5.3 Roman

5.3.1 There is no evidence of Romano British or Roman activity within the survey area. A Roman inscribed stone was found near Hayton in Geltsdale, close to a quarry and there is extensive evidence to the north and west along the course of Hadrian's Wall and at Brampton. There is extensive evidence of Roman settlement around the Brampton area, although no definite evidence within the town itself. This includes a substantial Roman fort close to Brampton Old Church, several Romano-British farmsteads (Blake 1959), a nearby Roman road (the Stanegate) and a Roman auxiliary tiler (Hogg 1965).

### 5.4 Medieval

5.4.1 There is no evidence for early medieval activity within the survey area itself, a trend which is mirrored elsewhere within present day Cumbria, as evidence is extremely limited. It has been suggested that the Barony of Gilsland was a multiple estate in the pre-Conquest period (Todd 1997, 13). The barony had clearly defined natural boundaries, a single centre of lordship (Irthington), had been subject to an ancient cattle render called *noutgeld*, a tax which became replaced by Henry II for the service of two knights fee, and was an area where transhumance was practised (Ibid.).

5.4.2 It is in the medieval period that the first use of the place name Bruthwaite appears, as Brerethwaite in 1387 (Armstrong et al, 1950; see above). The Forest is bordered to the north, east and west by Farlam Common and to the south by the King's Forest of Geltsdale. The extent of the forest cover in medieval times is not known. The forest was granted by Adam de Tindale to Hexham Abbey (Bulmer 1884, 407) and it remained in the ownership of the monks until the Dissolution (c. 1538), upon which it was granted to the Dacre Barons of Gilsland. A Forest in medieval times was "an area of land reserved for hunting deer and other game and usually controlled by the Crown" (Bevan 1998; 46). It is important to mention that whilst nobles had their own private forests, such as was the case at Bruthwaite, the deer were the property of the King (Ibid.).

5.4.3 During the later medieval period, the north of England was a landscape largely characterised by the war between the English and Scottish Kings (David I temporarily acquired Northumbria and much of Cumbria during the English Civil War of the mid 12<sup>th</sup> century; Winchester 1987, 3). Cumbria during the later medieval ages was an area 'poor and remote' (Winchester 1987, 2), strongly dependent on a pastoral economy and the aggressive colonisation of marginal land. Between the late 13<sup>th</sup> and early 15<sup>th</sup> centuries, the region suffered the 'three horsemen': war, famine and plague. The hardships endured by the cross border raids and the maintenance of large retinues by the nobility took its toll on the region, and in combination with the climatic deterioration (the 'mini ice-age') of the 14<sup>th</sup> century and endemic plague, life was far from easy.

5.4.4 Medieval Cumbria incorporated large estates, linking upland and lowland communities in an economy largely dependent on pastoralism. According to Winchester, the pattern of upland forest linked to lowland estate centre is a common theme across medieval Cumbria, "... so that the upper reaches of



virtually all the Lake District Valleys and the Western Moors of the Pennines were described as forest in the medieval period.” (Winchester 1987, 20). The settlement pattern appears to have been sparse, centred on Howgill and Tarn House. There are extensive remains of ridge and furrow on the lower slopes, suggestive of a mixed arable-pastoral economy. The place name element *thwaite* suggests extensive clearance had already taken place by the later medieval period, suggesting there had been cultivation for some time. There is no direct evidence for other woodland activities but almost certainly they were used for the licensed hunting of deer, for pannage and as a source of fuel. A number of shielings have been identified outside the survey area, although none within, in Castle Carrock and Geltsdale parishes at Cumrew (SMR 3858, 3855, 3856) and Geltsdale (SMR 3859). Medieval in date, Shielings were shelters in effect used by shepherds and reflect the seasonal movement of stock to upland pastures in the summer season.

- 5.4.5 There is mention in the Lanercost Cartulary that in the early 13<sup>th</sup> century “Robert II de Vaux grants the whole land of Bruthwaite and Summerslethes, as David son of Teueth enclosed it with hedgebank and ditch, with pasture for specified beasts in Robert’s forest of Geltsdale and Tindaleside, and common pasture in Brampton (Todd, 1997, 77).
- 5.4.6 Much detail from the later medieval period comes from the 15<sup>th</sup> century will of Humphrey, Lord Dacre, who was killed at the Battle of Bosworth Field in 1485. Within the late Humphrey Dacre’s manor there was a castle at Irthington, held of the King ‘by two knights fees’ (Graham 1911; 234), which was the *caput baroniae* of the lordship and, in 1335, Ranulf De Dacre was granted license to crenellate a castle at *Naward* or Naworth (Ibid.). There is also mention of a wood outside Brampton called Brigwood, and the fishing (rights) ‘of the pools called Tynyel (Tindal) and Tauken (Talkin)’. The document also makes mention of a new built house called Ternehouse (Tarnhouse, SMR No. 3925) and coal mines on Tynyel (Tindal) fell, “valueless on account of the Scots, who are again and again stated to have destroyed everything.” (Graham 1911, 235).
- 5.4.7 The pattern of moorland-fell-forest was a strong theme throughout medieval Cumbria. Large areas of the Lake District did remain as either Royal Forests, such as Inglewood, or private forests held by manorial lords (OAN 2002, 12). Wastes of upland forests were the preserve of the lord’s demesne and were used for hunting (Winchester 1987, 84), but payments could be made to the lord by the valley communities for rights to agistment in the form of a ‘forest male’ (forest money), such as that paid by tenants at Wasdale Head in Copeland forest and Ulpha in Millom forest in the 16<sup>th</sup> century (Ibid.).

## 5.5 Post-Medieval

- 5.5.1 In the late 16<sup>th</sup> century the forest of Bruthwaite came into the possession of the Howard family. It is from this period that the first surveys were commissioned, in 1588 and also in 1603. 17<sup>th</sup> and 18<sup>th</sup> century surveys of the area describe it as one of waste. Thomas Ramshay’s map of 1772 shows Bruthwaite Forest, Lord Carlisle’s own property, of the same quality as Spadeadam waste. This would indicate an element of continuity from the medieval period. This is slightly

misleading, however, as the early post-medieval period witnessed a transformation, particularly in the way upland farming and land management were practised. As had been reflected elsewhere in the country, the period has been described as a transformation towards a capitalist society. This saw a more market oriented economy, with private land ownership as opposed to common rights and the payment of a levy for access to moorland, forest and fell. This, too, saw the change from a woodland-pasture economy to a separation of these two elements (from Winchester 2000, 147). Ramshay's map reflects this general early post medieval pattern and shows the land use of the survey area as a separation of forest and fell, in private ownership (Howard Earls of Carlisle) with no common access.

5.5.2 Little is known regarding most of 17<sup>th</sup> and 18<sup>th</sup> centuries, however, it is likely that the exploitation of coal continued, with greater success following the pacification of the north following the Union of English and Scottish Crowns in 1603. Some small scale coal extraction took place in the 16<sup>th</sup> and 17<sup>th</sup> centuries from shallow drifts cut into the fellsides (Krupa 1999, 4). It is in the later 18<sup>th</sup> century that developments quickened with an increase in mining and quarrying on a large scale. Surviving maps show coal mines on Tindale Fell and 18<sup>th</sup> century workings near Hallbankgate at Coal Fell and Templegarth (Webb and Gordon 1978, 2). During the last twenty years of the 18<sup>th</sup> century the major coal mining activity took place across the face of Tindale Fell, and also on Brown Fell (the Tarnhouse and Talkin collieries) (Ibid.). There was also a limestone quarry at Clowsgill, a mile south-east of Hallbankgate.

5.5.3 The first waggonways, with wooden rails, were in use in 1770 in the drift mines connecting them to lower workings, and the first surface waggonways were constructed in 1798 (Ibid.). The waggonways were constructed due to the need to provide cheaper transport for coal, as the old system of using carts (and pricing accordingly per cart) forced the price of coal up. A document survives detailing an estimate for "Laying a wooden waggonway from the Right Honourable Earl of Carlisle's Tindale Fell Colliery to Brampton." (Ibid, 3). The estimate included a cost for:

Laying a waggonway with wood and workmanship – 5 miles at 3s 4d per yard	£1466 13s 4d
Cuttings, embankments etc at £60 per mile	£300 0s 0d
Ten coal wagons at £12 each	£120 0s 0d
Building staith near Brampton	£300 0s 0d
Total Expense	£2186 13s 4d

The estimate included the deduction of £1,016 for the use of wood from Lord Carlisle's plantations. (Webb and Gordon 1978, 4). The first waggonway was constructed from a coal and lime depot on the Brampton – Alston road (Brampton Staith). These were constructed using wooden rails fastened to wooden bases. The waggonway was first built to Howgill and west to Talkin Colliery but was extended across the Howgill Beck to the westerly drifts of the Tarnhouse Colliery in 1802-3 (Ibid.). This eastwards extension was extended

progressively until it reached 1,000 ft (348 m) high above Tarn House across the face of Tindale Fell by 1808. Within five to six years the waggonway had a workforce of 18 drivers, 7 waggonwaywrights, assisted by a dozen labourers under a foreman (Ibid.). The Tindale Fell extension was constructed in wood, but by 1808 wrought iron rails were already in use. According to Webb and Gordon, Lord Carlisle's waggonway was the first to use the wrought iron rail successfully in commercial everyday service (Ibid., 6). Robert Louis Stevenson wrote of the waggonway: "Three and a half miles of this description of railway have been in use, for about eight years on Lord Carlisle's works, at Tindale Fell in Cumberland, where there are also two miles of cast iron rail; but the malleable iron road is found to answer the purpose in every respect better." (from Webb and Gordon 1978, 6).

5.5.4 The mines continued in prosperity throughout the first half of the 19<sup>th</sup> century, with the increasing availability of new technology through the use of steam locomotives. New reserves were opened between 1860 and 1863, including the Venture Drift mine, west of Howgill within the Talkin Colliery, operated between 1868-9 and reopened in 1873 as the New Venture drift, which closed in 1875 (Ibid, 59). However, the decline in prosperity of the mines can be traced back to this period, with the closure of the Clowsgill Limestone quarry and kilns in the early 1870s, and Blacksike pit in 1872. It was not, however, a simple case of decline and fall, as new mines opened as others closed in the later 19<sup>th</sup> and early 20<sup>th</sup> centuries, although there was a marked decline in prosperity. In 1955 the National Coal Board, who had taken over the lease of the Naworth coalfield in 1947, discontinued mining activities. A number of miners had obtained a licence to mine at the old Recovery Pit, east of Howgill on the lower slopes of Tindale Fell, where they successfully worked the pit as the Duke Coal Co. until its closure in 1971 (Ibid., 71). In 1976 the old Peters Hole drift east of Howgill was reopened, a road built to give access, which was still being worked in 1978, where wrought iron 'fish-belly' rails could still be seen in the undergrowth (Ibid, 72).

## 6 ASSESSMENT RESULTS

- 6.1 The landscape of the survey area has traditionally been one hostile to settlement, although rich in natural resources exploited by nearby settlement. With, perhaps, the exception of the settlement at Howgill, whose antiquity is uncertain, there was no evidence of any settlement within the survey area until the 15<sup>th</sup> century, with the construction of Tarn House.
- 6.2 A combination of lack of prior investigation and extensive post-medieval activity on the fellside has resulted in a dearth of evidence of pre-medieval activity. There were no reported prehistoric sites within the survey area, although the recumbent standing stone at Tortie and Tortie II (6508) and a barrow on Tindale Fell (587) outside the survey area are located close by and indicate some prehistoric activity within the landscape.
- 6.3 There are 53 sites identified within the County Sites and Monuments Record, 6 of which fall within the survey area. These sites either date to the post medieval period or are unknown, and include the settlement at Howgill (SMR 6695), Howgill Beck Quarry (7999), Stagsike Quarry (10164), Tindale Quarry (10452), Venture Drift Mine (10667) and Stagsike Tramway (11236). There have been no reported prehistoric or medieval sites within the survey area.
- 6.4 The earliest available known survey was the 1603 *Survey of the Barony of Gilsland*, coinciding with the acquisition of the Barony by the Howard's of Naworth (Graham, 1934).
- 6.5 There is evidence of small scale coal working from *Thomas Donald's Historic Map of Cumberland* (1774) (Figure 3) in the form of the place names Coal Pitts and Thorn Pitts on the lower slopes of Tindale Fell, west of Tarn House. The map is a stylistic representation rather than an exact and perfect survey, but the main topographical features and place names of the area are shown. No evidence of any settlement at Howgill is mentioned on this map.
- 6.6 Much detail regarding the location, extent and development is shown from the early plans of Lord Carlisle's waggonway. A plan of 1798 (Figure 4) shows the route of Lord Carlisle's waggonway between Bank Hall (Hallbankgate) and the shop pit in Talkin Colliery. The 1808 extension to Tarnhouse colliery is shown on James Thompson's map of October 1825 (Figure 5), this plan also shows the waggonway crossing an earlier road from Hallbankgate, behind Tindale Tarn towards Tindale and Midegholme. Coal pit, Old Morpeth pit, Fox Pit House and Collier Thorn are all included on the 1829 Survey of the Barony of Gilsland, as is the road beneath the waggonway, following the contours of the fellside in the direction from Foresthead, through Howgill towards Tindale.
- 6.7 The first published accurate survey of the study area is the 1<sup>st</sup> Edition Ordnance Survey (1868, see Figure 6) map. By this date the waggonway is referred to as 'old tramway' and the viaduct over the Howgill Beck south of Howgill as 'old viaduct'. The tramway survives along the 1000 ft (348 m) contour line east along part of Tindale Fell, from Howgill to Laile Head, and the incline west from Howgill towards Brown Fell also survives. A road, through Howgill from Forest Head to Bishop Hill Colliery, rising to a height of 348 m, is clearly marked

although Tarnhouse Colliery is not mentioned. The settlement activity is centred on Howgill, by the ford across Howgill Beck where a series of buildings were surveyed. This map refers to *Brierthwaite* Forest and not Bruthwaite Forest.

- 6.8 The 2<sup>nd</sup> Edition Ordnance Survey map (1901, Figure 7) depicts the positions of a number of ‘old quarries’ including Tindaletarn Quarry and Stagsike Quarry. None of these quarries are visible on the 1<sup>st</sup> Edition (1868) and were disused by 1901. The tramway across Tindale Fell is still shown at a height of 385 m, as is the road at a height of 348 m. Stagsike cottage and outbuildings are marked and date between 1868 and 1901. Venture drift mine is marked, west of Howgill although by this date the tramway towards Talkin colliery was disused as was the tramway from Clowsgill to Howgill.
- 6.9 The later additions to the Ordnance Survey (1924, 1926 and 1946) show no additional information from the earlier editions. By 1926 a small part of the tramway is visible as an earthwork, as are the quarries west and east of Stagsike.

## **7 FIELD SURVEY RESULTS (Figure 11)**

### **7.1 Introduction**

7.1.1 The survey identified 27 sites, ranging in date from the prehistoric period to the post medieval and modern periods. These comprise single sites and groups of sites, such as field systems or industrial remains, groups of sites have been given a group number which is used in this report.

7.1.2 No sites were identified on the higher slopes of Tindale Fell and Brown Fell, towards the 450m contour survey edge. The middle slopes, however, contained numerous remains including shafts, quarries, mines, roads and tracks dating to the post medieval period, around the 350m contour. The lower slopes revealed little archaeological activity, primarily relating to the drainage of the marshy valley bottom and features associated with the Howgill Beck, although the survey did identify three earthwork features of anthropogenic origin.

7.1.3 Of the six sites held in the Sites and Monuments Record, Howgill, Howgill Beck Quarry, Stagsike Quarry, Tindaletarn Quarry and Stagsike Tramway were all easily identifiable from field survey. Venture Drift was not accessible given the height of the bracken although the tramway leading to it was identifiable.

7.1.4 The features identified consisted of pits and mounds, linear features, cairns and buildings. The cairns and buildings consisted of dry stone built features, utilising locally available stone, most likely from the numerous limestone quarries. Linear features consisted of narrow ditch systems, likely drainage features on the lower slopes and shelves.

7.1.5 No definitive prehistoric or medieval features were identified during the survey. One possible barrow (Site 9) situated close to the 450m contour line, was identified but remains to be verified from closer scrutiny. Two unusual circular earthworks were also identified close to Howgill Beck on the valley bottom, which warrant further work. A cairnfield was also identified immediately outside the survey area to the east, however the date of this is unknown.

### **7.2 HOWGILL (NY 359100 557300; SMR 6695; SITE 1)**

7.2.1 The settlement at Howgill consists of a series of terraced buildings, a road and a number of earthworks. It is located at the centre of the survey area, at the foot of the fellside close to the Howgill Beck. The earliest cartographic evidence for the site is the Ordnance Survey 1<sup>st</sup> Edition, which shows a series of rectangular buildings, the present buildings appears of 19<sup>th</sup> century character. The road through the settlement pre-dates the later tramway from Hallbankgate to Tarnhouse and Talkin Collieries and crosses the Howgill Beck via a ford. Excavations between 1988 and 1990 have found evidence of industrial activity including waste material and possible spent fuel, and a raised linear feature suggested to be a stock wall or cattle pen (Nebergall 1990).

- 7.3 HOWGILL BECK QUARRY (NY 359900 558150; SMR 7999; SITE 2)**
- 7.3.1 Identified from vertical aerial photographs as a large quarry. Located close to Stagsike quarry (10164; Site 3) and surviving up to 1.5 m high.
- 7.4 STAGSIKE QUARRY AND TRAMWAY (NY 359870 558150; SMR 10164, 11236; SITE 3)**
- 7.4.1 As site 2, a large quarry cut into the lower slopes of the fellside adjacent to Stag Sike. The site consists of a disused tramway leading to a substantial quarry. The tramway survives as a road providing access to the (now disused) cottage beneath Stag Sike. The tramway and quarry is visible on the 1<sup>st</sup> edition Ordnance Survey (1868), although Stag sike is described as Long sike. Earthworks survive in excess of a height of 1.5 m although the site has been recently used for waste dumping.
- 7.5 TINDALETARN QUARRY (NY 360300 558000; SMR 11224; SITE 4)**
- 7.5.1 Substantial quarry and rectangular, dry stone building, appears to cut the tramway across the fellside to Tarnhouse colliery. SMR entry suggests this is visible on the 1868 Ordnance Survey. A road, still visible where the bracken is low, leads from this quarry in an easterly direction to link up with the nearby Tindale Quarry (10452).
- 7.6 LINEAR FEATURES (NY 360140 558230; SITE 5)**
- 7.6.1 A series of thin linear features were identified from field survey east of Stag Sike, these consist of small ditches or gullies characterised by long grass. They appear to run in a 'criss-cross' fashion and have no regular system, leading to the supposition these are likely drainage ditches. They do not appear on the Ordnance Survey maps.
- 7.7 PITS AND SHAFTS (Centred NY 360 558; SITE 6)**
- 7.7.1 A series of pits and shafts are still visible to the north of the main fellside tramway to Tarnhouse colliery. These include Morpeth pit, Fox pit and Hazard pit (Webb and Gordon ) and survive as considerable sub-circular depressions.
- 7.8 RECTANGULAR BUILDING (NY 360290 557770; SITE 7)**
- 7.8.1 A large rectangular building was identified above the tramway at a height of c. 400 m AOD. This measured 20 m x 10 m and of a dry stone build, surviving to a height of approximately 0.30 m. The building is located in a boulder strewn area with a plentiful supply of building material. This building may relate to coal mining activities but may be a shieling and possibly of medieval date.

**7.9 TRAMWAY (NY 360 558; SMR 11227; SITE 8)**

7.9.1 The Tindale Fell waggonway was the most significant archaeological feature identified, both from research and field survey. The tramway survives as a level platform, revetted to the north and cut into the fellside to the south, running approximately east-west along the 380 m contour line. A number of shafts are still visible to the south of the railway along the fellside. It is interesting to note the tramway appears to be out of use by 1868, as evidenced from the Ordnance Survey map, and by 1901 appears to be cut by a number of quarries and survives as a low earthwork only in places

**7.10 POSSIBLE BARROW (NY 359750 557490; SITE 9)**

7.10.1 An earthwork, oval in shape and surviving to a height in excess of 1 m, was visible at a height approximately 400 – 450 m AOD. No shafts or spoil heaps were identified at this height and the earthwork appears entirely artificial. Further detailed survey work is required to characterise the nature of this feature, however.

**7.11 ENCLOSURE (NY 359220 557420; SITE 10)**

7.11.1 An earthwork enclosure, 0.5 m high by c. 20 m long comprising earthworks on three sides with Howgill Beck on the fourth was observed. Situated close to Howgill settlement, this may have been a focus for Nebergall's excavations, however, it is impossible to locate these accurately owing to the quality of the trench location plan. Possibly a focus for industrial activity from the post medieval period, utilising the source of water, or a possible sheep wash site and it is almost certainly artificial.

**7.12 BUILDING AND CAIRN (NY 359540 556900; SITE 11)**

7.12.1 Similar to site 7, a rectangular building constructed from dry stone, approximately 20 m x 10 m x 0.30 m. Situated beside a road or track close to the survey edge and of poor construction, likely to be a shieling.

7.12.2 A large cairn close to the scarp edge, on the opposite site of the road from the dry stone building consisting of medium sized, angular limestone.

**7.13 BUILDING (NY 359940 556750; SITE 12)**

7.13.1 A rectangular building of dry limestone construction of similar dimensions to sites 7 and 11 although surviving to a greater height (in excess of 1.5 m in places) was observed on the fells east of Howgill Beck. The building is well constructed and is likely to date to the late 19<sup>th</sup> century, located close to a sheep fold visible on the 2<sup>nd</sup> edition Ordnance Survey map (1901).

**7.14 VENTURE DRIFT (NY 359300 557300; SMR 10667; SITE 13)**

7.14.1 The remains of this c 1870 drift mine are difficult to define, the position of the mine can be determined from the presence of spoil heaps and the survival of a road leading from the main tramway. Little else survives.



- 7.15 FOREST HEAD MINES (NY 358800 557000; SMR 10668; SITE 14)**
- 7.15.1 The tramway sidings and embankments survive (1 – 2 m high in places), as do the remains of timber sleepers, but no iron rails survive, although some metal fixtures and fittings survive in places (see also site 20).
- 7.16 STONE EXTRACTION SITE (NY 358470 556690; SITE 15)**
- 7.16.1 A possible stone extraction site was observed west of the waterfalls, close to the 450 m contour line. This consists of the apparent removal of stone from a natural limestone outcropping. The precise nature of this site is not known and could possibly be as a result of natural slippage.
- 7.17 LINEAR FEATURES (NY 358340 556570; SITE 16)**
- 7.17.1 Two linear features were observed on Brown Fell, one running diagonally across the fell in a southwest – northeast direction, the other forming a right angle. Marked on the Ordnance Survey as a beck or stream, the nature of these features are not known, but their position on gently sloping ground approximately 400 m AOD, could suggest a possible attempt at enclosure, or a field system. However, the soils on the higher fells are unsuited to cultivation and these features could be entirely natural, although should this be the case it is more likely for them to follow the course of least resistance (i.e. running downslope).
- 7.18 BUILDING (NY 36890 55700; SITE 17)**
- 7.18.1 The remains of a rectangular building were observed above Howgill settlement, west of Howgill Beck. It appeared to be constructed from dressed limestone with mortar and survived to a height of 0.20m. A wrought iron bucket and a possible concrete yard surface were associated with this building. The site lies in an area, which contained the remains of several shafts and lies adjacent to a winding road or track, and is likely connected to the coal mines.
- 7.19 ARTIFICIAL BANK (NY 35889 55682; SITE 18)**
- 7.19.1 A substantial stone and earth bank was observed running steeply up the fell beneath the Crambles. It measured approximately 3m wide x 1.5m high and formed a relatively flat track running up the fell. It is likely that this bank was constructed as a level incline for a tramway.
- 7.20 QUARRIES (NY 35890 55680; SITE 19)**
- 7.21 A series of quarries were observed on the fell west of Howgill Beck. The substantial limestone outcrop known as the Crambles formed the largest quarry site, whereas the fellside is characterised by a number of smaller quarries and stone extraction sites.
- 7.22 BUILDING (NY 35873 55699; SITE 20)**
- 7.22.1 A small square building was observed adjacent of the tramway towards Talkin Colliery on the south side. This was constructed from dressed limestone, bonded

by lime mortar and resembled the base of a tower. The remains of an iron valve were identified within the tower, suggesting this building formed part of a water power system utilising water from a reservoir higher up the fell.

**7.23 STONE EXTRACTION SITE (NY 35856 55660; SITE 21)**

7.23.1 A possible stone extraction site was observed west of the waterfalls, close to the 450m contour. This consists of the apparent removal of stone from a natural limestone outcropping. The precise nature of this site is not known and could possibly be as a result of natural slippage (Same as site 15).

**7.24 QUARRY SITE (NY 35948 55715; SITE 22)**

7.24.1 A substantial level area close to the 450m contour, with an associated track, the outline of which is visible from a distance. It appears to be a quarry or small-scale stone extraction site.

**7.25 CIRCULAR EARTHWORKS (NY 35970 55790; SITES 23 AND 24)**

7.25.1 Two small circular earthworks, each measuring approximately 5m in diameter, were observed in the marshy valley bottom close to the Howgill Beck. Both were visible as grass and moss among marsh and reeds and appeared to be of solid construction when tested. Further work is required here before any speculation as to their character can be made.

**7.26 EARTH BANK (NY 35945 55776; SITE 25)**

7.26.1 A large earth bank was observed to the north of Howgill Beck, measuring approximately 3m wide x 0.50m high. The bank appeared to correspond to the same alignment as a nearby field boundary, suggesting a similar function. The bank appears to be cut by the main path, which leads from Howgill to Stagsike Cottages.

**7.27 STONE WALL (NY 35940 55778; SITE 26)**

7.27.1 The remains of a dry stone built wall were observed on the lower slopes north of Howgill Beck. The wall survives to a height of 0.30m and is partially covered by moss and grass and appears to form a relict section of field boundary.

**7.28 PLATFORM (NY 35935 55766; SITE 27)**

7.28.1 A raised platform consisting of low earth banks was observed adjacent to the Howgill Beck on its south side. The platform measures approximately 5m x 3m and is clearly visible from the Howgill Beck's opposite bank.

## 8 DISCUSSION

8.1 The survey has identified little or no prehistoric activity within the survey area. There is a marked absence of prehistoric material on the upper slopes, although the nature of the terrain is not conducive to such settlement, from steep to moderate slopes and shelves with poor soils. The lower slopes have been extensively truncated by industrial activity, and the valley bottoms consist of poorly drained marsh unlikely to sustain permanent settlement.

8.2 The survey revealed possible evidence for medieval activity in the forms of shielings, suggesting the survey area was characterised as summer pastures. This is common for much of the moorland and fells of Cumbria, although the practice practically ceased in the later medieval period (Winchester 2000, 84). It is likely that the building remains identified during the survey were summer shielings which went out of use and fell into ruin (Ibid.). Camden's description of transhumance in Gilsland and Redesdale provides evidence of shieling practices close to the survey area:

“Every way round about in the wasts ... you may see as it were the ancient Nomades, a martiall kinde of men, who from the moneth of Aprill unto August, lye out scattering and summering (as they tearme it) with their cattell in little cottages here and there which they call Sheales and Shealings.”

(from Winchester 2000, 85)

In a region as politically unstable as the Border lands in the 16<sup>th</sup> century, conflict precluded permanent settlement, accounting for the Pele Towers and Bastle Houses across the North Pennines, it has been suggested that the adoption of transhumance “offered a means of exploiting the hill pastures” (Ibid.).

8.3 The principal archaeological remains identified from both the desk-based and field survey components date from the late 18<sup>th</sup> and 20<sup>th</sup> centuries, relating to the coal mining activities of the Earls of Carlisle. It is apparent that the fells were no longer used as summer shieling grounds by the 17<sup>th</sup> and 18<sup>th</sup> centuries and began to be systematically exploited for their coal. The marked absence of permanent settlement with the exception of Howgill suggests an industrial use of the area, with the coal mined for use in local markets. Intensive exploitation of the coal mines appears to be a short-lived phenomenon, with the most productive period that of the first half of the 19<sup>th</sup> century, with James Thompson as chief agent. By the early 20<sup>th</sup> century, with the withdrawal of the Thompson's as agents of Tarnhouse and Talkin Collieries, most of the drift mines had become disused. Evidence from the 1901 Ordnance Survey map shows limestone quarries cutting the old tramway.

8.3 The precise origin of the track along Tindale fell is unknown, as although the site has been mentioned in various texts, little work has been done (Harris 1972, 227). P.J.Nebergall, who excavated a section around Howgill between 1988 and 1990, suggested a medieval precursor to the waggonway, and given the use of the fell by the monks of Lanercost Priory, some form of road or cart track would have been necessary (Nebergall 1990). What is certain is that by the mid-19<sup>th</sup> century the waggonway had become largely redundant, with the section below Hallbankgate abandoned in 1836 and many of the levels above Tindale Tarn already exhausted by this time (Ibid, 245).

#### **8.4 Impact**

8.4.1 The available evidence suggests that the deforestation of Bruthwaite Forest has its origin in the early medieval period, although it is likely that areas of woodland or woodland-pasture were retained and used for hunting and stock grazing. Wood pasture is defined as managed woodland without coppices but with a reasonable quantity of herbage growing beneath the trees and with extensive open glades, occupied by shrubs and rough vegetation (Rackham 1986, 120; Williamson 2003, 54). The planting of trees has an acknowledged damaging effect on the archaeological landscape, hence any management strategy must account for this and ensure the areas where archaeological remains survive are given full consideration.

#### **8.5 Archaeological Significance**

8.5.1 Individually, the shielings, pits, shafts and quarries are not immediately significant beyond a local context. The waggonway itself is not a rare phenomenon given the wider North Pennines regional context, as there are numerous remains of waggonways connected to the mines and quarries which make up much of the North Pennine landscape. The presence of such remains are of interest within a local context, however, as a fundamental part of history of the landscape.

#### **8.6 Conservation and Management**

8.6.1 The identification of an industrial landscape, including an early waggonway, which included the experimentation with the use of wrought iron rails, would warrant further analysis and recording. It is recommended that such work be targeted around the area along the waggonway itself, surveying in detail mine and quarry complexes as a whole, prior to planting.

8.6.2 It is recommended that the archaeological resource be protected in the course of land use management and future woodland planting. This could involve the incorporation of those areas where archaeological survival is high into a landscape interpretation programme. Although not of national importance, woodland planting would damage the archaeological resource, which could be mitigated through the extension of zones 'not-planted' to incorporate the remains identified from this survey.

## 9 BIBLIOGRAPHY

### Primary Sources

- CRO(C)/QRE1/79 Enclosure Map and Award, 1780
- CRO(C)/TL542/8 Survey of the Barony of Gilsland 1588/89
- CRO(C)/DMH/10/6/1 Survey of the Barony of Gilsland 1599
- CRO(C)/713/6 Geltsdale Forest Map
- 1772 Thomas Ramshay's Plan of the Barony of Gilsland
- 1777 T Donald's Map of Cumberland
- 1798 Map of Lord Carlisle's Waggonway
- 1825 James Thompson's Map of the proposed N & C North route
- 1829 Map of the Barony of Gilsland
- 1868 Ordnance Survey 1<sup>st</sup> Edition.
- 1901 Ordnance Survey 2<sup>nd</sup> Edition.
- 1926 Ordnance Survey 3<sup>rd</sup> Edition.
- 1946 Ordnance Survey 3<sup>rd</sup> Edition with alterations.
- 1980 Institute of Geological Sciences (IGS) 1:50,000 Brampton Drift Geology

### Secondary Sources

- Armstrong, A.M. et al (1971) *The Placenames of Cumberland*, English Place Name Society, 20-22, Cambridge
- Bevan, W.J. (1998) *Upper Derwent Archaeological Survey. Volumes 1-3*. Peak District National Park Archaeology Service
- Bulmer, T.F. (1884) *Directory of East Cumberland*. Manchester: T Bulmer and Co.
- Charters, J. (1971) *The Brampton Railway*. Oakwood Press.
- English Heritage (1991) *Management of Archaeological Projects*. 2<sup>nd</sup> Ed. London.
- Frodsham, P.N.K. (1989) Two Newly Discovered Cup and Ring Marked Stones from Penrith and Hallbankgate. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 89: 1-19.
- Harris, A. (1972) The Tindale Fell Waggonway. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 72: 227-246.
- Graham, T.H.B. (1911) Extinct Cumberland Castles (III). *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* XI:234.

- Graham, T.H.B. (1934) *The Barony of Gilsland: Lord William Howard's Survey of 1603. Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*. Extra Series, 16.
- Grenville, J. (1999) *Managing the Historic Rural Landscape*. London: Routledge/English Heritage.
- Hindle, B.P. (2001) *Roads and Tracks for Historians*. Chichester, Phillimore.
- Jarvis, R.A. et al (1984) *Soils and their Use in Northern England*. Soil Survey of England and Wales (SSEW) Bulletin No.10.
- Jones, C.J. (2003) *Project Design for an Archaeological Landscape Survey at Bruthwaite Forest, Hallbankgate, Cumbria*. North Pennines Archaeology Ltd Project Designs and Client Reports No. 67.
- Krupa, M. (1999) *Lord Carlisle's Railway, Cumbria and Northumberland. Survey and Assessment Report*. North Pennines Archaeology Ltd.
- Marshall, J.D. and Davies-Shiel, M. (1977) *The Industrial Archaeology of the Lake Counties*. Beckermeth.
- Nebergall, P.J. (1990) *Excavations at Howgill Site, Hallbankgate, Brampton, Cumbria. 1988-1990*. Unpublished Report.
- Newman, R. (2001) *The Historical Archaeology of Britain, c. 1540 – 1900*. Stroud: Sutton Publishing.
- Newman, R. (2003) *Brief for an Archaeological Landscape Survey at Bruthwaite Forest, Hallbankgate, Cumbria*. Cumbria County Council Archaeology Service.
- Rackham, O. (1986) *The History of the Countryside*. London.
- Richardson, C. (1992) Excavations on a Cup and Ring marked boulder on Tortie Hill, Midgeholme Parish, and a newly discovered decorated rock in the vicinity. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 92: 7-11.
- Todd, J.M. (1997) *The Lanercost Cartulary. Cumberland and Westmorland Antiquarian and Archaeological Society Record Series Vol X1*.
- Webb, B. and Gordon, D.A. (1978) *Lord Carlisle's Railways*. Railway Correspondence and Travel Society.
- Williamson, T. (2003) *Shaping Medieval Landscapes: Settlement, Society, Environment*. Macclesfield: Windgather Press.
- Winchester, A.J.L. (1987) *Landscape and Society in Medieval Cumbria*. Edinburgh: John Donald Publications Ltd.
- Winchester, A.J.L. (2000) *Harvest of the Hills: Rural Life in Northern England and the Scottish Borders, 1400-1700*. Edinburgh: Edinburgh University Press.

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## APPENDIX – GAZETTEER OF SITES

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<b>Site No</b>	1
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Settlement
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill
<b>NGR</b>	359100 557300
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 6695; OS;
<b>Rarity</b>	Low
<b>Fragility</b>	Low
<b>Condition</b>	Good
<b>Description</b>	Settlement consisting of a series of terraced buildings, a road and a number of earthworks, located at the centre of the site, close to the Howgill Beck. The road is cut by a later waggonway from Hallbankgate to Talkin Colliery.
<b>Site No</b>	2
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Howgill Beck Quarry
<b>NGR</b>	359900 558150
<b>Period</b>	Post Medieval
<b>Source</b>	SMR7999; Identification
<b>Rarity</b>	Low
<b>Fragility</b>	Low
<b>Condition</b>	Medium
<b>Description</b>	Site of a quarry identified from vertical aerial photographs. 6 m deep, cut into the side of the slope, having upcast to the sides and at the foot.

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<b>Site No</b>	3
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry and Tramway
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Stagsike Quarry and
<b>NGR</b>	359870 558150
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 10164; OS 1901
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of a quarry, now disused with an adjacent tramway.
<b>Site No</b>	4
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Tindaletarn Quarry
<b>NGR</b>	360300 558000
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 11224; OS 1901
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of quarry or quarries and associated rectangular building. Served by Tindale Fell tramway and also a later road from Tindale Quarry.



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<b>Site No</b>	5
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Ditch
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Stagsike 2
<b>NGR</b>	360140 558230
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of a tramway connected with adjacent mine workings.
<b>Site No</b>	6
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Pits and Shafts
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Tindale Fell 1
<b>NGR</b>	360000 558000
<b>Period</b>	Post Medieval
<b>Source</b>	OS
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Pits and shafts of variable dimensions, south of Tindale Fell waggonway, surviving as sub-circular depressions.

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<b>Site No</b>	7
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Shieling
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Stagsike 3
<b>NGR</b>	360290 557770
<b>Period</b>	Medieval/Post Medieval
<b>Source</b>	Identification Survey
<b>Rarity</b>	Medium
<b>Fragility</b>	Medium
<b>Condition</b>	Low
<b>Description</b>	Large rectangular building approximately 20 m x 10 m, of a dry stone build, surviving to a height of 0.30 m.
<b>Site No</b>	8
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Tramway
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Tindale Fell 2
<b>NGR</b>	360000 558000
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 11227; OS
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Tramway running across Tindale Fell at a height of 380 m AOD. Consists of a revetted track cut into the fellside, approximately 5 - 10 m wide. Associated shafts still visible to the south along the fellside.

---

<b>Site No</b>	9
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Barrow
<b>Land use</b>	Pasture
<b>Potential</b>	High
<b>Group value</b>	Low
<b>Significance</b>	2
<b>Site name</b>	Howgill Beck Barrow
<b>NGR</b>	359750 557490
<b>Period</b>	Prehistoric?
<b>Source</b>	Identification Survey
<b>Rarity</b>	Medium
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	An earthwork, oval in shape and approximately 10 m x 5 m x 1 m.
<b>Site No</b>	10
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Enclosure
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill 1
<b>NGR</b>	359220 557420
<b>Period</b>	Post Medieval
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Low earthwork enclosure, curving to form a D shape, consisting of low earth banks in excess of 2 m wide and 0.50 m high.

---

<b>Site No</b>	11
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Shieling?
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill 2
<b>NGR</b>	359540 556900
<b>Period</b>	Unknown
<b>Source</b>	OS; Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Low
<b>Description</b>	Large rectangular building approximately 10 x 5 m, surviving to a height of 0.25 m. Located adjacent to a road or track close to the survey edge. Large cairn 10 x 10 m, of unknown date, situated nearby.
<b>Site No</b>	12
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Shieling
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Cold Fell
<b>NGR</b>	359940 556750
<b>Period</b>	Post Medieval
<b>Source</b>	OS
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Low
<b>Description</b>	Rectangular building of dry stone build 10 x 5 m close to a road or track. Lies immediately outside the survey edge.

---

<b>Site No</b>	13
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Mine
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Venture Drift
<b>NGR</b>	359300 557300
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 10667; OS
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of two drift mines, Venture and New Venture drifts. Site disturbed by the removal of spoil heaps.
<b>Site No</b>	14
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Mine Complex
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Foresthead
<b>NGR</b>	358800 557000
<b>Period</b>	Post Medieval
<b>Source</b>	SMR 10668; OS
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of mine shaft complex comprising disused workings, level and about 16 disused shafts. The remains of access roads, a tramway and working gear are visible.

---

<b>Site No</b>	15
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Brown Fell 1
<b>NGR</b>	358470 556690
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Possible stone extraction site, approximately 10 m x 5 m, cut into a natural limestone outcrop.
<b>Site No</b>	16
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Ditch
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Brown Fell 2
<b>NGR</b>	358340 556570
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Narrow linear ditches or gullies, approximately 1 m wide, running NE-SW. Possible natural channel.

---

<b>Site No</b>	17
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Building
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	High
<b>Significance</b>	2
<b>Site name</b>	Brown Fell Mines
<b>NGR</b>	3589 5570
<b>Period</b>	Post Medieval/Industrial
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Rectangular dry stone building foundations with associated yard surface and wrought iron bucket.
<b>Site No</b>	18
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Brown Fell Quarries
<b>NGR</b>	3589 5568
<b>Period</b>	Medieval/Post Medieval
<b>Source</b>	Identification Survey
<b>Rarity</b>	Medium
<b>Fragility</b>	Medium
<b>Condition</b>	Low
<b>Description</b>	Group of quarries of various sizes situated on Brown Fell.

---

<b>Site No</b>	19
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Tramway
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Brown Fell Incline
<b>NGR</b>	35889 55682
<b>Period</b>	Post Medieval/Industrial
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Tramway running steeply up Brown Fell towards the Crambles quarry.
<b>Site No</b>	20
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Building
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	High
<b>Significance</b>	2
<b>Site name</b>	Brown Fell Tower
<b>NGR</b>	35873 55699
<b>Period</b>	Post Medieval/Industrial
<b>Source</b>	Identification Survey
<b>Rarity</b>	Medium
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Square building or tower base adjacent to tramway, which contains the remains of an iron valve.



---

<b>Site No</b>	21
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Brown Fell 2
<b>NGR</b>	35856 55660
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Possible stone extraction site, approximately 10 m x 5 m, cut into a natural limestone outcrop.

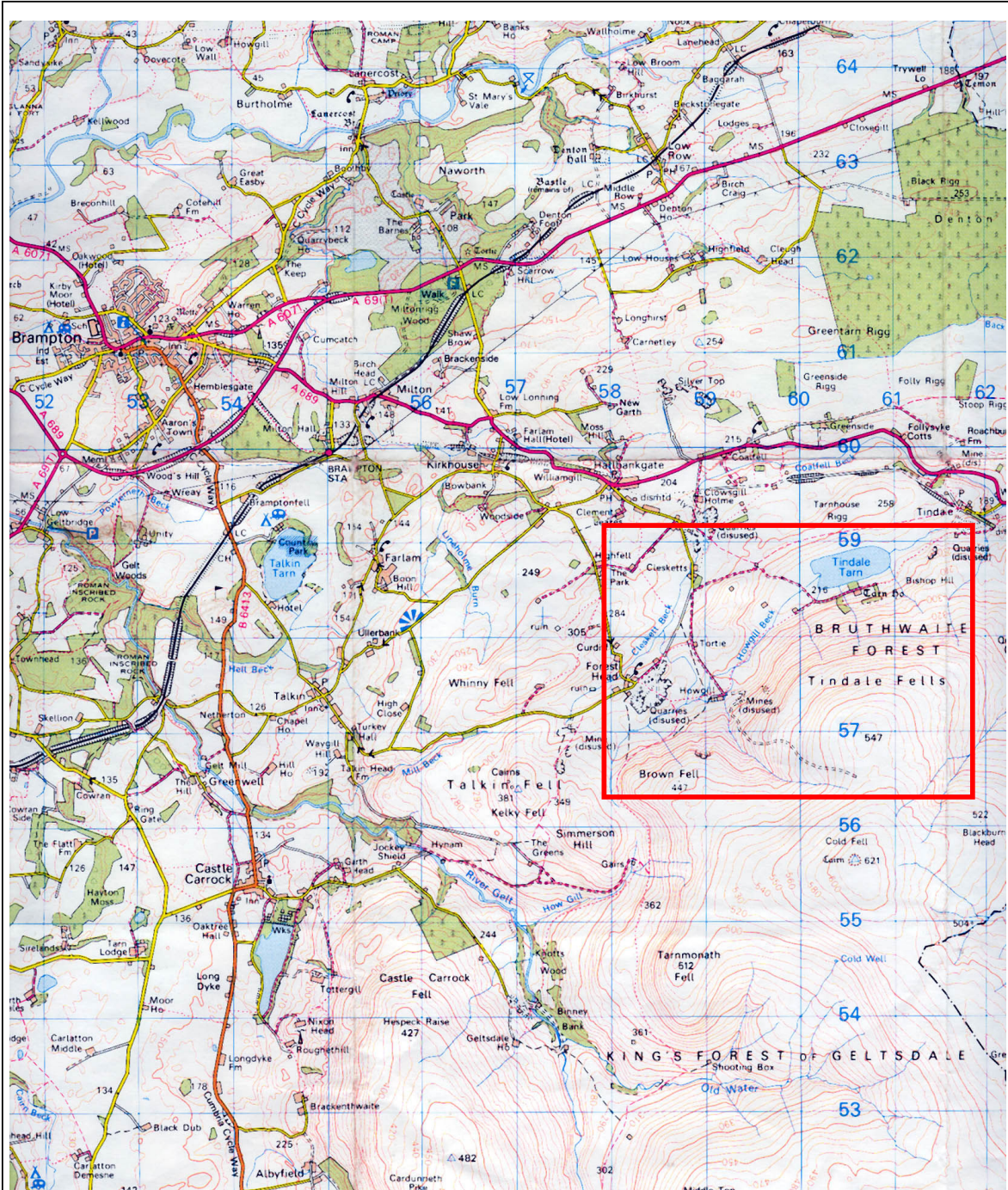
<b>Site No</b>	22
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Quarry
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill 3
<b>NGR</b>	35948 55715
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Low
<b>Description</b>	Quarry and associated trackway on the upper slopes of Tindale Fell.

---

<b>Site No</b>	23, 24
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Circular Features
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill Cairns
<b>NGR</b>	3597 5579
<b>Period</b>	?Prehistoric
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Two low circular earth mounds visible due to a covering of moss and grass.
<b>Site No</b>	25
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Earth Bank
<b>Land use</b>	Pasture
<b>Potential</b>	Low
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Howgill Bank
<b>NGR</b>	3594 5577
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Site of low, linear earth bank adjacent to Howgill Beck.

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<b>Site No</b>	26
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Stone wall
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	2
<b>Site name</b>	Howgill Field Boundary
<b>NGR</b>	3594 5570
<b>Period</b>	Post Medieval
<b>Source</b>	OS 1 <sup>st</sup> Edition; Identification Survey.
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Remains of former field boundary.
<b>Site No</b>	27
<b>Location</b>	Bruthwaite Forest
<b>Site type</b>	Platform
<b>Land use</b>	Pasture
<b>Potential</b>	Medium
<b>Group value</b>	Medium
<b>Significance</b>	3
<b>Site name</b>	Howgill Platform
<b>NGR</b>	3594 5577
<b>Period</b>	Unknown
<b>Source</b>	Identification Survey
<b>Rarity</b>	Low
<b>Fragility</b>	Medium
<b>Condition</b>	Medium
<b>Description</b>	Artificial platform on the south bank of the Howgill Beck, measuring approximately 5m x 3m.

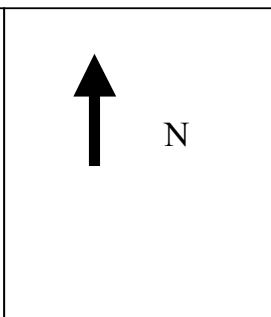


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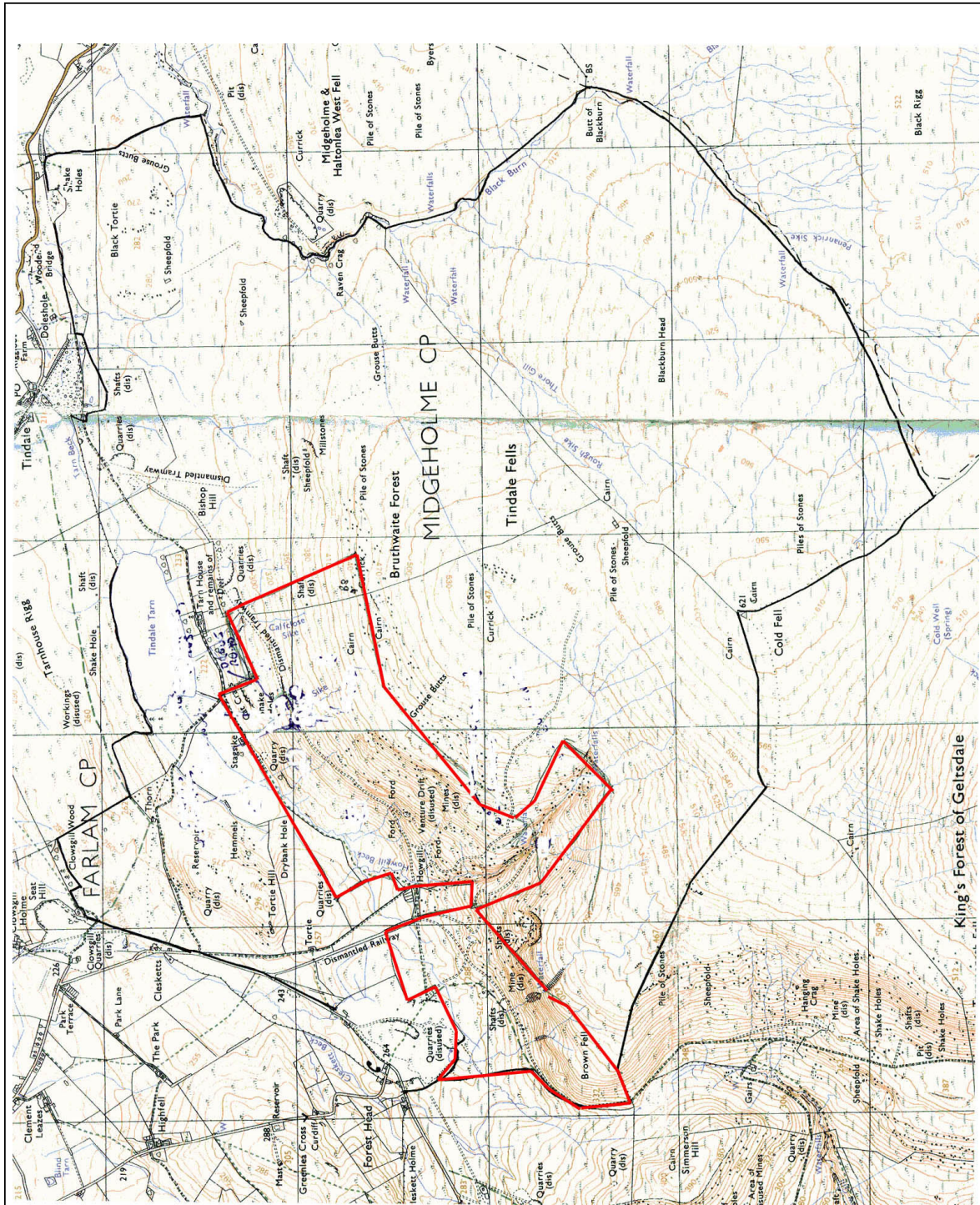
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PROJECT: BRUTHWAITE FOREST  
FIGURE: 1a  
TITLE: Site Location

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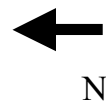
PROJECT: BRUTHWAITE FOREST

FIGURE: 1b

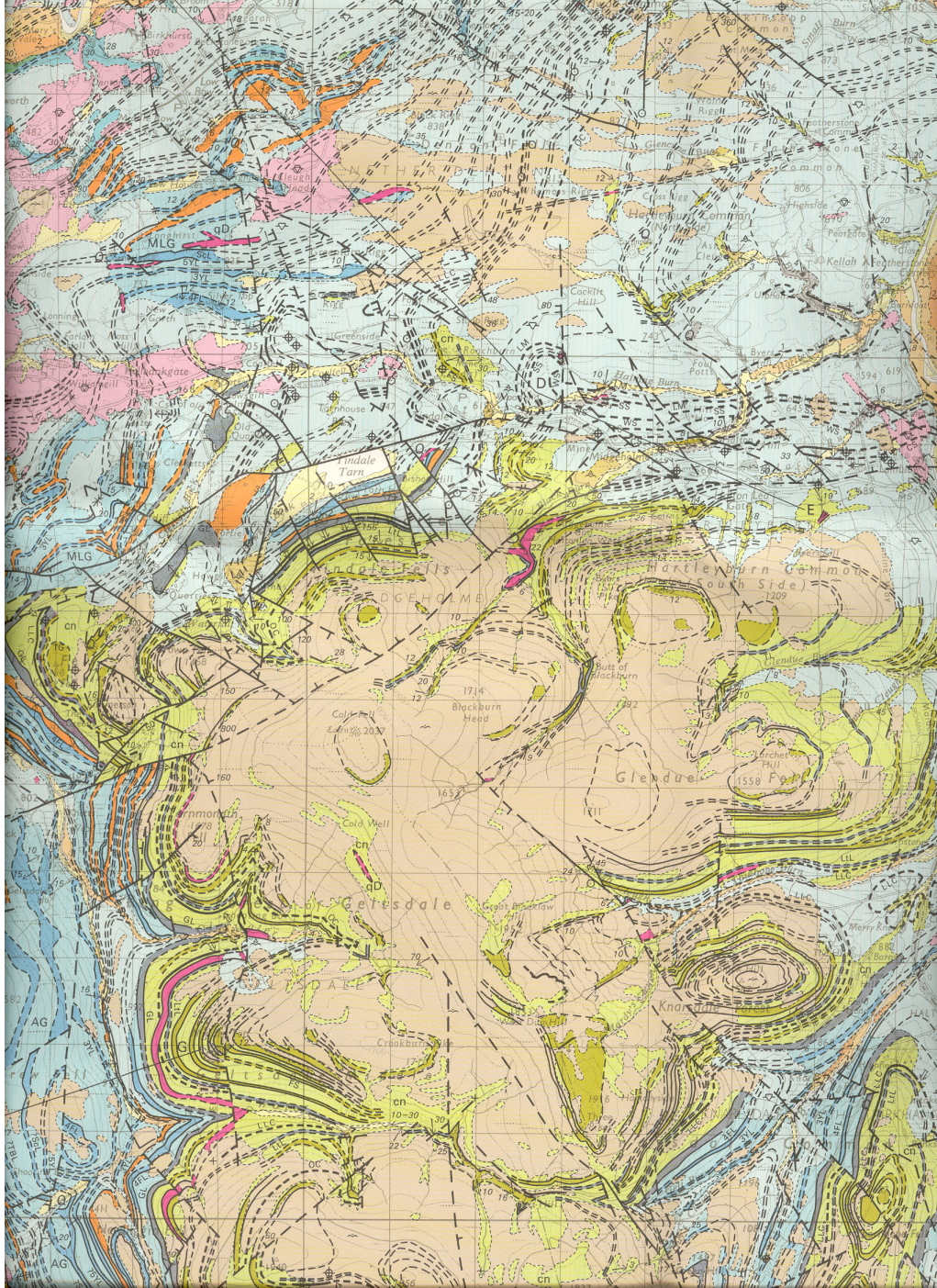
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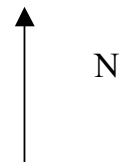
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FIGURE: 2

SCALE:

TITLE: Geological Map







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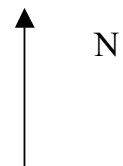
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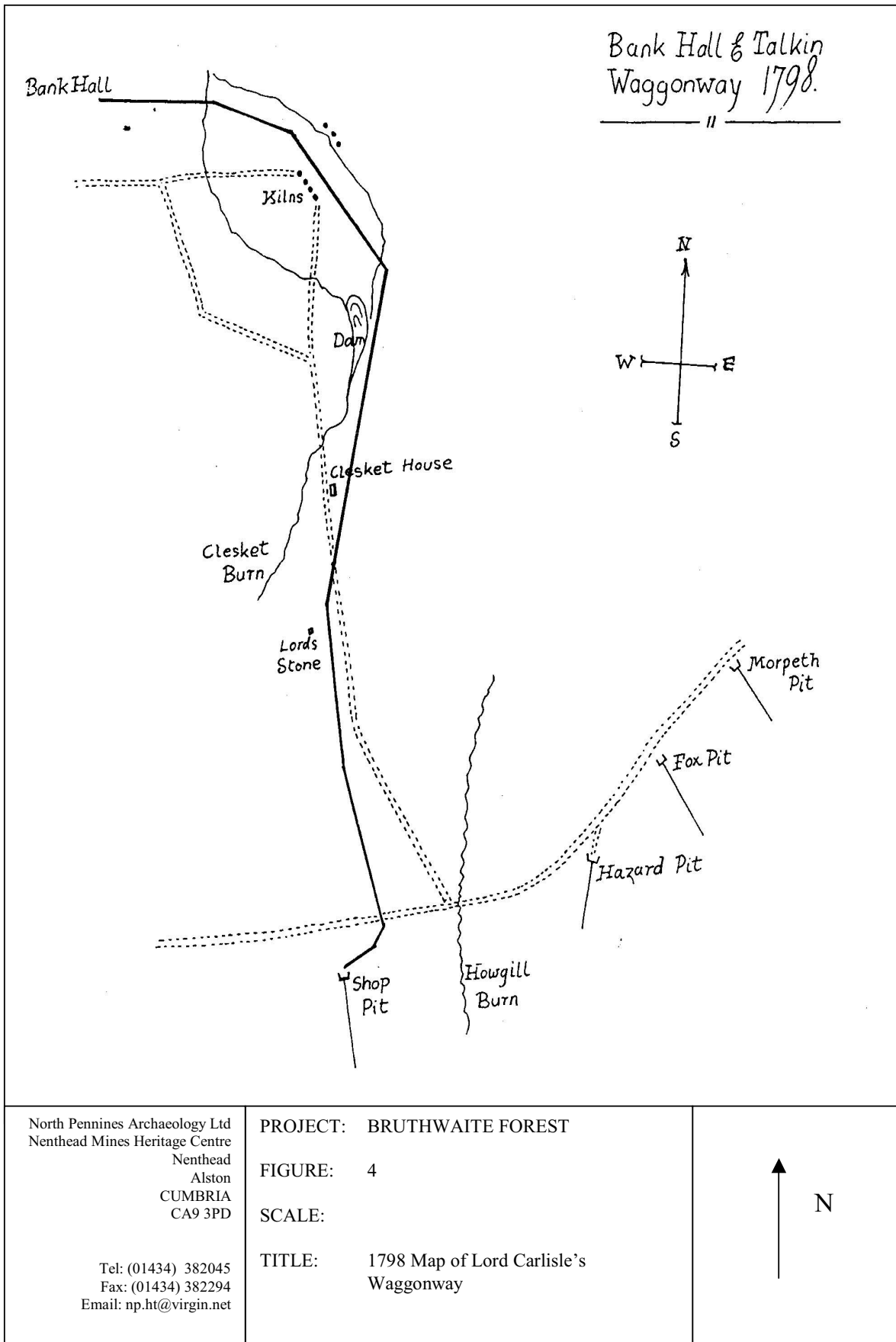
PROJECT: BRUTHWAITE FOREST

FIGURE: 3

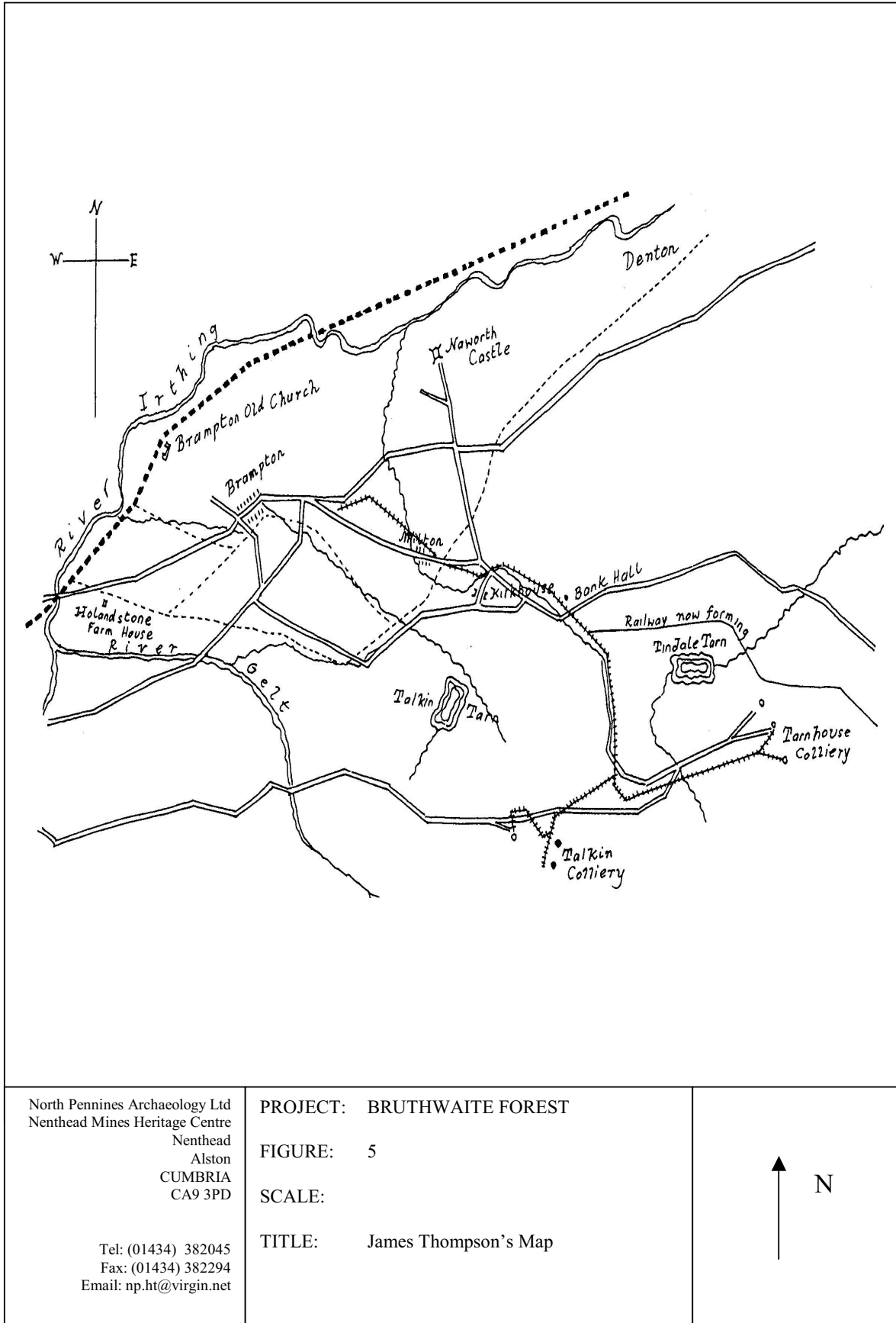
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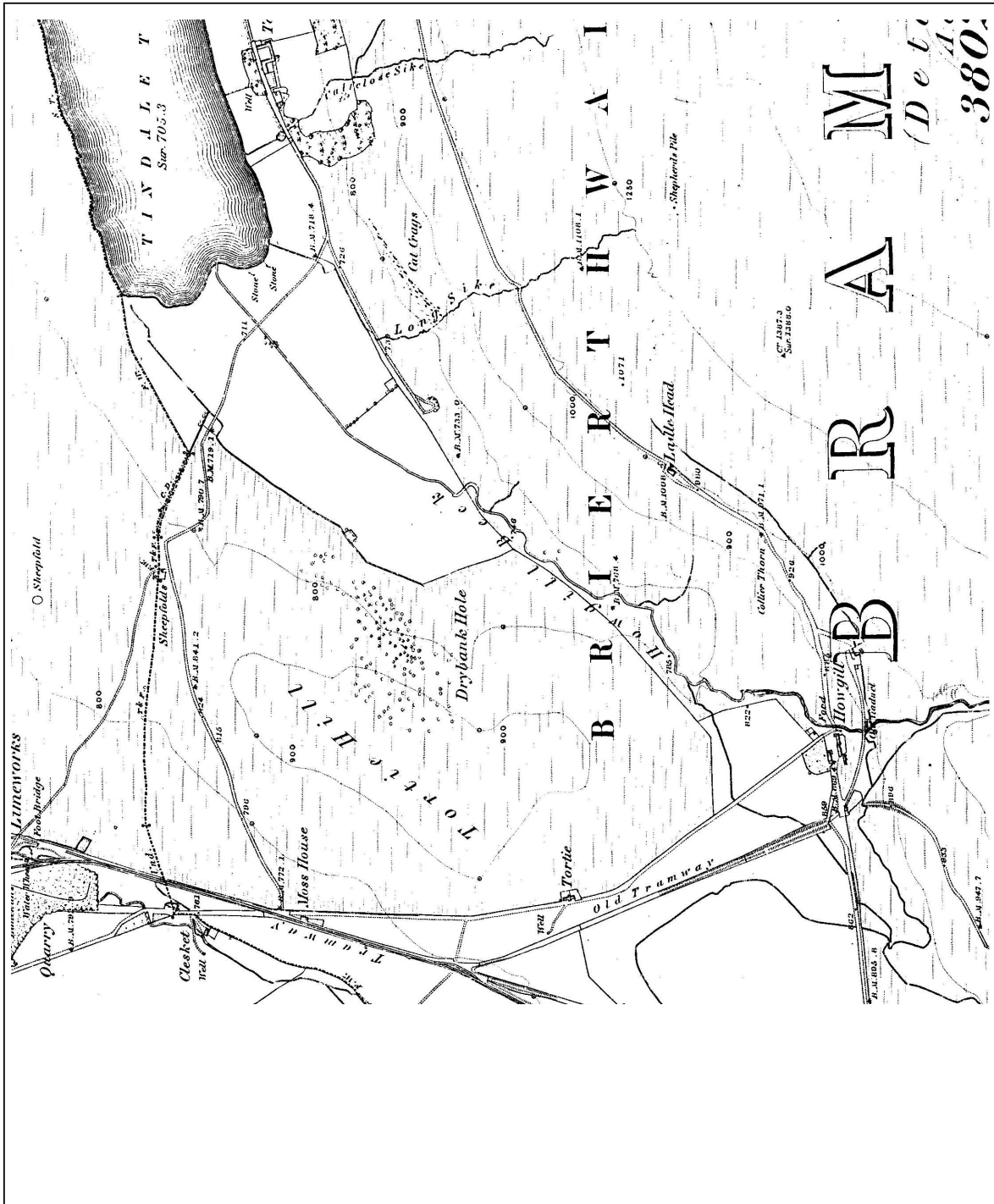
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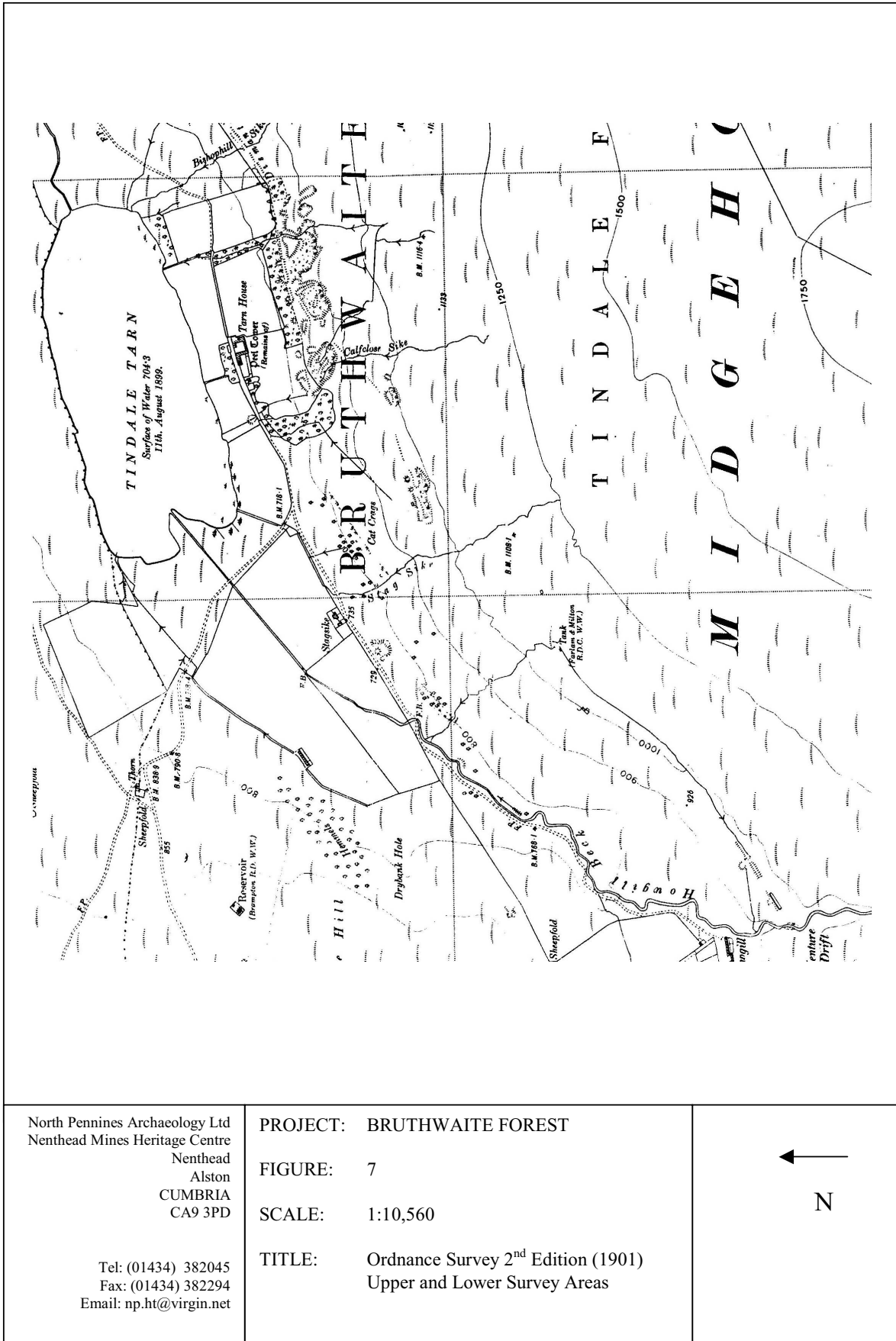








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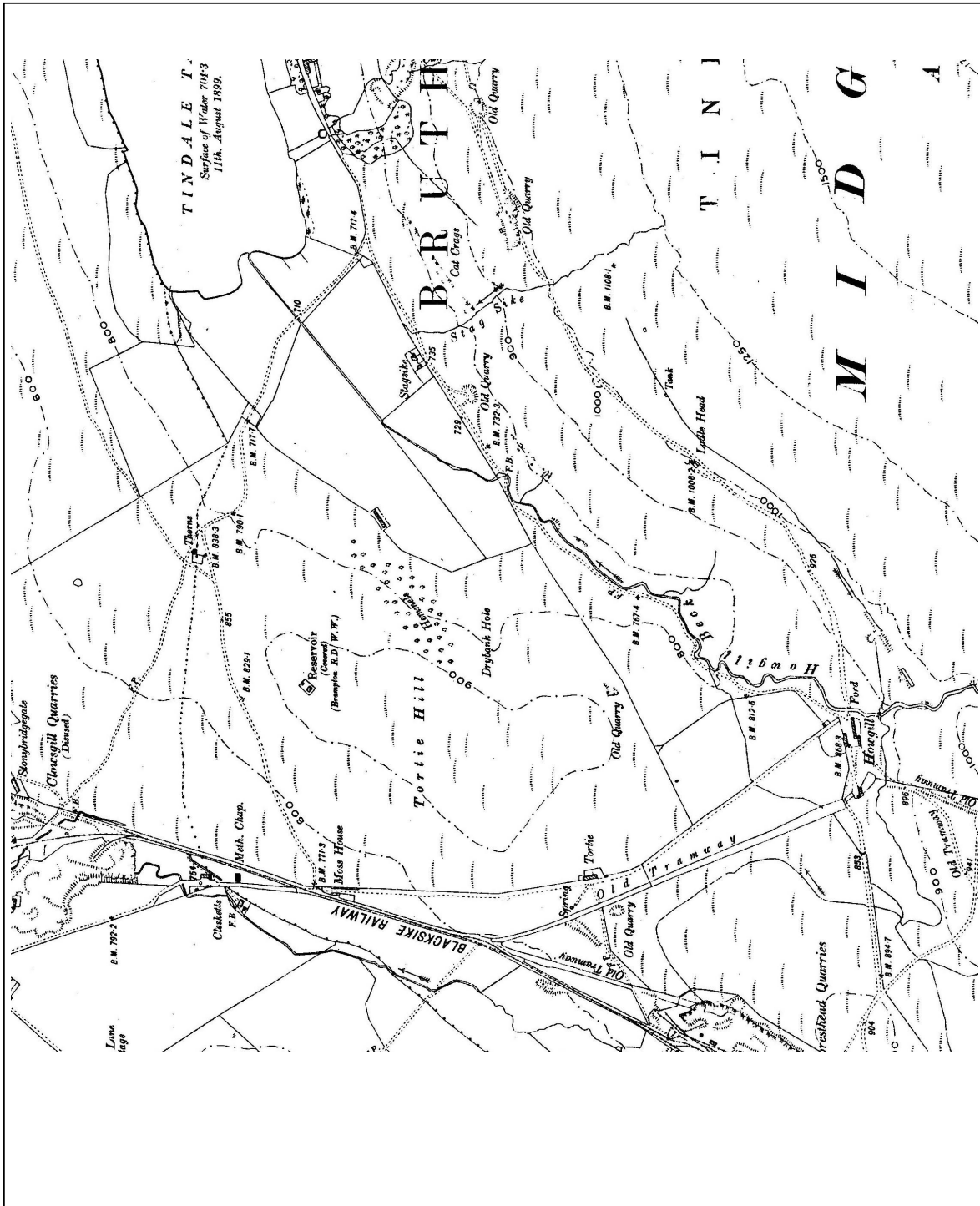
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FIGURE: 7

SCALE: 1:10,560

TITLE: Ordnance Survey 2<sup>nd</sup> Edition (1901)  
Upper and Lower Survey Areas





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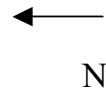
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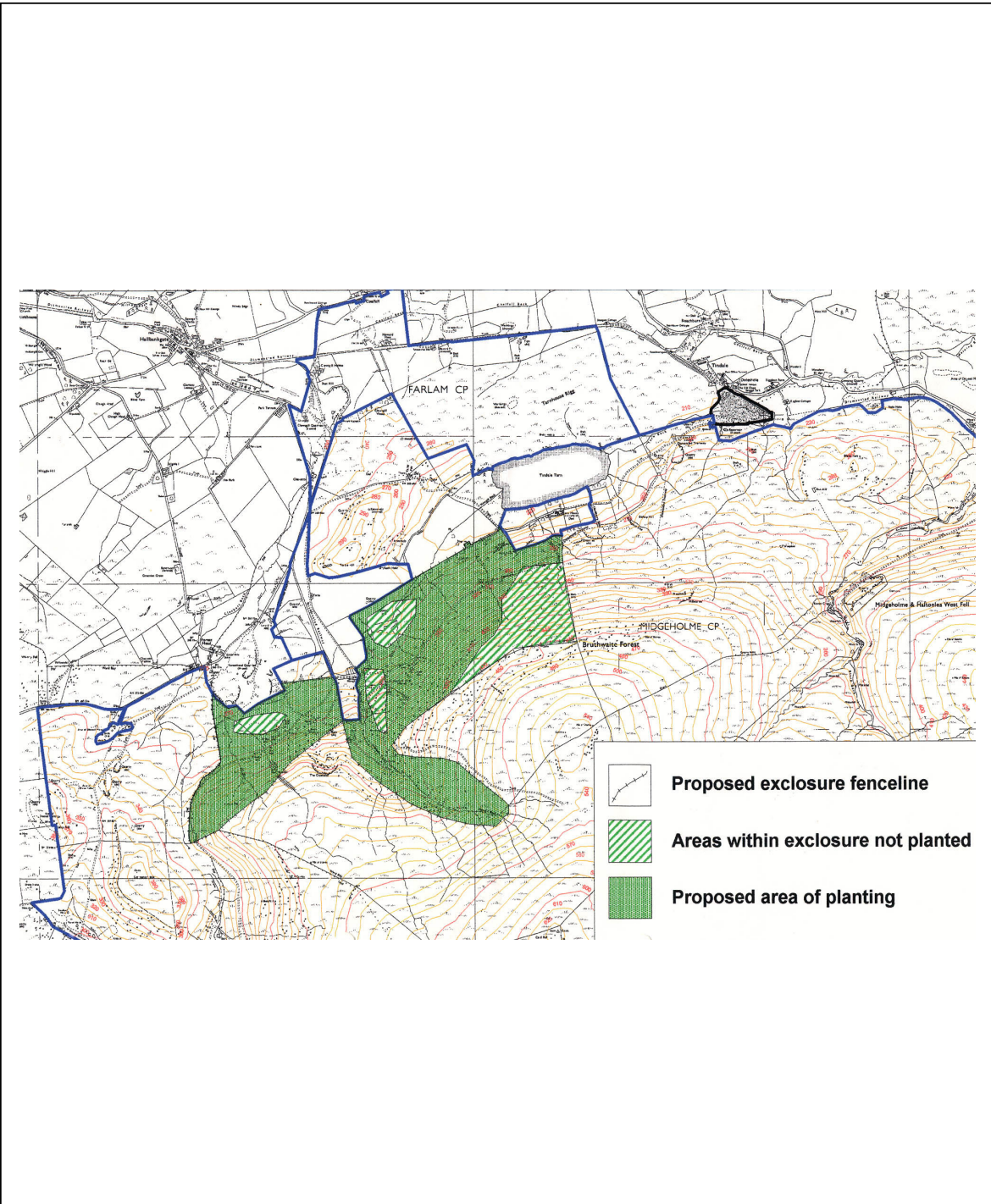
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FIGURE: 8

SCALE: 1:10,560

TITLE: Ordnance Survey 3<sup>rd</sup> Edition (1926)





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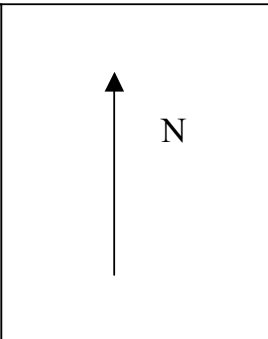
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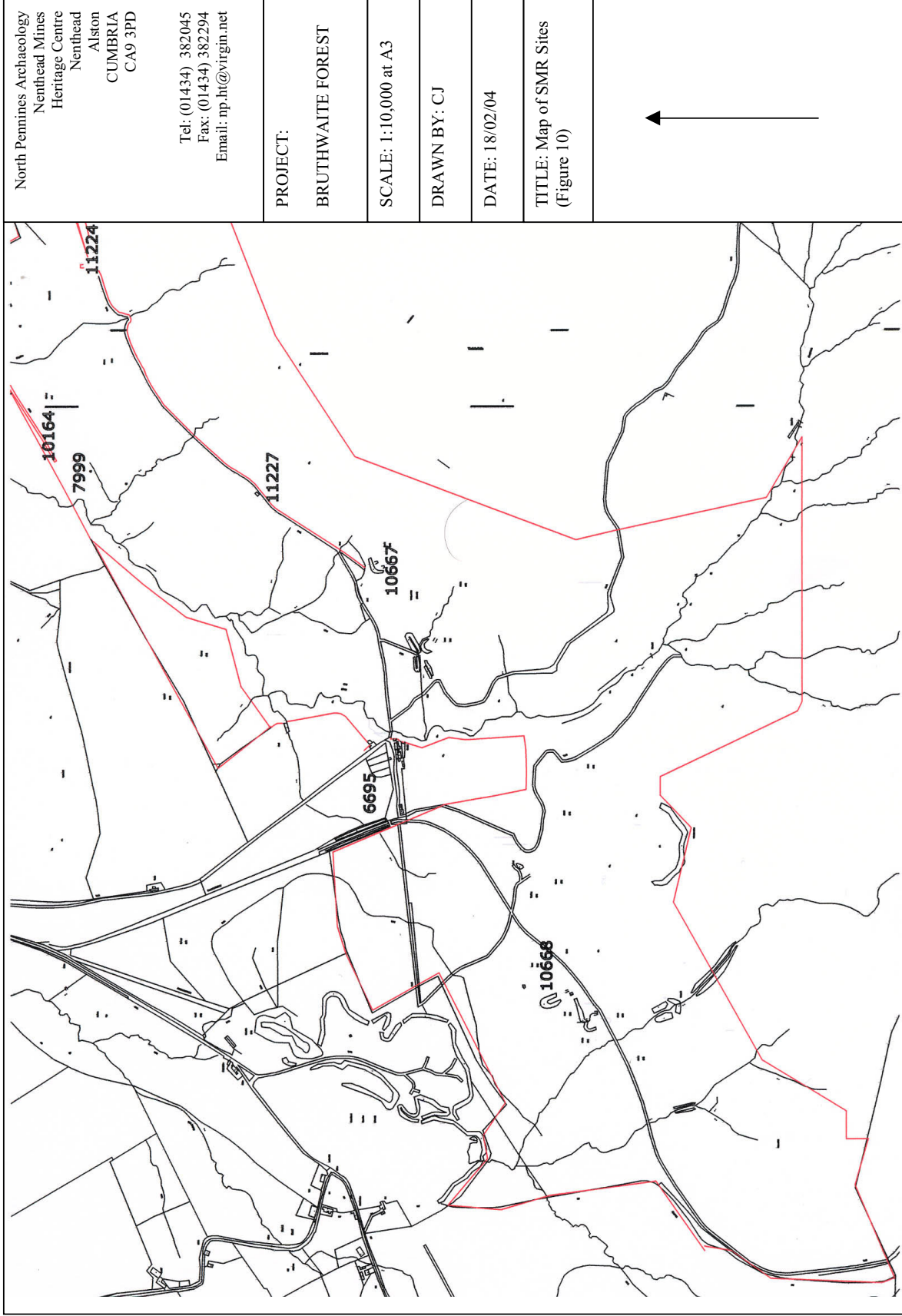
FIGURE: 9

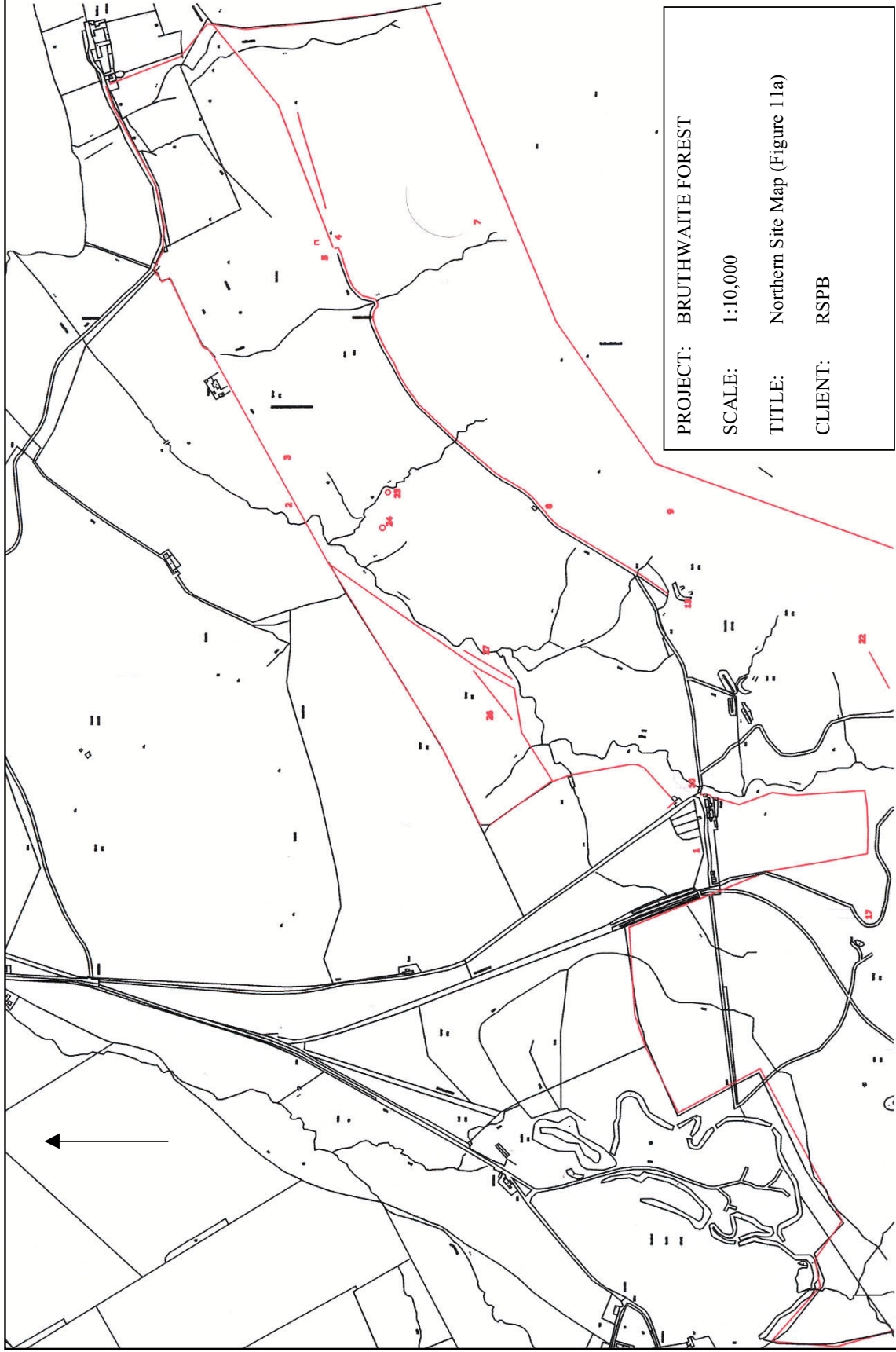
TITLE: Proposed Area of Planting  
(Source: RSPB)

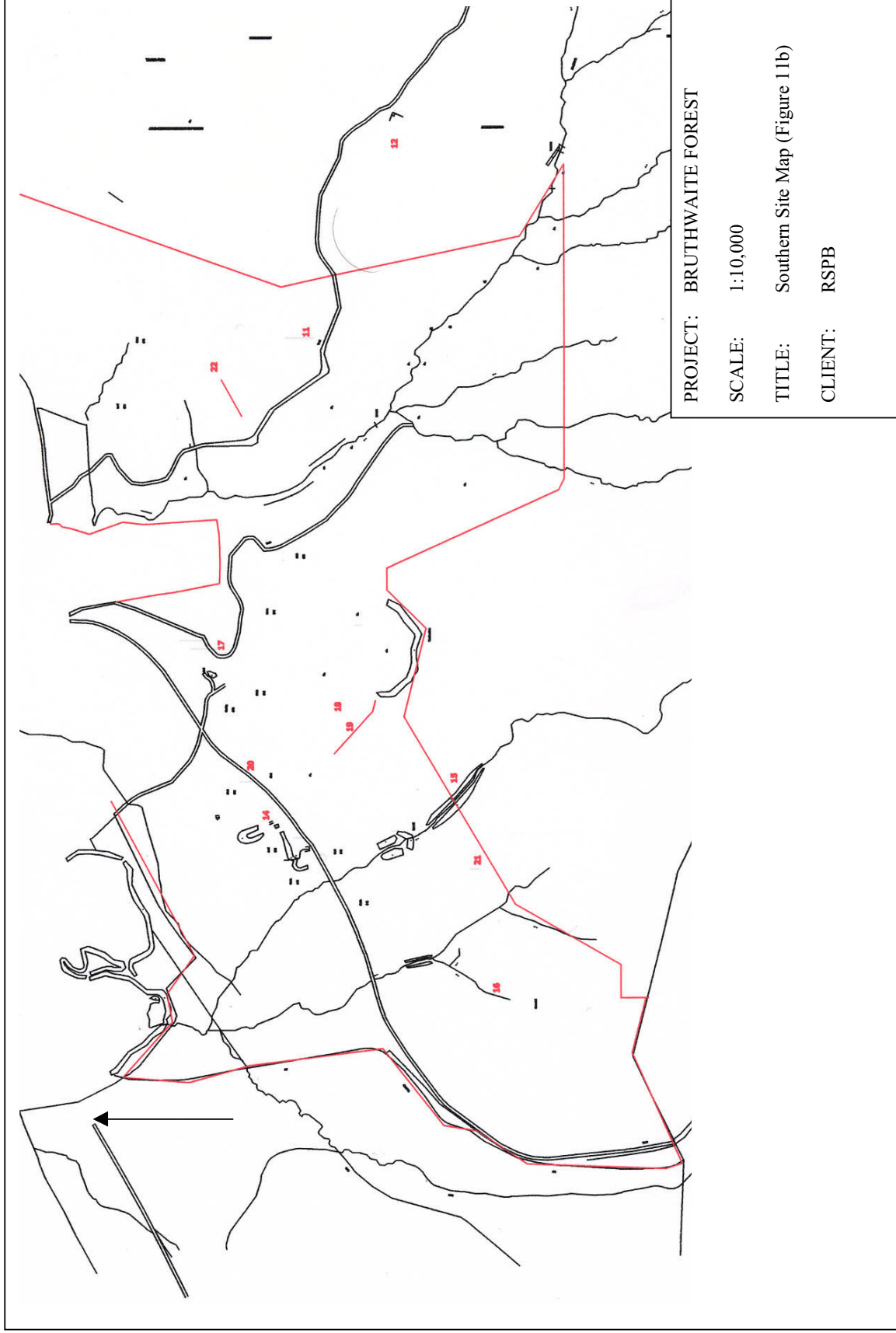
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**Plate 1: The Tindale Fell Waggonway (Site 8), looking west.**



**Plate 2: The Tindale Fell Waggonway, looking south showing artificial terraces.**





**Plate 3: Building beside Tindaletarn Quarry (Site 4).**



**Plate 4: Corner of Rectangular Building (Site 7)**





**Plate 5: Stagsike Quarry entrance, looking towards the Tramway and Stagsike Cottage (Site 3).**



**Plate 6: Section of dry stone wall, part of a building (Site 11).**





**Plate 7: Clearing within Foresthead Mines (Site 14)**



**Plate 8: Part of a cast iron bucket within Site 14.**





**Plate 9: View of the Hallbankgate-Talkin Colliery section of Lord Carlisle's Waggonway, looking north.**



**Plate 10: Linear feature (Site 16), looking north-east**