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SUMMARY

In December 2016, following the purchase of the Thorneythwaite Farm landholding (centred NY 248 132), the National Trust commissioned Oxford Archaeology North (OA North) to produce a landscape history of the property. This was to establish the presence and condition of the archaeological resource, and inform the development of a conservation management strategy. Borrowdale had been subject to a landscape survey by OA North (2007), though this did not include Thorneythwaite. This project will therefore provide an updated record of the National Trust landholdings in the valley. The work was undertaken between December 2016 and March 2017.

The project comprised two parts: a desk-based assessment; and landscape reconnaissance and field survey. This latter included aerial photographic modelling of an enclosed settlement identified close to the present farm (Site 15), whilst the desk-based assessment collected and analysed the documentary and cartographic sources relating to Thorneythwaite.

Furness Abbey held Thorneythwaite in the medieval period, and was mentioned in the assize rolls of 1230. Following the dissolution of the abbey, the land passed to private hands. In 1615, John Birkett of Thorneythwaite is mentioned in the Great Deed of Borrowdale. Hetherington’s map of 1759 focused on the Borrowdale graphite mines, but shows that Thorneythwaite was the abode of one Daniel Jopson, father of John Jopson, a farmer at Seathwaite. The documentary evidence illustrates that the tenancy, if not always the ownership, of Thorneythwaite has long been held by the farming families first recorded in the tenants’ lists of Fountains and Furness Abbeys. Alongside others, the names of Byrkehead (Birkett), Fyssher (Fisher) and Jopson are consistently associated with Borrowdale. Tithe mapping in the 1840s records Abraham Fisher as living at Thorneythwaite and holding much of the land in the valley (including Seathwaite and Seatoller), which was rented to local tenants. The land was sold in the 1860s following Fisher’s death, and again in the 1890s to the Wasdale Hall Estate, which was then planning to build a road over Sty Head. Whilst there are gaps in the historical record, it seems that the Jopson family retained tenancy of the farm until at least 1923.

Whilst there were no confirmed prehistoric sites identified by the landscape survey, there is an enclosed settlement, which could be of Iron Age or Roman date, on the valley floor close to the farmhouse (Site 15). The majority of the sites identified are charcoal-burning platforms or features relating to woodland management, on the steep slopes at the eastern extent of the property. There are very few industrial sites, and those that have been identified are quarries serving local needs. Many of the sites identified are features relating to a post-medieval pastoral economy, including field boundaries, smoots and sheepfolds. There are also several communication features, such as hollow-ways, trackways and bridges. One of these, a former packhorse route (Site 17), is likely to be of medieval origin.

Whilst the majority of the sites identified remain in a fair condition of preservation, bracken growth on the fellside is a subject of concern and it is recommended that this be managed and removed as appropriate. The enclosed settlement, which is of potentially national significance, is in poor condition, having been used as a dump in recent decades. It is recommended that this modern material be removed under archaeological supervision, to ameliorate the present condition and facilitate further archaeological investigation.
ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Jamie Lund of the National Trust for commissioning the project and for the provision of archival sources and data. Thanks are also due to staff of the Cumbria Archives, at the Record Offices in Whitehaven and Carlisle, and the Lake District National Park Historic Environment Record.

The documentary research was undertaken by Helen Evans, and the field survey by Peter Schofield and Debbie Lewis. The figures were by Peter Schofield and Anne Stewardson. The report was written by Helen Evans, Peter Schofield and Jamie Quartermaine, who edited the report and managed the project.
1. **INTRODUCTION**

1.1 **CIRCUMSTANCES OF THE PROJECT**

1.1.1 In December 2016, following the purchase of the Thorneythwaite landholding (NY 248 132), the National Trust commissioned Oxford Archaeology North (OA North) to produce a landscape history of the property. This was intended to combine documentary research and field survey to identify, describe, and contextualise the features of archaeological and historical interest within the 1.2 sq km study area. It was also required that the condition of the archaeological resource within the landholding should be defined.

1.1.2 This followed on from a landscape survey of National Trust holdings in Borrowdale undertaken in 2006 by OA North (2007), which drew upon earlier unpublished work undertaken by the National Trust, in addition to further fieldwork, and the creation of a GIS dataset to provide a full over-arching record of the valley’s landscape history.

1.2 **THE NATIONAL TRUST LANDHOLDINGS**

1.2.1 The National Trust manages almost 12,000 hectares in the area, including land in the Borrowdale, Newlands and Watendlath valleys. This includes hamlets, farms, fellside and common land, woodland, lake shore and islands, and half of Derwent Water.

1.2.2 The recent acquisition of land at Thorneythwaite, which is at the head of Borrowdale (Fig 1), does not extend to the farmhouse at Thorneythwaite or its immediate environs. The landholding covers c. 303 acres (1.2 sq km) and includes valley-bottom pasture, woodland and rough fell.

1.3 **OBJECTIVES**

1.3.1 The objectives of the project can be summarised as:

- To collate and interpret any relevant documentary or archival material evidence (including both primary and secondary sources) that might assist in the understanding of land-use, enclosure, settlement and industry on the property;
- To undertake an archaeological survey of the property and identify and describe any previously unrecorded sites, to expand existing data on the National Trust’s Sites and Monuments Record (NTSMR);
- To assess the condition of the archaeological resource and make recommendations for its future conservation and management;
- To collate and interpret documentary and archival material relating to the property in order to develop an understanding of land-use, enclosure, settlement and industrial features identified by the survey;
• To produce a chronological narrative to describe the evolution and development of the property, from the prehistoric period to the present day;

• To undertake a detailed survey of a settlement site identified adjacent to Thorneythwaite Farm;

• To produce a written and illustrated report that presents the results of the historic landscape survey and condition survey in a meaningful way, and is able to be used as a tool for future property management.

1.3.2 Following discussions with the National Trust Archaeologist, it was recognised that a landscape survey that simply looked at the Thorneythwaite landholding and was not set within a wider context would not have a very high archaeological or historical significance or value. It was therefore agreed that the data from the documentary study and field survey of the Thorneythwaite estate would be incorporated into the Borrowdale Valley Survey GIS, and the results of that wider survey would be graphically output to show how the Thorneythwaite estate compared with the rest of the valley. The historic landscape survey report would reflect the GIS study and would similarly describe the development of Thorneythwaite in relation to the rest of Borrowdale. The work was undertaken between December 2016 and March 2017.
2. METHODOLOGY

2.1 INTRODUCTION

2.1.1 Jamie Lund of the National Trust issued a brief for historical research and a landscape survey of land recently purchased at Thorneythwaite Farm, Borrowdale (National Trust 2016). In response to this, OA North compiled a project design (Appendix 1). The work programme was divided into four elements: desk-based research; field survey; detailed survey; and reporting. The survey area was 1.2 sq km in extent (Fig 2). The work was consistent with the relevant CIfA and English Heritage guidelines (Chartered Institute for Archaeologists 2012; Historic England 2015).

2.2 DESK-BASED ASSESSMENT

2.2.1 The desk-based assessment examined information from a number of sources, primarily the Lake District Historic Environment Record and the National Trust Sites and Monuments Record, and documents held by the Cumbria Archives and the National Trust. Following this work, the GIS compiled as part of the 2006 Borrowdale Survey (OA North 2006) was enhanced.

2.2.2 Historic Environment Record (HER and NTSMR): an assessment was undertaken of data held in both the Lake District National Park Historic Environment Record (HER) and the National Trust Sites and Monuments Record (NTSMR). These are databases of archaeological sites within the county, and are maintained by the Lake District National Park Authority in Kendal and the National Trust in Grasmere. Any records of sites recorded within the study area were obtained.

2.2.3 Aerial Photographs: available aerial photographs from the Lake District National Park HER were consulted.

2.2.4 Cumbria Archives (Whitehaven and Carlisle): the County Record Offices at Whitehaven and Carlisle were visited to consult documents specific to the study area. These included cartographic sources, such as enclosure awards, tithe maps, estate maps, and documents, such as sale particulars. Several secondary sources and archaeological or historical journals were also consulted.

2.2.5 National Trust Archives: the archives held by the National Trust were consulted for any unpublished primary information regarding the study area.

2.2.6 GIS Enhancement: a detailed GIS had been compiled for Borrowdale as part of the 2006 Borrowdale Survey (OA North 2007). This was enhanced by the addition of data from the present study.

2.3 FIELD SURVEY METHODOLOGY

2.3.1 The identification survey was undertaken as an enhanced Level 1b-type survey (English Heritage 2007). The survey involved four main elements: reconnaissance; mapping; description; and photography.

2.3.2 Reconnaissance: the reconnaissance consisted of close fieldwalking, with transects varying between 20m and 50m, dependent on visibility and safety considerations. The survey aimed to identify, locate, and record all visible sites and features of
archaeological interest. Any sites identified by the NTSMR and LDNPA HER, and the Ordnance Survey (OS) First and Second Edition maps, were investigated.

2.3.3 **Survey Mapping:** a Satellite Global Positioning System (GPS) was utilised to satisfy the Level 1b survey requirements. The GPS is a Leica differential system and uses a base station in conjunction with a roving station to correct the raw data, and thereby has much greater accuracies than can be achieved with a hand-held GPS. The technique works in areas of woodland, albeit with reduced accuracy. The GPS was used to record the extent of all sites.

2.3.4 **Site Description and Assessment:** a detailed description was provided for all identified sites, for subsequent transcription into an access database. The data format is consistent with the NTSMR, running ExeGISis, using their mandatory fields. Sites identified from documentary sources, but not identified on the ground, were incorporated into the gazetteer. The input into the system was guided by a pro-forma to ensure uniformity and consistency of input, for the following fields:

- NTSMR No (if applicable)
- Site Description
- Site Type
- Survey Number
- Site Name
- NGR
- Location
- Period
- Sources
- Significance
- Condition
- Stability
- Vulnerability
- Survival
- Damage Agents
- Recommendations
- Compiler
- Photo Reference

2.3.5 Each site was categorised for its significance as:

- **National:** Scheduled Monuments and undesignated sites of national importance;
- **Regional:** Sites recorded on Historic Environment Records and undesignated sites of regional significance which fit into regional research objectives;
- **Local:** Sites with a local or district archaeological value or interest;
- **Low Local:** Sites with only limited local archaeological significance.

2.3.6 Each site was categorised in terms of its condition (eg good, fair, or poor) and obvious threats to its present condition were noted. These included evidence for inappropriate agricultural practices, erosion, bracken colonisation, or flood damage. The description incorporated a provisional interpretation of the function and purpose of a site, where possible, and a provisional interpretation of its chronology.

2.3.7 **Photographic Survey:** a photographic archive was generated in the course of the field project, comprising landscape and detailed photography. All photography was
recorded on pro-forma sheets, which record the subject, orientation and date. The photography was undertaken with a Sony NEX5 digital camera (16 megapixels).

2.4 DETAILED SURVEY

2.4.1 A more detailed topographic survey was undertaken of an enclosed settlement (Site 15; Section 7.1), which was identified during the walkover survey. This was undertaken by photogrammetry, using aerial photographs taken with a drone (Section 2.4.3).

2.4.2 Survey Control: a survey-control network was established as control for the photogrammetry using a survey-grade Leica 1200 differential Satellite Global Positioning System (GPS). The 1200 series GPS was able to provide real-time accuracies of ± 0.02m. Visible survey-control markers were placed on the ground for the aerial photogrammetry.

2.4.3 Aerial Photographic Modelling: the ground plan of the enclosed settlement (Site 15) was modelled by photogrammetry using aerial photographs taken from an Unmanned Aerial Vehicle (UAV), which was a small remote-controlled NAZA F550 UAV containing a 16 megapixel Sony NEX5 camera. The photogrammetric processing was undertaken using Agisoft Photoscan software, which provided detailed modelling using an overlap of up to 300 photographs, leading to the creation of a very detailed DTM (Digital Terrain Model) for the site. The photographs were then digitally draped over the model to create an accurate three-dimensional representation of the ground surface. The primary output, however, was an accurate two-dimensional image that was used to provide plan information. In addition, precise 100mm contour information was generated from the primary DTM using ArcGIS, and hillshade views of the model were also generated.

2.5 GAZETTEER OF SITES

2.5.1 Information concerning the sites of archaeological interest within the study area has been collated and summarised in a gazetteer (Appendix 2), which provides details of location, period, physical description, and management issues. Locations are given as ten-figure NGRs, where possible, and the position of each site is indicated on maps of the study area.

2.6 ARCHIVE

2.6.1 A full archive has been produced to a professional standard in accordance with standard guidelines (Historic England 2015) and the Guidelines for the Preparation of Excavation Archives for Long Term Storage (Walker 1990). The project archive represents the collation and indexing of all of the data gathered during the course of the project.
3. LOCATION, GEOLOGY AND TOPOGRAPHY

3.1 LOCATION, GEOLOGY AND TOPOGRAPHY

3.1.1 Thornythwaite (centred on NY 768 505) lies c 10km south of Keswick in the central Lake District in the historic county of Cumberland. The landholding is at the mouth of the Seathwaite valley, which is the westerly spur of two valleys, the other being Langstrath, and which both feed into the main north/south Borrowdale valley. Thornythwaite is c 400m to the south of Seatoller and the Honister/Keswick road (the B5289), and 1.5km to the north-east of Seathwaite (Fig 1), which is at the head of the valley.

3.1.2 Borrowdale presents a landscape containing a series of flat but narrow valley floors, prone to flooding in some areas, flanked by dramatic and rapidly ascending fell sides and crags. Glacial activity and subsequent frost action has formed a distinctively rugged and fractured landscape, characteristic of the central Lake District.

3.1.3 The landscape comprises a narrow U-shaped, glaciated, valley (Plate 1) underlain by the igneous rocks of the Borrowdale Volcanic Series, formed during the late Ordovician period some 450 million years ago, which represent the most dramatic period of Lake District rock formation (Plate 2; British Geological Survey 2016; Countryside Commission 1998).

Plate 1: Glacial features in the upper part of Borrowdale (Millward and Robinson 1970)
Glaciers had a massive impact on the creation of the Borrowdale landscape, widening and deepening the main river valleys, which were ground down by rock and debris carried along with the ice, resulting in a number of tributary valleys and ghylls. Hollows were also scoured out, and filled with water to create the tarns and lakes. Borrowdale is a good example of such a glaciated valley, with many of the former lakes now filled in by post-glacial deposits (ibid). The area also has a series of morainic ridges, where the ‘glacier snout must have temporarily rested for a while, dumping an arcuate ring of stone and other small debris’ (Millward and Robinson 1970, 47; Plate 1).

The landholding: Thorneythwaite Farmhouse is situated in the base of the valley, at c 117m AOD, to the east of the River Derwent. The farm sits on the crest of a morainic ridge which, to some extent, must have protected it from the periodic flooding of the valley floor (Millward and Robinson 1970, 47). The western edge of the property follows alongside the Derwent to where it meets with the Seathwaite farm estate (Fig 1). On the valley floor, to the east and south of Thorneythwaite Farm, are various tributary becks, which join the Derwent to the west of the farm. To its east, the land rises sharply and is composed of wooded fellside to a height of c 200m, where Comb Gill defines the north-eastern extent of the holding. At the south-eastern extent of the property, Thorneythwaite Fell rises to a height of 574m.
4. HISTORICAL BACKGROUND

4.1 PREHISTORIC, ROMAN AND EARLY MEDIEVAL ACTIVITY

4.1.1 Prehistoric period: information on the early development of the landscape is recorded in pollen diagrams from Johnny’s Wood and the Seathwaite Valley (Parker et al 1994; Birks 1993; Wild et al 2001). Following the retreat of the ice after the last glaciation, dense woodland developed to an altitude of c 700m, and by c 4000 BC most native trees are thought to have been present (Pennington 1997), with extensive areas of alder in upland and lowland wetland areas. Later Mesolithic and Neolithic activity and woodland clearance is relatively widely recorded across the region. Recent palaeoenvironmental work at Blea Tarn, 10km south of Borrowdale across the high central massif, has identified the presence of charcoal peaks, possibly related to occupation, in the Later Mesolithic period (c 4650 cal BC), followed by woodland clearance and burning in the Early Neolithic period, c 4000 cal BC (Grosvenor 2014).

4.1.2 Neolithic Activity: the study area forms the northern extent of the nationally important ‘Langdale’ stone-axe production sites (Claris and Quartermaine 1989); axes are found distributed across Cumbria and the country as a whole (Clough and Cummins 1988; Bradley and Edmonds 1993). Whilst the largest of the production sites are at South Scree and the Langdale site made famous by the discoveries of Bunch and Fell (1949), axes were made at many other locations, including Glaramara and Scafell Pike (Claris and Quartermaine 1989). Axe-production sites are widely distributed, but grouped at intervals, near to the Seathwaite Fell Tuff outcrops, which continue west from Great Langdale to Scafell Pike and north to Glaramara (ibid).

4.1.3 Several groups of axe-flaking/quarrying sites have been discovered in Borrowdale, the first being located on the route up to and on Seathwaite Fell (Sprinkling Tarn; ibid), the second cluster being at Glaramara. The third group is at Stake Beck, north of Martcrag Moor, and is characterised by a line of sites following the beck and leading into Langstrath, following what is believed to be the line of an historic routeway (ibid). The sites on Glaramara, which are the most northerly of the axe-working site groups, represent a greater level of production, possibly because this is on a gently sloping terrace close to a high-level access route (ibid). The possibility exists that there was also an historic routeway following the line of the Glaramara spur out from Scafell Pike and leading into Borrowdale, which could potentially follow the present-day route towards Thorneythwaite.

4.1.4 Regionally, stone-axe working floors are distributed along the valleys and high-level routes, such as Wasdale and Langdale, radiating out from production areas in the central Lakeland Massif. Axe finds are common along the western and south coasts of Cumbria and in the Eden Valley, leading to suggestions that, following their initial production in the mountainous central fells, they were widely traded by both land and sea (Fell 1950; Bradley and Edmonds 1993). Distribution routes, as defined by alignments of working floors, have been identified at Brown Tongue, leading into the Wasdale Valley (Claris and Quartermaine 1989).

4.1.5 Bronze Age Activity: there are very few known Bronze Age sites in the immediate vicinity of Thorneythwaite, but one within Borrowdale is a probable funerary cairn, at Styhead Ghyll, on land rising up by the ghyll onto Seathwaite Fell (NTSMR 22494). Many groups of clearance cairns and associated stone-built structures, such as ring
cairns, kerbed cairns, roundhouses and stock enclosures, have been identified in upland contexts in the central Lake District (Quartermaine and Leech 2012). Whilst several clearance cairn groups (often attributed a Bronze Age date) have been identified in Borrowdale, for example at Langstrath (OA North 2007), it is equally likely that these could relate to medieval clearance activity (Quartermaine and Leech 2012).

4.1.6 In lowland contexts, relatively few of the agricultural and occupational features found in the uplands have been identified, largely as a result of large-scale clearance, improvement and enclosure of agricultural land in recent centuries. Some examples, however, have survived; near Loweswater, 11.5km to the north-west of Borrowdale, an enclosed settlement incorporates roundhouses, probable stock pens and a large annexe defined by a rubble bank (OA North 2007; NTSMR 29273). Located just beyond the extent of locally enclosed land, it is probably Iron Age or Roman in date, and may have been reoccupied in the medieval period.

4.1.7 Burnt mounds have also been identified in many valley-bottom locations in the Lake District, often strung out along the edges of watercourses, being suggestive of stopping points on valley-side routeways (Nixon 1990; Hodgson 2007). Although most of those which have seen excavation have been dated to the Bronze Age, an example in Wasdale provided Bronze Age, Roman and early medieval radiocarbon dates (OA North 2015), and others have provided late Neolithic dates (Brown et al in prep). In common with many of the cairnfields and associated structures identified in upland contexts, it seems that particularly favourable sites and locations have seen long histories of use.

4.1.8 **Iron Age and Roman Activity:** with the exception of the univallate hillfort on Castle Crag above Rosthwaite, there is very limited evidence for Iron Age activity in Borrowdale, and indeed the entire Lake District as a whole (Hodgson and Brennand 2006). The site is an irregularly shaped enclosure, damaged by subsequent slate quarrying, but typologically suggestive of a late Bronze Age to Iron Age date (OA North 2007; NTSMR 20125). Its position allows a commanding view along the north/south axis of Borrowdale, and the difficulty of access may imply a defensive function. Roman Samian ware and other pottery, along with smelted iron slag, have been found at the site (Shotter 1984), suggesting its utilisation into later periods.

4.1.9 **Early Medieval Activity:** archaeological information for the early medieval period in the Lake District is lacking and it is believed that, in general, land management probably continued very much as in earlier periods. The results of upland cairnfield surveys and palaeoenvironmental data suggest that some at least of the structures within cleared areas may be later in date (Quartermaine and Leech 2012) and related to transhumance suggested by shieling place-names (eg Whyte 1985; Winchester 1987). In Wasdale, evidence for the early medieval reuse of a Bronze Age burnt mound has been identified, and excavations in the area have also produced evidence for early medieval iron smelting and smithing associated with post-built structures (OA North 2015).

4.1.10 Whilst there is no known archaeological evidence for settlement in Borrowdale during the early medieval period, place-names in the valley are dominated by those of Old English and Scandinavian origin. Stockley Bridge, just south of Seathwaite, is derived from the Old English *stocc*, a tree stump, and *leah*, a woodland clearing, meaning ‘the clearing with the tree stumps’ (Gambles 1980). Its location on a primary communication route is significant; as the name may have originated as early as the...
seventh century, it could suggest clearance activity deep into the valley several hundred years before the arrival of Scandinavian-speaking populations. Old Norse place-name elements include *thwaite* (clearing), which is particularly common, and seems to be associated with low-status settlements in poorer areas of lowland. The occurrence of many *thwaite* place-names in the valley may suggest that Scandinavian-speaking settlers found it uninhabited or sparsely settled, with the valley floor thickly wooded, compelling them to create clearings. However, Gillian Fellows-Jensen (1989) suggests that such Thwaite settlements are not necessarily indicative of primary Scandinavian settlements, and may reflect later medieval assarts. Seatoller derives from the *seatr* (shieling) place-name element (Winchester 1987), which may suggest a transhumant pasture in the upper, remote reaches of the valley bottom, before a permanent farm was set up later in the medieval period.

4.1.11 The generally accepted view is that the newcomers to the area were restricted to the less agriculturally attractive, and therefore less populated, areas of land (eg Higham 1985). However, it is equally possible that population pressure simply led to agricultural expansion into previously marginal areas. Whilst it is tempting to interpret Scandinavian place-names as direct evidence of tenth-century immigration, both *thwaite* and shieling-derived place-names, such as *seatr* and *scale*, were incorporated into local dialect and were still being applied to new clearings as late as the thirteenth century, when they are often associated with assarts (Winchester 1987; Newman 2015).

4.2 **MEDIEVAL AND POST-MEDIEVAL HISTORICAL DEVELOPMENT OF THE VALLEY**

4.2.1 Cumbria had not been fully incorporated into England at the time of the Norman Conquest, and it was only after the conquest of ‘the land of Carlisle’ in 1092 by William Rufus that most of the present county came under Norman control. Borrowdale was within Derwentfells or the Forest of Cockermouth, a baronial estate hived off from the larger Copeland Barony in c 1100 (Winchester 1987). Lying between the Rivers Cocker and Derwent, the area, amounting to c 241 sq km, included much of the high central massif (which was given over to free chase), Lorton Vale, Borrowdale, the valley on the west side of Bassenthwaite Lake and the Wythop valley (Newman 2015). In general, the upland and lowland portions of the baronies possessed different tenurial characteristics, most vills being subinfeudated manors, with the uplands retained as free chase (Winchester 1987).

4.2.2 The Norman Manor of Borrowdale remained intact until c 1195, when Watendlath, Langstrath and part of Stonethwaite were granted to Fountains Abbey by Alice de Rumeli, the grand-daughter of the first Norman overlord (Lancaster 1915, nos 55 and 56). Furness Abbey bought the remainder of the manor from Alice de Rumeli in 1209 (Pearsall and Pennington 1973; CRO (C) D/Law/1/168/3). This meant that Langstrath, Watendlath, the surrounding fells and the delta plain between Derwent Water and Bassenthwaite were in the possession of Fountains Abbey, and Furness Abbey owned all the remaining lands south of Derwentwater. A document detailing the boundary between the two abbey lands in Borrowdale was drawn up in 1211 (Lancaster 1915; Collingwood 1918).

4.2.3 From the last years of the twelfth century, the monks oversaw the drainage and cultivation of the land, possibly building the first field walls. They are also likely to have cleared or allowed assarting on areas of former waste for pastoral farming
(Robinson et al 1998). Although the emphasis was on pastoralism, rye, barley and oats were grown on the more fertile land and stored in *grangia*, a term which gave the name to the nearby village of Grange (on Furness Abbey land; Johnson 1981). On Fountains Abbey land in Borrowdale, a thirteenth-century grange is recorded in Watendlath and by the early fourteenth century, a vaccary had been established at Stonethwaite (Winchester 1987). According to Johnson (1981), Furness Abbey held a vaccary in Borrowdale, although the source of this information is unclear. Other activity includes the mining of iron ore by Fountains Abbey from nearby Ore Gap under Bowfell, which is likely to have then been taken to bloomeries that have been identified in Langstrath (ibid).

4.2.4 Although archaeological evidence for the medieval period in Borrowdale is limited, a boundary wall and fence sealed beneath a colluvial fan in Seathwaite have revealed that local woodland was being cleared and coppiced around cal AD 1300-1450 (Wild et al 2001). Woodland clearance may have exacerbated the effects of flooding in the valley, which coincided with climatic deterioration in the fourteenth and fifteenth centuries. A stone wall and fenceline excavated from a peat layer overlying the flood deposits hints at the enclosure of parts of the valley with stock boundaries (LUAU 1998a; Wild et al 2001).

4.2.5 A succession of bad harvests brought famine in 1315-17, followed by catastrophic cattle and sheep epidemics between 1319 and 1321, and the Black Death in 1348, 1361, and 1362 (Winchester 1987). This resulted in the abandonment of many farms, and sometimes whole villages, especially on the more marginal land (ibid). By the late fourteenth century there are hints of recovery, the reoccupation of abandoned land and the creation of new farms as former demesne, and also waste and forest was being let (ibid). Account books from Fountains Abbey showed considerable numbers of cattle and extensive hay meadows in Borrowdale, Eskness and Stainthwaite (Elliott 1961).

4.2.6 The general pattern of the later medieval farming landscape was based on a system of fields on the valley floor, separated from the fellside by a ring-garth wall. Angus Winchester (1987) has suggested that the typical farm of this period had livestock husbandry as the principal occupation, but with a small acreage of cultivated land growing oats, barley, and hay. A 1418 survey of Borrowdale gives details of 41 farms granted to Fountains Abbey, each having an average of three acres of enclosed land, for which a total rental of £28.10s per annum was paid (British Museum Add MS 24764 f6, in Elliott 1961).

4.2.7 That the tenants on the Furness portion of Borrowdale held the estates in ‘tenant right’ is demonstrated by the Abbey rental at the time of its dissolution (Brownbill 1915-19; Hall 1886). Brownbill gives the list of tenants in Borrowdale, including Byrkehead, Fyssher, Bratwhate and Jopson. Each tenant held one tenement and between 1.5 and 4 acres of arable/meadow, with John Fyssher and his son Launcello (the bailiffs for the king) holding 6 acres, and Christopher Byrkhed also with 6 acres.

4.2.8 Above the valley floor, on the fellsides, rights were often retained by the landowner, providing summer pasture for tenants, access to which were subject to stringent regulations policed by manorial courts (Winchester 1987). Peat from areas of waste was also cut for fuel and bracken for thatching, bedding, and potash production (ibid).

4.2.9 By the start of the sixteenth century, evidence from elsewhere in the region suggests that land around the settlements was becoming increasingly enclosed. This increasing
division of the valley bottoms into small individual farms led to the rise of what became known as the yeoman or statesman farmer (Winchester 1987). Customary tenant rights handed down amongst the Lakeland communities gave them almost the same security as if they held the land freehold, which restricted the influence of the Abbey or Lord of the Manor (ibid). Evidence of the customary tenant rights in Borrowdale is provided by a Furness Abbey rental (Brownbill 1915-19) and is detailed in the Duchy of Lancaster surveys (Hall 1886). They include the right of succession of tenure and the right to sell the holding; in return they were to serve on the Scottish border whenever required, as horsemen in summer and footmen in winter.

4.2.10 **The Dissolution of the Monasteries:** Henry VIII’s commissioners began their work of closing the religious houses of the region in 1536; Furness Abbey was handed over in 1537 and its holdings were added to the estates of the Duchy of Lancaster, retained by the Crown until 1613-14 (Johnson 1981). Fountains Abbey was dissolved in 1539 and in 1546 its Borrowdale holdings were sold to Richard Greames of Eske, at Netherby (37 HenVIII (Gardner and Brodie 1908); Bouch and Jones 1961; Collingwood 1928). James I sold Furness Abbey’s former lands to London entrepreneurs, William Whitmore and Jonas Verdon, in 1613-14 (Collingwood 1928; Johnson 1981). Whilst retaining the graphite mines (Section 4.2.15), they sold off much of the land in an agreement known as the ‘Great Deed of Borrowdale’ (ibid; CRO (C) D/Ben/Crostwaite Tithes/1/List of Tenements 1614). Whilst interpretations of its significance vary considerably, the individual holdings and the commons were clearly sold to a group of 38 yeoman and gentlemen, headed by Sir Wilfred Lawson of Isel (eg Collingwood 1928; Johnson 1981). The 38 were largely tenants of the upper Borrowdale farmsteads, including one John Birkhead of Thorneythwaite, yeoman.

4.2.11 Lawson had obtained land around Stonethwaite and Watendlath from the Greames family in 1606, and he then bought more in the valley in 1617 (Johnson 1981). In 1614, just before the Great Deed of Borrowdale, Lawson bought Seathwaite and Rosthwaite from Verdon and Whitmore (ibid). By 1617, the Lawson family was the major landholder in Borrowdale, owning much of the land previously held by Fountains and Furness Abbeys. Whilst readings of the Great Deed of Borrowdale suggest that the 38 had ‘bought’ the freehold of the farms and commons, according to manorial records, Lawson remained the lord of the manor, in that customary rents and fines for grasses (upland grazing rights) were still paid by members of the 38 to him (ibid).

4.2.12 A mill, mentioned in the 1546 sale document to Richard Greames (Section 4.2.10), was tenanted by ‘John Byrhkedd and Richard Benson’. A former watermill exists in Stonethwaite, just outside the north-eastern boundary of the Thorneythwaite landholding, and whilst it seems unlikely that the same John Birkhead (Birkett) is the same as the signatory to the Great Deed of Borrowdale (Section 4.2.11), it is possible that there was once a connection between Thorneythwaite Farm and the adjacent mill.

4.2.13 **Industrial Landscape:** Whitmore and Verdon were aware of the potential profit to be made from the wad-hole (graphite or plumbago mine) at Seathwaite, as mentioned by a survey of former Furness Abbey lands in 1555. It was sold to Lamplugh and Hudson of Bowtherbeck, in a separate agreement, around the same time as the Great Deed of Borrowdale was signed (Boon 1976; Johnson 1981).

4.2.14 Graphite was an extremely valuable commodity; initially used for sheep-marking and medicinal purposes, by the eighteenth century it was used in the manufacture of
munitions, pottery glazing, dye-fixing, crucible production and pencil-making (Tyler 1995); counterfeit coin moulds of graphite have been found in Nether Wasdale, dated to around 1500 (Ferguson 1878; Boon 1976). Into the eighteenth century, the mines were only opened one year in seven to maintain a high market value; in 1788 the price was reaching £3300 a ton, and in 1751 it was made a felony by Act of Parliament to steal or deal in stolen graphite (DRO D/BKL/Box 8c/144/3). The mine closed in 1891, in the face of cheaper foreign imports (Winchester 2016).

4.2.15 There are four known bloomery sites within Langstrath, closely associated with Langstrath Beck, which is linked in documentary sources to the nearest source of iron ore at Ore Gap (Postlethwaite 1877). Whilst there is strong evidence for post-medieval use, it is likely that these bloomery sites were originally operated by Fountains Abbey. The production of substantial quantities of iron would have required a supply of large amounts of charcoal, and many charcoal-burning platforms have been identified along the sides of the valley (OA North 2007). Whilst these remain undated, their abundance related in part to the proliferation of charcoal production in the post-medieval period, when lead- and copper mining was being undertaken by the Mines Royal company (Collingwood 1928). Although little mining took place in Borrowdale, the effects on the valley landscape were significant; it is believed that many areas were clear-felled for timber and the smelting industry promoted large-scale charcoal production (OA North 2007). Documentary sources demonstrate the post-medieval production of charcoal in Borrowdale; a 1594 lease of woods for charcoal at Thickside, south of Langstrath, states: ‘It will make 3000 seams of charcoal, every seam containing 8 bushells as measured at the smelting house at Keswick’ (CRO (C) D/Law/1/55). This was the headquarters of the company of the Mines Royal (Collingwood 1928).

4.2.16 Enclosure and Improvement: the agricultural improvements taking place across much of lowland Britain were slow to reach Cumbria, and for at least the first half of eighteenth century, the area was agriculturally backward and under-exploited (Bailey and Culley 1794). Innovations were slow to reach Borrowdale, where according to Hutchinson, ‘the surface of the ground was very little cultivated’ (1794, 209).

4.2.17 Enclosure had been piecemeal until in the second half of the eighteenth century, when it was achieved through agreement between tenants or by Act of Parliament (Whyte 2003). Parliamentary enclosure in particular marked the demise of the statesman farmer; as the size of the landholdings increased, the number of small farms declined. The start of the nineteenth century saw clear signs of improvement in agricultural practice, partly due to an increasing demand for food and the resulting high prices. This increased activity was further boosted by the introduction of the General Enclosure Act of 1801, which virtually extinguished the long-held common rights (ibid).

4.2.18 Drainage, liming and other forms of improvement brought previously unusable or rough pastureland into more productive use; oats could be grown on all but the rockiest of ground, and pasture was now capable of supporting double the amount of stock (Whyte 2003). Within Borrowdale, the upper valley sides and tops were enclosed at first, and then the sheep-grazing lands or ‘dalts’, and later, more extensive areas of remote land were parcelled up as ‘intakes’ (ibid).

4.2.19 Across Lakeland, the pattern of enclosure on the valley floor and lower fellsides was largely completed by the time of the tithe mapping of the 1840s (Whyte 2003). Borrowdale’s tithe map (CRO (C) D RC/8/54/4) and apportionment (CRO (C) D
RC/8/55/5.6) illustrate some of the effects that improvement had on land-use at Thorneythwaite; for example, Lamb Close (fields 582 and 588) and Horse Close (field 585) are both listed as arable, yet their names clearly suggest former pastoral use.

4.2.20 The nineteenth century was a time of growth, which marked the final end to the social and economic isolation of the valley. The opening up of the roads connecting it to the outside world brought in tourists, and, coupled with the quarrying at Honister, and later at Yewcrag, which employed between 100 and 150 people, the net effect was an unprecedented burst of activity within the valley. A small service industry grew up to support this increased economic activity, such as blacksmiths and joiners, and the evidence suggests a picture of growing activity with little sign of recession. This is further reflected by the steady growth in the population, with 342 in 1801, growing to 452 in 1851 and 506 in 1891 (Bulmer and Snape c 1901).

4.2.21 Utilities, such as water and electricity, did not arrive until relatively late; sewage-disposal works were built in 1938 and again in 1949, when the first water supplies were connected to the upper valley; however, many houses still used a private supply (Johnson 1981). The arrival of electricity was delayed due to opposition to the use of overhead cables, and eventually an underground cable was laid in 1961 (ibid).

4.2.22 After the Second World War, there was a fundamental shift in the development of the area, with the creation of the Lake District National Park in 1951 (National Parks 2017). Rather than different valleys and areas developing at different paces according to the inclinations of the individual landowners, the area began to be administered and treated as a whole. This development has been strengthened by the introduction of various conservation schemes, designations, European initiatives, and government grants.

4.2.23 Flooding and Drainage: Borrowdale is well-known for repeated episodes of catastrophic flooding, most recently in 2005, 2009 and 2016. In 1958, the Cumberland River Board dredged parts of the river and built flood banks and gabions, although this was not able to prevent serious flooding in August 1966 (Johnson 1981). This flood washed away most of the bridges and many of the walls, which have now been repeatedly replaced (on the same alignment) often by fences (OA North 2007). Following the 1966 floods, sections of the river between Seathwaite and Thorneythwaite were straightened in an attempt to prevent a repeat occurrence (Johnson 1981). The evidence suggests that such flooding events have been relatively regular in the valley; two major floods occurred in the space of three weeks in 1898, damage to buildings, farmland and loss of livestock reckoned at £250,000 (Johnson 1981). Cartographic evidence suggests that, between the production of the tithe map in 1842 (CRO (C) D RC/8/55/4) and the First Edition Ordnance Survey map, surveyed in 1862, the Derwent west of Thorneythwaite and south of Seatoller bridge had been straightened as far south as the Seathwaite bridge, and a ditch or drain had been constructed between the Derwent and Black Syke. Archaeological data from Seathwaite illustrated several episodes of medieval flooding (Wild et al 2001). Across Cumbria as a whole, 34 major flood events in upland catchments, including Borrowdale, have been identified from historical records from the 1600s onwards (Whatkins and White 2008). Notwithstanding flooding in the early twenty-first century, similar concentrations of extreme flood events were recorded in the late seventeenth century, the mid- to late eighteenth century, the early and late nineteenth century, and between the 1920s and 1960s (ibid). The repeated rebuilding of walls
and fencing following flood events has hindered the interpretation of the historical development of field systems and other boundaries in the valley (Section 8).
5. HISTORY AND DEVELOPMENT OF THORNEYTHWAITE FARM

5.1 SOURCES

5.1.1 Borrowdale is illustrated on various historical maps and plans, at a variety of different scales and levels of detail. Many of the earliest maps of the Lake District (eg Saxton’s map of 1576; Plate 3) incorporated errors and incorrect details, and later copied versions often compounded previous mistakes (Hindle 1984).

5.1.2 Whilst many published historical maps of Cumberland and the Lake District show Borrowdale, and often Seathwaite Farm, Thornythewaite is rarely illustrated. Hodgkinson and Donald’s map of 1770-1 shows some woodland on the fellside to the east of Thornythewaite but the farm is not shown (Plate 4). Greenwood and Greenwood’s Map of the County of Cumberland (1824) shows a single rectangular unnamed building at Thornythewaite Farm, adjacent to the north side of a small plantation, and it also clearly illustrates the large woodland compartments on the flank of the fell above it to the south and east (Plate 5). The valley was, however, surveyed in more detail by Hetherington’s 1759 plan of the Borrowdale graphite mines (CRO (C) DX/294/9; Section 4.1.8; Plate 6).

Plate 3: Saxton’s Map of Westmorland and Cumberland, 1576
Plate 4: Hodgkinson and Donald’s Map of the County of Cumberland, surveyed 1770-1

Plate 5: Greenwood and Greenwood’s Map of Cumberland, 1824
5.2 THORNEYTHWAITE FARM

5.2.1 Thornythwaite, first mentioned in the assize rolls of 1230 (Millward and Robinson 1970), was held by Furness Abbey until its dissolution, following which it remained in Crown hands until it was sold by Whitmore and Jonas Verdon in 1613-14 (Collingwood 1928; Johnson 1981). Documentary evidence pertaining to Thornythwaite (also spelt Thormithwaite and Thornythwaite) illustrates quite clearly that tenancy, if not always ownership, of the farm has long been held by the farming
families recorded in the tenant’s lists of Fountains and Furness Abbeys (Sections 4.2.7, 4.2.11-13). Alongside others, the names of Byrkehead (Birkett), Fyssher (Fisher) and Jopson have been associated with Borrowdale since this time (Crosthwaite 1876; Johnson 1981).

5.2.2 The Birkett family, consistently associated with Seathwaite, are first mentioned in 1511 in relation to the lease of a tenement in Stonethwaite (Michelmore 1981). Around 1542, they are listed as tenants of Furness Abbey in Borrowdale (Crosthwaite 1876, 66-70) and in 1562, in relation to the baptism of child in the Crosthwaite Parish register (ibid). In 1606, several members of the Birkett family are mentioned in the deeds of Wilfred Lawson’s land purchases in the valley, including one of John Birkett of Stonethwaite (possibly associated with the mill; Section 4.2.13). In 1614, John Birfedd of Thornithwaite was mentioned in relation to tenements at Seatoller (CRO (C) D/Ben/Crosthwaite tithes). In the following year, ‘John Birkhead of Thorneythwaite, yeoman’, was one of the 38 people who signed up to the Great Deed of Borrowdale (Collingwood 1928; 12; Section 4.2.11; Crosthwaite 1879).

5.2.3 A Fyssher was listed as a Furness Abbey tenant in Borrowdale in c 1542 and also as bailiff for the king (Crosthwaite 1876, 66-70). The Fisher family were recorded as tenants of Seatoller farmhouse in the sixteenth century (OA North 2007, 63), and as the producers of charcoal, from Borrowdale, for the Mines Royal (Collingwood 1912; 1928). In this same period, Fishers were the subject of many entries in the Crosthwaite Parish register, ‘residing at Seatoller, Grange, Snabb and Gillbeck in Newlands, one generation after the other, and spreading out into all parts of the world’ (Crosthwaite 1876, 236).

5.2.4 The Jopson family are mentioned as tenants of Furness Abbey in the sixteenth century; and in the mid-eighteenth century were resident at Thorneythwaite Farm (Hetherington 1759 (CRO (C) DX/29419); Johnson 1981). In the nineteenth and early twentieth centuries, a great many Jopsons lived in Thorneythwaite, Chapel House, Seatoller and Yew Tree Farms (Johnson 1981).

5.2.5 Following the mention of John Birkett (yeoman) at Thorneythwaite in 1614 and 1615 in relation to the Great Deed of Borrowdale and negotiations beforehand (CRO (C) D/Ben/Crosthwaite tithes; Collingwood 1928, 12), no documentary or cartographic sources were identified until Hetherington’s plan of 1759 (CRO (C) DX/29419). This map (Plate 6) is the first detailed plan of the area and the first documentary source since the Great Deed of Borrowdale in 1615. The survey, which was focused on the graphite mines, illustrates ‘The Wastes and Commons Belonging to Seathwaite in the Manor of Borrowdale’. The annotated plan includes a three-dimensional representation of the Thorneythwaite Farmhouse, as resided in by Daniel Jopson, the extent of the associated land marked as ‘the bounds of Thorneythwaite liberties’. The plan shows the enclosed land on the valley floor apportioned with the various farms of the valley. The farmhouse is marked ‘Thornythwaite where Daniel Jopson lives’. The farm is shown within several enclosed fields and woodland, in three enclosed fields, two of which are marked ‘Daniel Jopson’s Bark’.

5.2.6 Jopson of Thorneythwaite is also cited in a document listing the numbers of grasses held on Langstrath/Stoneythwaite fell and Watendlath fell (Johnson 1981). In 1831, the will of John Jopson of Thorneythwaite left the property to his brother Daniel (CRO (C) PROB/1831/W1 611). Daniel Jopson died at Thorneythwaite in 1833 (Carlisle Journal, 30 November 1833) and the following year his nephew, Joseph Hodgson the younger, sold it to Abraham Fisher (CRO (W) DMG/80/1) (Plate 7).
5.2.7 An 1838 citation by John Birkett of Seathwaite, in relation to the deeds of Seathwaite Farm, stated that the Seathwaite estate had been owned by Daniel Birkett, then Joseph Birkett (John’s father), who died in 1836, after which it was sold to Abraham Fisher (CRO (W) DMG/80/1); so by 1836, Fisher (Plate 7) owned both Seathwaite and Thorneythwaite Farms. The extent of his holdings, which encompassed virtually all of the valley (including lands and tenements at Seatoller and Stonethwaite), is illustrated by the tithe map and apportionment of 1842 (Plate 8). This demonstrates that much of the land surrounding Seatoller and extending southwards into the eastern side of the valley proper was rented out to Thomas Wren. To the south of Thorneythwaite, the land around Seathwaite was rented to John Birkett, albeit with the exception of a house and land to the south of Seathwaite and a number of cottages in Seatoller and Stonethwaite. Various plantations/small areas of woodland within Thorneythwaite and the wider rented holdings were retained by Fisher, perhaps providing income from coppice.
5.2.8 Thorneythwaite Farm and the fields immediately surrounding it are described on the tithe apportionment (CRO (C) D RC/8/55/5.6) as being owned and occupied by Fisher himself. The 1851 census return (UK Census Online 2017) records Abraham Fisher as County Magistrate and local landowner; a memorial in St Andrew’s Church, Stonethwaite, states that he was ‘of Seatoller’ at his death in 1864 (Gravestone Project 2017).
5.2.9 According to the will of one Robert Walker, recorded as a farmer of Thorneythwaite (CRO (C) PROB/1861/A70), by 1861 Fisher appears to have let Thorneythwaite Farm (and possibly returned to Seatoller). He died in 1864 and under his will, which also established a trust fund for Borrowdale School (Open Charities 2016), J Fisher Crosthwaite had become joint owner of Thorneythwaite and Seathwaite. The property was sold in 1868 to HC Marshall, and its extent was illustrated as ‘Lot 10’ of the sale, Lots 9 to 12 being Seathwaite Farm, Thornythwaite, Seatoller and Seatoller mansion and grounds (CRO (W) DMG/80/1).

5.2.10 Ordnance Survey mapping of the area took place in 1862 (Plate 9), and the map was copied for the 1868 sale particulars (Plate 10). As shown on the First and Second Edition Ordnance Survey maps (Plate 9; Fig 2). The majority of field boundaries had remained the same since the tithe map, many of these also being illustrated on Hetherington’s plan of 1759 (CRO (C) DX/294/19).

5.2.11 In 1896, the estate was again sold, this time to John Musgrave of Wasdale Hall, who planned to benefit from proposals to construct a road over Sty Head (Johnson 1981). In the meantime, the Jopson family had returned to, and tenanted, the farm. Thorneythwaite appears as Lot 14 (CRO (W) DMG/236/1: Plate 11) and is described in the accompanying sale catalogue:

‘Thorneythwaite-Borrowdale. The freehold farm and woodlands called “THORNEYTHWAITE”, near Seatoller, comprising farm house, outbuildings, cottage, and several closes of arable, meadow, pasture and woodland, containing in the whole 221a. 3r. 9p. more or less, coloured YELLOW on the plan No.4, partly in hand and partly occupied by Messrs. Robert Jopson and Daniel Jopson. Also 38 grasses for 380 sheep on Comb Fell, and 9 grasses for 90 sheep on Langstrath Fell. And included in the sale are 440 sheep now going on the above fells. The nine grasses on Langstrath Fell are of customary tenure held by the Manor of Borrowdale by payment of the yearly customary rent of 9d., and of a reasonable arbitrary fine on death of lord or change of tenant....’
5.2.12 The lease of Thorneythwaite Farm dating from 1900 (copied from an 1871 version) states that the holding consists of 220 acres of arable, meadow and pasture, 36 acres of pasture in Whinlatter, ten grasses on Langstrath Fell, and a flock of 440 sheep (CRO (W) DMG/105-3). No details pertaining to the house or its occupants were included.

5.2.13 In 1920, Thorneythwaite came up for sale again, and appears in the sale catalogue of the Wasdale Hall estate. Only nine lots were sold and the remainder were bought up by Herbert Walker, who later donated parts of it to the National Trust (Martin 1993). It is unclear, from the available archival material, who bought the property; however, it seems that the Jopson family remained at the farm. A will in the Cumbria Archives (CRO (C) PROB/1923/A23) relates to the death of Robert Jopson, Farmer, of Thorneythwaite, in 1923.
6. ARCHAEOLOGICAL SURVEY

6.1 SUMMARY OF RESULTS

6.1.1 The archaeological survey identified 63 previously unrecorded sites within the Thorneythwaite landholding. It appears that prior to its recent acquisition there had been no earlier archaeological investigations on the property, and indeed, the landholding is depicted as a large empty gap in the wider Borrowdale Historic Landscape Survey (OA North 2007). The sites discovered during the present survey are listed in a gazetteer (Appendix 2) and can be compared with those of the valley as a whole.

6.1.2 To summarise, the 63 newly discovered sites within the Thorneythwaite study area comprise the following site types:

- 21 charcoal-burning platforms (Sites 3-10, 13, 43, 45, 47, 48, and 50-7; Fig 3),
- seven field boundaries (Sites 1, 11, 12, 44, 49, 62 and 63),
- five trackways (Sites 17, 40, 46, 60 and 61),
- four sheepfolds/shelters (Sites 18, 27, 58 and 59; Fig 4),
- four gateways (Sites 19, 33, 37 and 38),
- four water smoots (Sites 16, 32, 39 and 41),
- three plantations (Sites 2, 22 and 23),
- three bridges/culverts (Sites 14, 20 and 24),
- three consumption banks (Sites 34-6),
- two quarries (Sites 26 and 31),
- two boundary-marker cairns (Sites 28 and 29),
- an enclosed settlement/farmstead (Site 15),
- a possible shieling (Site 42),
- a hollow-way (Site 30),
- a stile (Site 25), and
- a beck-clearance heap or possible burnt mound (Site 21).

6.1.3 The range of sites includes no confirmed prehistoric activity, although there is a possible burnt mound, and an enclosed settlement, which could be of Iron Age / Roman date. The majority of the sites are charcoal-burning platforms or features relating to woodland management, which demonstrate that much of the area was formerly woodland. There are, however, very few industrial sites, and those that have been identified are quarries serving local needs. Many are features relating to a post-medieval pastoral economy and include field boundaries, smoots and sheepfolds. There are also substantial numbers of sites related to communication, such as hollow-ways, trackways and bridges, which demonstrate that the study area is on the line of the principal Borrowdale communication route, giving access to the
centre of the Lake District, and providing routes for the transfer of the products of woodland and other industries to urban centres.
7. SETTLEMENT

7.1 ENCLOSED SETTLEMENT

7.1.1 The earliest evidence for settlement within the study area is an enclosed farmstead/settlement site (Site 15; Fig 3; Plate 12), centred on the junction of four modern field boundaries immediately south-east of Thorneythwaite Farmhouse; it is in an elevated position on the north side of, and in the lee of, an end moraine. Thorneythwaite Farm is in a similar position on the moraine a little further to the north-west (Plate 1).

Plate 12: Aerial view of the Site 15 enclosed settlement; the main enclosure bank extends through the northern and western quadrants but is best represented on the contour plot (Fig 5)

7.1.2 The well-defined enclosure bank (15.8; Fig 5), consisting of packed turf-covered small/medium-sized stones (with some boulders present), is D-shaped in plan, and measures at least 85 x 80m. The enclosure bank is 2-3m wide, and survives to a
height of up to 0.4m. The outer boundary is evident on the north, west and east sides and is almost intact in the north-east quadrant (Fig 6). The west quadrant is in a field that has been improved but the enclosure bank remains as a slight earthwork feature. The field to the south is rough, unimproved pasture, with many small sections of sub-divisional walling and possible structural elements evident within the enclosure, including a U-shaped earthwork (15.10; 6 x 6m in extent and 0.2m high) that may have formed the end of a rectangular structure. These features are masked by the current vegetation and have probably been denuded by stone-picking to create the modern field walls. The eastern side of the enclosure abuts a small stream. The north-east quadrant has also been subject of modern dumping internally, which masks some of the features within. It is clear that there are several sub-divisional boundaries in this area, as well as a possible large platform (15.1), up to 29m in diameter, that may have been the position of a domestic structure. To the east is a putative sub-rectangular structure, much obscured by dumping, which is incorporated against the outer bank (15.4/15.3).

7.1.3 The north-east quadrant was depicted as a plantation on the First Edition OS mapping (Plate 9). This plantation is then shown on early to mid-twentieth-century OS mapping, after which it appears to have been cleared. Although these are clearly not contemporary with the creation of the plantation, stumps of coniferous trees remain on top of the banks. That it has been a plantation suggests that features within the north-east corner of the enclosure could be relatively well preserved beneath modern dumped deposits.

7.1.4 Whilst the enclosure was identifiable, it is in relatively poor condition to the west, where fields have been improved, to the south, where structures have been denuded by stone robbing, and to the north, where it is masked by modern dumping (Plate 12). In terms of its morphology, there are strong parallels with both prehistoric and medieval to post-medieval settlement enclosures identified in the region. Whilst most are known only from survey evidence and very few examples have been excavated, they are often attributed a Roman date (Higham 1986; Hoaen and Loney 2004; Collingwood 1908). Characteristically, the interiors of these ‘complex enclosed settlements’ are filled with roundhouses and more irregular enclosures which merge into the enclosing bank; many of these are circular or oval but there are substantial numbers with square or rectilinear shapes (Quartermaine and Leech 2012).

7.1.5 The sub-divisional walling and potential structural elements, including the possibly rectangular earthwork (15.10) and the apparent platform (15.1), may, however, equally suggest that the enclosure is later in date. Several examples of rectilinear buildings within enclosures, including possible stock pounds, exist, for example in Eskdale, associated with documentary evidence placing their abandonment in the post-medieval period (EDLHS 2008). There are also probable medieval farmsteads which have reused prehistoric enclosures and fields, for example at Rannerdale (NTSMR 24355) and Lanthwaite Green (NTSMR 29273), Buttermere (OA North 2008), and also at Woundell Beck (EF VIb), Ennerdale, where a medieval enclosure seems to have developed out of a prehistoric cairnfield and settlement (LUAU 1998b).

7.1.6 It is very difficult to provide a reliable interpretation of the site, given the amount of modern dumping and vegetation over it, but the possibility exists that this site has been the focus for early settlement activity, such that an Iron Age / Romano-British
enclosed settlement, which may have been reoccupied in the medieval period. This would need to be tested by excavation, however.

7.2 THORNEYTHWAITE FARM

7.2.1 Thorneythwaite Farm itself is not within the remit of the present study as it is not owned by the National Trust, but it was assessed by the documentary study and it is discussed briefly to set the context for the development of the surrounding farm. Despite a documented medieval origin (Section 5.2.1), the first cartographic source to depict the property in any detail is Hetherington’s map of 1759 (CRO (C) DX/294/9; Plate 6), which includes an apparently schematic representation of the farmhouse, as resided in by Daniel Jopson. The house is illustrated as having two chimneys, one central to the building; as many early farmhouses had one gable-end chimney (Denyer 1991), this may suggest that it had been enlarged prior to this date. Whilst some have much earlier origins, the majority of surviving early farmhouses in Cumbria date to c 1670-1720, with many being extended by the latter part of this period (Denyer 1991; Brunskill 2002). Photographs (Plate 13) suggest the house has been extended further since 1759, and that it has a fire window adjacent to its western gable, this feature being suggestive of a seventeenth- or early eighteenth-century date (ibid). Associated with the house are two barns (Fig 3), one of which is a bank barn which is likely to have incorporated a threshing floor. Whilst the map is fairly schematic, it provides sufficient detail to demonstrate that the boundaries of the landholding and the enclosed landscape have not changed significantly since 1759, and that the woodland areas to its east, one labelled ‘Daniel Jopson’s Bark’, were being exploited at this time (Section 8).

Plate 13: Thorneythwaite Farmhouse
7.3 TRANSHUMANT SETTLEMENT

7.3.1 The Thornythwaite estate is on a very narrow valley floor within Borrowdale, which affords little quality enclosed land, being surrounded by steep craggy valley sides. The agricultural economy of the farm would therefore have relied on upland grazing, the lower-lying land being insufficient in extent to support the farm. The existence of transhumant practice is well established in Cumbria; as winter grazing is not viable on the high fells, remote outposts (or shielings) were built to allow stock to be grazed there in the summer (e.g. Whyte 1985; Winchester 1987). Shieling sites have been identified within Borrowdale and are defined either by the remains of upland structures or through place-name evidence (OA North 2007). Shieling sites have been documented, both singly and in groupings, within the uplands of the Lake District, and have been found, with similar morphology and in isolated locations, on other National Trust landholdings. These include examples in Langdale, Ennerdale and nearby in Watendlath (Lund and Southwell 2002; National Trust 1993; OA North 2003; 2007). The name Seatoller means 'the saetr by the alder tree' (Armstrong et al. 1950) and it probably started life as a temporary summer settlement before becoming a permanent farm. The characteristics of shielings are their isolated position, relatively small size, simple construction, and absence of associated field systems (Ramm et al. 1970), although some shielings seem to have developed into more permanent farmsteads, such as Seatoller (Section 7.4.1; and is discussed further in OA North 2016).

7.3.2 A small, double-celled, stone-platformed structure in a figure-of-eight pattern (Site 42; Fig 3) was located on the eastern side of Borrowdale, just above the valley floor and the enclosed lands, to the south-east of both the intake wall and to the west of a small stream (Black Sike; Plate 14). It is on a north/south orientation and consists of two conjoined circular cells with small dwarf-wall foundations, one 9m and one 8m in diameter; the smaller southern cell is 0.4m higher than the northern cell. The structure is slightly revetted on the western downslope side and the east side is much more fragmentary. There is an earthfast boulder on the eastern side of the central sub-dividing wall. This structure may be a fold or a shieling; if it is the latter, it seems unlikely that it belonged to Thornythwaite Farm, which is only 0.75km away. The structure is just to the south of a field wall that extends up the valley side from the enclosure, Site 15, and is perhaps more likely to have belonged to Seatthaite, only 1km away. The structure is not dissimilar to a group of sub-circular (annular) structures near Stickle Tarn, Great Langdale, which were often constructed against large boulders, and which were tentatively suggested as being shielings (OA North 2005).
7.4 **THORNEYTHWAITE SETTLEMENT WITHIN THE WIDER CONTEXT**

7.4.1 Permanent settlement in Borrowdale probably began with a small number of scattered farmsteads set amongst a few enclosed fields. Some of the farmsteads may have acted as monastic vaccaries and granges from the thirteenth century onwards and some may have had earlier roots. This pattern of small farms with enclosures appears to have persisted (Section 8), although both Seathwaite and Seatoller grew into small townships, both positioned along important communication routes. Seathwaite Farm, is believed to be of seventeenth-century date on the basis of a timber of 1633, but is first mentioned in the documentary record in 1292 (Millward and Robinson 1970). Seatoller Farm is first mentioned in sixteenth-century documentary sources, with the present farmhouse dated to the early seventeenth century. The settlement, which is believed to have originated as a summer settlement (Section 7.3.1), is situated on the edge of the available farmland on the valley floor, close to the route over Honister.

7.4.2 The Thorneythwaite Farmhouse is now lime rendered, obscuring its fabric, but, from its general form and large windows, it is likely to be of eighteenth- or nineteenth-century date. However, given that it was not possible to examine the building closely, an earlier date cannot be ruled out. A farmhouse is depicted on the 1759 map (CRO (C) DX/294/19), and it is probable that the present building, at least in some form, was that schematically represented there, it being perfectly possible that the standing building masks the footprint of an earlier farmhouse. It is also possible that the original settlement at Thorneythwaite was actually at Site 15. Clarification of the origins of the settlement would, however, require undertaking an archaeological survey of the present farmhouse and a closer investigation of the enclosed settlement.
8. DEVELOPMENT OF ENCLOSURE

8.1 THE PRIMARY DEVELOPMENT OF THE THORNEYTHWAITE ENCLOSURE

8.1.1 The early development of the enclosure of Thorneythwaite can be seen as secondary to that of the neighbouring townships of Seathwaite and Seatoller, which both appear to exhibit primary ring-garths. The analysis of these early enclosures was undertaken in the course of the earlier study of Borrowdale (OA North 2007), which provides a context for the analysis of the Thorneythwaite enclosure.

8.1.2 The Medieval Origins of Enclosure in the Lakeland Valleys: early enclosure in the valleys of the Lake District typically contrasts with that of the less topographically constrained areas beyond the core of the mountainous areas. In these latter areas, there seems to have been a greater emphasis on arable farming during the medieval period than was the case in the mountainous valleys, where stock-rearing always seems to have been important (Elliott 1959). Therefore, because there was relatively little topographical constraint, open fields (often called townfields, being the open fields belonging to a township) were established, which extended out from the tofts of the settlement, and were communally farmed (Winchester 1987, 74). These fields were not permanently enclosed, those areas of the open fields that were under crop being temporarily fenced to keep grazing animals out (Elliott 1959). In the mountainous valleys, there was a greater emphasis on pastoral farming, which exploited the considerable areas of waste land. Only limited amounts of flat land were available for arable farming, typically on the valley floor; as these areas were very tightly constrained by the topography, there was little, or no, opportunity to vary the areas under crop and so they were typically permanently enclosed by a fence called a ring-garth, which served to keep the grazing animals off the crop (Winchester 2000, 54). Often the farm buildings were placed on the line of the ring-garth, so that they could manage animals on the pastoral side of the ring-garth and arable farming on the other. This situation is very effectively demonstrated at Holwick, in Teesdale, where all the medieval farmsteads can be found on the ring-garth (OA North 2011), and also in Great Langdale (Lund and Southwell 2002).

8.1.3 The results of both documentary and field survey in the Lake District (Winchester 1987, 59-60; Lund and Southwell 2002; National Trust 2000; OA North 2003) indicates that the earliest, and most substantial, boundary feature, would be a ring-garth. This feature generally took the form of a continuous fence or wall, constructed along the break of slope between the fellside and flat lands, enclosing all, or part, of the valley floor. During the summer, it allowed stock to roam freely on the open fellside while preventing them from entering the valley floor and damaging crops being grown there; in the winter, they could be brought in to graze and fertilise the valley fields safely. Examples of this type of wall, the earliest of which dates from the late twelfth century at Preston Richard, have been found at Windermere, Crosby Ravensworth, Helton, Great Langdale (National Trust 2005), Grayrigg and Wasdale (National Trust 2000). Perhaps most significantly, such a feature has also been identified in the adjacent property of Watendlath (National Trust 1993). The limit for potential arable production in the valley is defined principally by the distribution of the Enborne and Ellerbeck soil types (Farewell et al 2011), which follows closely the topographical break of slope between the valley floor and the fellside; this is therefore an obvious place to look for such a feature.
8.1.4  **Ring-Garths in Borrowdale:** the field evidence for the ring-garth in Borrowdale is fractured and insubstantial. Some sections of wall have been identified as potentially part of such a feature, but are just as likely to have been part of enclosing walls for parcels of ancient coppice woodland. Many of the junctions recorded in the wall survey (*Section 9*) are inconclusive, making it difficult to ‘deconstruct’ the network of enclosures and reveal the presence of an early enclosing wall. Despite extensive ground investigation, a definitive ring-garth enclosing lands farmed in the medieval period could not be proved conclusively for the valley as a whole (OA North 2007).

8.1.5  Although a ring-garth cannot be demonstrated across the whole valley, such features around individual townships can be proposed based on cartographic analysis of the historical mapping. It is likely that the flat valley floors to the north of Seathwaite, and east of Seatoller, provided the original focus for farming; Thorneythwaite seems to be located between these two primary enclosures (Fig 7). The valley has been subject to numerous destructive floods over the centuries, which have resulted in the rebuilding of enclosure boundaries on the valley floor on many occasions, thus obliterating any trace of earlier patterns (Millward and Robinson 1970). The modern pattern is almost certainly the result of rebuilding at some point in the second half of the nineteenth century, but it is not clear to what extent the boundaries were rebuilt on the line of the earlier ones; many of these survive as fenced hedges and these may mirror early field boundaries. The limits of garth enclosures can, however, be suggested through inspection of the cartographic sources in several places.

8.1.6  The nature of at least one medieval enclosure boundary has been recorded by archaeological work in Seathwaite. A boundary wall and fence, excavated from beneath colluvial deposits, indicated that at least part of the valley was being exploited around cal AD 1300-1450 (535±45 BP; OxA-7750 and 520±40 BP; OxA-7751); the stone wall and fence-line hints at the enclosure of parts of the valley with stock boundaries in this period (LUAU 1998a; Wild *et al* 2001). This boundary was part of an early intake extending out from the river and is defined as the earliest phase of the boundary development in this area (OA North 2007). Within a discrete area around the excavation site, numerous fragmentary sections of enclosure bank were identified, all with hawthorn hedges on top (every hawthorn in this part of the valley was planted upon a boundary). These boundary fragments have been badly disturbed by many prolonged periods of flooding over the centuries (*Section 4.2.23*), and their form has both changed and degraded; it is not possible, therefore, on purely morphological grounds, for any direct parallels with the excavated example to be inferred.

8.1.7  **Early Enclosure:** although the primary enclosure in Borrowdale was seemingly a ring-garth or isolated intakes, there is documentary evidence for the establishment of townfields, which may have developed after the establishment of the enclosed grounds around the tenements, as these were not specifically mentioned until the relatively late date of 1659 (CRO (C) DX/241/9). They typically survive within the field system as ‘where that impetus (to increase the arable acreage) was absent, as on higher land more suited to stock rearing, the single townfield remained’ (Winchester 1987, 75).

8.1.8  **Seathwaite (Phase 1 Enclosure):** the general distribution of the earliest enclosure within the Seathwaite valley (Fig 7) should be taken as the maximum extent of enclosed lands by the time of the Dissolution of the Monasteries, and this is broadly still represented on the Hetherington map of 1759 (CRO (C) DX/294/9). Within this
earliest phase, several sub-phases can be discerned relating to known enclosure, such as small farmstead enclosures. Although there is no usable mapping prior to 1759, analysis allows an assessment of the line of the ring-garth around Seathwaite, which is seen to take in much of the valley floor but stops at the break of slope up onto the fellside. There is, however, no physical evidence of a substantial boundary surviving on the lower, shallower, slopes immediately above the valley floor that would be indicative of a ring-garth. To the east of the village is an enclosure incorporating a large curvilinear and banked boundary, extending up the lower valley side and capped at the top by a funnelled boundary leading to a sheepfold. This could relate to a stock-corralling area beyond the village but looking out onto the medieval sheepwalks. The north-eastern end of the enclosure corresponded to the line of Black Sike, as implied by the Hetherington map of 1759, and formed a long-standing boundary between the Seathwaite enclosure and the enclosure of Thorneythwaite.

8.1.9 **Seatoller (Phase 1 Enclosure):** the earliest enclosure associated with Seatoller was seemingly on the east side of the settlement adjacent to the river (Fig 7), as evidenced by the Hetherington map and boundary analysis. The tithe award records the southern boundary of these fields as ‘Millbeck Garth’, which takes in the edge of the floodplain where it falls sharply down towards the river (CRO (C) D RC/8/55/5.6). The other boundaries were formed by natural landscape features, the edges of flat land and the limits of river/stream courses. In addition, there is an area of ancient enclosure to the north of the hamlet, where the ruinous remains of substantial drystone walls can be seen as banked boundaries. Again, this enclosure would appear to relate to stock corralling outside of the hamlet and near to the sheepwalks, and may potentially post-date the primary enclosure on the east side of the settlement, but it has not been possible to clarify this.

8.1.10 **Thorneythwaite Enclosure (Phase 2):** it seems likely that the enclosure around Thorneythwaite (Fig 7) comprised an extension to the earlier enclosures; however, there is no clear archaeological evidence and very little documentary information to back up this episode. The primary enclosure for Thorneythwaite was set within the valley floor, and in between the areas of enclosure around Seatoller and Seathwaite, with the primary boundaries of Thorneythwaite butting onto the respective Seatoller and Seathwaite ring-garths (OA North 2007). Thorneythwaite Farm is central to this land intake, and since it was first mentioned in the assize rolls of 1230 (Millward and Robinson 1970) and was held by Furness Abbey until its dissolution, it is probable that this element of enclosure was undertaken in the medieval period. The early Thorneythwaite intake is very small in extent and comprises only the land immediately around the farm itself; it did not include an area of later enclosed rough ground on the margins of the valley slides.

8.1.11 The primary intake comprised lands to the west of the farm, presumably for arable, with unenclosed lands directly to the east, based on the earliest usable mapping available (1759; CRO (C) DX/294/9) and an assessment of the relationships between boundaries. This would be a conventional mixed farming arrangement, where the steading was placed at the interface between the enclosed arable lands and the unenclosed grazing lands; the intake incorporated a funnel arrangement intended to help take stock off the open fell and into the enclosed lands for winter grazing. The primary purpose of the enclosure, however, was to keep the animals off the crops during the summer months.
8.1.12 **Thorneythwaite Enclosure (Phase 3: 1759):** the evidence for a later enclosure at Thorneythwaite is based upon the schematic map of 1759 (CRO (C) DX/294/9; Plate 6). This indicates that, by this time, the presumed upland grazing land for the farm had been enclosed, extending up much of the valley side, as far as Combe Gill to the south-east, and a wall had been constructed along the top of the ridge to define the south-eastern extent of the wider enclosure (Phase 3B on Figure 7). By 1759, part of this land was shown as being woodland and had been partly coppiced; however, it is not evident if the enclosure was intended to define the extent of a plantation or if this was enclosed grazing land that had been subsequently coppiced. The enclosure on the valley floor had also been expanded to the south-east (Phase 3A), effectively increasing the amount of arable lands, and the existing enclosed arable land had been sub-divided by a series of radial field boundaries extending out from the farm. Although Phases 3A and 3B were two separate episodes of enclosure, it is not apparent from the cartographic evidence or boundary analysis which was the earlier.

8.1.13 **Thorneythwaite Enclosure (Phase 4: 1842):** between 1759 and the production of the tithe map (1842; CRO (C) D RC/8/55/4; Plate 8), the basic layout of the farm continued unchanged, although the existing enclosure had been subject to further division. Several presumed arable fields had been further sub-divided so that by the mid-nineteenth century, most of the fields were relatively small. The primary open fell enclosure had been sub-divided by a further boundary extending straight up the valley side from the farm, and the resultant compartments for woodland were labelled on the tithe map as ‘Low Bank’, ‘High Bank’ and ‘Johnny Dale Bank’.

8.1.14 **Thorneythwaite Enclosure (Phase 5: 1867):** a further sub-division of what was called Great Field (583) on the tithe map had occurred by the time the OS First Edition map was surveyed (1862; Plate 9). Since then, there has been very little material change in the enclosure pattern.
9. AGRICULTURAL SITES

9.1 Farming Features

9.1.1 Across Borrowdale, the majority of archaeological evidence for agriculture relates to pastoral farming. Bields, shepherd’s shelters, sheepfolds and stock enclosures are relatively common on the fellsides, and several shielings have been identified (OA North 2007). On the lower-lying ground, surviving evidence relates largely to field boundaries, field barns, clearance cairns, consumption banks and limited areas of ridge and furrow (ibid). Antiquarian accounts of the valley suggest that arable agriculture was limited (British Museum Add MS 24764 f.6, in Elliott 1961), although the tithe map and apportionment illustrate that by the nineteenth century many valley-bottom fields had been improved and were utilised for growing crops (CRO (C) D RC/8/55/4; CRO (C) D RC/8/55/5.6).

9.1.2 Several agricultural features have been identified on the Thorneythwaite property. These reflect upland pastoral agriculture, in the form of stock-management features, including both sheepfolds and shelters, on the valley side. Evidence for clearance within the fields on the valley floor is illustrated by several large consumption banks (Section 9.1.3). There are also further sites consisting of architectural furniture associated with the establishment of walled fields/enclosures surrounding Thorneythwaite Farm.

9.1.3 Field Boundaries: the fields surrounding Thorneythwaite Farm are well defined by substantial walled boundaries. The walls to the north of the farm are thicker than elsewhere, and in three places (Sites 34-6; Fig 3) in what was depicted as ‘Great Field’ on the tithe map (Plate 8; CRO (C) D RC/8/55/4), there are large consumption banks, where field stone has been cleared to improve the fields, being placed within the field walls (Plate 15). These consumption banks may not be of any great antiquity, however, as the sub-dividing wall containing the largest consumption bank (Site 34 in ‘Great Field’) was not depicted on the 1842 tithe map. The boundaries on the property contain a limited amount of wall furniture of archaeological/historical interest; there are several blocked gateways (Sites 33 and 38), the latter being located along the alignment of, which presumably is the earlier route of, the packhorse track on the south-east side of Thorneythwaite Farm (Site 17; Section 10). There are two further gateways with single or double gate stoops surviving (Sites 19 and 37), both of simple slab construction in locally quarried stone. None of the gate stoops have early architectural features, such as inscriptions or gate-stoop holes. A single stepped stile (Site 25) is on a modern footpath, which follows the former packhorse route down the east side of the valley (Site 17), and four simple slab-topped water smoots were found in the field walls on the valley floor (Sites 16, 32, 39 and 41). Other water-management features and bridges were limited to three small slab bridges or culverts crossing tributary streams in the valley floor (Sites 7, 14, 20 and 24).
Foundations for field walls were identified within the three valley-side intakes of ‘Low Bank’, ‘High Bank’ and ‘Johnny Dale Bank’. These relate either to earlier lower external intake walls pre-dating the large intakes, which took in all of the valley sides up to the top break of slope, or reflect later sub-divisions separating parcels of the intake. These smaller parcels, in particular those sub-dividing the area along the break of slope, would have functioned to separate pasture and/or small woodland coppice compartments (Sites 44, 49, 62 and 63). Two boundaries relate to smaller pasture fields, one depicted on the tithe map as ‘Under Wood Pasture’ (Site 12), and another unnamed field was partially depicted as a tree-lined boundary on the First Edition OS map, surveyed in 1862 (Site 1). A further boundary marked the northern edge of a clump of trees on a craggy outcrop on that map (Site 11).

Stock Management: four sheepfolds/shelters were identified in the upland intakes on the eastern valley side, reflecting pastoral stock management. The folds within the survey area were all simple, single celled, stone-walled structures at the edges of intake walls. One example was located on the lower valley side (Site 18; Plate 16) in the north-west corner of the intake of Johnny Dale Bank and on the route of the packhorse track (Site 17). Another was in the south side of the wall sub-dividing the intakes of Low Bank and High Bank (Site 58). The single sheep shelter (Site 27) was external to the corner of an intake wall on the top of Thornythwaite Fell (Fig 4) and a further sheepfold was attached to the external side of the intake wall on Thornythwaite Fell (Site 59). The character of the sheepfolds/shelters is very much in keeping with the monuments found elsewhere in Borrowdale, but the number of sheepfolds is relatively low by comparison with those found elsewhere within the valley (OA North 2007).
9.1.6 Several larger sheepfold/washfolds were located in an elevated position in the sheltered area around Combe Gill (just to the east of the survey area), which were accessed from the valley floor via the sinuous hollow-way/peat track heading up from Thornythwaite Farm (Site 30; Fig 3; Section 10). Washfolds are larger and more complex sheepfolds, next to water sources, for the purpose of cleaning sheep prior to shearing. Typically, they have a funnelled exit which feeds the sheep through a deep section of beck, ensuring that they are well washed (Winchester 2016).

9.1.7 **Beck Clearance/ Possible Burnt Mound:** a shallow, oval turf-covered mound was identified within enclosed farmland between the River Derwent and Black Sike (Site 21). Situated on the eastern side of an oval, boggy area containing obvious palaeochannels, the feature (10m long by 5m wide and 0.25m high) has a rounded profile with gently sloping sides (Plate 17). The mound was initially identified because of the presence of lush green grass on its top, suggesting rich organic material within its make-up. Analysis of aerial photographs held by the LDNPA identified a second kidney-shaped mound at the northern end of the boggy area (beyond the present study area). On the basis of the position of the Site 21, adjacent to a series of palaeochannels, it could relate to beck clearance (possibly following flooding), or, alternatively, it could be a burnt mound, since these are frequently found in such locations (Nixon 1990; Hodgson 2007).
Burnt mounds are formed of fire-cracked stone, resulting from the heating of water by dropping hot stones into water-filled troughs, often revealed as depressions within or external to the mound. There has been much debate over the function of such sites (eg Barfield and Hodder 1987; Waddell 1998), but it is generally accepted that they had a special purpose, rather than being related to permanent domestic settlement involving cooking food. In Cumbria, burnt mounds have been identified in coastal, valley-bottom and upland contexts (eg Heawood and Huckerby 2002; Appley 2012; Brown 2015; Brown et al in prep). Whilst most appear to relate to Bronze Age activity, one of the series of burnt mounds on the north bank of the River Eden, west of Carlisle, produced a later Neolithic date (Brown et al in prep) and an excavated site on the valley floor in Wasdale contained two burnt mounds associated with an array of postholes and stakeholes, which returned Bronze Age, Iron Age and early medieval radiocarbon dates (OA North 2015).

Given the frequency and ferocity of flooding events, and the fact that sections of the river between Seathwaite and Thornethwaite have been straightened and cleared on numerous historically documented occasions (Johnson 1981; Section 4.2.23), it seems likely that the feature is of relatively recent origin. Beck clearance is widely attested in Borrowdale, as watercourses were routinely cleaned out following floods, and as preventative measures for further inundation of meadowland (ibid).
10. COMMUNICATIONS

10.1 PACKHORSE TRACKS

10.1.1 Communication routes appear in several forms within the Thorneythwaite study area. Within the main Borrowdale valley, packhorse routes occur most frequently, providing access over the fells and linking with wider communication routes. At a localised scale, they also run between farms and areas of industrial activity. Other types of routeways include walled lanes through enclosed land, allowing access onto the fellside to areas of peat cutting, tracks through woods made by charcoal burners, tracks up the fellside, and roads and paths created as a result of various small- and larger-scale industrial activities.

10.1.2 Packhorse Track: a packhorse track (Site 17) extends along the whole length of the valley on its eastern side. Beginning south of Strands Bridge, it follows in a north-east/south-west direction along the lower wooded slopes of Thorneythwaite Fell, just outside and slightly upslope of the enclosed lands, to Seathwaite, at the head of the valley. The trackway follows the break between the valley-bottom lands and the fellside, thus providing access to both; it also links up with trackways on the fellside used for coppicing. The section of the track within the survey area is approximately 1050m in length.

10.1.3 The best surviving section is 300m south of Thorneythwaite Farm and consists of a well-defined 2m-wide trackway, cut slightly into the hillside, with a large retaining wall, up to 1m high, downslope on the north-west side (Plate 18). The track there passes immediately adjacent to the farmstead enclosure (Site 15), where it originally passed through a gateway, now blocked (Site 38). It also crosses a drainage gully by way of a small slab-topped bridge (Site 24), to the south, on High Bank.

Plate 18: Section of the packhorse track, Site 17, looking south-west
10.1.4 The route of the packhorse track is visible on historical mapping, to the east of Black Sike and parallel to what is now the main route down the valley to Seathwaite, to the west of the River Derwent, though it is not depicted on Hetherington’s map of 1759 (Plate 6; CRO (C) DX/294/9), or the tithe map of 1842 (Plate 8; CRO (C) DRC/8/54/4). It does appear, however, on the First Edition OS map, surveyed in 1862 (Plate 9). Whilst its former route is clearly discernible (along the field wall running through the enclosed farmstead (Site 15)), it has been diverted up to Thornythwaite Farm. Along with the blocked gateway (Site 38; Section 10.1.3), this would suggest that it pre-dates the present farmhouse.

10.1.5 Further to the south, and beyond the study area, the packhorse route joins up at Seathwaite with the other north/south route down the valley, which extends towards Styhead Pass. Continuing south from there, a roadway once known as ‘Le Cauce’ was documented in 1294, which was apparently a well-established ‘causey’ by the late thirteenth century (Sutton 1961; Lefebure 1970). Although Sutton (followed presumably by Lefebure) does not provide references to the source document or map, it is certainly feasible that this route was well established by this time. The principal function of the routes in the medieval period was presumably to enable communication between the various dispersed holdings of the abbeys, although they would also have had more localised roles, for the movement of stock onto the fells and as links between valleys (Hindle 1984). The major routeways through the high fells exploited the natural topography, and, prior to documentary records, finds of prehistoric stone axes along the routes of the principal passes and valleys indicate that they were established many thousands of years ago.

10.2 **WOODLAND TRACKWAYS**

10.2.1 The woodland enclosures are criss-crossed by networks of sinuous trackways following the contours around the hill slopes, or very gradually ascending up the slopes. These provided direct routes in or out of the woodland and would have provided access to the dispersed charcoal platforms within the coppice compartments. Although some of the trackways crossing steep slopes were easily identifiable, being terraced, sections where flat ground was crossed were not necessarily deliberately modified and, therefore, were only visible where use had created hollow-ways.

10.2.2 One such trackway (Site 40; Fig 3), which had cut into the hillside at the foot of Thornythwaite Fell, had two junctions with the main packhorse route along the lower slopes of the valley (Site 17). The trackway runs upslope and appeared to zig-zag past a structure (Site 63) near to where it was crossed by a later intake wall. Another trackway (Site 46), some of which remains as part of a footpath, runs upslope across Low Bank and High Bank. Passing between two woodland intakes, it provided access to several charcoal-burning platforms, and joined with another trackway (Site 61) at its northern end. This latter trackway, extending diagonally through the northern end of a woodland intake, also joined with another trackway (Site 60), again running through the northern end of a woodland intake on Low Bank.

10.2.3 The trackways identified relate closely to the charcoal-burning platforms (Section 12) and bear comparison with those identified in valley-side charcoal-producing woodlands in Borrowdale (OA North 2007), and in other parts of Cumbria (Bowden 2000). These frequently extended between woodland intakes, in diagonal lines and zig-zags between charcoal-burning platforms, joining principal trackways and, in turn,
main communication routes \textit{(ibid)}. Often, parts of these trackways were reused as footpaths, but many went out of use and are crossed by later enclosure walls \textit{(ibid)}.

10.2.4 One substantial hollow-way was identified (Site 30), which was a sinuous braided ribbon-like track leading upslope on the northern flank of Thorneythwaite Fell. It ascends from Thorneythwaite Farm and reaches a series of sheepfolds/shelters nestled in Combe Gill, just beyond the intakes (and beyond the present survey area). From there, the modern footpath continues southwards, up Capell Crag. Where it was identified within the present survey area, the section of trackway measured at least 875m in length, and, where well-preserved, it has a V-shaped profile up to 3m wide by 1m deep. Whilst it is likely to have been used as a droveway onto the high fells, the V-shaped profile may also be indicative of use as a peat sledway.

10.2.5 The development of peat in the Lake District is related more to the slope of the ground than the degree of rainfall; it appears to have developed mainly in level areas with only localised formation on the steeper Borrowdale fells (Pearsall and Pennington 1973). Across the valley as a whole, there is only limited evidence for peat-cutting (OA North 2007).

10.2.6 The right to cut peat for fuel (turbary rights) was extremely important to tenants, however, as they relied on peat for their principal supply of domestic fuel; timber and charcoal could be more profitably sold elsewhere and were not extensively used for domestic fires (Winchester 1984). Hutchinson’s description of the valley and its residents in the late eighteenth century provides an illustrative account of the mechanics of peat exploitation in the valley:

‘... procuring of fuel is among their greatest hardships. In most parts of the world this article is sought, either in pits, or on the surface of the earth. Here the inhabitants are obliged to procure it from the tops of mountains, which abounding with mossy grounds, seldom found in the valleys below, supply them with peat. The difficulty lies in conveying them from such immense heights. In doing this, they have recourse to a strange and dangerous expedient, though similar to the modes of conveyance which necessity dictates in other mountainous countries. They make their peat into bundles, and fasten it upon sledges; on each of which a man sits, and guides the machine with his foot down the precipices. We saw many tracks along the sides of mountains, made by these sledges; several of which were four or five hundred feet high, and appeared from the bottom almost perpendicular’ (Hutchinson 1794, 211).
11. INDUSTRY

11.1 INDUSTRIAL FEATURES

11.1.1 The evidence for industrial activity within the study area is fairly limited, comprising an outcrop of the material used in Neolithic axe production, although no actual evidence of extraction was identified, as well as two more recent stone quarries. This certainly contrasts with the more intensive industrial activity identified elsewhere in the valley, such as the graphite and lead mines, the slate quarries of Honister and evidence for iron production (OA North 2007). Whilst the Thorneythwaite study area may not contain mineral resources for industrial exploitation, woodland industries associated with charcoal production are well represented in the study area (Section 12).

11.1.2 Just outside the study area to the north-east is a water mill with a surviving leat; a mill is mentioned in sixteenth-century documents and marked on the First Edition OS as a corn mill (Plate 9; Section 4.2.12). On the Second Edition OS map of 1900 (Fig 2), it is marked as a timber mill, having been taken over as a saw mill for Honister quarry (Sutton 1961).

11.2 AXE FACTORIES

11.2.1 The elevated southern end of the survey area on Thorneythwaite Fell is some 465m north of the outcropping geological band of Group VI tuff on the north-facing flank of Glaramara, where the northernmost of the production sites, associated with the wider Langdale axe factories, were identified (Claris and Quartermaine 1989). Axe-production sites are widely distributed but grouped at intervals near the Seathwaite Fell tuff outcrops, which continue west from Great Langdale to Scafell Pike and north to Glaramara (ibid; Clough and Cummins 1988).

11.2.2 There was clear potential for axe-working sites being exposed within the modern footpath leading downslope north from Glaramara. The footpath had previously been identified in the Borrowdale Valley Survey (OA North 2007) as a potential high-level routeway leading downslope from the axe factories. This may have been similar to other routeways with axe-flaking sites exposed on the footpaths leading away from the heart of the axe-factory complex in Great Langdale, where they are distributed to the east of the Pike o’Stickle (OA North 2005) and to the west along Martcrag Moor (OA North 2009), and also to the south-west of Seafell Pike at Brown Tongue (Clariss and Quartermaine 1989).

11.2.3 The short section of the footpath within the present survey area was c 300m in length. No axe-flaking debitage was identified in the footpath erosion scars, however. Limited peat-hag erosion was identified and investigated on the western flank of Thorneythwaite Fell/Capell Crag, but with negative results. However, there remains a possibility of extant isolated axe-working sites within this part of the survey area, but presently masked by later peat development.

11.3 QUARRYING

11.3.1 Two stone quarries were identified (Sites 26 and 31; Fig 3), which are both adjacent to a sinuous hollow-way (Site 30) extending upslope along the northern flank of Thorneythwaite Fell, and between Thorneythwaite Farm and a series of
sheepfolds/shelters nestled in Combe Gill. Quarry 26 worked a crag adjacent to Combe Gill and is 25m long and in places up to 4m high; there is little associated spoil, which indicates that all or most of the stone product was being used, probably for general building stone. Given the location of the quarry and its accessibility to the farm, it may have provided stone for the building and enclosure boundaries. Quarry 31 (Plate 19) is lower, adjacent to Strands Bridge, and therefore on a good communication route to both Thorneythwaite and nearby Seatoller. It is teardrop-shaped, 15m long by 9m wide and up to 3m deep, set into gentle sloping ground. Whilst there is a slight spoil mound on its eastern side, for the most part all the stone was used and is likely to have supplied general building stone.

Plate 19: The teardrop-shaped quarry pit, Site 31
12. WOODLANDS

12.1 WOODLAND INDUSTRIES

12.1.1 Whilst evidence for the exploitation of mineral resources in the Thorneythwaite study area is lacking compared to that from other parts of Borrowdale (OA North 2007), there is extensive evidence for woodland exploitation. The sites identified relate predominantly to charcoal production and associated trackways (Section 10). In this regard, the charcoal-burning platforms identified corroborate well with the numerous examples previously identified, as is illustrated by their distribution across the valley as a whole (Fig 8).

12.1.2 There is evidence that charcoal was being produced by burning timber in pits from the medieval period. Fourteenth-century radiocarbon dates have been obtained from a pit at Bark House Bank, in the Rusland Valley (LDNPP 2017), which demonstrate that charcoal burning was being undertaken by that time. Whilst it is likely that, in Borrowdale, charcoal production was also taking place in the medieval period, potentially to fuel bloomeries associated with the abbeys, it is best illustrated in relation to industrial-scale metal production, and in Borrowdale this was associated with the arrival of the Company of Mines Royal in the 1560s (Section 4.2.15). Archival sources suggest that, up until the sixteenth century, charcoal-burners were granted access to deadwood and underwood and may have ranged quite freely (Winchester 1987). That such rights were infringed is clearly illustrated by Elizabeth I’s decree of 1564, which abolished bloomsmithies in Furness, ostensibly to protect trees for timber, but possibly to ensure supplies for her own interests (Marshall and Davies-Shiel 1977). Records illustrate that enclosed coppice was being cut in rotation by the sixteenth century (Winchester 1987), and that this change in management was driven by the post-medieval industrial development which characterises the landscape history of many Cumbrian dales.

12.2 COPPICING

12.2.1 Most broad-leaved tree species were coppiced, the process involving cutting a young tree down to a height of about 0.3m above the ground, so that in spring it would send up young shoots which would later grow into straight poles. Post-medieval coppiced woodland was cut at intervals, typically varying between 14 and 25 years (Rackham 2003; Bowden 2000, 22) and, in Cumbria, intervals of more than 20 years were not common (Fell 1908, 106). Most coppice was cut in autumn, although oak was left until May or June, when the sap was rising and the bark could be peeled off.

12.2.2 After cutting, the coppice wood was enclosed to prevent grazing and stock trampling; the enclosure could take a number of different forms such as a fence, hedge or wall. Banks and ditches were also dug and it is not unusual to find old coppice woodland divided up into a series of compartments by the remnants of these banks and ditches running through them (Bowden 2000).

12.3 CHARCOAL-BURNING PLATFORMS

12.3.1 Platforms were essential in providing cleared level bases for the construction of charcoal stacks in the hilly terrain of the Lake District. Many platforms were terraced into hill slopes; these are the most conspicuous and easy to identify as they
appear as anomalous earthworks in comparison to the surrounding sloping ground. Most of the charcoal-burning platforms identified in the Thorneythwaite survey area had well-defined revetment walling, and were all cut into the steep hillside, with the platform downslope.

12.3.2 The majority of the Thorneythwaite property consists of steep valley-side, divided into three large intakes labelled ‘Low Bank’, ‘High Bank’ and ‘Johnny Dale Bank’ on the tithe map of 1842 (Plate 8; Section 8.1.13). These were depicted as both pasture/woodland on the tithe and nineteenth-century OS mapping (Plate 9). The sites identified, within both the Low Bank and High Bank intakes, consisted of 21 circular/oval charcoal-burning platforms (Plate 20; Sites 3-10, 13, 43, 45, 47, 48, and 50-57; Fig 3) spread out in loose clusters. No definitive platforms were identified in the southernmost intake of Johnny Dale Bank, which may be because of its relative steepness and apparent large-scale flood damage along the slope (particularly in the southern half of the intake).

Plate 20: A typical charcoal-burning platform, Site 3

12.3.3 One platform (Site 50) was clearly overlain by a wall foundation (Site 49), which may indicate the relatively recent nature of at least one of the walls sub-dividing High Bank intake. There was no evidence of extant historic coppice stools within the woodland; however, there are veteran oak trees present, interspersed with birch. Numerous holly trees may indicate that holly hags (holly being a winter fodder crop; Meier 2008-16) may have once created the coppice compartments, in addition to the walled sub-divisional boundaries (Kelley 2002; OA North 2012).

12.3.4 The process of charcoal-burning in the post-medieval period involved the construction of a mound on a charcoal-burning platform (Plate 21). First, a stake was driven into the centre of the platform and around this were placed upright lengths of coppice rods or shanklings, which were stacked concentrically to form a flattened dome (Plate 22). The stack would have been sealed with a layer of bracken, dead
leaves and turf, and was finally covered with sieved soil to keep out the air (Bowden 2000, 23). Wicker hurdles (Plate 23) were placed around the stack to control air flow around it and the central stake was then removed to form a flue. Once lit, the flue was plugged and the burning stack would have been constantly observed and maintained during the firing process of up to two days (ibid).

Plate 21: A schematic view of a charcoal-burning mound

Plate 22: A charcoal-burning mound prior to firing
12.3.5 Due to the bulky nature of the felled coppice rods, the process of charcoal production would have required clusters of platforms in each of the coppice hags/woodland enclosures. During the production process, adjacent platforms would have been in different stages of construction, firing and disassembly.

12.3.6 Many of the platforms are located adjacent to sinuous access trackways (Section 10), which were required to transport both raw coppiced wood and then finished charcoal to and from the platforms. Many of the platforms were placed along similar contour lines, suggesting routeways ran along the easiest path across the slope, even if conspicuous trackways were not visible.

12.3.7 Coppice platforms were often placed adjacent to streams, as water was an integral part of the maintenance and quenching processes (Bowden 2000). Whilst none have been identified through this landscape survey, it is likely that temporary charcoal-burners’ huts formerly lay in the environs of the platforms. These were wigwam-like constructions which, when dismantled after the charcoal-burning season, would have left little permanent physical trace when compared with the permanent stone foundations of bark-peelers’ huts (ibid). No bark-peeler’s huts were, however, encountered during the present survey.

12.4 PLANTATIONS

12.4.1 Three small areas of coniferous plantation were identified on the property. These are usually found to be nineteenth-century in date, and often function as wind breaks close to farms. The obvious examples of these are the two small plantations on the valley floor, which were depicted on historical mapping (Sites 22 and 23).
12.4.2 Other plantations depicted on nineteenth-century OS mapping were also identified. A narrow wooded plantation near Borrowdale Mill was depicted on the tithe map (Plate 7; CRO (C) D RC/8/55/4), of which several veteran conifers survive on the western boundary (Site 2). The outer eastern boundary of a portion of a wooded enclosure/pasture at ‘Under Wood’ was also extant, but contained no trees (Site 12). A small knoll in the south-west corner of ‘Low Bank’ was depicted as containing coniferous plantation on the early OS mapping. This had an extant foundation for a boundary wall on the north side (Site 11). It is possible that the knoll was deliberately planted and enclosed, or perhaps more likely, the knoll was enclosed to stop stock wandering in and falling off it. Finally, a circular plantation depicted on the early OS mapping south-east of Thorneythwaite Farm (Plate 8; part of Site 15) was found to consist of coniferous tree stumps within a plantation constructed on top of the earlier enclosed settlement (Section 7).
13. THE DEVELOPMENT OF THE LANDSCAPE

13.1 INTRODUCTION

13.1.1 The Thorneythwaite landholding, whilst relatively limited in size, has produced a corpus of evidence pertaining to a single farm within a wider valley system of landholding. Whilst the documentary and landscape survey of Thorneythwaite illustrates many themes shared with farms within Borrowdale and many other Lakeland valleys, there are also some differences, related mainly to the specifics of its position and settlement history.

13.2 POSSIBLE EARLY ORIGINS

13.2.1 The earliest indication of activity is the enclosed settlement (Site 15), in an elevated position in the lee of an end moraine, a factor which appears to have protected it from the flooding which has destroyed much evidence on the valley floor. It is today very obscured by vegetation and modern dumping, but may have been an enclosed settlement of a type prevalent in the Iron Age and Roman period (Quartermaine and Leech 2012). Such settlements were typically populated by roundhouses, either built into the outer bank or free-standing, although none have been identified at Site 15. There is, however, evidence for a putative rectangular structure (Site 15.10), which raises the possibility that either this settlement was a medieval foundation, or that it had earlier origins but was reused in the medieval period. In either case, given its proximity to the present-day farmhouse, it could have been the forerunner to the present farm, although, without excavation, it is not possible to confirm if there was prehistoric activity at the site. If its origins were prehistoric, it would be the first archaeological indicator of prehistoric or Romano-British occupation within Borrowdale.

13.2.2 On the basis of the limited amount of palaeoenvironmental work undertaken to date in the valley (Birks 1993; Wild et al 2001), it would appear that the earliest major episode of forest clearance was c AD 1000. This derives from a single pollen diagram from a small hollow (50m in diameter) in Johnny’s Wood, on the east-facing hillside to the north-east of Seatoller, and about a 1km north-east of Thorneythwaite Farm. This pollen diagram recorded the vegetation in the area surrounding the site and, therefore, provides a relatively local history rather than of Borrowdale as a whole (Birks 1993). At this site, a mixed deciduous woodland of hazel, birch, alder, with a little lime, elm, ash, oak and yew, developed in the Holocene. Although the diagram is undated, Birks (1993) suggests that in the early medieval period the forest became more open, although it was not completely cleared (ibid). The implication is that there was not a great deal of clearance activity in the area around Johnny’s Wood prior to the medieval period, which may add weight to the suggestion that the settlement was an early medieval or medieval foundation.

13.3 MEDIEVAL EVIDENCE

13.3.1 In terms of its documentary history, Thorneythwaite is first mentioned in the assize rolls of 1230 (Millward and Robinson 1970) and the derivation of its place-name also suggests some antiquity. The presence of a shieling (Site 42) less than 1km from the present farm could suggest that, like Seatoller, this was a summer
encampment pre-dating permanent medieval colonisation of marginal land or waste, or perhaps that it was dependent on Seathwaite Farm.

13.3.2 Both Seatoller and Seathwaite developed into small townships. The evidence that Thornethwaite did not is equivocal, given the presence of a possible second medieval settlement focus associated with the enclosure (Site 15), although this remains to be established. However, the landscape setting of the farm suggests that it was of secondary importance, as might also be suggested by the lack of a ring-garth in this part of the valley, and that its primary field system post-dated those of Seatoller and Seathwaite (Fig 7).

13.3.3 Both Seatoller and Seathwaite were positioned on important communication routes. Thornethwaite is in a similar location, being close to the junction of the western route at Strands Bridge and the packhorse route (Site 17) down the eastern side of the valley. That the packhorse route appears originally to have passed immediately to the west of Site 15, only later being diverted towards the present farmhouse, might suggest it was in use in the medieval period. Possibly due in part to post-medieval mining activities, the main focus of settlement and communication in Borrowdale subsequently developed on land to the west, rather than to the east of the River Derwent. This means that Thornethwaite Farm became relatively isolated, on what became the ‘wrong’ side of the river.

13.4 POST-MEDIEVAL THORNEYTHWAITE

13.4.1 Hetherington’s map of 1759 (CRO (C) DX/294/9) shows that Thornethwaite Farmhouse was the abode of one Daniel Jopson, father of John Jopson, farmer at Seathwaite. The documentary evidence illustrates that tenancy, if not always ownership, of Thornethwaite, has long been held by the farming families recorded in the tenants’ lists of Fountains and Furness Abbeys. Alongside others, the names of Byrkehead (Birkett), Fyssher (Fisher) and Jopson have long been associated with Borrowdale. The tithe maps of the 1840s show that Abraham Fisher, the local JP, lived at Thornethwaite and held much of the land in the valley, rented to tenants (eg CRO (C) RC/8/55/4), the extent of his holdings, including Thornethwaite and lands and tenements at Seatoller and Stonethwaite, being illustrated. Various plantations/small areas of woodland within the rented holdings appear to have been retained by Fisher, and seemingly provided income from coppicing, and evidence for charcoal production has been identified on the Thornethwaite estate (Section 12). Fisher’s land was sold in the 1860s following his death (CRO (W) DMG/80/1); it was sold again in the 1890s to the Wasdale Hall estate (CRO (W) DMG/236/1), which was, at that time, planning to build a road over Sty Head. Whilst there are gaps in the historical record, it seems that the Jopson family retained the Thornethwaite tenancy until at least 1923 (Section 5.2.13).

13.4.2 The majority of the sites identified by the landscape survey were charcoal-burning platforms, or features relating to woodland management, on the steep slopes at the eastern extent of the property, and these are likely to be post-medieval. There are also substantial numbers of sites related to communication, such as hollow-ways, trackways and bridges. Charcoal-burning platforms are widespread in Borrowdale and survive mostly within enclosed woodlands. Whilst the majority of medieval charcoal-making would have been relatively small-scale, records indicate that enclosed coppice was being cut in rotation by the sixteenth century (Winchester 1987), and that this change in management was driven by the post-medieval
industrial development characterised in the region by the arrival of the Mines Royal
(Section 4.2.16). Woodlands in Langstrath and Stonethwaite, and many other parts
of Borrowdale, were being used for post-medieval charcoal production (OA North
2007). The documentary and survey evidence relating to the Thorneythwaite
landscape survey now provides an important addition to the picture, filling in a gap
in the previously known distribution of sites in the valley.
14. CONDITION SURVEY AND MANAGEMENT RECOMMENDATIONS

14.1 INTRODUCTION
14.1.1 This section provides a general overview of the management of the archaeological resource within the Thorneythwaite landholding, and highlights any positive management required to conserve and protect the local historic environment. These recommendations should be viewed in conjunction with the results of the earlier Borrowdale Survey (OA North 2007).

14.2 CONDITION SURVEY
14.2.1 The gazetteer (Appendix 2) sets out the specific sites identified, together with their significance, condition and the obvious potential threats to their current states of preservation. Whilst specific types of site have different kinds of associated threats, two main issues were identified which require broad-scale monitoring and possible remedial action.

14.2.2 Bracken: the most significant threat to the preservation of the sites identified is the unchecked growth of bracken on the steep fellside within the eastern part of the study area, where many charcoal platforms and associated trackways have been identified (Sections 10 and 12). Bracken depends mainly on the growth of underground rhizomes to spread, and these can cause significant damage to subsurface and upstanding archaeological remains. Bracken growth should be monitored and removed as per wider landscape management plans, and with due regard for the conservation and protection of archaeological sites.

14.2.3 Erosion: the potential for erosion is of significance, in particular with regard to the numerous paths and trackways identified on the fellside (Section 10). Erosion can be caused by rainwater running off the fell along lines of least resistance, such as footpaths, and to a lesser extent by footfall on what is open-access fellside. Whilst this is not deemed to be a significant threat to the archaeological resource, these areas should be monitored and repaired as required, with due regard for the conservation and protection of archaeological remains.

14.3 MANAGEMENT RECOMMENDATIONS
14.3.1 Archaeological Site Management Priorities: in terms of archaeological site management, the most significant site identified is the settlement enclosure (Site 15). Many similar enclosures identified in the county have been designated as Scheduled Monuments. Whilst this site is not designated, scheduling legislation indicates that undesignated heritage assets of archaeological interest should be subject to the policies reserved for designated heritage assets if they are of equivalent significance to Scheduled Monuments (DCLG 2012, section 12.132; DCMS 2013). In terms of management, this means that the site should be treated as if it were a Scheduled Monument, and every effort should be made to regulate potentially harmful interventions and promote beneficial stewardship by effective land management.

14.3.2 There are several issues regarding the future management of the enclosure site (Site 15). It straddles the boundary of the land owned by the National Trust, being
partially within improved fields owned by Thorneythwaite Farmhouse; the owners of Thorneythwaite should therefore be made aware of the site’s archaeological significance and the associated conservation management issues.

14.3.3 The portion of the site owned by the National Trust is divided between two fields, which have different management issues. The field to the north, which was an enclosed plantation until the 1950s, contains a possible building platform and an enclosure boundary, both of which have been damaged by historical tree planting and more recent dumping; the latter is presently masking possible archaeological features. Given that the area was a plantation and remains agriculturally unimproved, any features may be relatively well-preserved. To improve the condition of the site, and to ascertain the survival and nature of these features, it is recommended that the modern dumped material be carefully removed, under archaeological supervision, to the top of archaeologically significant levels. Any surviving features should then be fully recorded, and investigated further if deemed necessary and appropriate by the National Trust.

14.3.4 The field to the south of the present boundary wall is also unimproved, with many small sections of sub-divisional walling and possible structural elements evident, but these are denuded and masked by current vegetation cover. Bracken growth should be managed and removed where necessary, in order to protect and further define extant archaeological remains. Presently masked archaeological features may be revealed by bracken removal and should be subject to further archaeological recording.

14.3.5 **Charcoal-burning Platforms:** the extensive distribution of charcoal-burning platforms on the eastern fellside, together with associated trackways, is of significance, as it ties in with the current understanding of post-medieval Borrowdale and woodland exploitation for industry at a regional scale (Marshall and Davies Shiel 1977; Bowden 2000, 22). These monuments are situated in what is presently scrubby open woodland and includes expansive areas of bracken. Their survival is therefore threatened by bracken growth, which should be managed and removed where necessary. Presently masked archaeological features may be revealed by bracken removal and should be subject to archaeological recording. Future forestry, including felling, clearance and additional tree planting, should also take account of the archaeological remains, which should be recorded where necessary and protected from forestry operations.

14.3.6 **Shieling site:** the probable shieling site (Site 42) identified on Johnny Dale Bank is of significance, as it has the potential to add to our understanding of the medieval landscape history of Borrowdale, and is a significant addition to such sites identified at a regional scale. Whilst the site is currently in fair condition, the threat of bracken growth should be considered, and its condition should be the subject of monitoring. Where time and resources permit, this feature should be subject to more detailed archaeological assessment. The medieval Regional Research Agenda notes the need for the archaeological assessment of medieval upland settlement remains as, at present, the understanding of shielings is dominated by historical studies (Newman and Newman 2007, 98).

14.3.7 **Other Archaeological Sites:** every effort should be made to afford an appropriate level of care to all other archaeological sites in the study area, which contains a range of sites typical of the Lakeland valleys, many associated with agricultural land management and communication routes. The majority of these sites are of local/low
local significance and are in fair condition. However, every effort should be made to keep them in good order and retain them as features in the landscape, irrespective of their legal status. Archaeological sites listed on the National Trust Sites and Monuments Record should be regularly monitored to check for potential threats or impacts.

14.3.8 Additional archaeological mitigation or research, in the form of survey or excavation, should be required ahead of any activity that is potentially destructive or involves disturbance of archaeologically sensitive areas. No materials that constitute part of an archaeological site should be removed. Future activities, such as stone picking for footpath renewal, tree-planting and agricultural land management, should include consideration of the potential impact on archaeological remains.

14.3.9 Landscape Conservation: strategies to conserve and maintain the distinctive characteristics of the three separate landscape zones across the study area (lowland pasture and meadow, fellside intake and high fell) should be devised. The term ‘distinctive characteristics’ is used here to refer to criteria such as boundary type, vegetation type and agricultural use.

14.3.10 The existing stone walls, and other boundaries within the study area, are integral parts of the local historic landscape and in some cases are of great archaeological significance. For this reason, long-term management of the farming landscape should aim to avoid further boundary loss and perpetuate the separate, and enclosed, character of the local landscape. Walls and hedges that are in stock-proof or near stock-proof condition should be maintained as such, even if they become agriculturally redundant, and if in a partial state of deterioration should be considered for restoration as and when resources become available.

14.3.11 Collapsed walls need not be rebuilt but should not be considered as sources of building material for any planned rebuilding elsewhere. Fencing along the same line of a wall, or hedge bank, should be set away from them and not driven through the remains themselves. Fencing should not replace walls and hedges, or sections of walls and hedges, which can be reinstated with available material and resources.
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