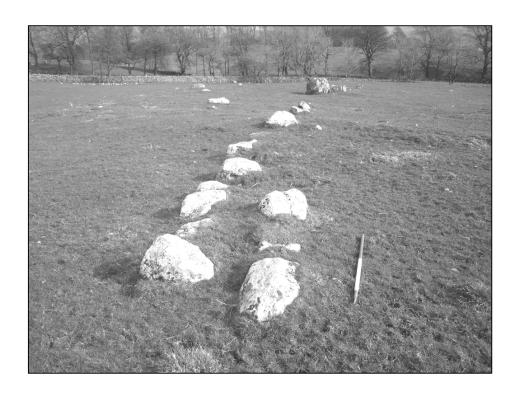
ARCHAEOLOGICAL SURVEY, WEST OF TARNS LANE, THRESHFIELD, NORTH YORKSHIRE



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EXECUTIVE SUMMARY

In November 2011, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Stuart Brown and Vicky Fattorini of the Tarn Lane Survey Project Group (TLSPG) to undertake a detailed measured archaeological survey of an area of pasture to the west of Tarns Lane, Threshfield, in Wharfedale, North Yorkshire (NGR SD 9861 6294 centred). The survey area, covering c.17ha, contained part of the very rich and complex archaeological landscape which survives locally as well preserved earthworks, and the work was required to contribute to the understanding of this landscape and to augment other work being undertaken by the TLSPG.

The project involved the production of a metrically accurate hachured plan of the earthworks within the survey area, a corresponding photographic survey of the main identified elements, the collation of available documentary research (using material previously gathered together by the TLSPG), and the production of a descriptive/interpretative archive report. Additional information was also collected for the surrounding area, in order to better place the survey area within its archaeological, historical and landscape context.

The survey has recorded a small but significant part of a complex archaeological landscape which covers at least three adjacent townships and which is as important as the far better-known examples to the north of Grassington. Initial interpretation would suggest that although fragmentary evidence for prehistoric and Roman-British activity is present, much of this may have been removed by early medieval to early post-medieval agricultural activity. An extensive early arable field system, possibly pre-Conquest in date and associated with settlement at or around Linton, has been identified, bisected by the boundary suggested to separate the medieval townships of Threshfield and Linton. Part of this arable field system may also have extended to the north-east, close to Threshfield. There are other earthwork boundaries within the survey area which extend east beyond Tarns Lane, and whose relationship to the presumed medieval township boundary is as yet unclear.

The northern edge of the early arable field system is partly overlain by a complex area of conjoined enclosures associated with the 'Pasture of Threshfield' since at least the 13th century. Within this area, there is earthwork evidence for the management and rearing of sheep, perhaps a bercary run by Fountains Abbey, but also for the presence of other stock, including embanked enclosures which may well relate to a stud fold recorded in the mid 13th century. The pasturing and management of stock, including sheep, continued into the early 16th century, but seems to have been accompanied by the conversion of some of the enclosures to small arable fields. The presence of possible early post-medieval lime kilns within the survey area could also be associated with this latter activity. Many of the earlier boundaries and patterns of land use were probably only finally removed during the 18th century, and the survey area preserves evidence for a possible 18th century field boundary that was laid out but never completed.

The report also suggests that further detailed measured and other investigative survey work, together with a greater co-operation between all fieldworkers currently active in Upper Wharfedale, would significantly enhance the understanding of the historic development of the survey area. This has the potential to produce a piece of work that would be of national, rather than regional, significance.

1 INTRODUCTION

Reasons and Circumstances for the Project

- In November 2011, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Stuart Brown and Vicky Fattorini of the Tarn Lane Survey Project Group (TLSPG) to undertake a detailed measured archaeological survey of an area of pasture to the west of Tarns Lane, Threshfield, in Wharfedale, North Yorkshire (NGR SD 9861 6294 centred) (see figure 1). The survey area contained part of the very rich and complex archaeological landscape which survives locally as well preserved earthworks, and the work was required to contribute to the understanding of this landscape and to augment other work being undertaken by the TLSPG. The survey was primarily funded by the TLSPG (through a grant from Tarmac Ltd.), with additional funds and logistical support coming from the Yorkshire Dales National Park Authority (YDNPA).
- 1.2 The scope of the survey work was defined by an EDAS methods statement, which was drawn up following discussions with the YDNPA and the TLSPG (see Appendix 3). The project involved the production of a metrically accurate hachured plan of the earthworks within the survey area, a corresponding photographic survey of the identified elements, the collation of documentary research (primarily using material previously gathered together by the TLSPG), and the production of a descriptive/interpretative archive report. Additional information was also collected for the surrounding area, in order to better place the survey area within its archaeological, historical and landscape context.

Survey Area Location and Description

- 1.3 The survey area lies on the west side of the B6265 Threshfield to Cracoe road (Tarns Lane) and between two tracks both called Moor Lane, some 1.5km to the south-west and west of Threshfield and Linton respectively (see figure 1). The area allocated for the archaeological survey covered a total of 17.13 hectares, formed wholly by pasture used by both cattle and sheep at the time of the survey (see figure 2). The survey area forms part of the Tofts Farm landholding and is owned and farmed by the Dean family.
- 1.4 The south-western corner of the survey area is defined by Millstone Gill, a deep steep-sided valley containing a tributary of the Eller Beck, while the western side is formed by a drystone wall separating the survey area from the similarly-sized field to the immediate west; towards the northern end of the west side, the wall is replaced by a post and wire fence. The northern boundary of the survey area is represented by a drystone wall on the south side of the northern Moor Lane, and the eastern side is the wall on the west side of Tarns Lane.
- 1.5 The survey area has an undulating landform. As has already been noted, the steep-sided flat-bottomed Millstone Gill lies in the south-west corner (plate 1). Moving slightly north-east, a relatively level plateau area is reached (with a maximum elevation of c.225m AOD), placed between Millstone Gill and a second, smaller, natural valley on a north-west/south-east alignment. Beyond this second valley, to the north, there is a second 'plateau', again set at c.225m AOD, before the ground surface begins to fall away to the north-east in a series of broad terraces. To the north of, and on the eastern fringe of, these terraces, the landform essentially consists of several broad, shallow, flat-bottomed valleys separated by areas of higher ground (plate 2). The lowest part of the survey area, at an elevation of c.200m AOD, is placed close to the junction of the northern Moor

Lane and Tarns Lane. There are surface limestone boulders of varying size scattered across the whole of the survey area, but the greatest concentration are found within the aforementioned area of alternating broad, shallow, flat-bottomed valleys and higher ground.

- 1.6 The underlying geology of the survey area is Millstone Grit overlain by glacialfluvial deposits the Devensian sand and of (http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The soils are predominantly a Cambic stagnohumic gley soil of the Wilcocks I Association, a slowly permeable seasonally waterlogged fine loam (Soil Survey 1983). The principal land use with the survey area is agriculture, with the whole given over to pasture.
- 1.7 The whole of the survey area lies within the Yorkshire Dales National Park, but contains no features that are subject to any statutory designations or protection. The majority of the survey area lies within the historic township of Threshfield, although the south-east corner is within Linton township.

Aims and Objectives of the Project

- 1.8 The aim of the project was to produce a detailed analytical archaeological and historical survey of the earthworks within the survey area, in order to contribute to the future management and understanding of this landscape, and to augment other works currently being undertaken by the TLSPG.
- 1.9 In detail, the specific objectives were:
 - to provide a Level 3 archaeological survey and investigation of the earthworks and related features within the primary area of visible remains, comprising a metrically accurate hachured plan and descriptive/interpretative report;
 - to augment the existing local history initiative;
 - to act as a spur for further archaeological survey work in the area.

Survey Methodologies

1.10 As noted above, the scope of the project was defined by an EDAS methods statement (see Appendix 3). The detailed topographical survey corresponds to a Level 3 enhanced and integrated survey as defined by English Heritage and elsewhere (English Heritage 2007, 23-24; Bowden 1999, 78-80 & 189-193).

Phase 1 desk-top survey

1.11 A desk-top survey was carried out to collate information relating to the known archaeological and historical landscape of the survey area. A considerable body of relevant unpublished work around both Threshfield and Linton has been undertaken by members of the TLSPG, principally Stuart Brown and Vicky Fattorini, and this was kindly supplied to EDAS for incorporation into the survey report. The desk-top survey also drew on information previously published by other fieldworkers in the Upper Wharfedale area, and other relevant information, including aerial photographs and records of past archaeological activity, was obtained from the YDNPA Historic Environment Record (HER). A full list of the sources consulted is given in the Bibliography below (Chapter 6).

Phase 2 detailed site survey

- 1.12 A detailed 'Level 3' survey of the whole of the survey area was carried out to record the position and form of all surviving features of archaeological and/or historical interest.
- 1.13 A divorced survey was undertaken using Trimble 5600 Total Station equipment. Sufficient information was gathered to allow the survey area to be readily located through the use of surviving structures, fences, walls, water courses and other topographical features. The survey recorded the ground level position of all structures, wall remnants and revetments, earthworks, water courses, paths, stone and rubble scatters, ironwork, fences, hedges and other boundary features, and any other features considered to be of archaeological or historical interest. Given the complexity of the surviving earthworks within the survey area, it was decided not to attempt to plot all visible surface stones, but recommendations are made in the Conclusions below (Chapter 5) for further work. Control points were observed through trigonometric intersection from survey stations on a traverse around and through the survey area - the maximum error in the closure of the traverse was less than +/- 25mm, and one permanent survey marker was left in position by the gate in the western boundary of the survey area. The locations, descriptions and values of the Bench Marks and control points are stated in the final survey data. The site survey was then integrated into the Ordnance Survey (OS) national grid by resection to points of known co-ordinates.
- 1.14 After reviewing the field data, it was decided to plot the whole of the survey area at a scale of 1:1000, with the central part (approximately half the total area of survey), containing the more complex and higher density of earthworks plotted at 1:500 scale. The field data was plotted onto permatrace polyester film for checking and graphical completion in the field a new set of hand-enhanced field drawings were then produced.
- 1.15 Each significant identified feature or component was also photographically recorded in colour using a digital camera with a 10 megapixel resolution. English Heritage photographic guidelines were followed (English Heritage 2007, 14) and each photograph was generally provided with a scale. More general digital photographs were also taken showing the landscape context of the survey area and of specific features. All photographs have been clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and have been cross referenced to digital files and a photographic catalogue.
- 1.16 The EDM machine surveys and subsequent hand-enhancement were undertaken at intervals between February and April 2012, in generally very good weather conditions and when the grass was cropped short by sheep. The field surveys are presented as wet-ink interpretative hachure plans using conventions analogous to those used by English Heritage (1999; 2007, 31-35). Larger scale plans, at 1:10,000 and 1:2,500 scale, have been used to put the survey area into context using Ordnance Survey map bases.

Phase 3 survey report and archive

1.17 An analytical archive field survey report for the survey area has been produced, based on the results of the fieldwork. This report assembles and summarises the available evidence for the survey area in an ordered form, synthesises the data, comments on the quality and reliability of the evidence, and how it might need to be supplemented by further fieldwork or desk-based research. The report also

- contains various appendices, including photographic registers and catalogues, and a copy of the EDAS methods statement, together with details of any departures from that design.
- 1.18 An archive of material, comprising paper, magnetic and plastic media, relating to the project has been ordered and indexed according to the standards set by English Heritage. This was deposited with the YDNPA HER at the end of the project (EDAS site code TLT 12: YDNPA HER Event EYD 7844).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Summary of Previous Research and Investigation

The upper Wharfedale area

- 2.1 The wider area of upper Wharfedale including Linton and Threshfield has been subject to previous research and investigation for a considerable period of time, and remains the subject of ongoing research by various fieldworkers.
- 2.2 The growth of tourism to the Grassington area in the later 19th century resulted in an increased interest in the archaeology of the area. Much of the pioneering archaeological work was carried out by local antiquaries, the Revd. Bailey J Harker (1869; 1890) and John Crowther. Harker was a native of Grassington, and is credited with modern rediscovery of the prehistoric enclosures at Far Gregory in Grass Wood in 1870 (Crowther 1930, 3-5). Crowther was born in Bradford, but he first moved to Grassington in the 1880s and, through his work as a chemist, developed a keen interest in the local flora, fauna and archaeology. As a Wesleyan Methodist, he also had a keen sense of social and religious responsibility; amongst other activities, he founded a "Boys' Research Society" where the members were encouraged to search for prehistoric artefacts, classify and display them, telling their story in 'simple language' (Crowther 1930, xiv).
- 2.3 The 'Upper Wharfedale Exploration Committee' was formed in 1892 as a sub-committee of the Yorkshire Geological Society, to raise subscriptions and commence archaeological excavations. These excavations appear to have been concentrated in two areas. In the summer of 1892, Crowther and Harker opened up what was described as a 'tumulus' at Borrans Camp in High Close Pasture. Ernest Speight, a cousin of the well-known local historian Harry Speight, also carried out further excavations within the field systems at Lea Green and on Conistone Pastures, and also at Park Stile within Grass Wood (Speight 1902, 35; Crowther 1920, 2-3 & 76; Crowther 1930, xxiii-xiv). The Upper Wharfedale Exploration Committee ceased to function in 1894 and no further work was undertaken, but the 'Wharfedale Antiquarian Society' was subsequently formed by John Crowther in January 1903 (Crowther 1930, xvii).
- 2.4 In the early 20th century, a number of articles appeared which began to place the local archaeology within the wider context of the historic landscape development of the area. The well preserved and extensive multi-period field systems to the north of Grassington attracted much attention (e.g. Curwen 1928; Raistrick & Chapman 1929), and in 1932 they were the subject of one of the earliest archaeological surveys carried out in the region by O G S Crawford (Ottaway 2003, 129). Raistrick and Chapman's work on the lynchet field systems in Upper Wharfedale covered the area between Linton and Grassington (Raistrick & Chapman 1929, 169). Crowther also included an earthwork plan of the enclosures at Sweet Side (described as 'British-Romano Camps') in his 1930 book on Grass Wood (Crowther 1930, 66), and a wider area was later shown by Raistrick (1936, 167). Raistrick also published a study of Rylstone township, to the south-west of Linton, together with an account of the earthworks that survived in 1965 (Raistrick 1967, 24-40).
- 2.5 A recent overview of archaeological work on the Neolithic and Bronze Ages in Yorkshire included an earthwork survey of field systems in the High Close and Sweet Side areas (Manby, King & Vyner 2003, 102). Other recently published fieldwork by Moorhouse (2003) and Beaumont (2006) in Upper Wharfedale stress

the importance of the medieval township boundaries in the formation of the field systems. For example, within Kettlewell township, the medieval field system perpetuated an earlier co-axial field layout, whereas in Conistone township to the south, a virtually uninterrupted system of contour lynchets overlying the earlier fields runs up to the Grassington boundary (Moorhouse 2003, 318). Moorhouse's fieldwork has been accompanied by extensive documentary research, which has led to the identification and interpretation of elements of the medieval landscape in particular (Moorhouse 2003), although the documentary evidence on which the interpretation of the recorded earthworks is based awaits full publication. To the north-west of Threshfield, and to the north of Grassington, other earthwork survey and documentary research has been accompanied by excavation (Martlew 2004; Martlew 2010; Martlew 2011; http://www.ydlrt.co.uk/chw_main/chw_main.html). An archaeological survey of Grass Wood, to the north of Grassington, was also undertaken by the current authors in 2006 (Dennison & Richardson 2007).

The EDAS survey area

- 2.6 Despite the longstanding and well-established history of archaeological and landscape research in upper Wharfedale, the area on the west side of Tarns Lane does not appear to have been subject to any detailed previous survey. However, a note in the Yorkshire Archaeological Journal for 1965 suggests that Raistrick may have surveyed the site as part of the wider landscape in 1961 (Ramm 1965, 333); this survey, if it exists, has not been identified or located, and it may be that it was just a reconnaissance visit in association with a planned but never fully implemented RCHME inventory covering parts of Craven (Robert White, YDNPA, pers. comm.).
- 2.7 During the course of the EDAS survey work, it became clear that a great deal of documentary research and fieldwork had been carried out around the Threshfield and Linton areas by members of the TLSPG, as part of Adult Education classes run by Stephen Moorhouse during the 1980s and 1990s. The vast bulk of this research remains unpublished, but the current survey has included as much of this relevant and valuable material as possible, kindly supplied by members of the TLSPG.
- 2.8 Both the YDNPA HER and English Heritage's National Monuments Record only record one site within the survey area, a well defined system of terraced Celtic fields situated on a south-facing slope with no evidence of any associated settlement (HER site MYD4109; NMR site SD96SE9). This record coincides with some of the surveyed earthworks (Sites 1 and 2 below). A series of superb aerial photographs taken by Derrick Riley in June 1977 illustrate the exceptional state of preservation of the earthworks within and around the survey area (DNR 1057/13, 1060/15-16 & 1060/19-22) (see figure 3). These earthworks were mapped from these and other aerial photographs as part of the RCHME Yorkshire Dales Mapping Project in 1995 (Horne & MacLeod 1995) (see figure 4); the transcription plots now form part of the YDNPA HER.
- 2.9 A 1:50 detailed measured survey of a possible Neolithic long mound or cairn in the field immediately to the west of the survey area was undertaken by Yvonne Luke and Shaun Richardson, as part of ongoing private research on such landscape features across the Yorkshire Dales (Luke 2011; Luke 2013), during the course of the EDAS survey work. Part of the field to the immediate east of Tarns Lane, and directly opposite the EDAS survey area, was also surveyed by Stephen Moorhouse in c.2005; an interim report was prepared (Moorhouse c.2006) but the survey has never been completed due to illness.

The Prehistoric and Romano-British Periods

- 2.10 It is not the purpose of this survey report to provide an exhaustive history of the development of the Threshfield and Linton areas through time, nor was this possible within the parameters of the project. Therefore, the following sections concentrate on the development of the local landscape, in particular field systems, and how their interpretation has changed through time.
- Writing in 1929, Raistrick and Chapman noted that Upper Wharfedale is excavated through the Yoredale series of alternating limestones, shales and sandstones, into the Great Scar Limestone, the lowest member of the Carboniferous series (Raistrick & Chapman 1929). This lower limestone forms very imposing and massive scars along the valley sides, above which the fells rise in a series of steps and scars corresponding with the limestone and sandstone outcrops. The valley bottom is occupied by a series of glacial lake flats and moraines, the moraines providing dry crossing points and village sites throughout the upper dale; palaeobotanical research indicates that peat began to form on Threshfield Moor prior to 8,500 BC (King & Simpson 2011, 23).
- 2.12 Although it was known that local caves had provided evidence for human activity and occupation in the area from the early Neolithic period (c.3000 BC) onwards, in the late 1920s the earliest landscape elements to survive as earthworks were thought to be Bronze Age (2500-500 BC) barrows or cairns, including a group near Netherside Hall, Threshfield, with larger barrows associated with 'Celtic lynchet' earthworks to the north of Grassington (Raistrick & Chapman 1929, 1665-166). More recent fieldwork has recognised an example of the latter, within High Close, Grassington, as Bronze Age, and therefore raised the question of identifying its contemporary landscape and also the late Neolithic context from which it involved (Martlew 2011, 64-65). The late Neolithic context is also starting to be addressed by Yvonne Luke, as part of ongoing private research on possible Neolithic long mounds and cairns and their landscape settings across the Yorkshire Dales (Luke 2011; Luke 2013). As was noted above, a 1:50 detailed measured survey of a possible Neolithic long mound or cairn in the field immediately to the west of the survey area was undertaken in 2012 by Luke and Richardson. Luke's work provides a discussion of how such features can be identified, including a detailed consideration of how many other landscape elements might be mistaken for them, and also assesses surveyed examples in terms of their likelihood of representing a Neolithic feature based on a broad range of criteria. The earthwork at Threshfield was graded as being a 'possible' example, principally because the complexity of the local landscape is such that there are several other ways in which the earthwork could have been formed, as opposed to more isolated examples for which it is difficult to suggest alternative origins (Luke 2013, 58-60).
- 2.13 In terms of the communities, field systems and wider landscapes with which prehistoric cairns and mounds were associated, Raistrick and Chapman (1929, 168 & 181) made a distinction between strip lynchets (see below) and what they termed 'rectangular lynchets', like those surviving extensively at Lea Green, Grassington. They suggested that the latter, generally occurring at higher levels, were formed and used between the early Iron Age (c.400 BC) and the early 4th century A.D. Slightly later, Raistrick (1938, 16) again suggested that these types of lynchets remained occupied throughout the Romano-British period and that, although they occurred mainly to the north of Grassington, there were smaller areas in Linton and Threshfield townships. An accompanying sketch map (1938, 19) appears to indicate 'Iron age cultivations' in the general location of the current survey area, with 'Bronze age sites' marked to the immediate south-west. The field

systems at High Close, north of Grassington, are currently being resurveyed (Martlew 2011), while nearby at Chapel House Wood, the recorded evidence suggests an agricultural estate that pre-dates the establishment of the present boundary between the townships of Kilnsey and Threshfield, with a well-defined route between arable fields on the lower dale sides and through small fields to enclosed upland grazing and rough pasture. The earliest phases of the settlement may be late Iron Age, but it may also have been in existence in the early medieval period, although not necessarily continuously occupied (Martlew 2011, 67-68).

2.14 Closer to the EDAS survey area, fieldwork around the former shoreline of Linton Tarn has located a number of settlement sites containing circular huts, while other features within Linton township, for example, the township meeting place at Stickhaw Hill, may also possibly derive from a much older administrative unit (Moorhouse 2003, 305 & 357). To the immediate east of Tarns Lane, Moorhouse (c.2006) recorded a curvilinear raised settlement, suggested to contain wellpreserved roundhouses of probable Iron Age date (500 BC-AD 71). However, this was not the earliest phase recorded, as it was stated to overlie north-west/southeast aligned linear scarps to the north, the significance of which was not clear. Again to the east of Tarns Lane, to the east of the above possible Iron Age settlement, Moorhouse (c.2006) also recorded a discrete area of both rectangular and circular timber buildings suggested to be a farmstead of probable Romano-British date (AD 43-419). Further south-east, another suggested Romano-British/Anglian farm was identified, overlain by a bank aligned roughly east-west, which formed a major boundary to the medieval or earlier field system. Finally, to the south of a suggested medieval sheephouse complex identified by Moorhouse (c.2006), there is another possible 'roundhouse' earthwork, perhaps associated with an adjacent trackway (Stuart Brown & Vicky Fattorini, TLSPG, pers. comm.).

The Early Medieval and Medieval Periods

- Moorhouse (2008, 35) states that ongoing field survey is identifying continuity in 2.15 the landscape of Upper Wharfedale, and that in particular there is a not such a gap between the broadly post-Roman period and the Norman Conquest as is sometimes suggested. On both sides of Upper Wharfedale, including the area within the redundant medieval township of Wibberton near Starbotton, a widespread settlement form has been identified, comprising a square to rectangular farm enclosure found at the top of the lower valley slopes, with co-axial type boundaries running down from the settlements. Their regular spacing implies not only some degree of planning over a large area, but also a hierarchical administrative structure and a large population to occupy and work them. The date of these features is uncertain, but they are suggested to belong to the period between the 5th and 11th centuries (Moorhouse 2003, 310; Moorhouse 2008, 35-37). In relation to the EDAS Tarns Lane survey area, it is further suggested (Moorhouse c.2006) that, as the area of Threshfield Pasture (see below) has been pasture since at least the 13th century, the presence of large long narrow terraced fields including some ridge and furrow demonstrates that at some period prior to this it was covered by an extensive arable field system. Based on the present evidence, the most likely date for this field system was proposed to be somewhere between the mid 5th century and the later 11th century.
- 2.16 Within the same period, earlier writers had focused on the extensive system of strip lynchets surviving within Upper Wharfedale. Raistrick and Chapman (1929, 173-181) noted that their distribution lay between the alluvial flats and the base of the scar formed by the outcrops of the Great Scar Limestone, and that they were restricted to the north-east side of the valley. Many of the lynchets ran parallel with

the contours but others ran at right angles, and were apparently governed by the nature of the ground. They varied in size and extent but were generally 15 yards wide and 200-400 yards long, although some reached up to 800 yards in length. Each has a steep face along the front, and a levelled top. The steep face often showed signs of a rough masonry filling of boulders, not so much a true retaining wall but rather a reinforced turf bank. There was evidence that lynchet groups were surrounded by long lengths and occasional complete boundaries formed by a shallow ditch, a high bank of earth and rocks, and a row of thorns on top of the bank. The establishment of these lynchet systems was suggested to date from the 7th to the 9th centuries, and this is supported by more recent works in other disciplines such as pollen analysis (Moorhouse 2003, 312).

- 2.17 Although both Linton and Threshfield are first recorded in the 11th century Domesday Survey, both settlements have pre-Conquest origins. Raistrick and Chapman (1929, 181) and later Raistrick individually (1938, 16-18) suggested that there was a close correlation between the areas of assessed plough lands of the Domesday Survey (two carucates in the case of Linton, six carucates for Threshfield) and the surviving areas of strip lynchets. More recently, the relationship of the lynchet systems to medieval township boundaries in Upper Wharfedale has also been raised. For example, Kettlewell township spans the dale, and the lines of the co-axial and later field boundaries run right across the river's floodplain. In the adjoining township to the south, Coniston, the field system is completely different. It comprises a series of contour lynchets virtually uninterrupted from the Kettlewell boundary to the north to the Grassington boundary to the south, two boundary lines that can be demonstrated to have been present in the 12th century and which are probably significantly earlier. In Littondale, there are examples where blocks of contour lynchets are governed by township boundaries, and so could not have been created prior to the township boundary being laid down, whereas in other areas, township boundaries appear to respect existing field systems (Robert White, YDNPA pers. comm.). What is presently uncertain is who or what lay behind the decision to perpetuate the form of the earlier systems into the medieval and later periods, as at Kettlewell, or to lay them out afresh as contour strip lynchets over the earlier system which runs against the contours, as at Appletreewick, Coniston and Linton (Moorhouse 2003, 318-319). Other significant questions include whether the division of farmland is a response to the perceived availability of cultivable land, whether it is influenced by levels of contemporary agricultural technology, or whether it may arise from considerations of ownership or political pressures (Martlew 2011, 66).
- The importance of understanding contemporary township boundaries is 2.18 emphasised by Moorhouse, who rightly stresses that the medieval landscape can only be properly understood through the economic and physical units by which it was organised, managed and administered, and that the township forms the unit on which all others (for example, manor, parish, monastic estates) were built (Moorhouse 2003 & 2008). The medieval township structure for Upper Wharfedale has been studied and partly published; for example, the former medieval divisions within the adjoining modern townships of Cracoe and Thorpe have been identified, and related to the surviving well preserved earthwork field systems (Moorhouse 2003, 299-300; Moorhouse 2008, 32). In relation to the EDAS Tarns Lane survey area, it has been previously noted by Moorhouse (c.2006, figure 1) that the medieval township boundary between Threshfield and Linton runs diagonally from north-east to south-west across the field to the immediate east of Tarns Lane, and then south-west along the west side of Tarns Lane. It then crosses Tarns Lane. runs across the very southern end of the EDAS survey area, and then along the southern boundary of the survey area. This is the line shown on late 18th century

- and mid 19th century maps, but it does not appear to be defined by an earthwork or any other feature, such as a stream or natural scarp, for example, on the east side of Tarns Lane; indeed, it appears to be on a completely different alignment and to show little clear relationship to many of the earthworks here.
- 2.19 In terms of landownership, in 1086, a manor of four carucates was held by the King and three carucates were held by Gilbert Tison (Stuart Brown, TLSPG, pers. comm.). These subsequently passed to the Percy fee. In 1284-85 there were only three carucates in Threshfield, but in Linton (also part of the Percy fee and containing two carucates in 1086), there were four; it might therefore be inferred that land had been taken from Threshfield and added to Linton (Clay 1963, 328), and this would have presumably involved alterations to the boundaries of both townships. In the period between c.1180 to 1200, William de Threshfield made a gift of half a carucate of land in Threshfield with ten acres in three specified lots to his son Elias. One of these lots was three acres in 'Aggedenebanes next his land which falls on Bretthecheld' (Clay 1963, 327); the former is given as 'Aggaedenebancs' by Smith, with the prefix suggested to derive deriving from the Old Norse personal name Agi (Smith 1961, 106), although it is almost certainly derives from the Old Norse or Old English for 'enclosure', and indeed lies close to the village nucleus (Stuart Brown, TLSPG, pers. comm.). This lot equates partly or wholly to the two parcels of land (nos. 480 and 481) named as 'Far Hagdens' and 'Little Hagdens' in the 1846 Threshfield tithe award (BIHR TA 484 L), located to the north of Moor Lane, immediately to the north of the EDAS survey area (Stuart Brown, TLSPG, pers. comm.). It is tempting to see the latter part of the name deriving from the Old English denu (valley) and baec (used to denote a ridge), although this is not certain. However, Gelling (1984, 125) notes that in several Old English charter boundaries in Berkshire, baec is used to denote the bank of linear earthworks or in one instance a strip lynchet. In this context, it may be significant that the 'Far Hagdens' fields contain very prominent north-south aligned lynchets. The overall description given in the gift might be taken to imply that 'Aggedenebanes' was next to William's land which sloped towards 'Bretthecheld'. The latter may also have been 'Brecchecheld' or 'Breithetheld' (Clay 1963, 327). The last part of the name derives from Old English for 'slope' (Gelling 1984, 162) but the first part is less certain; it might possibly relate to the Middle English breche, implying land newly broken in (Gelling 1984, 233).
- 2.20 At the very end of the 12th century, or more likely in the early 13th century, Fountains Abbey began to acquire land in Threshfield, principally due to the benefaction of the de Threshfield family. The aforementioned half carucate in Threshfield named in the c.1180-1200 charter described above was subsequently given to the Abbey by Elias de Threshfield, with the addition of an acre next to the hill called 'Harehou' towards the south. The three acres in 'Aggedenebanes' were also included in this grant (Lancaster 1915, 731). Subsequent charters sometimes contain valuable descriptions of the physical boundaries of the land concerned (Lancaster 1915, 733-737), and sometimes, using the 1846 tithe award, it is possible to place some of the named locations. However, many remain unlocated and some, such as 'Stodfaldgile' mentioned in 1256 (Lancaster 1915, 736), are significant in terms of contemporary land use which may have survived to the present day in recognisable earthwork form. Others, such as 'le Borgh' (Smith 1961, 107) might indicate former features which had become disused by the medieval period. In 1284-85, of the three carucates in Threshfield, one carucate was held by the Abbot of Fountains in 'frankalmoin of Elias de Threshfield' while the remaining two were held by Elias of Henry de Hammerton from the heirs of Percy (Clay 1963, 328-329).

2.21 In terms of landownership, Moorhouse (c.2006) notes that, during the 13th century. grants of pasture were made to Fountains Abbey for 300 sheep on Threshfield Pastures, as well as hay crops in 'Monks Ings' adjoining to the north-east. In 1259, Helias, son of Adam de Threshfield, confirmed to the monks of Fountains Abbey 'that they may have their sheep everywhere within the pasture of Treskefeld, namely three hundred, as they were accustomed to have in the time of his father and in his own time before this charter was made' (Lancaster 1915, 736). Moorhouse (c.2006) further suggests that a complex recorded to the east of Tarns Lane and comprising two adjoining rectangular yards with ranges of rectangular stone buildings resembles a medieval sheephouse, and the presence of such is implied by the above grant of pasture for 300 sheep. Further ephemeral remains of rectangular buildings, apparently associated with another sheephouse complex, were recorded by Moorhouse some distance to the south-east, together with a series of small stackgarth (haystack) stands. The exact extent of 'the pasture of Treskefeld' is uncertain, although fieldname evidence in the 1846 tithe awards and on the 1853 Ordnance Survey 6" map provides some indication (see also below). It included the two fields to the immediate west of the EDAS survey area, fields to the east and west of Grysedale Lane north of Moor Lane, and also apparently that small part of the EDAS survey area which falls within Linton township. It is therefore possible that a larger part of the EDAS survey additionally fell within 'the pasture of Treskefeld', while Moorhouse (c.2006) seems to imply that it might also have extended to the east of Tarns Lane. Raistrick (1938, 18) notes that Fountains Abbey also held five acres of arable in the common field in Linton township, and that Bolton Priory was the owner of several adjoining lots and of the tithes in Threshfield.

The Post-Medieval Period

- 2.22 Shortly into the early post-medieval period, the 1517 Fountains Abbey Lease Book provides a very valuable description of the abbey's properties in Threshfield which were leased to a John Norton. The pasture for 300 sheep noted in the 1259 grant also appears in 1517, described variously as 'the commons of pasture for 360 sheep which they hold by the gift of Adam son of William de Threschefelde' and 'a pasture and shep rake to 360 (18 score) sheip' (Michelmore 1981, 60 & 64).
- 2.23 The Dissolution of the Monasteries, and the consequent break up of large monastic estates, had a very substantial effect both on the physical landscape in Yorkshire and also how it was administered. Although it has been suggested that there is little evidence of change in local farming practices during the 17th and 18th centuries, i.e. an agricultural regime based on sheep rearing with hay grown for cattle and as a feed crop, and oats almost the only grain (Raistrick 1938, 20), the local landscape would still have undergone continual modification or change, even if only in a piecemeal manner. For example, to the east of Tarns Lane, Moorhouse (c.2006) recorded a series of interlocking curvilinear terraces that were suggested to be possible post-medieval haystack stands. It is also possible that there was an increase in cattle/dairy production locally, to meet the demand from growing urban centres further south in West Yorkshire (Robert White, YDNPA, pers. comm).
- 2.24 A survey of 1603, made in advance of the purchase of former Norton estates by Lord Francis Clifford, Earl of Cumberland, notes that Linton village had 19 tenements, with 590 acres of common field, 40 oxgangs for ploughing, and 240 acres of common pasture stinted in 160 beast gates. At the same date, Threshfield had 60 oxgangs, 42 tenements and 872 acres, including a town meadow, a town field and pasture (Raistrick 1938, 20). A lease of 1607, drawn up between the Earl of Cumberland and Ralph Radclyffe of Threshfield Hall

concerning 'the site of a decayed water corn mill in a close called Greeneholme or Greenhow in Threshfield', notes that the lease is made 'reserving only the woody ground called Great Wood and the flock rake or sheep walk' (Stuart Brown, TLSPG, *pers. comm.*), but it is not certain if the rake or walk relates to that leased to Norton in 1517; the mill referred to is Threshfield mill, which lay on the eastern boundary of Threshfield township where the Bow Beck meets the river Wharfe (Stuart Brown, TLSPG, *pers. comm.*).

- 2.25 Turning to the 18th century, Jefferys' map of 1775 provides little detailed information for the specific EDAS survey area. However, it does record a number of interesting features in the wider landscape (see figure 5). Two of the routes forming the boundaries of the survey area, Moor Lane and Tarns Lane, are clearly marked, as is the unnamed Millstone Gill beck. To the east, the last remnant of Linton Tarn, know as Linton Mires (Moorhouse 2003, 357), is also depicted.
- 2.26 In the late 18th and early 19th centuries, Parliamentary enclosure had a significant impact on the landscape. Enclosure in Threshfield was relatively late, taking place in 1805 (although the Award was signed off in 1827) (NYCRO WRRD B40), and this concerns the north-west part of the township, away from the EDAS survey area. However, the 1793 Linton Enclosure Award and accompanying map (NYCRO WRRD B18) denotes that small part of the EDAS survey area lying within Linton township as enclosure no. 9. The award described the enclosure as follows:

'And I award, assign, set out and allot unto and for the said Matthew Wilson, his heirs and assigns in severalty for ever. All that parcel of land in the said plan No 9 lying in the same pasture containing by the said survey 2a 3r 25p Bounded on or towards the East by the said road called Skipton and Threshfield Road; On or towards the West and South by the said allotment in the said plan no 8 herein made to the said Whittol Sheepshanks as aforesaid; on or towards the North by the Lordship of Threshfield aforesaid. And I order and direct that the said Matthew Wilson, his heirs and assigns shall make and for ever hereafter maintain and keep in repair such wall or fence as aforesaid on the East and West ends and South side of the same allotment.'

2.27 Moving west along the township boundary, through that part of Linton township adjacent to the EDAS survey area, enclosure no. 8 (Matthew Wilson) was described as being bounded to the north by 'the Lordship of Threshfield aforesaid'. Within enclosure no. 5, Richard Sheepshanks was required to maintain one half of the wall or fence on the north side of the plot 'beginning at the Township of Threshfield'. Further west along the township boundary, enclosure no. 4 (William Paley) was described as lying on stinted pasture and to be 'bounded on or towards the East and North by the Lordship of Threshfield aforesaid'. Returning to enclosure no. 8 within the survey area, the existing Tarns Lane to the east is described elsewhere in the Award as follows:

'And I award and appoint that there shall be one other public carriage way and road as and where the same is now staked out and in the said plan called Skipton and Threshfield Road, leading to the N. end of an ancient lane in the Township of Cracoe aforesaid Northward over the said pasture called Linton Pasture to the S.end of an ancient lane leading to Threshfield aforesaid.'

2.28 Research conducted previously has not revealed a documented name for the EDAS survey area, but it has always been known as 'High Pasture' within living memory (Stuart Brown, TLSPG, pers. comm.), and this appears to have been the case for some time before. On the 1846 Threshfield tithe award and accompanying map (BIHR TA 484 L), the EDAS survey area (plot 496) is named as 'High Pasture', and was in use as such, owned by Matthew Wilson Esq and occupied by John Calvert. The two fields to the immediate west (plots 492 and

- 494) form part of 'Threshfield Pasture', as did fields to the immediate north of Moor Lane (plot 479) and to the west of the junction of Moor Lane and Grysedale Lane (plots 475, and 486 to 488). On the 1846 Linton tithe award and accompanying map (BIHR TA 16A L), that part of the survey area lying within Linton township forms plot 230, which is named as 'Threshfield Pasture' and is pasture. The two plots to the immediate south, nos 288 and 289, both have the name 'Scale Flats'.
- 2.29 The 1853 Ordnance Survey 6" to 1 mile map shows the whole of the survey area as unimproved pasture, bounded by Tarn Lane (not 'Tarns' as now) to the east and Moor Lane to the north (see figure 6). In 1853, as in 1846, the majority of the survey area lay within Threshfield township, with the exception of a small part at the very southern end, set within Linton township. Where it crosses the survey area, the boundary between the two townships is shown as being 'Und' (undefined) although adjacent it is marked as a field wall ('F.W.'). In 1853, 'Threshfield Pasture' is also marked extending to either side of Grysedale Lane on the north side of Moor Lane.

3 DESCRIPTION OF THE SURVEY AREA

Introduction

- 3.1 The following chapter provides a detailed description of the earthwork and other remains recorded within the survey area, drawing on the information given in Chapter 2 above where it is directly relevant. The surviving earthworks are extremely complex, likely to belong to many different phases of development, and with some almost certainly re-used in different periods for different purposes. Therefore, the following text is restricted to description only, with an analysis of the earthworks, based on the description, given in the Discussion below (Chapter 4 below).
- 3.2 The identified earthworks are grouped and described in a logical order, commencing at the south-western end and moving through the central part to the north-eastern corner, although some, such as potential cairns and kilns, are scattered throughout the survey area. To aid identification on the accompanying drawings, individual or groups of earthworks have been assigned unique identifier numbers (e.g. **Site 12**). These have been kept to a minimum to avoid overcrowding on the plans, and they should not be taken to infer any kind of chronological development or relationship; they are ascribed purely for descriptive purposes. Reference should also be made to the survey plans (figures 7 and 8) and plates, and the photographic record which appears as Appendix 2; photographs are referenced in the following text in italics and square brackets, the numbers before the stroke representing the film number and the number after indicating the frame e.g. [5/32].

Identified Earthworks

Millstone Gill, south-west end of survey area

- 3.3 That small part of Millstone Gill which lies within the survey area is aligned northwest/south-east, and is c.110m in length. Where it leaves the survey area, the gill comprises a wide, steep-sided valley with a flat-bottom. A drystone wall lies on the immediate south side of the beck in the base of the gill, and the south scarp, beyond the survey area, is wooded. As it moves north-west, the gill splits on either side of a tall, narrow, steep-sided ridge [1/004; 1/006]. The beck runs along the bottom of the southern arm, but the base of the northern arm is also wet and marshy [1/007] (plate 1). Water may once have drained through here, along the continuation of the northern arm beyond the survey area, as there is a blocked opening with a substantial lintel in the base of the adjacent drystone field wall [1/005]. The opening appears to be too substantial and too low to be a sheep creep or cripple hole, and it is placed across the bottom of the continuation of the northern arm, and so it is more likely to have been built to allow water to flow through when necessary.
- 3.4 Within the survey area, to the immediate east of the opening, there is a low curvilinear south-facing scarp but it is difficult to discern if this is artificial or has been created by water running through the opening. It is possible that water was once impounded within the marshy area, although again, there is little convincing evidence for a dam, weir or other structure which would have been needed to retain it at the south-eastern end. The base of a prominent natural landslip on the east side of the marshy area is not shown on the survey plan. A trough is shown at the south-eastern base of the prominence on the western side of the marshy area

in 1853 (see figure 4), but there were no clear traces of this within an overgrown area at the time of the survey.

Field system, south and south-west of survey area (Site 1)

- 3.5 The gill would have formed a natural boundary to any administrative or landholding unit, and this is reflected in the surviving earthworks. The northern arm of the gill marks the south-western end of an extensive and regular field system represented by ridge and furrow earthworks divided by long linear lynchets. This field system is laid out on an almost east-west alignment, broadly across the general rising south to north slope of the ground surface here; within the survey area, the system covers a total area measuring some 440m long by at least 300m wide. Aerial photographs and plots from the same indicate that a field system with similar characteristics continues across adjacent fields to the north-west (YDNPA DNR 1060/16), and also crosses Tarns Lane (YDNPA DNR 1060/22) (see figures 3 and 4), apparently continuing through the two fields surveyed by Moorhouse (c.2006) at least as far as the cutting of an abandoned railway line. If this is the case, then it would therefore also cross the medieval township boundary between Threshfield and Linton as defined by Moorhouse (c.2006), and may extend as far as the boundary of early medieval Linton and the late 11th century area of the settlement as suggested by Raistrick (Moorhouse c.2006). Raistrick (1938, 21) indicated 'lynchet slopes' on the same general orientation as the field system to the east of Tarns Lane. Within the central part of the survey area, a break within the field system may be defined by very substantial curvilinear scarps, some of which are wholly artificial and others which appear to either make use of or have enhanced natural features. Of the former, there is at least one section where they appear to overlie linear earthworks to the immediate north-east, although field evidence and aerial photographs suggest that these linear earthworks may actually be a continuation of the same field system, disturbed by later activity.
- 3.6 Within the main part of the field system (within the EDAS survey area), the ridge and furrow is generally rather denuded, with little surviving to more than 0.3m in height. The average width of each ridge is c.2m, and the average centre ridge to centre ridge measurement is between 6m-7m, although there is obviously some variation. The ridge and furrow is sub-divided into blocks by a series of lynchets, formed by substantial south-facing scarps standing between 0.7m-2.0m in height [1/008; 1/009; 2/860] (plate 3). The highest scarps have much lower counterscarps to the north sides, and they appear to contain a high proportion of stone rubble, particularly in the spread banks which form their tops. Arguably the most prominent lynchet within the system (Site 1/1) has a total width of c.3.0m and stands up to 0.7m in height, with a flattened top c.1.0m across [2/851]; like all the others, the south-facing scarp is by far the most substantial. Intermittently, along much of the top of this lynchet, there is some of the most convincing evidence seen in the survey area for structural elements lying against the internal boundaries of the field system - two lines of 'facing' stones can be seen, set c.1.3m apart. In places, they appear to be deliberately laid, whereas elsewhere they are far less regular and resemble stones thrown up against a hedge, for example. Further to the north, another less prominent flat-topped bank (Site 1/2) preserves fragmentary evidence for stone facing or edging, the 'edges' set c.2.4m apart [2/871] (plate 4), but again, this could result from re-use and remodelling when a series of enclosures were laid out across the ridge and furrow (see Site 2 below). Within the central part of the field system, the lynchets appear to be set at between 40m-50m centres, perhaps originally with a lower lynchet sub-dividing these strips into c.20m strips.

- 3.7 Both the lynchets and the ridge and furrow converge at the south-western end of the survey area [1/012], above the northern arm of the Millstone Gill. The lynchets here typically measure 1.0m high and 0.6m-1.5m wide [1/08; 1/09], and they divide the ridge and furrow into c.20m wide strips. The field system terminates at a broadly west-facing scarp, itself formed by a lynchet at its southern end; where this lynchet crosses beneath the adjacent (southern) drystone field wall, there is a straight joint in the field wall in line with the top of the lynchet. Between the south-western limit of the lynchets and the edge of the northern arm of the gill there is a flattened strip of ground which is on average 5.0m wide (Site 1/3). This may represent a former trackway, running up the east side of this part of the gill around the field system.
- The south-western end of the field system is separated from its continuation to the 3.8 east by a prominent natural gully, averaging 5.0m in depth, on a shallow northsouth alignment [1/011; 2/864] (plate 6). Faint earthworks suggest that the lynchets may once have crossed the gully, but they now seem to have been largely eroded or denuded by later activity. The gully itself is now dry, although the earthworks, particularly at the southern end, indicate that water may once have flowed through it. In addition, the drystone field wall crossing the northern end of the gully contains a large stone placed in the approximate centre of the depression, although it is unclear if this fulfilled any purpose. There is a straight joint in the field wall where it meets a scarp running along the top of the east side of the gully, and immediately adjacent, a stone possibly with a crudely carved cross on it, although this may be no more than an entirely fortuitous arrangement of natural features [2/865]. A raised terraced trackway (Site 1/4), up to 1.0m in height, runs parallel and along the bottom of the west side of the gully (plate 6), and cuts through an earlier lynchet at its northern end. There are no blocked gateways in the field wall at either end of the terraced trackway, implying that it has been disused for some time. It may be visible on an aerial photograph (YDNPA DNR 1060/16) continuing through the field to the north, although aerial photographic transcription plots indicate a number of parallel curving features in this area (see figure 4).
- 3.9 The southernmost visible lynchet (**Site 1/5**) within the survey area lies to the south of the former Threshfield/Linton township boundary (Site 5, below) [2/858]. This is quite a prominent feature, standing between 1.2m to 2.0m in height, and with a slight counterscarp along much of its length. Aerial photographs (YDNPA DNR 1060/22) suggest that the lynchet once continued west for a short distance and then curved around to the south-west (see figure 3, bottom). There is also a small area of ridge and furrow on the north side of the west end of the bank. If the township boundary line proposed by Moorhouse (c.2006) is correct, then these earthworks would have lain in Linton township rather than Threshfield in the medieval period, and the fact that they appear to be part of the same field system seen to the north implies that they pre-date the formation of the township boundary (see Discussion below Chapter 4).

Enclosures and structures (Site 2), south central part of survey area

3.10 A series of enclosures appear to have been subsequently laid out across the central part of the earlier field system (Site 1). The banks defining these enclosures either re-used and remodelled the pre-existing lynchets or were constructed at approximate right angles to them [1/010]. These enclosures may cover an area measuring as much as 150m square, but the core appears to lie to the east of the natural gully (Site 1/4) described above. Here, there is an area relatively free from ridge and furrow, over which as many as five conjoined sub-

square enclosures of varying sizes have been laid out. It is not certain whether all these enclosures are contemporary; for example, a faint north-west/south-east aligned scarp on the western edge of this area is overlain by one of the enclosure banks, which appears to either contain a high proportion of stone or indeed to have a stone core. This faint scarp is visible on aerial photographs (YDNPA DNR 1060/22) continuing into the field to the south (see figure 3, bottom).

- 3.11 This north-west/south-east scarp in part defines the western limit of an enclosure (Site 2/1), which measures c.40m east-west by 60m north-south, with a probable entrance in the south-east corner. To the immediate east, there is another somewhat larger but sub-divided enclosure (Site 2/2), which has a more definite original entrance or gateway positioned at the south-west corner; the shared bank between these two enclosures appears to either contain a high proportion of stone or indeed to have a stone core. To the south of the first enclosure, spread banks seem to define a third smaller area, measuring only 30m square. Continuous with its south-east corner, there is a fourth elongated enclosure (Site 2/3) which has a series of sub-rectangular structures positioned along the internal sides of the north-west corner. The largest structure, running parallel to the northern side, measures c.10m by 4m, with sides formed by slightly raised stoney banks, 0.7m wide and 0.3m high. To the immediate south, there are several other slightly smaller sub-rectangular structures. These appear to have a higher proportion of stone rubble in the banks forming their east sides, and may once have been open to the west [2/863] (plate 7). It is noticeable that these three enclosures contain little or no ridge and furrow, suggesting that it was either never present, that it was deliberately flattened out, or that perhaps activity within the enclosure has removed
- 3.12 To the north-east of this 'core' part of the enclosures, the surviving earthworks suggest that the central part of the earlier field system was sub-divided into further enclosures by placing cross-banks between the earlier lynchets. Many of the enclosures thus created have a rectangular platform placed at one corner, implying that the platforms are contemporary with the enclosures rather than being part of the lynchet field system. The majority of these platforms are quite low, with little or no evidence for stone footings. They average between 8m-10m long and 4m-5m wide [2/861], although one example (Site 2/4) may be as much as 16m in length and sub-divided into three bays of equal length. Although none of the platforms contain any clear evidence for stone footings, there are several where larger stones could be argued to define corners. However, many of these stones have rounded, irregular surfaces, and it is difficult to see how timbers, for example, could be laid across or between them.
- 3.13 At the north-eastern end of the field system, on a relatively level piece of ground set on a promontory created by one of the natural curvilinear scarps which define the system, there are two smaller earthworks, one set above the other (Site 2/5). The southern earthwork resembles a sub-square platform, c.11m square and slightly terraced, whereas the northern feature is more like a small sub-oval enclosure, defined by a shallow scarp containing a high proportion of stone rubble. This scarp may once have been continuous with a short projection from one of the main lynchets/banks here. This main bank (Site 1/1) terminates at what might be taken as another small sub-rectangular structure, again set on the edge of the promontory. However, it is more probable that this is the former north-eastern end of the bank, which has been damaged by erosion from quad-bike type vehicles.

3.14 To the north-east of the main group of enclosures, and perhaps separate from them, there is a smaller group of discrete earthworks (Site 3) with noticeably differing characteristics to the other features described above. These earthworks are primarily placed on the north side of a prominent bank, which contains a high proportion of stone and is on the same alignment as the others within the main field system (Site 1). Aerial photographs (YDNPA DNR 1060/16 & DNR 1060/22; see figure 3) and the aerial photographic transcription plots (see figure 4) suggest that this bank may define the northern limit of this field system, or at least the very long parallel lynchets which define its alignment. The bank also has a small structure, defined by lower banks of a similar width, attached to the west end of the south side - this structure is sub-square in plan, externally measuring c.8m along each side. To the immediate east, there is a second enclosure or structure with a sub-triangular plan form, of approximately the same length. On the north side of the prominent bank, and again contemporary with it, a number of banks standing up to c.1m high project for up to 30m at a right angle to it. These banks enclose or define several rectangular terraces, which step down from west to east; the best preserved has a rectangular platform placed centrally to the west side. Again, aerial photographic evidence shows that the terraces continue for a short distance into the field to the west, beneath the adjacent drystone field wall.

Possible cairns (Site 4), throughout survey area

- 3.15 Within the main group of enclosures (Site 2), and also within the earlier block of ridge and furrow (Site 1), there are two earthworks which do not resemble platforms, structures, former buildings or ruins. In addition, neither have the same relationship to the adjacent enclosures and lynchets as the other probable structures or buildings recorded within the survey area, and both are set on the highest part of the survey area. Finally, both have an approximate north-south alignment. Although another origin, perhaps even 19th or 20th century dumping, cannot be absolutely discounted, it is possible that both these earthworks represent cairns, perhaps significantly older than the remains of the open field system within which they now stand. The smaller earthwork (Site 4/1) is sub-oval in plan, measuring 4.0m by 1.5m, and up to 0.4m high. The larger earthwork (Site 4/2) to the north is also sub-oval in plan, measuring 5.5m by 3.0m and standing up to 0.9m in height; the flattened top measures c.2.0m across [2/867; 2/868; 2/869] (plate 8). Where the earthwork appears to have been clipped or eroded in the past, it contains some stone rubble. If these earthworks are indeed prehistoric cairns, it is interesting that they appear to have been unaffected by the later ridge and furrow and/or whatever activity took place in the enclosures.
- 3.16 The latter earthwork (Site 4/2) is of particular interest, in that a short distance to the north-west, in the field to the immediate north of the survey area and at a similar height, another possible cairn was surveyed in 2012 by Yvonne Luke and Shaun Richardson as part of private research into Neolithic cairns and their landscape settings within the Yorkshire Dales (Luke 2013, 58-60). This feature was aligned approximately north-south, with a clear view north along upper Wharfedale towards (but not aligned on) Buckden Pike. It has a sub-oval plan, measuring 15.5m long by 9.0m wide, and rose to a maximum height of 1.0m. The central area had been disturbed in the past, with material dragged out to the east, but a small sub-circular raised area towards the base of the east slope could comprise a smaller, secondary cairn. Although it is significantly larger than Sites 4/1 and 4/2 within the EDAS survey area, it is surely significant that these similar features occur together

- on a locally elevated position with clear views northwards towards prominent topographical features.
- 3.17 Another potential prehistoric cairn lies to the east of the above sites, at the east end of a c.40m long and 0.5m high bank which contains a high proportion of stone rubble; the sub-circular earthwork measures 3.5m across, and resembles a denuded cairn with a stone kerb (Site 4/3) [2/850] (plate 9).
- 3.18 A number of other possible cairns were also identified towards the northern part of the survey area on the flattened top of a small plateau (Site 11/1, below). Here, there are two mounds, resembling small cairns, set 25m apart (Sites 4/4 and 4/5). Both are sub-oval in shape, measuring 3.5m long by 2.0m wide, and stand up to 0.7m in height [2/812; 2/813]. It may be significant that there are good views northwards up Wharfedale from this area. To the south of these, at the north end of a stretch of vehicle rutting, there is a small sub-oval mound, 1.0m high, containing a high proportion of stone and resembling a small cairn (Site 4/6). There are at least two other similar but much more denuded mounds in the immediate area, eroded by vehicle tracks (Site 4/7) [2/818; 2/820]. However, in contrast to the other small cairn-like features, none of the latter occupy an elevated position.

Threshfield/Linton township boundary (Site 5), south-east corner of survey area

- 3.19 A short section of the medieval Threshfield/Linton township boundary (as defined by Moorhouse c.2006) passes through the south-eastern part of the survey area. Threshfield lies to the north of the boundary, Linton to the south. In the 1793 Linton enclosure award (NYCRO WRRD B18), the area of Linton township falling within the survey area is contained entirely within enclosure no. 8; this enclosure, and those to the west, are described as being bounded to the north by either 'the Lordship' or 'township' of Threshfield. On the Ordnance Survey 1853 6" to 1 mile map (see figure 6), the boundary is represented by the drystone field wall in the base of Millstone Gill which then rises up the eastern slope of the gill and continues to form the southern boundary of the survey area. At the point where the wall returns through a right angle to the south, the boundary continued east, curving first gently to the north-east and then angling more sharply to the southeast; this section is marked as "Und." (i.e. undefined) on the map, whereas the western section is "F.W." (field wall).
- 3.20 The undefined section of the boundary (**Site 5**) can be followed on the ground as an earthwork, principally a line of buried wall footings averaging 1.0m wide [2/856; 2/857] (plate 5); this was previously identified by Metcalfe and Fattorini (1998). The buried wall footings commence immediately to the east of the existing wall return, which is in the same position as depicted in 1853, and then follow the 1853 line eastwards; there may be a 4.0m wide gateway within the wall footings, set 20m east of the wall return. The wall footings then curve gently towards the north-east, converging on the southernmost visible lynchet of the ridge and furrow block but never actually meeting it. At 2m in height, the lynchet is much more prominent than the boundary, and the exposed footings are on a markedly different alignment to the majority of the earthworks within the lynchet/ridge and furrow block.
- 3.21 The wall footings are lost for a short distance just to the north of a structure (Site 13/1, below), but they can be seen again clearly after they have returned to the south-east. Here, they comprise two lines of partly-buried facing stones, set c.1m apart, with a gap between them [8/852]. They continue down the slope, crossing an earlier east-facing scarp, which is on the same alignment of what has been

termed for this survey the 'Tarns Lane bank' (Site 12, below), although neither the boundary or the scarp have a clear relationship with the feature. Beyond this point, the boundary runs close to the line of a trackway which rises up the natural scarp here.

Pond complex and associated features (Site 6), east centre of survey area

- 3.22 On the eastern side of the central part of the survey area, there is well preserved pond with a complex of associated features, set within a wide, flat-bottomed 'valley', up to 55m wide across the base at the western end but narrowing to 20m at the eastern end [1/018; 1/019] (plate 2). The western end of this 'valley' is bounded by one of the curvilinear scarps that may define a break within the larger field system (Site 1), although it may actually be continued by two spread banks here, aligned east-west. The southern of these two banks has a potential cairn at its east end (see Site 4/3), while the northern bank runs along the southern edge of the pond. The surviving earthworks suggest that this northern bank once continued further to the east but it has been disturbed by a channel (see below) leaving the pond, and so predates it. A level terrace on the north side of the pond may have been used as a trackway, running first west and then curving north-west onto the higher ground here; it may have been associated with a group of enclosures to the immediate north (Site 7, below).
- 3.23 The pond itself (Site 6/1) has a sub-rectangular, almost sub-triangular, plan form. It is 25m long and has almost the same width at the western end, but narrows to only 7m at the eastern end. The western and northern [2/848] sides are near vertical, standing up to 1.0m in height and are revetted with stone. The south side is formed by a steep 1.5m high scarp, containing a much lower proportion of visible stone. There is no obvious inlet, or source of water, for the pond but at the northwest corner a shallow ramp has been created by or for stock gaining access to the pond. The base of the pond retains fragmentary cobbling near this ramp [2/849]. to prevent stock erosion and the puncturing of any lining that might exist. In contrast, there is a clear outlet for the pond, positioned at the east end. A shallow channel (Site 6/2), 2m-3m wide and 0.5m deep [2/846], runs south-east in a straight line for a distance of 15m (plate 10); the area to the north is heavily burrowed by rabbits. At its western end there are traces of a stone lining to the north side of the channel, and also some definite cobbling/lining to the base [2/847]. The south side of the channel returns through a right angle to run south. while the north side merges into a shallow U-shaped depression, open to the south.
- 3.24 This channel can be traced further south-east, but it is very faint, possibly as a result of having been filled in or having silted up. It follows a slightly curvilinear course, curving first to the north and then back to the south. On the north side here, there are two sub-rectangular structures, or possibly one larger structure of two equal-sized cells (Site 6/3) [2/844]. It has total dimensions of 20m long by 6m wide, with what appears to be an entrance at the south-west corner. There may be another, narrower, structure to the immediate south, on the edge of the channel. Where the channel curves back to the south, it is flanked by further structures to either side. That to the south is very small, comprising little more than a c.2m subsquare spread of grassed stone rubble, but that to the north is far more substantial, and rather curious. It comprises two parts. The west part is formed by a steepsided sub-square depression, 5.0m across and 1.0m deep [2/845], with much stone to the sides; it has the appearance of something having been dug out or removed. This depression is flanked by low banks to the north and south edges. The east part, immediately adjacent, may form the remains of a small rectangular

- structure or platform, measuring c.1.5m wide by 2.0m long and with structural stones to the south-east corner (**Site 6/4**). The juxtaposition of the structures on either side of the channel is suggestive of some kind of water control, and perhaps a sluice was once positioned here.
- 3.25 The channel (Site 6/2) cannot easily be traced east beyond these two structures, almost certainly because it opened out into another pond (Site 6/5). That part of the pond within the survey area has a semi-circular plan, with a maximum northsouth width of 50m where it meets the drystone field wall adjacent to Tarns Lane. The pond retains traces of a stone lining and remains boggy even during dry periods; during periods of heavy rain, it still floods (Stuart Brown & Vicky Fattorini, TLSPG, pers. comm.). Where the drystone wall crosses the pond, the lowest two courses of stones are larger and more regular than those to either side, and they may be re-used pond lining. In addition, during the summer months, the vegetation growth across the former pond is markedly more lush than on either side, and is dominated by moisture-loving plants [2/842: 2/843] (plate 11). The pond seems likely to have once continued further to the east and was presumably truncated when Tarns Lane was laid out on its current alignment; indeed, a curving, semicircular bank, some 23m long, was recorded by Moorhouse on the east side of Tarns Lane which appears to reflect the general curve of the pond. Water would presumably have flowed out to the east of Tarns Lane in an easterly or northeasterly direction, possibly into the area between suggested earthwork complexes of Iron Age and medieval date, but further investigation would be needed to confirm this.

Enclosures and structures (Site 7), centre of survey area

- 3.26 To the north of the 'valley' containing the pond complex (Site 6), there is a natural plateau, set above a second 'valley' further north. As with the rest of the EDAS survey area, it is covered by a complex of earthworks, here based around a series of small enclosures. On the south-west side, a slightly sunken sub-rectangular enclosure (Site 7/1) is aligned north-west/south-east, measuring 90m long by 35m wide. Faint ridge and furrow earthworks are visible within the enclosure, on the same alignment, and there may be a slightly irregular platform in the north-west corner. The north-east side of the enclosure is formed by a scarp up to 2.0m in height, which incorporates two prominent sub-circular depressions, the largest being over 1.2m deep; it is likely that both of these are tree pulls (see below).
- 3.27 On the north-east side of this enclosure, there are two further, smaller, subrectangular and conjoined enclosures, each measuring c.50m long by c.25m wide; they are separated by a 1.2m high scarp which effectively creates two stepped enclosures, one above the other [2/841]. The north-east side of the north-eastern enclosure (Site 7/2) overlies two prominent banks, which are on a similar orientation to the main banks/lynchets within the large central block of ridge and furrow (Site 1) to the south. The overlain banks are flat-topped, up to 2.5m wide and 0.5m high; the southern example can be traced faintly for c.60m as far as the Tarns Lane field wall. At the north-west corner of the north-eastern enclosure, there appear to be traces of the stone footings of a rectangular structure, set on a markedly different orientation to the enclosure itself. These footings appear to post-date the 1.2m high scarp of the enclosure to the west, and may be a continuation of more highly visible stone footings visible immediately outside the north side of the enclosure. These footings (Site 7/3) measure at least 7.0m long and are on average between 1.0m-1.1m wide [1/021] (plate 12); if they did once continue across the scarp of the enclosure, they would represent the remains of a structure measuring c.18m by 4m. The footings are represented by two rows of

large limestone facing stones with a narrow gap between, presumably once infilled with smaller stones.

- 3.28 Towards the western end of this part of the survey area, there is a most interesting group of earthworks (Site 7/4). A terraced trackway, 4.0m in width, curves around the upper edge of a natural scarp which defines the west side of Site 7/1 and then turns to run north-east, where it is embanked on the east side. Where it reaches the top of a natural slope, its character changes [2/838] (plate 13). The eastern embankment continues, becoming more substantial, and the east-facing scarp defining the western side also deepens, up to 1.0m. The rectangular 'depression' between these two scarps is stepped down from south to north, each of the possible six steps apparently defined by stone edging or footings [2/837]. The steps are not well defined at the upper end of the depression, but at the lower end, each step is c.0.3m high and spaced at intervals of between 1.5m-3.0m. Over the course of its 25m length, the stepped part of the depression increases in internal width from 2.5m to almost 5.0m; the total fall over the 25m length is c.4.45m. At its base, the north end of the stepped depression was once apparently continuous with a building platform, set at an angle to it and terraced into the top of the scarp overlooking the 'valley' to the north [2/835; 2/836]. This building platform is 15.0m long by 5.0m wide, and was divided into two or three bays by cross-partitions with stone footings. The stepped depression is not the only example to be recorded within the survey area (see Site 10/2 below), and it is significant that there is another similar but larger example on the opposite side of Tarns Lane, described as forming part of a medieval sheephouse complex (Moorhouse c.2006); this was set on a similar slope and was of similar width, but at c.50m was significantly The presence of three similar features within a relatively small geographical area, and their possible form and function, is discussed in more detail in Chapter 4 below.
- 3.29 To the west of the stepped feature, there are a series of almost east-west aligned north-facing scarps or terraces (**Site 7/5**). These are stepped down quite steeply from south to north and may contain at least one platform, with some very denuded ridge and furrow on the same alignment. There are a number of straight joints and blocked openings in the drystone field wall immediately adjacent to the lower terraces, and it is possible that some of these once defined gates leading off the terraces into the area to the west.
- 3.30 The stepped 'depression' (Site 7/4) is set above and on the west side of a slightly sunken enclosure; the scarp separating the two is over 1.0m in height, and it is difficult to see how there could be any communication between them. The interior of this enclosure is crossed by five ridges, aligned north-east/south-west and with an average ridge to ridge measurement of 4.5m. They continue down into the 'valley' area to the north, and have a slight reverse-S plan. A terraced trackway runs south-east from the north-east corner of the enclosure and can be followed for a distance of almost 75m (**Site 7/6**). It appears to have been created by modifying earlier ridge and furrow, as surviving ridges with a slightly curvilinear plan form survive on the narrow slope to the north.
- 3.31 To the north-east of the slightly sunken enclosure, there is a sub-square depression (**Site 7/7**), set on a small curvilinear promontory which projects into the 'valley' to the north [2/833]. This depression measures c.6m along either side, but the north and east sides are more regular, and contain a higher proportion of stone than the southern side, which comprises a steep curvilinear scarp. The depression may be either a structure which has been partly dismantled and the footings 'grubbed out', or alternatively a small quarry.

Structures, platforms and other features (Site 8), centre of survey area

- 3.32 To the north of the first plateau area, there is another 'valley' set between the first and second plateau [2/827; 2/828; 2/839]. This valley is defined on all sides by steep scarps, up to 5.0m wide and 2.0m high, and is aligned north-west/southeast; it has total dimensions within the survey area of 175m in length by an average of 50m in width. The base is generally level across the valley, but it slopes down from west to east in a series of very broad steps. This valley contains one of the highest concentrations of structures, platforms and other features seen within the survey area, and these are described from broadly west to east.
- 3.33 At the western end of the base, denuded ridge and furrow runs parallel to the long axis of the valley, with two possible structures or platforms terraced into the scarp to the immediate north; they measure c.12m long by c.2m wide (Site 8/1). In the south-west corner of this end of the valley bottom, there is a slightly raised subtriangular area, containing two or three denuded ridges on a slightly curving north-west/south-east alignment, and a rectangular mound, measuring 5.0m by 3.0m and probably representing the site of another structure, stands at the north-east edge. To the immediate east, the lower end of the ridge and furrow running down from the sunken enclosure described above is visible. Further east, a spread east-facing north-south aligned scarp marks a slight drop in the level of the valley's base. Towards the north end of this scarp, there is a further sub-rectangular mound, 6.0m long and standing up to 0.5m high.
- 3.34 Beyond the scarp, the sides and base of the valley contain numerous features. The north side contains a well-preserved range of conjoined structures (**Site 8/2**) with stone footings terraced into the upper part [1/002]. There is a distinct pattern to the layout of this range, which measures 35.0m long overall, and it is described from east to west. A narrow structure over 13.0m long but only 2.0m wide, is flanked at either end by slightly sub-oval structures, measuring 5.0m by 3.0m; an internal cross-division is visible at the western end of the narrow structure. Beyond the western flanking structure, there is another rectangular structure, perhaps slightly detached from the rest of the range, measuring 6.0m by 2.0m. Beyond this, there is a steep curving scarp that might define another platform if so, it could be placed opposite a similar scarp in the bottom of the valley (see below) or the aforementioned possible structure on the promontory on the south side of the valley (Site 7/7, above).
- 3.35 Beneath the range structure, within the valley base, there are fragmentary traces of what might once have been a small enclosure, rectangular in shape but with a bulbous western end. This feature is not easy to discern, even in optimum viewing conditions, and is largely marked by a small differences in vegetation or possible fragmentary edging; two stones placed opposite one another may define an open, eastern end. Alternatively, the feature may represent a continuation of the denuded ridge and furrow seen to the west. To the south of this feature, there is a spread, curvilinear north-facing scarp, and a number of spread oval or sub-circular mounds. The most substantial of these (Site 8/3) is c.3.0m across and 1.0m high, and is heaped up against a very large limestone boulder at the east end [2/832]. The interior of the mound appears to contain a high proportion of stone, but it is not certain if it is an artificial, cairn-like, structure, or whether it is a natural feature, for example resulting from a geomorphological process which has pushed soil up against a large stone. Further east, there is probably more very denuded ridge and furrow running parallel to the sides of the 'valley'.

- 3.36 The south scarped side of the valley has a second range of structures (**Site 8/4**) terraced into its base [1/003; 2/834] (plate 15). This range appears to comprise one long structure or two conjoined sub-rectangular structures, again with evidence for stone footings, measuring in total 10.0m long by 2.5m wide. Larger stones may indicate internal sub-divisions, perhaps a bay length of c.3.8m. The interior of this structure or structures slopes downwards gently from south to north, and it may once have been open towards the north (i.e. into the valley), perhaps taking the form of an open-sided shelter.
- 3.37 The bottom of the valley is crossed by another very spread north-east/south-west aligned bank (**Site 8/5**) [2/831], to the east of which the level drops again. The top of this bank has been raised at either end by constructing more substantial banks, possibly later additions [1/029], and there is also a small raised area to the centre. The raised bank at the north end stands up to 0.5m in height and is 9.0m long. It once had a parallel bank of similar dimensions set 45m to the east [2/830], although this has been partly dragged out by modern activity.
- 3.38 Between these two banks, and crossed by a later north-south bank running parallel to Tarns Lane (see Site 12 below), there are at least two parallel east-west terraces, perhaps once having a third narrower terrace at their base (**Site 8/6**). The uppermost terrace [1/028] supports the stone footings of at least one rectangular structure, 10.0m long by 4.0m wide, positioned towards the centre. The lower terrace has a similar but slightly longer platform or structure at its eastern end.
- 3.39 The area of valley bottom below these terraces is damp, sometimes boggy, with some spread banks, scarps and faint ridge and furrow on the southern side. At the east end, immediately adjacent to the drystone field wall forming the boundary of the survey area, there are linear stone footings (Site 8/7). These footings generally run approximately parallel to the drystone wall, although they are set on average c.2m further to the west. The best preserved section, the southern part, comprises two parallel wall lines, set 2.0m apart, the western line visible for a maximum length of 15.0m. The western line has a gently curvilinear plan [2/829], bowing outwards towards the west, and is formed by two rows of facing stones, set 1.4m apart, with a gap between (plate 14). The shorter, northern part is more fragmentary and comprises a single wall line only. The ground to the immediate west of the footings is very damp and boggy, indicating that they are retaining water, although this may not be their original purpose.

Enclosures with ridge and furrow etc (Site 9), centre north of survey area

- 3.40 A second flat plateau area [2/824] is set to the north of and above the valley complex described above. It contains a lower density of earthworks than that seen in the valley, but it still preserves evidence for several different phases of activity.
- 3.41 At the western end of this plateau, there is a rectangular enclosure (**Site 9/1**), aligned north-east/south-west, measuring 55.0m long by 35.0m wide. The bank defining the west side has a 4.0m wide gap at the north end, possibly representing an original entrance into the enclosure. The west end of the north side is also defined by a bank, but this gradually fades and is replaced by a steep north-facing scarp, itself set above a similar feature placed just to the north; together, the two have a total height of between 1.5m-2.0m. The east end of the latter is continuous with a second enclosure (**Site 9/2**) to the east, set at a slight angle to the first. This second enclosure is also sub-rectangular, measuring 40m by 30m. The east side is partly embanked, but this fades to an angular scarp. There may have been an

original entrance at the south-east corner of this enclosure, and a north-east facing scarp runs south-east from here away to the edge of the survey area. The southern side of the enclosure is embanked for much of its length, the 0.7m high bank defining the rear side of a long platform or structure placed along the inside of the enclosure [2/822] (plate 16). The northern edge of the platform is defined by a similar, lower, bank (0.5m high), and it has overall dimensions of 25.0m in length by 5.0m in width. Both the north and south edges contain a high proportion of stone.

- 3.42 There are a number of similar scarps on a parallel orientation to that which runs south-east from the second enclosure, sometimes linked by cross scarps. To their south, the southern edge of the plateau is marked by a prominent bank (**Site 9/3**), between 5.0m-7.0m wide and standing up to 1.5m high [2/826]. The flattened top contains a concentration of stone rubble. This bank starts close to the east end of the conjoined range in the north side of the valley complex (Site 8/2, above), and continues east, becoming more substantial as it does so. Towards its east end, its line has been cut by a modern vehicle track and it was evidently more substantially disturbed by the construction of the Tarns Lane boundary wall and by Tarns Lane itself, as a mound of earth has been thrown back at a right angle to the bank. It is not known if there is a continuation of this bank on the east side of Tarns Lane, into and beyond Mount Zion Plantation.
- 3.43 There is a block of rather faint and denuded ridge and furrow lying adjacent to Tarns Lane in this part of the survey area (Site 9/4). The ridges here are all less than 0.3m high and have an average ridge-to-ridge measurement of 5.0m, although they converge towards their west end and diverge slightly towards the edge of the survey area. In the centre of the ridge and furrow, there is a right angled, predominantly east-facing scarp, which has been dragged out by the arable earthworks, and thus predates them. The northern limit of the ridge and furrow, and of the plateau area itself, is marked by another prominent natural scarp which has been artificially enhanced. A bank (Site 9/5) up to 6.0m wide and up to 1.0m high runs along the top of the scarp, and again has a concentration of stone rubble along the flattened top, although nothing clearly resembling a former wall line. This bank been damaged by vehicles at the west end, while the east end has again been truncated by the construction of Tarns Lane [2/823]. However, it is clearly visible on the same alignment in the field to the east of the lane. There are a number of probable tree pulls of varying size either along or adjacent to its line within the EDAS survey area.

Enclosures, platforms and structures (Site 10), north end of survey area

- 3.44 The second 'valley' area in the survey area is set to the north of the plateau described above, and comprises two distinct sunken areas [1/025; 1/026] (plate 17). These are largely defined on all sides by very steep scarps, some of the largest recorded within the survey area, being up to 10m wide and up to 4m high. Some are clearly wholly artificial, including some of the largest examples, but others are natural scarps which have been artificially enhanced.
- 3.45 The southern of the two sunken areas (**Site 10/1**) forms an enclosure, defined on its south side by a very steep and high scarp, which returns to the north at either end. At the base of the scarp, and running parallel to it, there is a raised terrace, 4m wide and standing 1m high. There are slight sub-rectangular platforms positioned at either end of the terrace [2/817; 2/819]. Beneath the terrace, the base of the south sunken area is crossed by denuded ridge and furrow on an eastwest alignment. Further west, there is at least one bank, 1m high, on a slight

- north-east/south-west alignment. There may be other features between this bank and the enclosure, but this area is disturbed by old vehicle rutting; regularly spaced banks on the same alignment continue into the field to the west.
- 3.46 Parallel to and above the east side of the southern sunken area (Site 10/1) is the second of the stepped features (Site 10/2) recorded within the survey area [1/027; 2/814] (plate 18). At first glance, like the first example (Site 7/4, above), a terraced trackway, 4.0m wide, curves around the upper edge of a natural scarp and then turns to run north, where it is slightly embanked to the east side. However, the earthworks suggest that this 'trackway' is in fact a platform or structure, and the arrangement seen in the first example is reversed, i.e. with an angled structure set above the stepped feature. The eastern embankment of the platform or trackway continues, becoming more substantial, and is joined by a parallel western embankment, where the stepped feature proper commences. The base is stepped down from south to north, each step apparently defined by stone edging or footings. The steps are better defined than in Site 7/4; each step is c.0.5m high and set at intervals of between 4.0m-6.0m. Over the course of its 25m length, the stepped part of the structure maintains an internal width of 2.5m; the total fall over the 25m is c.5m. At its base, a scarp cuts across to the east, but there is no evidence for any associated building platform here, as was the case with the first example.
- 3.47 Although the northern sunken area (**Site 10/3**), like that to the south, largely makes use of very steep scarps (up to 3m in height) for its boundaries, the two share a prominent, flat-topped, L-shaped bank, up to 1.5m high, set between them at their western ends. To the east of this, there are two substantial sub-circular mounds, standing up to 0.7m high, above the northern sunken area. Both are burrowed by rabbits, and in contrast to the majority of the other mounds within the survey area, are formed almost entirely of soil, with little stone. The level base of the sunken area appears to be devoid of ridge and furrow, although it is crossed by at least one very spread curvilinear bank; two other interesting sub-circular features in this area are described in more detail below. The eastern part of the north side of the sunken area is defined by a substantial flat-topped bank, standing up to 1.5m in height [2/805]. The east end of this bank angles away from a group of conjoined depressions, and has a trackway running parallel to its base, leading into the level base of the northern sunken area.
- 3.48 These depressions may form a series of conjoined structural platforms (**Site 10/4**), set on a slight promontory of locally higher ground, although the very steep 1.2m high scarp adjacent to the road was probably created by the construction of Tarns Lane. The earthworks appear to represent a larger, southern, structure, formed by an east-west 0.5m deep sub-oval depression 12.0m long divided into two parts of approximately equal size. A northern depression is smaller and more sub-square in plan, and there may a third even smaller structure between the two. There is no real evidence for any stone within the depressions. It is possible that these features may once have continued onto the east side of Tarns Lane, along the top of a natural north-facing scarp.
 - Structure, banks and quarrying (Site 11), north end of survey area
- 3.49 The northern end of the survey area [2/809], beyond the second 'valley' area, can broadly be divided into two parts. The western part is raised to form a small plateau which contains a number of scarps, together with some denuded ridge and furrow, running approximately east-west across the plateau (**Site 11/1**). These scarps become more substantial when they reach the steep slope to the east

[1/024] and one incorporates the remains of a sub-rectangular structure towards its base [2/810; 2/811] (Site 11/2). This structure is aligned east-west, measures c.6.0m long by c.3.0m wide, and is up to 0.4m deep (plate 19). The interior slopes steeply down from west to east, and the upper c.2m may be divided internally from the remainder, with a possible entrance at the north-east corner. All sides preserve evidence for stone footings and, if the structure had once climbed further up the slope to the west, then it would have resembled the two stepped features (Sites 7/4 and 10/2) described above. Two possible cairns (Sites 4/4 and 4/5) in this area have been described above.

3.50 At the bottom of a steep natural slope, the bottom of the eastern part of the northern end of the survey area is generally level, and is defined to the south and west by scarps, up to 2m in height [2/808]; it resembles another of the 'sunken areas' described above. The scarp defining the southern side appears to continue into the field to the east of Tarns Lane. Along the eastern edge, there are several east-facing scarps, between 0.6m and 1.0m in height [2/806] (Site 11/3). At their northern end, irregular depressions may be the remains of former quarrying associated with the construction of the road.

The Tarns Lane bank (Site 12), east side of survey area

- 3.51 This bank runs almost the entire length of the EDAS survey area maintaining a parallel course to the west side of Tarns Lane, is clearly visible on the available aerial photographs (see figure 3) it clearly post-dates many of the earthworks which it crosses, making it one of the more recent features to be recorded. However, there are no known gas pipelines, drains or other services crossing the survey area which would account for it, and so it is highly unlikely to be 20th century in date.
- 3.52 The bank is first visible at the very north end of the survey area, where it is represented by a low spread bank, 0.5m high, and set 20m to the west of the drystone field wall which defines the west side of Tarns Lane (Site 12/1). The bank runs almost due south across a relatively level area, but is then lost. It reappears on the same alignment, crossing the east end of the north sunken enclosure of the second 'valley' area (Site 10/5), by which point it is has diverged from the wall line by a further 10m (Site 12/2). Here, it may preserve the fragmentary remains of two lines of stone facing, set 1.1m apart, and perhaps also the site of a gate, marked by paired stones set 4.1m apart [2/804] (plate 20). The bank continues to the east of the stepped structure seen in the second 'valley' area (Site 10/2), climbing the slope here, and can be seen to overlie the block of ridge and furrow on the east side of the second plateau area (Site 9/4). At this point, the bank is set c.48m to the west of the drystone field wall, and it maintains this distance for the rest of the c.370m over which it can be followed. However, for most of its remaining length, it is a rather slight earthwork, being no more than 2.5m wide and 0.5m high.
- 3.53 After crossing the ridge and furrow, the bank clearly crosses the far more substantial bank defining the south side of the second plateau area (Site 9/3), and can then be traced across the base of the 'valley' complex (Site 12/3). It begins to ascend the scarp on the south side, but cannot be clearly seen until it has reached the first plateau area. Here, it survives largely as a slight east-facing scarp, sometimes running along earlier earthworks on the same orientation. It crosses the east end of the large ridge and furrow block (Site 1) as a very slight bank (Site 12/4), but becomes difficult to trace before it reaches the Threshfield/Linton township boundary (Site 5); its line may be continued by an east-facing scarp

which is set on the same alignment. Beyond here, it could have curved around to the south-west to follow a south-facing scarp (Site 1/5), or might have continued along the top of a steep natural east-facing scarp.

Structures, trackways and quarry (Site 13), south-east corner of survey area

- 3.54 The earthworks of a probable structure (**Site 13/1**) are visible to the immediate west of the point where the former township boundary (Site 5) turns through a sharp angle. This structure is sub-rectangular in plan, measuring c.8m long by 4m wide [2/855]. The spread banks which define the sides contain stone rubble to the north and east, and the structure might possibly have been open to the south. It is noticeable that this structure is on a different alignment to the axis of the adjacent field system (Site 1), and so is unlikely to be associated with it.
- 3.55 The line of a trackway (**Site 13/2**) rises up a curvilinear natural scarp near the east end of the former township boundary in the south-east corner of the survey area. There is a second trackway to the south, climbing an artificial scarp and perhaps merging with the other trackway at the top. Both may then have continued southwest, past the above structure (Site 13/1) and along the top of the southernmost visible lynchet (Site 1/5) within the recorded field system.
- 3.56 There are further earthworks in the area to the south of the township boundary line (Site 5). The prominent lynchet (Site 1/5) has already been mentioned, but some 50m to the south, and on a parallel alignment to the township boundary, is a spread bank, standing up to 1m in height. To the south of its western visible end, there is a structure (Site 13/3) [2/859], surviving as a slightly raised subrectangular platform set at a right angle to the bank, measuring c.8m long by 4m wide; as with the other structure noted above (Site 13/1), it lies skew to the main axis of the adjacent field system. Towards its eastern end, the spread bank runs down a steep c.5m high east-facing natural scarp, passing a spring feeding at least two stone troughs [2/854] (Site 13/4) and then perhaps continuing across the level area at the base of the scarp. The upper edge of the scarp has been cut into for much of its length, creating a slight terrace, while at the north end there is a prominent sub-oval depression that may represent a former quarry (Site 13/5) [2/853].

Lime kilns, tree pulls and other sub-circular features (Site 14), throughout survey area

- 3.57 Across the whole of the survey area, there are numerous sub-circular features, of varying sizes and forms. Those considered to represent possible prehistoric cairns have been described above under Site 4. Other sub-circular earthworks are almost certainly tree pulls, some were probably created where large surface boulders have been removed, and others may result from stock poaching around former trees and boulders. They all merit consideration in their own right as evidence for former landscape use, which is discussed more fully in Chapter 4 below. However, there are others which are given a fuller description below.
- 3.58 There are at least four features within the survey area which resemble former lime kilns. The northernmost example (**Site 14/1**) [2/807] is located in the northern end of the survey area, close to the drystone field wall forming the northern boundary. It comprises a low sub-oval mound, c.5m in diameter, containing a high proportion of small rounded or sub-angular stones, averaging 0.1m across. The mound surrounds a sub-circular depression, possibly once open to the south-east, and up to 1.0m deep to the west side. There may be remnants of some stone lining or

- edging visible to the bottom eastern edge of the surrounding mound, perhaps leading to a interpretation of a cairn-like structure which has been robbed out and subsequently used as a kiln.
- 3.59 The second example (Site 14/2) is set on the southern side of the second plateau area (Site 9). It is represented by a horseshoe or U-shaped bank, open to the north-west, with a total diameter of c.5m [1/001; 2/825] (plate 21). The bank stands up to 0.5m high externally, and appears to contain a high proportion of stone rubble. The interior of the earthwork is rather more sub-rectangular, measuring 2.0m by 1.0m, and is more steeply scarped than the exterior but of the same height. The 'open' north-west side has a very slight bank set to the front of it, but very much lower than the bank which surrounds the feature. The third example (Site 14/3) [2/840] is located in the centre of the first plateau area (Site 7), some 100m to the south-west of the second. It too is formed by a horseshoe or Ushaped bank, slightly elongated in form, and open to the north-east; it has total dimensions of 6.0m in length by 4.5m in width. The fourth example (Site 14/4) lies some distance from the other two, close to the southern edge of the large block of ridge and furrow (Site 1). It is represented by a horseshoe or U-shaped bank of similar dimensions to the others, but is open to the east.
- As has been already noted above, some of the sub-circular earthworks resemble tree pulls, and it may be significant that several are located on the line of substantial banks, some of which define enclosures. Nevertheless, some appear to be far too large to be tree pulls. The largest example (**Site 14/5**) is located at the junction of three banks within the first plateau area (Site 7). It is formed by a sub-circular depression, 7.5m in diameter and up to 1.0m in depth [1/020]. The sides slope steeply down towards an uneven base and are generally lower on the south-west side than the rest of the depression. The flat-topped bank around the south-west side of the depression stands up to 0.8m in height. If not a tree pull, the function of this earthwork is unclear, but it may be a possible kiln or another type of structure.
- 3.61 There are other sub-circular or sub-oval features for which it is presently difficult to propose a function or origin. Within the base of the north sunken area of the second 'valley' (Site 10/5), there are two embanked oval features. The eastern of the two (Site 14/6) [1/022: 1/023: 2/816] measures c.10m east-west by 6m northsouth in total, and can be divided into two parts. The western part is a low subrectangular mound, c.4m long. The eastern part is a sub-oval depression, surrounded by a low bank and possibly once open to the east end (plate 22). The interior of the depression is up to 0.5m deep, while the exterior bank is slightly lower at 0.3m. The inside of the south side bulges inwards, giving the interior a slightly crescentic form. The bank contains a high proportion of rounded and subangular small limestone rubble, and it has been dug away in several places around the edges. It may well be a kiln but perhaps more likely another form of structure. The second feature (Site 14/7) [2/815] is similar but smaller, being c.5.5m in diameter and almost horseshoe-shaped to the interior, and is more kiln-like in appearance.
- 3.62 There are other similar examples scattered throughout the survey area. For example, on the second plateau area (Site 9), on the north side of one of the enclosures here, a sub-circular depression (**Site 14/8**) [2/821] with a surrounding low bank bears some resemblance to some of the features described above as possible kilns (plate 23). To the south, within the first 'valley' area (Site 8), another example can be seen (**Site 14/9**), close to the mound incorporating the very large limestone boulder. Finally, to the west of a sunken enclosure (Site 10/1), there is a

slightly raised mound (**Site 14/10**), 0.3m high and containing a high proportion of small stone rubble, surrounding a sub-circular depression - its function or purpose is unknown but it may be another possible kiln. To the immediate north, there are a series of larger (up to 0.5m) pieces of angular limestone rubble, set on edge to define a small 'structure' on a north-south alignment, measuring 3.0m long by 1.1m wide overall.

The Boundaries of the Survey Area

- 3.63 While the earthwork survey was being undertaken, a brief inspection of the drystone field walls forming the boundaries of the EDAS survey area was also carried out. The purpose of this was primarily to observe the relationship between the earthworks and the walls, and it is likely that a more detailed inspection would reveal further information regarding, for example, former openings or re-used fragments of earlier structures within wall lines.
- 3.64 The drystone field wall defining the southern boundary of the survey stands on average 1.5m high, with a tapered profile, being 0.8m wide at the base and 0.4m wide at the top. It is built of predominantly limestone rubble, with no throughstones, and slant coping, and appears relatively recent in date. From the south-east corner of the survey area, it runs west for 120m before returning through a right-angle to the north. At the north end of this return there is a gateway, and the wall then returns to the west once more, following the line of the Linton/Threshfield medieval township boundary. Approximately 52m west of the gateway there is a straight joint in the wall on the line of a faint west-facing scarp; the wall to the east of the joint butts or is built up against that to the west. Approximately 160m west of the gateway, there is a sheep creep, and close by to the west, a second straight joint is placed on the line of a prominent scarp within the larger field system (Site 1).
- 3.65 On the west side of the survey area, the drystone field wall stands up to 1.8m in height, with a tapered profile, being 0.8m wide at the base and 0.4m wide at the top. It is built of predominantly limestone rubble, with several courses of markedly larger stones to the base. This wall has been subject to much more alteration and rebuilding than that forming the southern boundary of the survey area, and there are numerous instances where it crosses earlier linear earthworks. As has already been noted, at the southern end of the wall, a blocked opening with a substantial lintel [1/005] is likely to have been built to allow water to flow through the base of the wall when required (plate 24). Further to the east, close to the line of a possible trackway (Site 1/3), there is a sheep creep adjacent to where the wall line crosses a lynchet, and the apparent remains of an older wall line along the short section where the lynchet runs parallel to the wall. There are also several straight joints on either side of where a natural gully crosses the field system (Site 1), again sometimes associated with earthworks running beneath the wall line. As has been previously noted, a large stone is placed in the approximate centre of the section of wall which crosses the gully, although it is unclear if this had any real function. There is a straight joint in the wall where it meets a scarp running along the top of the east side of the gully, and immediately adjacent, a stone possibly with a crudely carved cross on it, although this may be no more than entirely fortuitous arrangement of natural features [2/865].
- 3.66 Some 65m to the east of the latter, two large stones with a narrow gap between in the lower part of the wall may define a former narrow gap or opening; they are placed just to the south of where a prominent bank (Site 1/2) within the larger field system runs beneath the wall. To the north-east of here, the wall has been subject

to numerous alterations and repairs, some of which may be associated with the many earthworks which it crosses. Towards the north end of the field wall there is a gateway, and at its northern end it gives way to a post and rail/post and wire fence which runs around the gardens of a substantial house; the 1853 Ordnance Survey map shows that the field wall originally continued straight on as far as Moor Lane (see figure 6).

3.67 The wall defining the northern boundary of the survey area, along the south side of Moor Lane, is similar in form to that along the western boundary, although on average slightly lower. It too has a high proportion of larger stones along the base. Towards the eastern end of this section of field wall, its form changes, becoming more regularly constructed and with upright coping. The wall continues in this manner along the eastern boundary of the survey area adjacent to Tarns Lane, and much appears to be relatively recent in date. The most interesting section is where the wall line crosses a former pond (Site 6/4). Here, the lowest two courses of stones are larger and more regular than those in the wall to either side, and they may represent re-used pond lining.

4 DISCUSSION

Introduction

- 4.1 The EDAS survey area forms a small but significant part of an extremely complex and extensive local archaeological and historical landscape, with surviving earthworks extending across the townships of Threshfield, Linton and Thorpe, and their historic sub-divisions. This landscape is equally as complex and extensive as the far better-known examples to the north of Grassington in the High Close and Sweet Side areas, but has received far less attention.
- 4.2 It is difficult, and indeed might be considered erroneous without further research and investigation, to place the earthworks within the survey area in anything other than a broad chronological framework, and it should be stressed that the assignment of a particular earthwork to one of these periods is based on a combination of available documentary sources, the earthworks' plan form and inter-relationships, and professional judgement. The developmental sequence set out below is therefore offered as a model for further discussion, rather than a definitive interpretation. Figure 10 attempts to illustrate the broad chronology for this development, while figure 9 provides an indication of the various buildings and platforms within the survey area.

Prehistoric Elements

- 4.3 It is noticeable that, within the survey area, there is an apparent lack of evidence for co-axial field systems of the type recorded elsewhere locally, for example, at High Close, north of Grassington. Although the extensive field system (Site 1) occupying the south-western part of the survey area might at a glance be considered to share some similarities of plan form, the construction of its boundaries and internal divisions is different, while many of the cross-boundaries between the main internal linear divisions are a subsequent addition (see below). This lack of obvious evidence for a co-axial system might stem from one being absent here. However, perhaps (and more likely) it may be that one has been reworked and altered to such a degree that only the barest fragments remain, as is proposed elsewhere in Linton township (Moorhouse 1995, 1). Aerial photographic evidence (e.g. YDNPA DNR 1060/22; see figure 3) suggests that fragments of a co-axial system may survive within Threshfield township to the north-west of the survey area, south of Moor Lane, and further detailed measured survey here would lead to a greater understanding of how it might relate to the field systems to the south-east.
- 4.4 A small group of possible prehistoric cairns or mounds (**Sites 4/1 to 4/7**) has been identified, scattered across the survey area (see figure 9). The disentangling of such sites from later field systems or agricultural complexes is, however, not always straightforward. At Scotland Farm near Hawnby, in the North York Moors, a walkover survey undertaken in the 1990s had identified several possible larger cairns amongst a wider cairnfield. A detailed measured earthwork survey undertaken in 2010 established these larger cairns were actually located within a previously unidentified complex of buildings, structures and platforms, surviving as low earthworks or stone footings. The form of the complex, its location and comparison with other known examples suggested that it may have comprised the core of a medieval *bercaria* or sheep farm associated with a grange of Byland Abbey. The detailed survey suggested that one of the larger 'cairns' was actually a building associated with the complex, but the other was more difficult to interpret, and it might feasibly have been a prehistoric feature which had been partially

robbed out at a later date (Dennison & Richardson 2011; Richardson & Dennison 2012, 83-86). The firm identification of potential prehistoric cairns, mounds or barrows within complex multi-period landscapes, as opposed to more isolated examples, is difficult precisely because there are many other ways, some entirely natural, in which the earthwork could have been formed (Luke 2013); the key issue is not so much proving that the earthwork is a prehistoric cairn or mound, but being able to realistically discount all of the other things that it might be.

4.5 Although another origin, perhaps even 19th or 20th century dumping, cannot be absolutely discounted, there are nevertheless several reasons to support the proposition that a group of prehistoric mounds or cairns have survived in and around the south-west part of the survey area (Sites 4/1 to 4/3). Firstly, they do not closely resemble the many structures, buildings and platforms of possible Romano-British to medieval date identified within the survey area (see below); there is no evidence for structural bays, padstones, stone footings or other features which appear characteristic of these features. Secondly, they are grouped together in a locally elevated position with clear views north towards prominent topographical features. Thirdly, they lie within a part of the survey area that appears to have been less intensively developed in the past than other parts, so making their survival more likely - although they are located within an extensive arable field system (Site 1), and so one would have to assume that they had been left in place during the period that this field system was in use. In addition to the two more definite examples (Sites 4/1 and 4/2) within the survey area, and that surveyed in 2012 in the field to the west, aerial photographic evidence (e.g. YDNPA DNR 1060/16; see figure 3) suggests that there may be several other possible examples in the field to the west, and it is likely that detailed measured survey would reveal others. It is also possible that the other features tentatively identified as cairns to the north-east (Sites 4/4 to 4/7) are actual cairns, although they do not have the elevated views of those to the south-west.

Romano-British Elements

4.6 Although Moorhouse (c.2006) recorded a curvilinear raised settlement of probable Iron Age date and two suggested Romano-British farmsteads to the east of Tarns Lane, little that was broadly comparable was noted within the EDAS survey area. It is possible that there are such features within the complex area of conjoined enclosures which characterises the central part of the survey area (Sites 7 and 8). For example, it could be argued that a sub-square area located in the flat base of the 'valley' containing a range of rectangular structures (Site 8/2), another structure (Site 8/4) and a bank (Site 8/5) all form part of a sub-rectangular farmstead measuring c.60m by 50m, quite close to the dimensions of the suggested Romano-British farmsteads to the east of Tarns Lane, and perhaps also including further structural platforms (Site 8/6) to the east (see figure 10). However, it is not certain that all of these features are contemporary, and the complexity of this area is such that they could easily be medieval or early post-medieval in date. It may well be that there are Romano-British features to the west of the EDAS survey area (see figure 3), while local metal detectorists are believed to have recovered at least one Roman coin from within the survey area (Stuart Brown & Vicky Fattorini, TLSPG, pers. comm).

Pre-Conquest Elements

4.7 As has been already described in Chapter 2, it is likely that significant parts (if not all) of the EDAS survey area were given over to pasture by at least the 13th

- century, if not sometime before. The extensive arable field systems are therefore likely to pre-date this.
- 4.8 The most extensive arable field system recorded within the survey area (Site 1) has its south-western limit above Millstone Gill, and it is likely that such a prominent gully will have formed a natural boundary for any man-made landholding from an early date. The field system (comprising lynchets and ridge and furrow) is laid out on a general east-west alignment, broadly across the overall south to north slope of the ground surface and, within the survey area, it covers an area measuring some 440m long by 300m wide (see figure 10). The field system was sub-divided by a series of south-facing lynchets, some of which preserve fragmentary evidence for wall lines along their tops or rubble revetments. However, there is a noticeable lack of surface stone within the field system as compared to the rest of the survey area, and it is probable that much was cleared and used to revet the lynchets. The lynchets themselves are set at between 40m to 50m centres within the central part of the field system. There were perhaps originally lower lynchets or banks subdividing these larger divisions into c.20m wide strips, while the ridge and furrow between the lynchets is generally rather denuded; the average width of each ridge is c.2m, and the average centre ridge to centre ridge measurement is between 6m-7m, although there is obviously some variation.
- 4.9 Both the earthwork and aerial photographic evidence shows that, within the survey area, the apparent northern end of the field system is overlain by at least part of a complex patchwork of smaller enclosures (for example, Sites 7/1 and 7/2), while the southern end (and some of the internal sub-divisions) runs beneath the medieval township boundary between Threshfield and Linton as proposed by Moorhouse (c.2006) (see figure 10). Aerial photographs and transcription plots from the same indicate that the northern edge of the field system continues across adjacent fields to the north-west (YDNPA DNR 1060/16), and that boundaries within the same field system also cross Tarns Lane (YDNPA DNR 1060/19) (see figures 3 and 4). The spacing and alignment of the field system boundaries are similar to that recorded to the east of Tarns Lane and, although they are not commented on in the text, they appear on Moorhouse's surveys (c.2006) as faint scarps, both north and south-facing, and in one area (c.2006, figure 2) appear to be disturbed by steep north-south aligned east-facing scarps, to the east of a proposed medieval sheephouse complex.
- 4.10 Interestingly, Moorhouse (c.2006, figure 4, 'c') also recorded a bank, aligned roughly east-west, which was stated to form a major boundary to the medieval or earlier field system and which overlay a farmstead of suggested Romano-British/Anglian date. The alignment and spacing of this bank in relation to the other proposed elements of this arable field system to the west of Tarns Lane might denote that it was part of the same system. If this field system did extend as far east as Stony Meadow Lathe, then it would be effectively bisected by the medieval township boundary between Threshfield and Linton as defined by Moorhouse (c.2006), and it would run as far as the boundary of early medieval Linton and the late 11th century area (two carucates) of ploughland as suggested by Raistrick (Moorhouse c.2006); fieldwork along part of one of Raistrick's proposed 11th century boundaries revealed a complexity of features which may require the boundary to be re-assessed (Moorhouse 1995, 1-4).
- 4.11 Although lynchet field systems in the Yorkshire Dales are traditionally said to be medieval in date (White 1997, 69-71), the combined evidence as listed above suggests that the field system within the EDAS survey area (**Site 1**) is pre-13th century, and possibly pre-Conquest but probably post-Roman, in date. If its former

extent is also as suggested, then it may also predate the establishment of this part of the medieval township boundary between Threshfield and Linton. A creation date for the field system is obviously of great importance when trying to place it within the contemporary pattern of landholding and administration. The medieval arable fields associated with Threshfield are documented as being to the east and north-east of the settlement (Stuart Brown, TLSPG, pers. comm), whereas those within the survey area are some distance to the south. The orientation and location of the field system within the EDAS survey area might lead to an assumption that it was associated with early settlement at or around Linton, but this is not necessarily the case. Its extent would indicate that there was once considerably greater arable cultivation associated with Linton than the two carucates of ploughland listed in 1086, again perhaps implying either that the field system was pre-Conquest in date, and that the extent of arable land had contracted by the 11th century, or that it had expanded substantially after the 11th century, but became at least partly disused in the 13th century. In either case, the medieval township boundary would appear to have been set out after the field system had ceased to be worked as a single entity. A third alternative might be that the medieval township boundary represents a later modification to the boundary line between Linton and Threshfield townships, and that land that was formerly associated with Linton (including part of the early arable field system) became part of Threshfield township.

- 4.12 Furthermore, it is noticeable from the combined evidence of the EDAS earthwork survey, the aerial photographs and the aerial photograph transcription plots that, within the survey area, the proposed northern boundary of the arable field system (Site 1) appears to begin to curve around to the north-east. To the east of Tarns Lane, to the north of the area surveyed by Moorhouse (c.2006), aerial photographs and transcription plots suggest the presence of an arable field system that may continue this curve, with lynchet sub-divisions of similar width. As would be expected, the aerial photographs (e.g. YDNPA DNR 1060/20) show a far greater complexity of earthworks than is shown by the transcription plots, and it is highly likely that measured survey would reveal still greater detail. Nevertheless, the possible continuity hinted at by the transcriptions is significant to the survey area. It supports the suggestion that the complex patchwork of smaller enclosures seen in the central and northern parts of the survey area (Sites 7, 8, 9 and 10) has been imposed upon, and is later than, the arable field system.
- 4.13 It may also be important that the transcription plots appear to show that the way in which the proposed continuation of the arable field system curves around to the north-east is mirrored to the north of Moor Lane by the earthworks crossing the late 12th century 'Aggedenebanes' or 'Aggaedenebancs'. Why should there be an apparent lack of prominent lynchets in the sub-oval area between, to the immediate south-west of Threshfield village? Topography and disturbance caused by the construction of the former golf course here may be partly responsible, but clearly not wholly so. The transcription plots further imply that the southern boundary of the sub-oval area may be formed by the prominent bank (Site 9/5) within the northern part of the survey area. Its line is interrupted by Tarns Lane, but it can be seen continuing in the field to the east, where it apparently coincides with the point at which the proposed continuation of the arable field system stops. This bank may therefore mark the northern limit of whatever was laid out over the field system, rather than the southern limit of an area as the transcription plots imply. Clearly, a detailed measured survey of this area would greatly enhance any understanding and interpretation.

Medieval Elements

- 4.14 As has been previously outlined, that part of the medieval township boundary between Threshfield and Linton (as defined by Moorhouse c.2006) which passes close to and through the survey area appears to bisect an early, perhaps pre-Conquest, arable field system, although the broadly east-west elements of the boundary may in fact follow former internal divisions within this field system. Within the EDAS survey area, the township boundary (Site 5) is defined by a stone wall and an earthwork, the latter principally a line of buried wall footings averaging 1m wide (see figure 10). Their form and relationship to surrounding earthworks suggest that they relate to late 18th century enclosure.
- 4.15 During the 13th century, Fountains Abbey acquired pasture for 300 sheep in Threshfield township. Field and place name evidence on mid 19th century maps gives some idea as to the extent of the 'Pasture of Treskefeld'. It included the two fields to the immediate west of the EDAS survey area, fields to the east and west of Grysedale Lane to the north of Moor Lane, and also apparently that small part of the survey area which falls within Linton township. This distribution suggests that the EDAS survey area was also originally included within the 'Pasture', and it has been known as 'High Pasture' since at least the mid 19th century. This might further imply that the medieval township boundary between Threshfield and Linton once ran slightly further to the south through this area, rather than on the line suggested by Moorhouse (c.2006), and that it was modified during the later medieval or early post-medieval period.
- 4.16 On the reasonable assumption that the EDAS survey area lies within the 'Pasture of Treskefeld' in which Fountains Abbey was pasturing 300 sheep from the 13th century, it is possible that some of the small conjoined enclosures with associated linear structures occupying the central part of the survey area (e.g. Sites 8 and 9, and perhaps Site 7) relate to this activity (see figure 10). Such monastic and seigneurial sheep farms (called bercaria, often anglicised to 'bercary') were numerous across the Yorkshire Dales, and indeed other parts of the country. The seigneurial bercaries tended to be smaller than those established by the monasteries, and to have fallen out of use earlier, sometimes before the end of the medieval period. However, some of the monastic bercaries were very substantial indeed, for example Fountains Abbey's sheepfold complex and administrative centre for its Craven estates at Outgang Hill in Kilnsey, Wharfedale, dealt with flocks of up to 15,000 sheep. As well as containing a core area of buildings to house the sheep, these bercaries incorporated extensive grazing enclosures, isolated folds, sheep washes, sheep houses with attached folds, and dairies. Some of the larger complexes also accommodated other animals such as horses and goats, each with varying grazing requirements. Provision also needed to be made for the cutting and storing of wool in wool houses (lanaria) (Dyer 1995; Moorhouse 2003, 329-341; Donkin 1953). Medieval sheephouses and related structures are usually characterised as long thin and narrow structures, typically between 23m and 65m long and 6m-8m wide (Dyer 1995, 138-147).
- 4.17 Of particular interest therefore are the two stepped structures in the central and northern part of the survey area (Sites 7/4 and 10/2) (see figure 10). Both may have terraced trackways leading towards their upper ends, indicating gable entry (and indeed exit) and both are c.25m long, aligned down a steep south-north slope. Both structures retain evidence for an internal stepped profile, the steps apparently defined by stone edgings or footings, spaced at intervals of between 1.5m-3m, or 4m-6m (Site 10/2). Both structures also have an internal width of 2.5m (increasing to up to 5m in Site 7/4), and perhaps most interestingly, both

have the same fall of between 4.5m-5m along their 25m lengths. One stepped structure (Site 7/4) had another building set at an angle to its base, which was 15m long by 5m wide, and was divided into two or three bays by cross-partitions with stone footings for crucks. The other structure (Site 10/2) had a similarly angled building at its higher end. The presence of these stepped structures, sometimes on steep slopes, using cruck-framed construction, and with gable entry, within medieval landscapes is well attested throughout Upper Wharfedale and Wensleydale (Moorhouse 2006). Within Thorpe and Linton townships, examples up to 70m long have been recorded, sometimes set on steep slopes, and they were suggested to have a variety of functions, including the milking of ewes (Moorhouse 1995, 4). A long narrow building with a detached square building at one end, recorded within the field system of Castle Bolton in Wensleydale, and suggested to be a medieval sheephouse with detached dairy (Moorhouse 2003, 315), is reminiscent of the arrangement seen at Site 10/2, although it is not set out on a steep slope. Whilst cruck construction may be ideal for building down gentle slopes (Moorhouse 2003, 309-310), its use across such a steep slope may have had some effect on the form of the cruck-frames required, and this needs further consideration. The deliberate siting of a building down a steep slope must surely also be significant, and must relate to what the structures were used for; it implies some kind of process flow from top to bottom. Finally, the presence of two such similar structures, and a similar (but significantly longer) example forming part of a proposed sheephouse complex to the east of Tarns Lane (Moorhouse c.2006), all within the area likely to have formed the pasture of Threshfield, indicates a degree of overarching control as to how they were built. They could all therefore result from the ownership of Fountains Abbey, and so to date to after the early to mid 13th century.

- The complexes of small conjoined enclosures in the central and northern part of 4.18 the survey area (Sites 7, 8, 9 and 10) are in many ways the most difficult parts of the site to interpret (see figure 10). Several other long thin structures or platforms were also identified in these areas, such as Sites 8/1, 8/2, 8/4 and 8/6, and that on the south side of an adjacent enclosure (Site 9/2), and they may well represent medieval sheephouses (see figure 9). However, the management of other stock, including horses and cattle, should not be discounted, nor later arable use (see below). The undulating landform here, essentially comprising several broad, shallow, flat-bottomed valleys separated by areas of higher ground, would also have lent itself to the creation of discrete farmsteads during a number of periods: such examples might be Site 3 or enclosure 9/2, or Site 10/4 (see figure 10). What is clear is that the number and complexity of the enclosures and structures in this general area would have required a considerable amount of time, money and effort to create, and this might further point to a monastic origin. Nevertheless, it is as yet unproven as to whether these earthworks all relate to animal management, whether they are all associated, or indeed contemporary with each other. More documentary research might well provide some further information.
- 4.19 The pond complex (**Site 6**) and its associated structures is also well constructed, with evidence for once substantial stone revetting to the uppermost western pond (**Site 6/1**). Although there may be a ramped access for stock at the north-west corner, the steep sides suggest that the pond was primarily used for water storage and collection, and it is perhaps spring fed. The stone cobbling seen here and in the channel linking it to another lower pond to the east (**Site 6/5**) is reminiscent of that commonly found in 18th and 19th century 'dew' ponds, used to prevent stock from trampling the clay and straw puddling of the pond. The eastern edge of the lower pond may have been recorded during survey work on the east side of Tarns Lane (Moorhouse c.2006), suggesting that it was broadly sub-circular in shape but

it was much shallower than the upper pond, and more suited to providing water for stock. In this respect, its proximity to the proposed sheephouse complex recorded to the east of Tarns Lane (Moorhouse c.2006) may be significant, and is again perhaps further evidence for the maintenance of large numbers of stock within this area. The eastern pond was apparently divided by the creation of Tarns Lane, presumably in the beginning of the 19th century.

4.20 In the south-west part of the survey area, the proposed early arable field system (Site 1) has a series of banked enclosures (Site 2) laid out across it, principally created by adding cross-banks between the earlier lynchets and perhaps modifying some of the lynchets themselves; in addition, within some of the enclosures, the ridge and furrow is absent, perhaps having been deliberately flattened or graded out. The core of this complex appears to be a group of four or five enclosures, one (Site 2/3) having several structures with stone footings around one corner (see figure 10). Many of the other enclosures have a small earthwork platform resembling a stackgarth at one corner. The overall form of the complex, its welldrained and raised position, and the distribution of the stackgarths, is suggestive of a medieval stud for breeding and rearing horses, some 20 examples of which have been recorded across the Dales, with a particular concentration in Wensleydale (Moorhouse 2003, 332-334). However, there is no obvious water supply, although depending on how far the complex extended to the east or west there may have been access to some - was water supplied by the pond to the north-east (Site 6/1)? While there appears to be no clear field-name evidence for the site, there is a reference to a Stodfaldgile within Threshfield township in 1256 which could be significant (Smith 1961, 107). If the complex does represent a stud fold, then the gill element of the name might feasibly refer to the natural gully to its immediate south-west.

Post-medieval Elements

- 4.21 The township field systems of which those within the EDAS survey area form a part would have continued to have been modified throughout the early post-medieval period, much as they had previously, expanding and contracting, since they were first created. The 'Pasture of Threshfield' granted to Fountains Abbey in the 13th century continued in use until at least the early 16th century and, when leased to John Norton in 1517, it was described as pasture and a sheep rake for 360 sheep. It is therefore possible that some of the features related to sheep or other animal management discussed above within the central part of the survey area are the result of late medieval or early post-medieval changes. It also seems that some of the enclosures previously associated with stock were being given over to arable several of the small enclosures contain ridge and furrow (e.g. Sites 7/1, 9/2, 9/4 and 10/1) to form a small-scale 'patchwork' pattern of small fields. The ridge and furrow is short and often angled to fit into the enclosures, although in one case (Site 9/4) the ridges pass over an enclosure bank. The earthworks are guite unlike the far larger, structured and earlier arable field system (Site 1) seen in the southwest part of the survey area.
- 4.22 Other earthworks that might be associated with early post-medieval agricultural changes in and around the survey area are those resembling early lime kilns, particularly those which have a horse-shoe or U-shaped form (Sites 14/1, 14/2, 14/3, 14/4 and 14/8) (see figure 9). It is known that the burning of lime for soil improvement was taking place in the Central Pennines during the 16th century, and although the excavation of several lime kilns in Craven has produced 16th and 17th century dates, it is uncertain exactly when and where the practice of liming began (Johnson 2010, 234). Nevertheless, it is highly significant that one of the

earliest confirmed located references to a lime kiln within the Central Pennines comes from Threshfield, in a 1517 Fountains Abbey lease concerning land north of Chapel House (Johnson 2010, 234). Although it is not known if this kiln was producing lime for mortar or soil improvement, the possible presence of further examples within Threshfield township is important, particularly as the measured survey has provided a detail landscape context. Only further examination will prove whether some of the other potential stone-filled oval mounds are also kilns (e.g. **Sites 14/6, 14/7, 14/9 and 14/10**), prehistoric cairns or just stone-filled mounds.

4.23 It is clear from the measured surveys undertaken to the east and west of Tarns Lane that the current road alignment is a post-medieval construction, possibly only formalised in part as late as the 1793 Linton Enclosure Award (NYCRO WRRD B18). At that date, the section of the alignment within Linton township was described as being 'staked out', and this might provide an explanation for one of the more puzzling features within the survey area, the bank (Site 12) running broadly parallel to the west side of Tarns Lane. This can be followed for almost the entire north-south extent of the survey area, but it is clearly one of the latest features, as it crosses many of the other recorded earthworks (see figure 10). Its very southern end is lost, but if its line was projected, it would have come very close to a sharp change in angle of the Linton/Threshfield township boundary, represented by buried wall footings (Site 5). Site 12 lies wholly within Threshfield township, where the early 19th century enclosure award was mainly concerned with the north-west part of the township (NYCRO WRRD B40). However, its line mirrors the angled plan of the field walls marking the western boundary of the survey area, and also the three fields to the west (see figure 6). These wall lines apparently make no reference to earlier historic or earthwork boundaries, and seem likely to have been laid out during the 18th century. Could the bank be a proposed 18th enclosure field boundary, close to Tarns Lane, which had been marked or 'staked out' but never actually completed? Conversely, could the bank be a boundary of a proposed roadside plantation, similar to that which remains on the east side of the road ('Mount Zion Plantation' - see figure 6)? It is presumed that the survey area 'plantation' was never created, given the quality and undisturbed nature of the earthworks which remain (e.g. Site 10/4).

5 CONCLUSIONS

- 5.1 The survey work undertaken to the west of Tarns Lane as part of the current project has recorded a small but significant part of an extensive and complex well-preserved archaeological landscape which covers at least three adjacent townships, and which is as important as the far better-known examples to the north of Grassington.
- 5.2 Initial interpretation would suggest that, although fragmentary evidence for prehistoric and Romano-British activity is present, much of this may have been removed by early medieval to early post-medieval agricultural activity. An extensive early arable field system, pre-13th century and possible pre-Conquest, has been identified. The field system could possibly once have been associated with settlement at Linton, but is apparently bisected by part of the medieval township boundary between Threshfield and Linton; this may be a result of the township boundary either being changed or established after the field system had fallen out of use. Part of this arable field system may also have extended to the north-east, close to Threshfield, but again, its place within the contemporary pattern of administration and landholding is as yet uncertain. There are other earthwork boundaries within the survey area which extend east beyond Tarns Lane, and whose relationship to the medieval township boundary is as yet unclear.
- 5.3 The northern edge of the early arable field system is overlain by a complex area of conjoined enclosures associated with the 'Pasture of Threshfield' since at least the 13th century. Within this area, there is earthwork evidence for the management and rearing of sheep, probably a bercary run by Fountains Abbey, but also for the presence of other stock, including embanked enclosures overlying the central part of the early arable field system which possibly relate to a stud fold recorded in the mid 13th century. The pasturing and stock management, including sheep, continued into the early 16th century, but seems to have been accompanied by the conversion of some of the enclosures to small arable fields. The presence of possible early post-medieval lime kilns within the survey area could also be associated with this latter activity. Many of the earlier boundaries and patterns of land use were probably only finally removed during the 18th century, and the survey area preserves evidence for a possible 18th century field boundary that was laid out but never completed.
- 5.4 It is clear that further detailed measured earthwork survey would greatly enhance the understanding of the historic development of the survey area. Several areas of priority can be highlighted. The majority of the field to the west of the survey area (hereafter referred to as 'Field 2'), between Millstone Gill and Moor Lane, contains earthworks equally as complex as those within the survey area and clearly continuous with them, including an apparent grouping of substantial buildings (see figure 3, bottom). Measured survey here would allow the wider spatial relationship of these earthworks to be ascertained, and to begin to test some of the proposals put forward in this survey report - these include the relationship between the proposed northern boundary of the early arable field system (Site 1) to the northeast/south-west aligned earthworks within Field 2. It would also be beneficial to survey the field to the west of Field 2, to investigate whether the earthworks shown here on aerial photographs are the remnants of an early prehistoric co-axial field system. A second priority is the completion of the survey started by Moorhouse (c.2006) to the east of Tarns Lane, principally the area to the north of those areas already surveyed by him. Aerial photographs indicate densely packed linear earthworks here of several different phases, whose relationship to the proposed medieval township boundary between Linton and Threshfield is as yet unresolved.

- However, any new survey work here would need to incorporate the early survey results produced by Moorhouse.
- 5.5 Although further detailed measured survey work is essential, significant advances could also be made through greater co-operation between the various fieldworkers undertaking survey and research in the area. There are evidently methodological differences. Moorhouse (2003, 357-362) espouses the use of detailed measured field survey within defined contemporary landscape units reconstructed from documentation, criticising interpretation from aerial photography alone and seeing intrusive archaeology as the very final stage of any process of investigation. Martlew (2011, 65-66) on the other hand, whilst acknowledging the importance of measured survey, notes that there is a point beyond which the interpretation of earthwork evidence quickly becomes speculation, with excavation demonstrating how different and contradictory buried archaeological remains can be to what is suggested by the surface earthworks. If the current EDAS survey area was to be extended, as discussed above, if the results of all fieldworkers currently investigating the development of the landscape of this part of Upper Wharfedale were to be more fully integrated, and if there was further investigation through geophysical survey and limited trial excavation, then there is clearly the potential to produce a piece of work that would be of national, rather than regional, significance.

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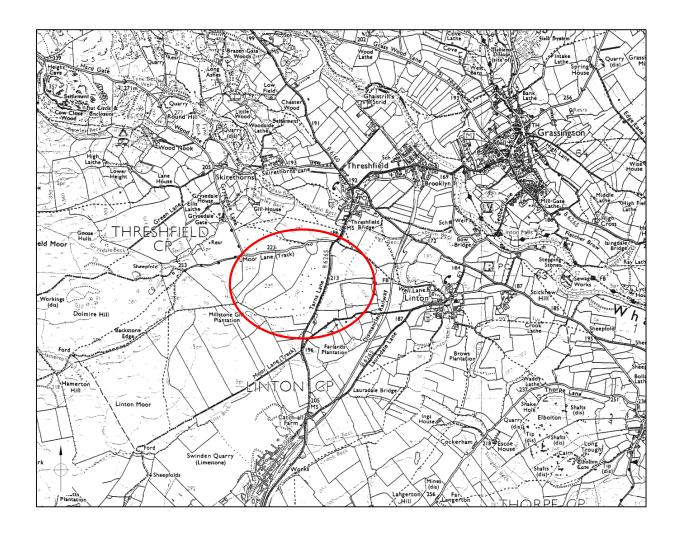
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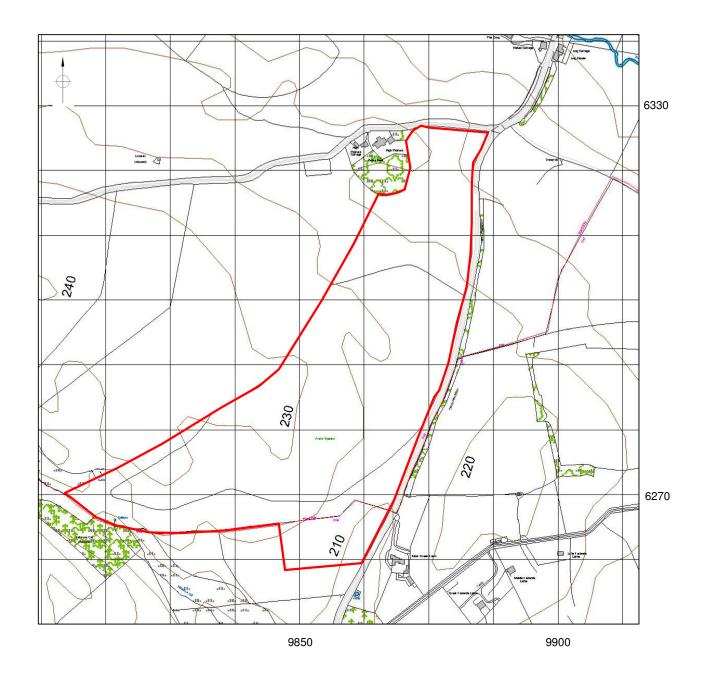
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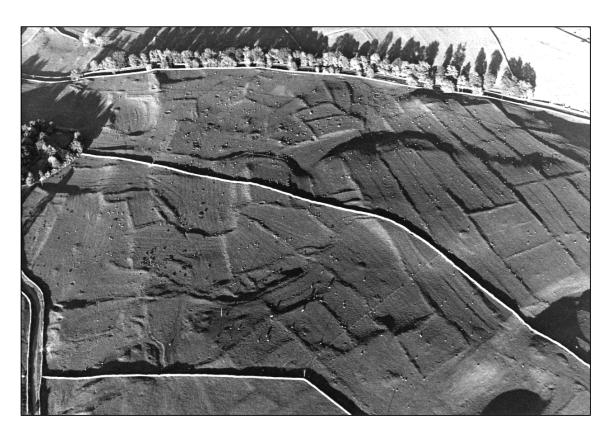
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PROJECT		
WEST OF TARNS LANE, THRESHFIELD		
GENERAL LOCATION		
NTS	DEC 2013	
EDAS	FIGURE 1	



Ordnance Survey map base provided by YDNPA.

WEST OF TARNS LANE, THRESHFIELD		
AREA OF SURVEY		
NTS	DEC 2013	
EDAS	^{FIGURE}	



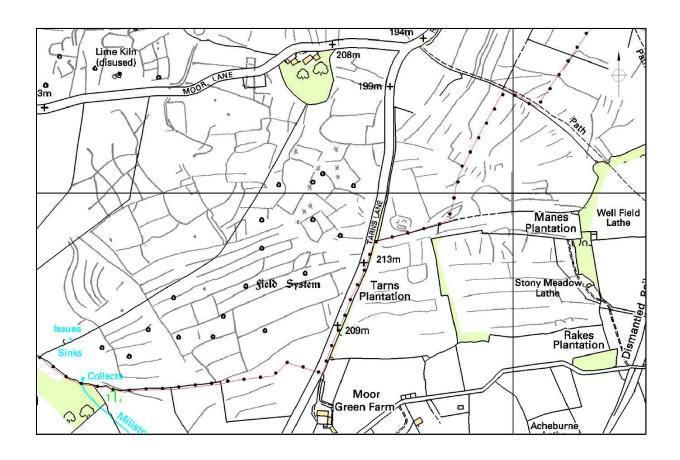


Top: Aerial photograph taken 21st June 1977 looking east (DNR 1060/16).

Bottom: Aerial photograph taken 21st June 1977 looking south (DNR 1060/22).

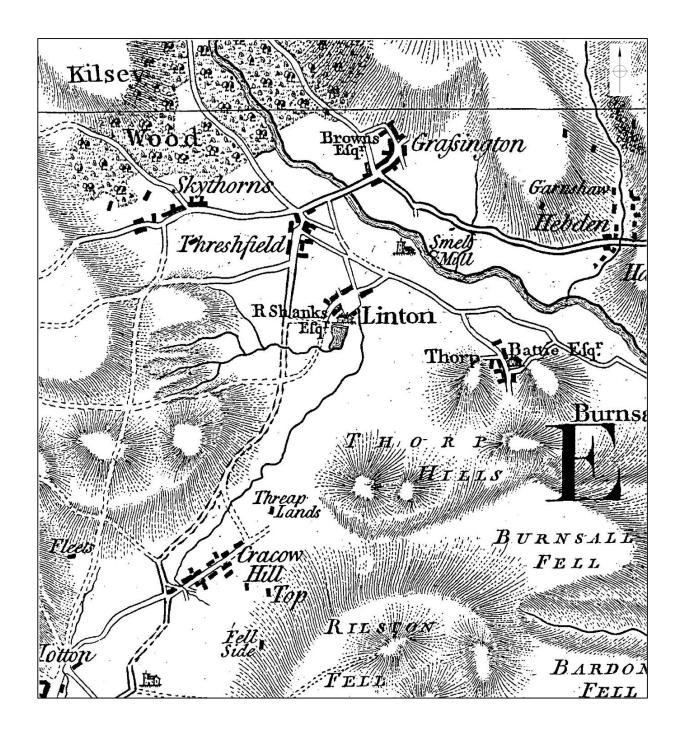
Source: YDNPA HER.

WEST OF TARNS LANE, THRESHFIELD		
JUNE 1977 AERIAL PHOTOGRAPHS		
SCALE NTS	DEC 2013	
EDAS	FIGURE 3	



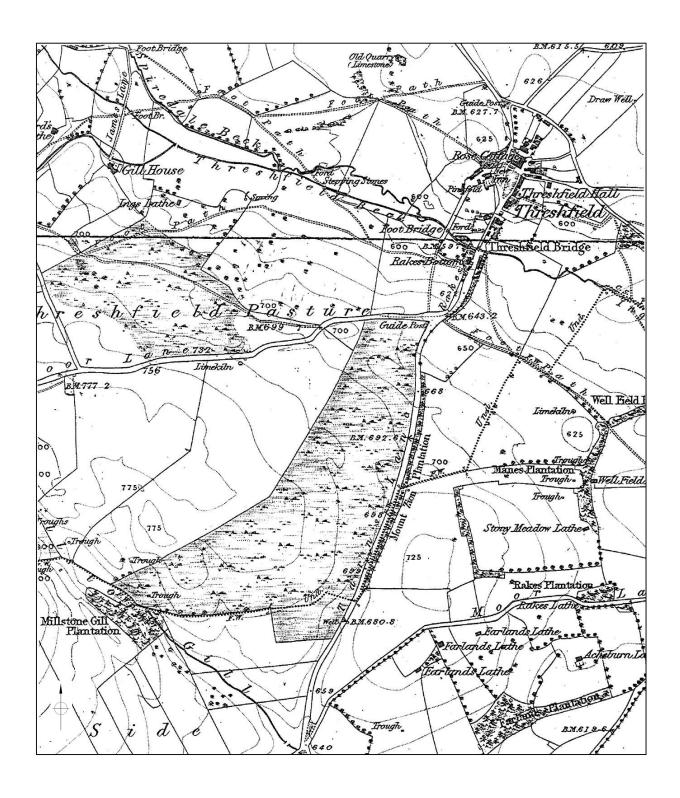
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WEST OF TARNS LANE, THRESHFIELD		
AERIAL PHOTOGRAPH TRANSCRIPTION		
SCALE NTS	DEC 2013	
EDAS	FIGURE 4	



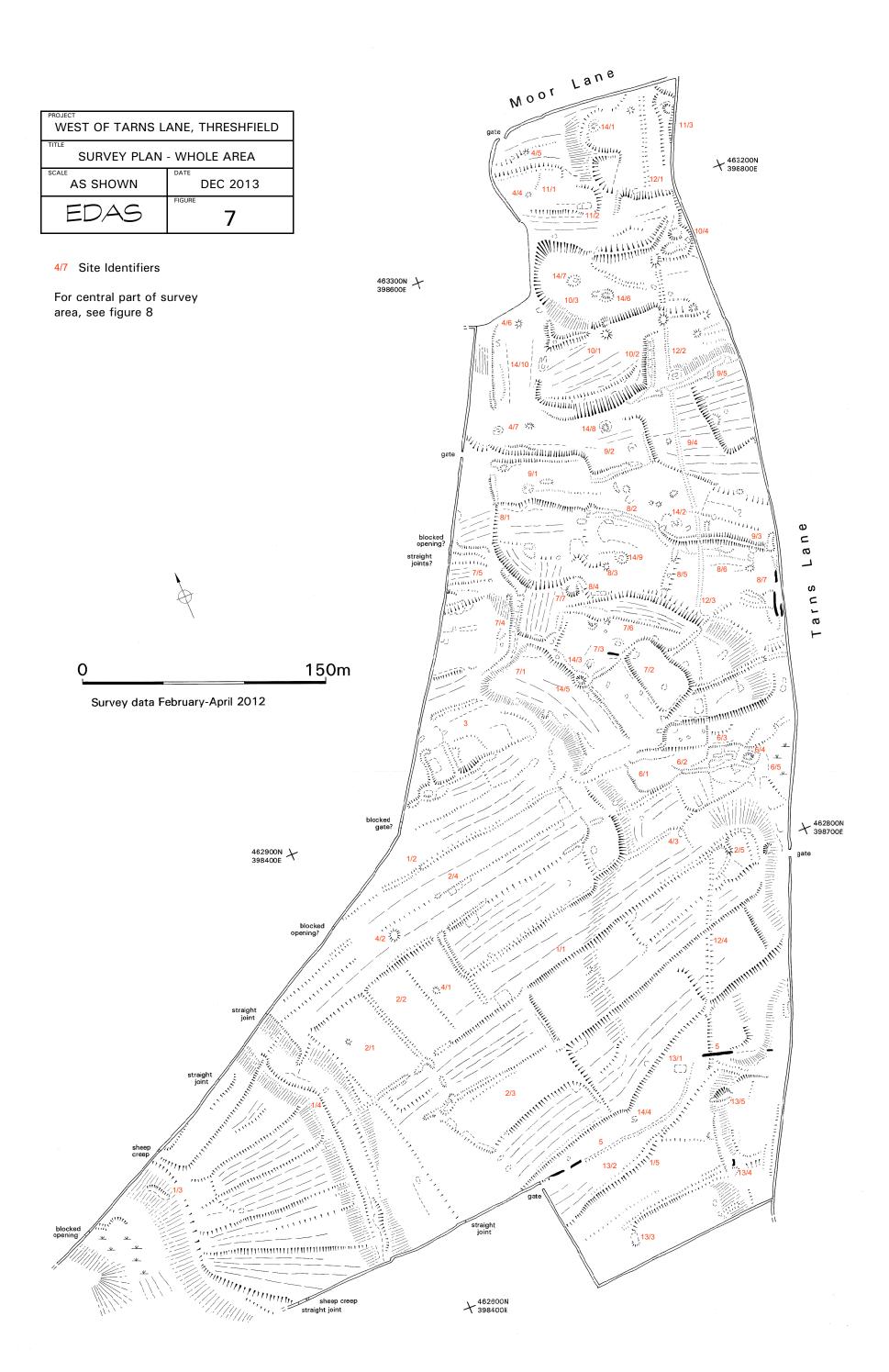
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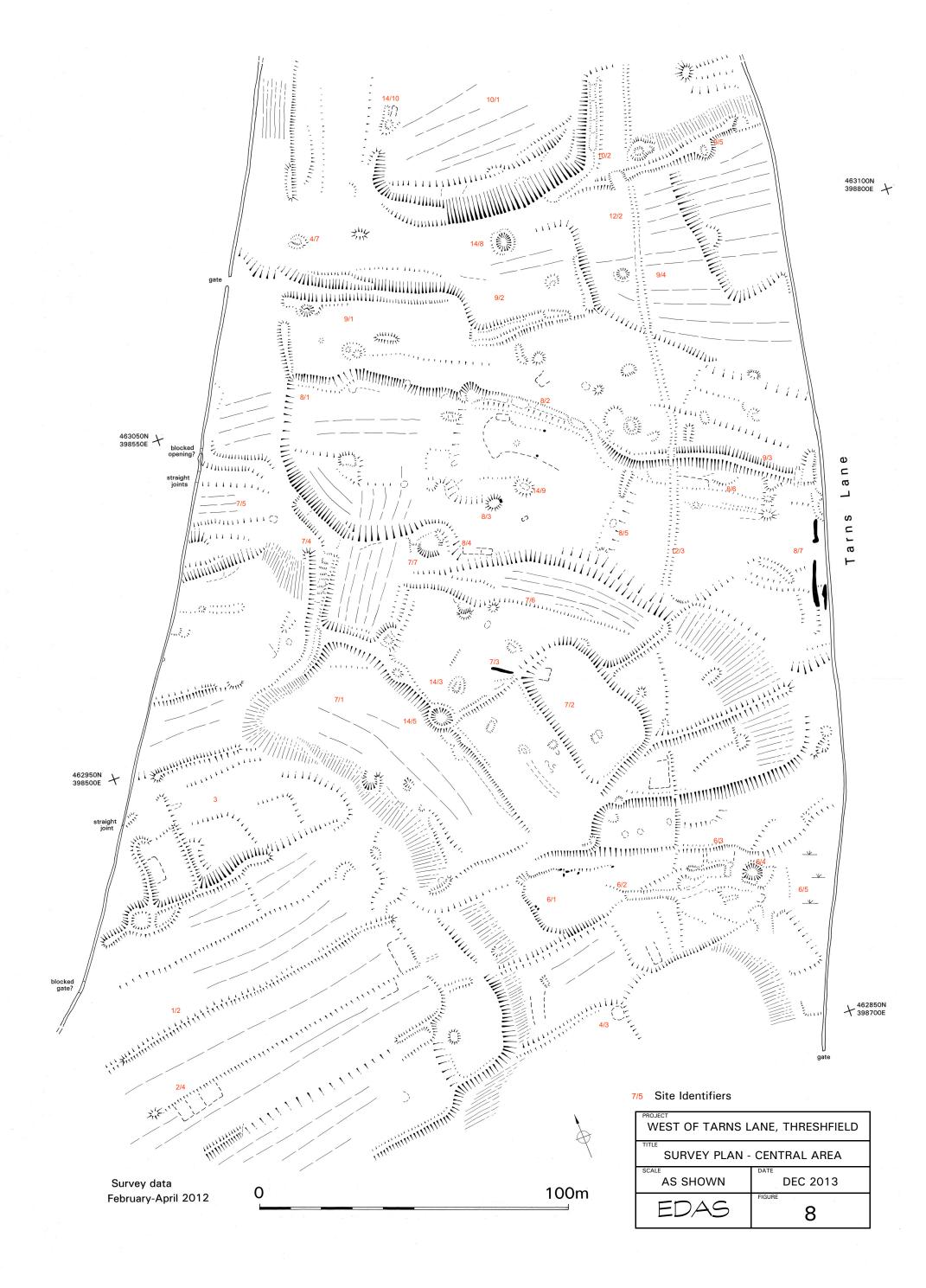
WEST OF TARNS LANE, THRESHFIELD		
JEFFERYS' 1775 MAP		
SCALE NTS	DEC 2013	
EDAS	5	

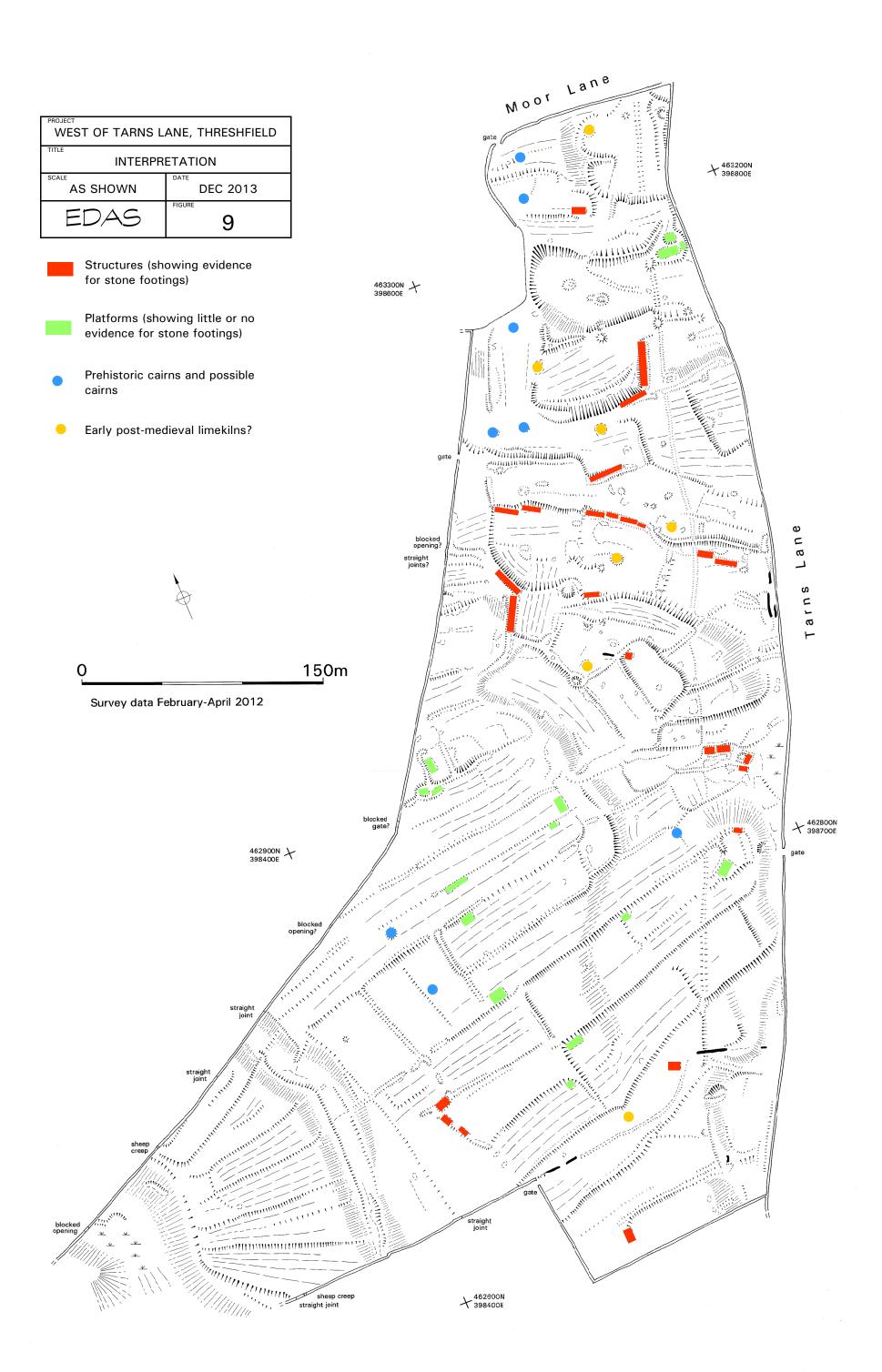


Source: Ordnance Survey 1853 6" to 1 mile map sheet 134 (surveyed 1848-50).

WEST OF TARNS LANE, THRESHFIELD		
ORDNANCE SURVEY 1853 MAP		
SCALE NTS	DEC 2013	
EDAS	6	







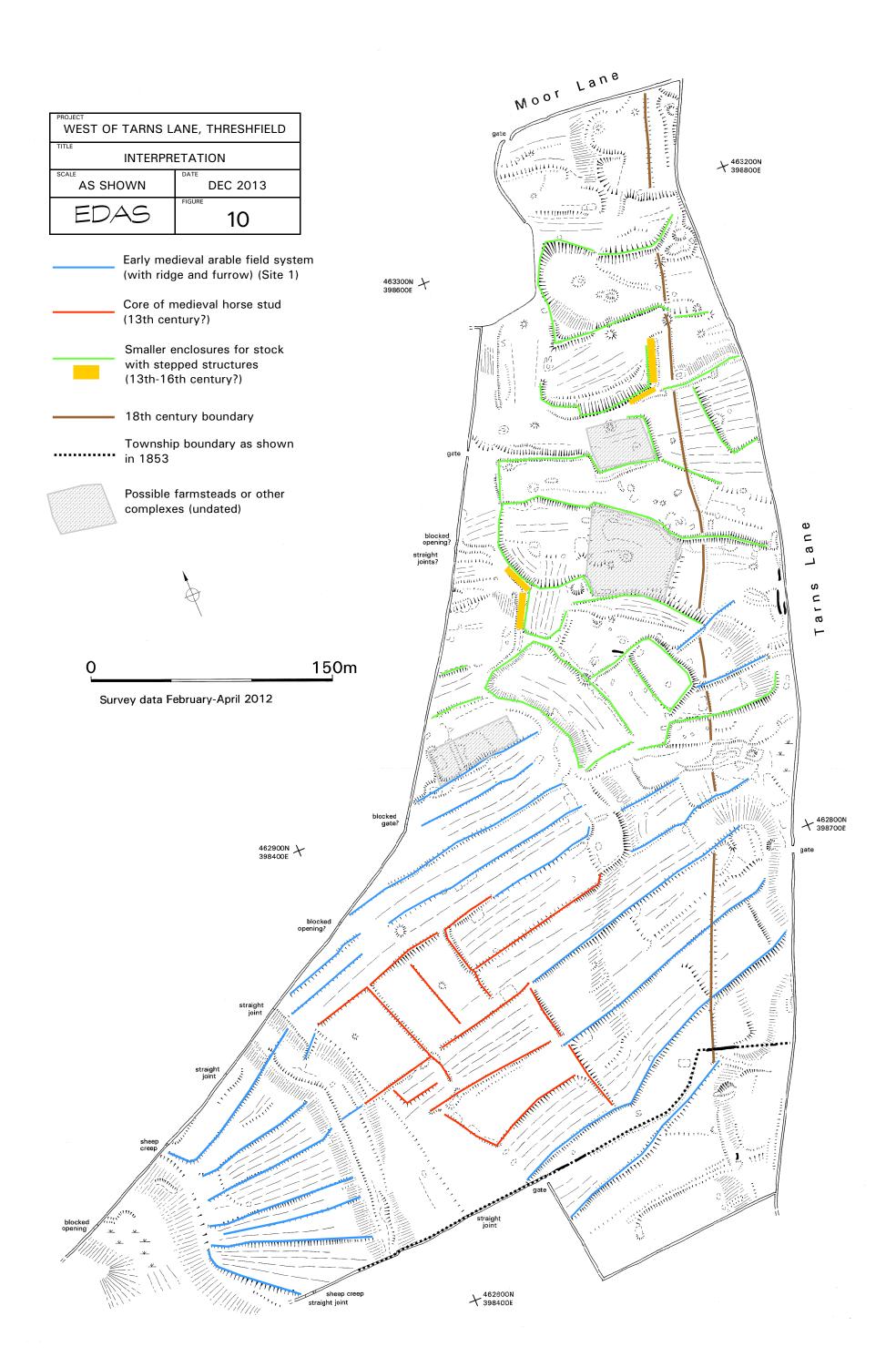




Plate 1: Northern arm of Millstone Gill, south-west end of survey area, looking N (photo 1/007).



Plate 2: General view of valley in central part of survey area, looking E (photo 2/839).



Plate 3: Typical lynchet on south side of field system (Site 1), looking W (photo 2/860).



Plate 4: Flat-topped bank (Site 1/2) with stone edging in field system (Site 1), looking SW (photo 2/871).



Plate 5: Township boundary (Site 5), looking W (photo 2/856).



Plate 6: Natural gully in field system (Site 1), with terraced trackway (Site 1/4) on right, looking S (photo 2/864).



Plate 7: Structures in north-west corner of enclosure 2/3, looking N (photo 2/863).



Plate 8: Cairn (Site 4/2), looking E (photo 2/867).



Plate 9: Possible cairn structure (Site 4/3), looking NE (photo 2/850).



Plate 10: Channel (Site 6/2) between ponds, looking W towards upper pond (Site 6/1) (photo 2/846).



Plate 11: Pond (Site 6/5), looking E (photo 2/842).



Plate 12: Footings (Site 7/3), looking E (photo 1/021).



Plate 13: Stepped structure (Site 7/4), looking NE (photo 2/838).



Plate 14: Footings (Site 8/7), looking SW (photo 2/829).



Plate 15: Structures (Site 8/4), looking NW (photo 1/003).



Plate 16: Structure on south side of enclosure 9/2, looking SW (photo 2/822).



Plate 17: View across enclosures 10/3 and 10/1, looking S (photo 1/026).



Plate 18: Stepped structure (Site 10/2), looking SW (photo 1/027).



Plate 19: Structure (Site 11/2), looking SW (photo 2/811).



Plate 20: Boundary bank (Site 12/2), looking S (photo 2/804).



Plate 21: Possible kiln (Site 14/2), looking SE (photo 1/001).



Plate 22: Depression forming part of possible structure (Site 14/6), looking W (photo 1/023).



Plate 23: Possible kiln (Site 14/8), looking SW (photo 2/821).



Plate 24: Blocked opening in field wall near Millstone Gill, looking N (photo 1/005).

APPENDIX 1

APPENDIX 1: LIST OF MAIN ARCHAEOLOGICAL ELEMENTS

Site no	Sub-no	Name	NGR
1	Field sys 1/1 1/2 1/3	tem, south and south-west of survey area Lynchet, centre of field system Bank, north end of field system Possible trackway, west end of field system	SD 9850 6280 area SD 98450 62755 - 98650 62810 linear SD 98410 62852 - 98570 62878 linear SD 98245 62755 - 98280 62640 linear
	1/4 1/5	Trackway, near west end of field system Lynchet, south-east end of field system	SD 98330 62800 - 98360 62660 linear SD 98475 62625 - 98600 62680 linear
2	Enclosur 2/1 2/2 2/3 2/4 2/5	es and structures, south central part of surv Enclosure Enclosure Enclosure Platform Platform and enclosure	rey area SD 98400 62770 centre SD 98450 62780 centre SD 98470 62710 centre SD 98485 62845 accurate SD 98660 62800 centre
3	Structure survey a	es and enclosures, centre west side of rea	SD 9851 6293 area
4	Possible 4/1 4/2 4/3 4/4 4/5 4/6 4/7	cairns, throughout survey area Cairn, south-west end of survey area Cairn, south-west end of survey area Cairn, east end of field system Cairn, north end of survey area Cairn, north end of survey area Cairn, north end of survey area Two possible cairns	SD 98452 62790 accurate SD 98440 62830 accurate SD 98628 62826 accurate SD 98684 63228 accurate SD 98690 63250 accurate SD 98650 63155 accurate SD 98615 63098 accurate SD 98634 63094 accurate
5	Threshfie of survey	eld/Linton township boundary, south end varea	SD 98300 62640 - 98635 62680 linear
6	Pond and 6/1 6/2 6/3 6/4 6/5	d associated features, east centre of survey Upper pond Channel Structures Structure and depression Lower pond	area SD 98620 62865 centre SD 98650 62858 accurate SD 98662 62865 accurate SD 98685 62855 accurate SD 98700 62840 centre
7	Enclosur 7/1 7/2 7/3 7/4 7/5 7/6 7/7	es and structures, centre of survey area Enclosure Enclosure Footings Stepped structure Terraces Trackway Possible quarry	SD 98590 62920 centre SD 98650 62920 centre SD 98630 62943 accurate SD 98582 62982 accurate SD 98560 63020 centre SD 98630 62970 centre SD 98620 62990 accurate
8	Structure 8/1 8/2 8/3 8/4 8/5 8/6 8/7	es, platforms etc, centre of survey area Two structures Range of structures Mound Structures Bank Terraced structures Footings	SD 98610 63045 accurate SD 98660 63025 centre SD 98648 62995 accurate SD 98635 62985 accurate SD 98680 62980 centre SD 98725 62978 accurate SD 98736 62940 accurate

9	Enclosur 9/1 9/2 9/3 9/4 9/5	es, centre north of survey area Enclosure Enclosure and structure Bank Area of denuded ridge and furrow Bank	SD 98620 63060 centre SD 98680 63060 centre SD 98730 62980 centre SD 98730 63060 centre SD 98760 63085 centre
10	Enclosur 10/1 10/2 10/3 10/4	es, platforms and structures, north end of so Sunken enclosure and platforms Stepped structure Sunken enclosure Platforms	urvey area SD 98680 63120 centre SD 98715 63105 accurate SD 98700 63160 centre SD 98760 63170 centre
11	Structure 11/1 11/2 11/3	es, banks and quarrying, north end of survey Scarps Structure Scarps and quarry	y area SD 98690 63240 centre SD 98715 63205 accurate SD 98780 63245 centre
12	Tarns La 12/1 12/2 12/3 12/4	ne bank, east side of survey area Bank Bank Bank Bank Bank	SD 98770 63260 - 98755 63205 linear SD 98743 63155 - 98708 62990 linear SD 98708 62990 - 98665 62870 linear SD 98665 62870 - 98592 62682 linear
13	Structure 13/1 13/2 13/3 13/4 13/5	es, trackways and quarry, south-east corner Structure Trackway Structure Two troughs Quarry	of survey area SD 98575 62690 accurate SD 98640 62700 - 98475 62630 linear SD 98510 62600 accurate SD 98585 62623 accurate SD 98595 62665 accurate
14	Lime kiln 14/1 14/2 14/3 14/4 14/5 14/6 14/7 14/8 14/9 14/10	s, tree pulls and other sub-circular features, Kiln, north end of survey area Kiln, north side of bank 9/3 Kiln, west of enclosure 7/2 Kiln, south-east corner of survey area Sub-circular depression (tree pull?), north side of enclosure 7/1 Possible structure in sunken structure 10/3 Circular earthwork in sunken enclosure 10/3 Possible kiln in enclosure 9/2 Possible kiln, centre of survey area Possible kiln, west side of enclosure 10/1	SD 98737 63205 accurate SD 98697 63005 accurate SD 98615 62944 accurate SD 98538 62672 accurate SD 98605 62935 accurate SD 98705 63105 accurate SD 98690 63168 accurate SD 98677 63075 accurate SD 98658 62995 accurate SD 98655 63125 accurate

APPENDIX 2

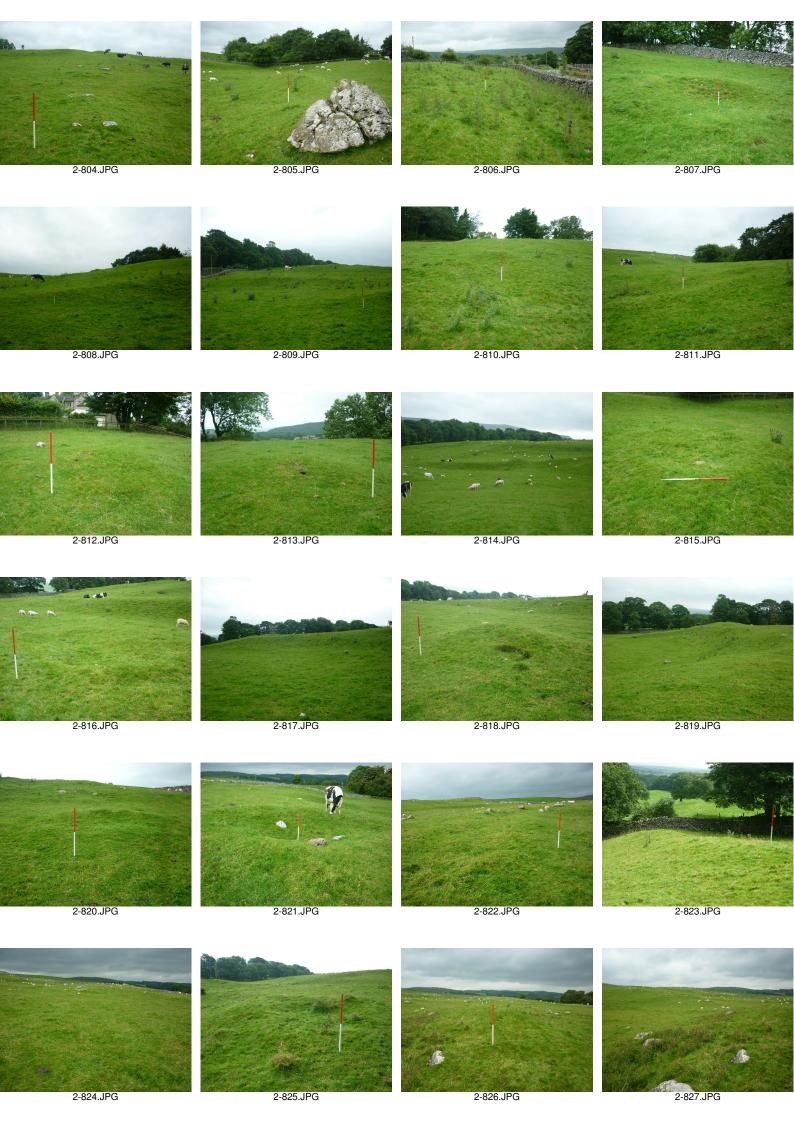
APPENDIX 2: TARNS LANE PHOTOGRAPHIC CATALOGUE

Film 1: Colour digital photographs taken March 30th 2012 Film 2: Colour digital photographs taken August 1st 2012

Film	Frame	Subject	Scale
7 11111	Tramo	Casjoot	Coarc
1	001	Possible kiln (Site 14/2), looking SE	1m
1	002	Range of conjoined structures (Site 8/2), looking NW	1m
1	003	Structures (Site 8/4), looking NW	
1	004	Millstone Gill, SW end of survey area, looking W	
1	005	Blocked opening in field wall near Millstone Gill, looking N	
1	006	Millstone Gill, SW end of survey area, looking N	
1	007	N arm of Millstone Gill, SW end of survey area, looking N	-
1	008	Typical lynchet in SW part of field system (Site 1), looking NW	1m
1	009	Typical lynchet in SW part of field system (Site 1), looking SE	1m
1	010	View towards enclosures (Site 2) across gully, looking NE	-
1	011	Gully and raised trackway (Site 1/4), looking N	1m
1	012	Lynchets in SW part of field system (Site 1), looking W across gully	_
1	018	View towards pond complex (Site 6), looking E	_
1	019	Pond (Site 6/1), looking E	_
1	020	Possible large tree pull (Site 14/5), looking NE	1m
1	021	Footings (Site 7/3), looking E	1m
1	022	Possible structure (Site 14/6), looking E	1m
1	023	Possible structure (Site 14/6), looking W	1m
1	024	Banks etc (Site 11/1) in plateau at N end of survey area, looking SW	-
1	025	View across second valley area to sunken enclosures (Sites 10/1 & 10/3),	_
	020	looking S	
1	026	View across second valley area to sunken enclosures (Sites 10/1 & 10/3),	_
'	020	looking S	
1	027	Stepped structure (Site 10/2), looking SW	_
1	028	Range of conjoined structures (Site 8/6), looking NW	1m
1	029	Bank (Site 8/5) across valley, looking SW	1m
	020	Darin (one of of across variety, rooming over	
2	804	Boundary bank (Site 12/2), looking S	1m
2	805	Bank on N side of sunken area (Site 10/3), looking W	1m
2	806	Possible quarrying (Site 11/3) at N end of survey area, looking NE	1m
2	807	Possible kiln (Site 14/1), looking NW	1m
2	808	Sunken area at north end of survey area near Site 14/1, looking S	1m
2	809	N end of survey area, looking S	-
2	810	Structure (Site 11/2) at N end of survey area, looking NW	1m
2	811	Structure (Site 11/2) at N end of survey area, looking SW	1m
2	812	Cairn (Site 4/4) at N end of survey area, looking SW	1m
2	813	Cairn (Site 4/4) at N end of survey area, looking N	1m
2	814	Sunken enclosure (Site 10/1) and stepped structure (Site 10/2), looking S	-
2	815	Circular earthwork (Site 14/7), looking W	1m
2	816	Possible structure (Site 14/7), looking E	1m
2	817	Sunken enclosure (Site 19/0), looking E Sunken enclosure (Site 10/1) and platforms, looking SE	-
2	818	Possible E cairn (Site 4/7), looking E	1m
2	819	Sunken enclosure (Site 10/1) and stepped structure (Site 10/2), looking W	
2	820	Possible W cairn (Site 4/7), looking S	1m
2	821	Possible W Carri (Site 4/7), looking S Possible kiln (Site 14/8), looking SW	1m
2	822	Structure on S side of enclosure (Site 9/2), looking SW	1m
2	823	Bank (Site 9/5), looking E	1m
2	824	General view of plateau area (Site 9), central N side of survey area, looking W	-
2	825	Possible kiln (Site 14/2), looking SE	+
			1m
2	826 827	Bank (Site 9/3), looking W	1m
		General view of valley area (Site 8), centre of survey area, looking W	-
2	828	General view of valley area (Site 8), centre of survey area, looking W	- 1
2	829	Footings (Site 8/7), looking SW	1m
2	830	Bank, E of platforms (Site 8/6), looking N	1m
2	831	Bank across valley (Site 8/5), looking NW	1m
2	832	Mound and boulder (Site 8/3), looking S	1m

2	833	Possible quarry (Site 7/7), looking E	1m
2	834	Structure (Site 8/4), looking W	1m
2	835	Angled structure at base of stepped structure (Site 7/4), looking N	
2	836	Angled structure at base of stepped structure (Site 7/4), looking N	
2	837	Stepped structure (Site 7/4), looking S	1m
2	838	Stepped structure (Site 7/4), looking NE	1m
2	839	General view of valley area (Site 8), looking E	-
2	840	Possible kiln (Site 14/3), looking SE	1m
2	841	Scarp to SW side of enclosure (Site 7/2), looking SE	1m
2	842	Pond (Site 6/5), looking E	1m
2	843	Pond (Site 6/5), looking E	1m
2	844	Structures (Site 6/3), looking W	1m
2	845	Depression and structure (Site 6/4), looking W	1m
2	846	Channel (Site 6/2) between ponds, looking W	1m
2	847	Channel (Site 6/2) between ponds, looking W	1m
2	848	N side of pond (Site 6/1), looking W	1m
2	849	W side of pond (Site 6/1), looking S	1m
2	850	Possible cairn structure (Site 4/3), looking NE	1m
2	851	Lynchet (Site 1/1) in field system (Site 1), looking SW	1m
2	852	E end of township boundary (Site 5), looking W	1m
2	853	Possible quarry (Site 13/5), looking W	1m
2	854	Stone troughs (Site 13/4), looking N	1m
2	855	Structure (Site 13/1), looking W	1m
2	856	Township boundary (Site 5), looking W	1m
2	857	Township boundary (Site 5), looking W	1m
2	858	Bank (Site 1/5) forming S boundary of field system (Site 1), looking W	1m
2	859	Structure (Site 13/3), looking N	1m
2	860	Lynchet on S side of field system (Site 1), looking W	1m
2	861	Possible platform, typical of those within Site 2, S of enclosure 2/3, looking E	1m
2	863	Structures, NW corner of enclosure 2/3, looking N	1m
2	864	Natural gully in field system (Site 1), looking S	-
2	865	'Cross stone' in field wall, near N end of gully, looking N	1m
2	867	Cairn (Site 4/2), looking E	1m
2	868	Cairn (Site 4/2), looking NE	1m
2	869	Cairn (Site 4/2), looking N	1m
2	871	Flat-topped bank (Site 1/2) in field system (Site 1), looking SW	1m











APPENDIX 3

APPENDIX 3: EDAS METHODS STATEMENT

LEVEL 3 ARCHAEOLOGICAL SURVEY, FIELD WEST OF TARNS LANE, THRESHFIELD, NORTH YORKSHIRE

Introduction

A Level 3 archaeological survey (as defined by English Heritage 2007) is required of a field on the west side of Tarns Lane, and south of Moor Lane, in Threshfield, North Yorkshire (NGR SD 9861 6294 centred) (see figure 1). The field contains numerous earthworks presumed to form part of a larger medieval field system with associated enclosures and potential buildings, although there are also several probable prehistoric cairns as well as one possible Neolithic long cairn. These earthworks are exceptionally well preserved, and are evident on aerial photographs taken by Derek Riley in June 1977.

The area of the survey covers 17.13 hectares and the work is required to provide background information and details of the archaeological monuments, to augment other work undertaken by the Tarn Lane Survey Project Group, a local history project. The bulk of the funding for the archaeological survey will come from that project. The survey area is currently in pasture.

Objective of the Project

The objective of the project is:

- to produce an archaeological survey of the earthworks, to aid future management and understanding;
- to augment an existing local history initiative, the Tarn Lane Survey Project Group;
- to act as a spur for further archaeological survey work in the area.

Survey Methodology

Phase 1 desk-top survey

Information relating to the site complex will be obtained from the Yorkshire Dales National Park Authority (YDNPA) Historic Environment Record and English Heritage's National Monuments Record. It is expected that this information will comprise records of any previous historic research and archaeological activity, aerial photographs (including transcriptions of aerial photographs), past management and land ownership records, and historic maps and plans. It is assumed that these organisations will not charge for any data supply, and that the YDNPA would be able to provide Ordnance Survey base maps. It is also likely that the Tarn Lane Survey Project Group will be able to provide some background documentary and cartographic information.

No other historic, cartographic or documentary research will be carried out (for example at the North Yorkshire Record Office), unless specifically requested. If this work is required, additional charges may be made.

Wherever possible, the Phase 1 desk-top survey would be completed in advance of the Phase 2 survey work, so that it might inform and enhance the subsequent site work.

Phase 2 detailed site survey

A detailed Level 3 survey of the whole of the survey area (17.13ha) would be carried out to record the position and form of all features considered to be of archaeological and/or historic interest.

The survey would be carried out at a scale of 1:1000 using EDM total station equipment. Sufficient information would be gathered to allow the survey area to be readily located through the use of surviving structures, fences, walls, water courses and other topographical features. The survey would record the ground level position of all earthworks, structures, wall remnants and revetments, water courses, paths, stone and rubble scatters, fences, hedges and other boundary features, and any other features considered to be of archaeological or historic interest. The survey would also record the position of any individual trees within the site, together with an indication of their canopies, as well as areas of differential vegetation and areas of damage/erosion.

The site survey would be integrated into the Ordnance Survey national grid by resection to points of known co-ordinates. Where possible, heights AOD would be obtained by reference to the nearest OS benchmark/spot height, and contours plotted across the site. Control points would be observed through trigonometric intersection from survey stations on a traverse around and through the site. The maximum error in the closure of the traverse would be less than +/- 25mm. The locations, descriptions and values of the Bench Marks and control points would be started in the final survey data.

On completion of the EDM survey, the field data would be plotted and re-checked on site in a separate operation. Any amendments or additions would be surveyed by hand measurement, and the results digitised back into the electronic survey data.

The resulting site survey would be produced at a scale of 1:1000 and presented as an interpretative hachure plan using conventions analogous to those used by English Heritage (1999; 2007, 31-35). Areas of specific detail or particularly complex areas of earthworks would be presented at a larger scale, for example 1:500. It should be noted that the final product arising from the site survey would be a hand-drawn hachure plan, and not AutoCad (or equivalent) electronic data. Larger scale plans, at 1:10,000 and 1:2,500 scale, would be used to put the survey area into context (OS map bases to be provided by YDNPA).

Each identified site or component within the survey area would be given a unique site number. Detailed site descriptions would be prepared, to include a summary description and preliminary interpretation of extant remains (e.g. dimensions, plan, form, function, date, sequence of development), locational information (including ten figure grid references obtained from OS map bases or hand-held GPS systems), mention of relevant documentary, cartographic or other evidence, and management details such as an assessment of current condition and threats. Liaison would be undertaken with the YDNPA to ensure that keywords etc would be compatible with the YDNPA HER. At this stage, in order to keep costs down, no pro forma record sheets compiled from an Access database would be generated.

Each identified site or component would also be photographically recorded using a digital camera with 10 mega pixel resolution. English Heritage photographic guidelines would be followed (English Heritage 2007, 14) and each photograph would normally be provided with a scale. More general digital photographs would also be taken showing the landscape context of the area and of specific sites. All photographs would be clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and would be cross referenced to digital files etc.

Survey Products

Archive survey report

An archive survey report for the site will be produced, based on the structured list of identified numbered components. The report will assemble and summarise the available evidence for the survey area in an ordered form, synthesise the data, comment on the quality and reliability of the evidence, and how it might need to be supplemented by further site work or desk-based research.

It is expected that the report would include (as appropriate):

- a contents list:
- acknowledgements:
- a non-technical executive summary;
- site code/project number;
- dates of fieldwork visits:
- national grid reference and address;
- overall site plan;
- statutory designations;
- a brief account of the project plan, research objectives, survey methodology, procedures and equipment used;
- details of the archaeological background to the site;
- an account of the recorded archaeological features within the site, and of the evidence supporting any interpretation, cross referenced to the general site plan(s);
- preliminary conclusions, including an assessment of the significance of the identified sites, and the importance of the findings in relation to the other remains on the site and in the region as a whole;
- details of any identified management issues and preliminary recommendations for improvement;

Appendix 3 page 2

- a bibliography and list of sources consulted;
- selected colour digital images, at no less than 5" by 4";
- selected figures e.g. historic maps and plans;
- final survey drawings, reduced to A4 or A3 size.

The survey report would also contain various appendices, including a list of numbered sites/components, photographic registers and catalogues, and a copy of this Methods Statement, together with the details of any departures from that design.

One draft copy of the report would be made available for discussion with the Tarn Lane Survey Project Group and the YDNPA. Six copies of the final approved survey report would then be provided in hard copy format (comb bound reports), two for the Tarn Lane Survey Project Group, three for the relevant landowners and sponsors, and one for the YDNPA. All bodies would also receive a CD containing electronic copies of the report (as pdf files) and digital copies of the photographs. Copyright of all survey material and the report would pass to the Tarn Lane Survey Project Group at the completion of the project.

Archive deposition

A properly ordered and indexed project archive (paper, magnetic and plastic media) would be deposited with the YDNPA HER at the end of the project. It is expected that the archive will contain field and final ink drawings, written accounts, structured catalogues and indices, and project management records. Any drawn records would be presented as wet ink plots on standard "A" size matt surface stable polyester film sheets.

OASIS Compliance

EDAS subscribe to English Heritage's OASIS (Online Access to Index of Archaeological Investigations) project, and all EDAS projects are fully OASIS compliant. Prior to the start of the fieldwork, an OASIS online record will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be subsequently completed for submission to English Heritage and the YDNPA HER. This will include an uploaded pdf version of the entire report.

Modifications

The programme of recording work may be modified in accordance with the professional judgement of the staff undertaking the work, insofar as the overall provisions and objectives of this methods statement would not be changed. Any variations in the project would be discussed and agreed in advance with the Tarn Lane Survey Project Group and the YDNPA.

Health and Safety, and Insurance

EDAS would comply with the Health and Safety at Work Act of 1974 while undertaking the project. A full copy of their Health and Safety Policy is available on request.

The site is privately owned and EDAS would indemnify the landowners in respect of their legal liability for physical injury to persons or damage to property arising on site in connection with the survey, to the extent of EDAS's Public Liability Insurance Cover (£5,000,000). A risk assessment would also be produced prior to any site work.

Programming and Resources

The project would be undertaken by EDAS, who are registered as an Archaeological Organisation with the Institute for Archaeologists.

The project would be undertaken by Ed Dennison and Shaun Richardson of EDAS. Both have some 20 years experience in non-intrusive earthwork and topographical survey, and they have undertaken numerous walkover and detailed surveys of specific monuments and of areas of historic landscape throughout Yorkshire. Within the Yorkshire Dales National Park, historic landscape surveys have been undertaken at the Swinithwaithe Estate (1995), Hagg and Low Oxque farm surveys (1997), Stainforth (1999), Langcliffe (2007), Helm Quarry (2008), Gardsale (2008), Bluecaster (2010) and Ingleborough (2010-11). These

surveys have included land uses of all types and have allowed the identification of a wide range of archaeological remains. Detailed CV's can be provided if necessary.

The nature of the ground conditions means that it is imperative that the site survey work is undertaken during periods of low vegetation growth. The site work would therefore ideally be carried out between December 2011-February 2012, depending on weather conditions, with reporting complete by early summer 2012.

References

English Heritage 1999 Recording Archaeological Field Monuments: A Descriptive Specification

English Heritage 2007 Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice

Ed Dennison, EDAS September 2010



FIGURE 1: AREA OF SURVEY (not to scale)

Appendix 3 page 5