

NORTH PENNINES ARCHAEOLOGICAL RESEARCH FRAMEWORK

Part 1 Resource Assessment

Updated – May 2021



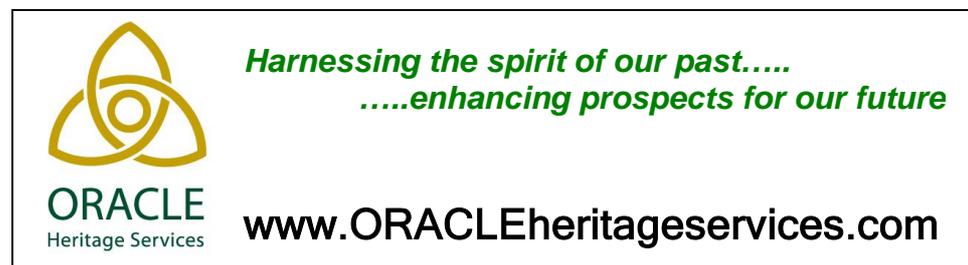
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This document was written by Paul Frodsham (ORACLE Heritage Services) assisted by members of the AA committee. References to it should be structured as follows:

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Cover photo

Altogether Archaeology excavations in progress at Well Head, Holwick (Upper Teesdale), summer 2019. Drone image by Stephen Eastmead (www.eastmead.com).

ALTOGETHER ARCHAEOLOGY

North Pennines Archaeological Research Framework

Part 1. Resource Assessment

(December 2018; updated May 2021)

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Preface to this version of the Resource Assessment (December 2018; updated May 2021)

By its very nature, a Resource Assessment such as this can never be ‘complete’. It can only hope to provide a summary, rather than in depth analysis of individual sites and projects, and it requires regular revision in the light of new discoveries and new ways of thinking about the past. This version dates originally from December 2018 but was updated in April 2021 to incorporate work done by the AA group and others. It will be placed on the Altogether Archaeology website, where it can be consulted by AA members and others.

The primary aim of the Resource Assessment was to provide a sound basis for the development of a Research Agenda and Research Strategy (as explained in the Introduction, below), a duty that it has now fulfilled. However, throughout its production, there was also a secondary aim: the production of a basic text that could be developed into the first published synthesis of North Pennines archaeology, showcasing the extraordinary quantity and quality of work completed by Altogether Archaeology members over recent years. The intention is to produce a high quality well-illustrated book (including maps, aerial imagery, photos of excavations in progress etc) that will be of interest throughout the area and further afield. There is still much work to do to transform this text into a quality publication, but what follows hopefully represents a sound start.

A fair criticism of this version is that levels of detail across periods and regions are far from consistent. In particular, there is insufficient information about the Eden Valley; this is because it was not initially intended to include much discussion of areas outside the AONB, but it is now clear that more detailed discussion of the Upper Eden valley in particular, as well as several places further north between the Eden and the Fellside, will be valuable. In due course, appropriate levels of information will be added at relevant points. A further major weak point in the current draft is the final chapter covering the post-medieval period. The post-medieval period, covering the development and decline of the lead industry with all the implications of this for life in the North Pennines during the eighteenth and nineteenth centuries, is a vast subject, with many specialist aspects, that is discussed in detail in many other publications. This Resource Assessment cannot hope to provide anything beyond a very general overview of the post-medieval period, but there is scope to include much more. Some Altogether Archaeology members have specialist knowledge of the lead industry and other aspects of post-medieval archaeology; they will be invited to contribute towards a more comprehensive version of this chapter. It is also intended that academics with an interest in the area will be invited to suggest ways in which chapters covering their periods of interest might be improved, with resulting improvements incorporated into later drafts. A further potential enhancement would be the integration of more information regarding all the palaeoenvironmental work undertaken over the years in the North Pennines, and the linking of this to the archaeological record; a recent overview (Huntley 2011) stresses the value of this work and the need to do more.

The Lidar Landscapes surveys recently completed in the Upper Derwent Valley, Weardale and Teesdale, building on those on Alston Moor, the Allen Valleys and Hexhamshire, have resulted in discoveries that already necessitate revision of the text for various periods. In particular our understanding of some aspects of the Iron Age and Roman landscapes are being greatly enhanced. It is intended that the results of all this work will be incorporated into a future edition of this document. Enhanced lidar coverage of the entire North Pennines is expected to become available shortly through the Environment Agency, facilitating further such work that will no doubt result in many more significant discoveries. The results of ongoing AA fieldwork at Gueswick and elsewhere will also be fed into a future version of this document, along with the final results from Well Head, Holwick once post-excavation work is complete.

This document is of course dependent on the work of numerous people over many years, as evidenced by the references at the end. It is important that due regard is paid to all this work when planning future research. A chronological summary of past work will be incorporated within a later version of the Resource Assessment. It is also planned to add a final, concluding chapter bringing together a number of themes of relevance to human activity in the North Pennines through time. This will also consider variations between different parts of the North Pennines, and address questions of whether the area has (and has had in the past) its own identity as an upland block, or whether it is better regarded as separate areas, the people of which identified themselves more closely with adjacent lowlands than with other parts of the uplands.

Anyone wishing to comment on any aspect of this document is invited to contact the Altogether Archaeology Management Committee via the ‘contact us’ page on the Altogether Archaeology website: www.altogetherarchaeology.org

PF
Weardale
December 2018 / May 2021

Acknowledgements

The author is grateful to the Altogether Archaeology committee for commissioning this work, and to the Heritage Lottery Fund for providing funding towards it. A big thank-you too to all the AA members who contributed to the workshops at which all aspects of the Research Framework were enthusiastically discussed in great detail. Thanks also to the AA committee members who provided comments on a draft version; in particular Martin Green who spotted and corrected numerous errors, Rob Young whose comments on the prehistoric sections have enabled many corrections and improvements, and Greg Finch who greatly improved the post-medieval section. Any remaining errors or dubious interpretations are the sole responsibility of the author.

Special thanks to the Research Framework Task Group whose members collated information from various sources for incorporation into the updated draft. This group was led by Martin Green and included Greg Finch, Kay Fothergill, Gordon Thomson and Tony Metcalfe.

INTRODUCTION

1. The purpose and structure of the North Pennines Research Framework
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1. The purpose and structure of the North Pennines Research Framework

1.1 General introduction

This Resource Assessment is the first part of the North Pennines Archaeological Research Framework, commissioned by the Altogether Archaeology management committee to provide a framework for the group's work over the next few years and beyond. It has been produced by Paul Frodsham, the group's Archaeological Advisor, who was previously employed as the North Pennines AONB Partnership's Historic Environment Officer, in which role he was responsible for the design and management of the Altogether Archaeology project (see Section 3, below). Funding towards the work was provided by the Heritage Lottery Fund as part of a start-up grant for which all AA members are most grateful.

The Research Framework suggests work that could reasonably be undertaken by Altogether Archaeology members with appropriate levels of professional support. It sets out a range of recommendations that should provide a sound basis on which to design a number of research projects, with a range of partners, over the next five years and beyond. While not intended to be restrictive, it should provide a viable basis on which to apply for funding (from a variety of sources) and legal consent (where appropriate) for work designed to address its stated priorities. It should also be valuable in helping to attract others to come and work alongside the Altogether Archaeology group in a variety of potential partnership ventures.

1.2 The structure of the North Pennines Archaeological Research Framework

The entire Research Framework consist of three sections, which can be summarised as responses to three basic questions:

What do we know?

What else do we want to know?

How do we find out what we want to know?

The first of these is addressed by the **Resource Assessment**, effectively an overview of what we know about the archaeology of the North Pennines. The second by the **Research Agenda**, which lists a number of key questions that could potentially be answered through new work. The third is

the subject of the **Research Strategy**, to be informed by the workshop; the aim is to combine members' interests with identified research priorities.

The basic thinking behind this entire process is to ensure that plans for future work are well founded, making applications for funding and (where necessary) consent much more likely to be successful.

Part 1, the **Resource Assessment** presents an up-to-date overview of current knowledge of the archaeology of the North Pennines, incorporating the results of all previous Altogether Archaeology fieldwork and other recent work such as the English Heritage led Miner-Farmer project on Alston Moor. It is structured chronologically, which in some ways is not ideal (eg it does not enable detailed analysis of particular landscapes through time) but is the only viable approach to cover the entire North Pennines from prehistory to present.

Part 2, the **Research Agenda**, identifies significant gaps in current knowledge, assesses the potential for addressing these, and defines some appropriate research initiatives. This is also structured chronologically, to tie in with the Resource Assessment. Where relevant, it stresses relationships with priorities identified within the North East (Petts & Gerrard 2006) and North West (Brennand 2006; Brennand & Chitty 2007) regional research frameworks, where work in the North Pennines can contribute meaningfully to wider debates.

Part 3, the **Research Strategy**, presents a series of research priorities based on the conclusions of the Research Agenda, along with suggested methods of implementation and delivery for a range of potential Altogether Archaeology projects that could be developed to address these priorities. Some of these concentrate on particular periods (eg early medieval), while others are based on themes (eg transport), and others concentrate on particular landscapes through time (eg Holwick).

The Resource Assessment and Research Agenda cover all periods from the Mesolithic through to the present day, structured chronologically with sections dealing with each of the conventional archaeological periods (Mesolithic, Neolithic, Bronze Age, Iron Age, Roman, Anglo-Saxon, medieval, post-medieval). Relevant period specialists will be consulted and invited to comment on each section, after which appropriate amendments will be made.

Altogether Archaeology members were consulted to ascertain which areas of work are of most interest to them. This consultation took the form of a questionnaire in advance of the production of the draft Research Agenda, and also a workshop at which the Research Agenda and Research Strategy were discussed in detail. This is an important aspect of this project that differs from other Research Frameworks that tend to focus exclusively on the archaeological resource rather than on the people actually doing the archaeology. In this case, the Research Strategy takes on board the wishes of AA members and seeks to marry these with identified research priorities in order to suggest possible future projects that will prove popular with members.

1.3 Using and maintaining this Research Framework

This Research Framework should be consulted in tandem with the AA Business Plan and Funding Strategy, which was produced at the same time. There is no point in suggesting projects within the Research Strategy that have little hope of attracting funding, so realistic likelihood of funding must be an issue when considering potential future projects.

The Agenda and Strategy are not intended to be restrictive. If opportunities arise for alternative projects then these should not be dismissed simply because they are not identified here as priorities. However, in terms of securing funds for proactive research, the priorities presented here should be used as a guide.

It is recommended that the Altogether Archaeology committee should review the Research Framework annually, and make any changes it considers appropriate to take account of changing circumstances such as new information, new funding options, or new opportunities for partnership working. It is further recommended that a major appraisal of the entire Research Framework should be undertaken at least every five years, with sections of the Resource Assessment updated as appropriate in the light of work undertaken by the Altogether Archaeology group and others.

2. The North Pennines

The Altogether Archaeology constitution places no restriction on the group's area of operation, and group members work on projects throughout northern England. However, the group's heartland will always be the North Pennines, the area covered by this document. This area has in the past endured something of an identity crisis, split as it is between the counties of Cumbria, Durham and Northumberland, and consisting of local communities that tend to characterise themselves largely in terms of individual valleys (eg Teesdale, Weardale, the Allen Valleys) rather than in relation to the North Pennines as a whole. This is reflected in the availability of published overviews of the archaeology of some areas, eg Alston Moor (Robertson 2010), Weardale (Bowes 1990; Hardie & Hammond 2007), Upper Teesdale (Coggins 1986a; Gledhill 2018) and Stainmore (Vyner *et al* 2001), while no overview of the North Pennines as a whole has previously been attempted. All of the above-named regional studies are now to varying extents out of date, given the availability of new information generated in large part by lidar surveys and Altogether Archaeology projects over the past decade.

The one organisation (in addition to Altogether Archaeology) that does address the area as a whole is the North Pennines Area of Outstanding Natural Beauty (AONB) Partnership, which delivers a range of projects to encourage and enable local communities to engage with the aspects of the area's natural and historic heritage, and with which it is important that the AA group maintains a healthy working relationship. (It is worth noting in this context that the unfortunately named Areas of Outstanding 'Natural' Beauty do, of course, cover landscapes that are certainly not 'natural' – their present-day appearance owes at least as much to the activities of people as to nature).

Unlike a county- or region-based research framework, this exercise has no clearly defined boundary. The North Pennines AONB covers most of the area, but its boundary is tightly drawn in places (for example, to exclude settlements such as Stanhope and Frosterley in Weardale) and is thus of little relevance to the archaeological heritage. In general terms, the area covered is defined as the AONB, extended to the River Eden in the west, the Tyne in the north, the A68 in the east, and the boundary of the Yorkshire Dales National Park in the south.

This forms a relatively well-defined block of upland landscape together with its surrounding hinterland. It is interesting to note, however, that the label ‘North Pennines’, or indeed ‘Pennines’ has no great antiquity. The earliest known use of the word ‘Pennine’ occurs in a bizarre book entitled *‘De Situ Britanniae’*, published in 1757, which claims to contain an account of Britain by a Roman general preserved within medieval document produced by an English monk, Richard of Cirencester, in the fourteenth century. This includes the statement that the province of Britain ‘is divided into two equal parts by a chain of mountains called the Pennine Alps’. Although given much credence during the century after its publication, the Roman general’s description of Britain is in fact a complete fabrication, made up for some unknown reason by an eccentric Englishman named Charles Bertram. His inspiration for introducing the term ‘Pennine Alps’ may have been the great Elizabethan antiquarian, William Camden, who writes:

‘The north part.....riseth up and swelleth somewhat mountainous, with moores and hills, which beginning here runs as an Apenine does in Italie, through the middest of England.....even as far as Scotland, although oftentimes they change their name.’

Camden’s observation that the chain of hills known to us as the Pennines ‘oftentimes change their name’ is significant. At the time he was writing, different parts of the chain were known by different names, and there was no need for a single name to describe the range as a whole. It seems likely that his reference to the Italian Apennines was the source used by Bertram’s ‘Roman general’, and that it was Bertram’s account that led to the incorporation of the word Pennines onto maps, and hence into common usage from the mid eighteenth century. It is a word so common to us now that it seems somehow inconceivable that it is not an ancient name in use since Roman or even prehistoric times, like many of our ancient Celtic river and mountain names, but it does indeed seem that it is an eighteenth-century invention, albeit perhaps with an element of genuinely ancient inspiration.

A very useful description of the present-day North Pennines landscape is contained within a landscape assessment commissioned from Land Use Consultants by the Countryside Commission (Countryside Commission 1991). This acknowledges much variation in landscape within the area, and attempts to classify these within a scheme of landscape types. This scheme is of value in trying to understand the nature of past land use, and patterns of archaeological survival, and is useful in enabling contrasts and comparisons to be recognised between different areas. The scheme has subsequently been refined (North Pennines AONB Partnership 2009) but its basic structure remains valid.

The Countryside Commission publication divides the North Pennines into four basic ‘landscape types’ – moorlands, dales, upland fringes and the western scarp, a useful map of which is provided. The four landscape types, each of which is divided into a number of subsidiary classifications, can be briefly summarised as follows:

1. Moorland landscapes.

Uplands, generally above 450 metres. many covered with thick blankets of peat. Varied vegetation, with much heather. Vast, open views. Generally 'wild', with little obvious evidence of past human activity. Subdivided into moorland ridges, moorland summits, and the moorland plateau around Stainmore to the south.

1a Moorland ridges

Moorland landscapes include the ridges of upland that form the watersheds dividing the dales, extending eastwards as upland fingers from the high watershed to the west. Decreasing in height from about 700m in the west to 450m in the east. Evidence of past mining activity in many places. Occasional Mesolithic finds demonstrate that seasonal campsites existed in the uplands, but finding these is difficult - many must lie buried beneath peat.

1b Moorland summits

The heart of the North Pennines uplands, a ridge of high moorland summits extending for nearly 50km from north to south above the Vale of Eden and the western scarp, crossed by only two roads along its entire length: the Hartside and Stainmore passes. The range includes Cross Fell, the highest point in the entire Pennine chain at 893m, and Mickle Fell, Meldon Hill, Knock Fell, Great Dun Fell and Little Dun Fell, all of which exceed 750m. The area is generally covered with blanket bog vegetation and has been described as 'the greatest area of upland wilderness in England'. However, there are some signs of human activity including, even at such heights, evidence of post-medieval lead mining. The ridge is crossed by the Maiden Way Roman road, one of the wildest stretches of Roman road anywhere, which reaches a height of 670m as it passes over Melmerby Fell. Occasional stray finds of lithics demonstrate Mesolithic activity, for example above the head of Upper Teesdale, possible associated with ancient pathways across the high ground between Cumbria and Durham.

1c Moorland plateau

A discrete area of essentially flat moorland lying across the Stainmore depression, distinguished from other moorland landscapes to the north on account of its relatively low height (400-500m), almost continuous blanket bog, and bleak character. Little of archaeological interest, though the distinctive rocky outcrop of Shackleton, within an otherwise vast and featureless landscape, may potentially have been of some spiritual significance in prehistoric times.

2. Dales landscapes.

In contrast to the wild moorland landscapes, the dales landscapes are enclosed, sheltered and settled. They all demonstrate transitions in character based on altitude, both along their lengths and in cross-section. Generally, the river, often with wooded banks, runs through the centre of each dale, with farms and villages set out above the flood plain to either side. Above these, stone-walled fields extend up the valley sides as far as the moorland edges at perhaps 450m. In long section, changes in land use are similarly based on altitude: Teesdale starts at about 550m, falling to about 220m at Middleton-in-Teesdale, displaying a gradual transition from moorland, through rough upland pasture to better quality improved agricultural fields. To reflect these differences, the dales landscapes are divided into dale heads, middle dales, and lower dales.

2a Dale heads

These landscapes consist of the broad basins at the head of each dale, including the headwaters that coalesce to form the main rivers. They generally occur at between 400 and 500m, and have shallow, even valley sides encircled by a moorland skyline. Despite the considerable elevation, they are characterised in many places by ‘miner-farmer’ smallholdings, many of which are now abandoned and rapidly decaying, their stone-walled fields reverting to moorland. There is little evidence of medieval or earlier settlement and without lead mining these post-medieval farmsteads would never have been built at such high altitude. The historic environment of the dale heads is thus closely bound up with the post-medieval lead industry.

2b Middle dales

Perhaps generally regarded as the ‘typical’ North Pennines dales landscape, these complex and diverse areas generally have a clearly defined river channel often with wooded banks and several historic bridges. Either side of the river, the rolling landscape is clothed with stone-walled pasture fields and hay meadows, historic farmsteads and traditional villages. Farms spread up the valley sides, with fields becoming bigger and grazing rougher with increasing altitude. Scattered remnants of sometimes large-scale quarries and lead mine complexes merge with elements of the traditional agricultural landscape.

Recent lidar surveys have recorded astonishing concentrations of late prehistoric and Roman period settlements with extensive field systems in South Tynedale and Weardale, with lesser but still significant concentrations in the Upper Derwent Valley and Upper Teesdale. In Weardale, there are also some field systems of Bronze Age date, perhaps dating from about 1500BC like the excavated settlement of Bracken Rigg in Teesdale. Medieval and post-medieval field systems and a range of industrial sites also survive in variable states of preservation in the middle dales. It seems that higher up in the dales, in the dale heads, the concentration of activity in the past was not so great as in the middle dales, while in the lower dales (discussed below) evidence has been destroyed or at least masked by recent agricultural improvement. Within the dales, it is therefore the middle dales that seem to offer the greatest potential for archaeological investigation.

2c Lower dales

The lower dales landscapes occur where the dales pass from the uplands into broader, more open valleys. They are generally quite intensively farmed, often with hedgerows rather than stone walls, and lots of deciduous trees within field boundaries, copses and sometimes extensive areas of woodland.

The lower dales have been occupied and farmed by people for thousands of years, but recent lidar surveys have demonstrated that in comparison to the middle dales relatively few ancient sites survive as earthworks; this can only be due to such sites having been flattened by ploughing, over recent centuries and perhaps particularly during the twentieth century.

While certain characteristics are shared between the different dales, each also has unique character arising from a combination of geology and past land use. The Countryside Commission publication provides separate descriptions of the following dales landscapes, stressing the unique characteristics of each:

Teesdale
Lunedale, Baldersdale and Greta Valley
Weardale
Allendale and West Allendale
South Tynedale
Derwentdale

3. Scarp landscapes and the Vale of Eden

These are considered together due to the close interrelationships between them. The scarp runs in a broad band down the west edge of the AONB, rising dramatically from the Vale of Eden below. Views westwards from it are spectacular. North of Hartside the scarp is deeply incised by the valleys of Croglin Water and Geltsdale, and has outlying hills such as Cumrew and Talkin fells; south of Hartside it is higher and steeper, and incorporates the dramatic High Cup Nick and the less dramatic but still impressive valley of the Hilton Beck. The Vale of Eden, below the scarp, is a fertile agricultural landscape of enclosed fields dotted with attractive historic villages such as Dufton, Knock, Melmerby, Newbiggin, Cumrew and Castle Carrock, all of which are linked historically and agriculturally with the scarp above. As well as being very beautiful, the Vale of Eden has an extraordinarily interesting historic landscape containing sites of all periods extending back to the Stone Age, with the great stone circle complex of Long Meg and her Daughters having much relevance to movement across the Pennines in Neolithic times, between 6,000 and 4,000 years ago.

4. Upland fringes

Surrounding the uplands in many places are areas of landscape that do not fall into any of the above three categories. Lying below 300m, they consist generally of rolling landscapes of low ridges and hills dissected by small, often wooded valleys. These areas contain a range of historic farmsteads and have fields enclosed by a combination of hedges, stone walls and fences; they have a long history of agricultural use, no doubt extending back into prehistory though few ancient sites are visible due to intensive ploughing through more recent times. They include a wide band around the north-east of the uplands and a distinctive limestone zone to the south-west, where the Stainmore Gap drops down to the Vale of Eden. Potential for recovery of lithics through fieldwalking, providing information about prehistoric occupation, may be high in some of these areas.

While this system of landscape classification is useful in many ways, it is also important to note that studies of the archaeology of the North Pennines, as with any region, should not take place in isolation but must pay due regard to adjacent areas. In particular, attention should be paid to the surrounding lowlands, while other upland areas in northern England, many of which have seen much more archaeological research over recent decades, provide useful comparisons for the archaeology of many periods.

3. Altogether Archaeology

Altogether Archaeology is a fully independent community group, managed by a committee elected by group members, set up primarily to undertake archaeological fieldwork throughout the North Pennines and adjacent areas. The group was founded in 2015 by volunteers who took part in the North Pennines Altogether Archaeology project from 2010-2015, run by the North Pennines AONB Partnership and largely funded by the Heritage Lottery Fund (HLF). In 2020, the group became a registered charity.

The group's objectives and philosophy are similar to that of the original Altogether Archaeology project, with three key strands:

1. To undertake research and education to further understanding of the ways in which our ancestors lived in this land, from prehistory to present.
2. To enable local people to take part in archaeological research, providing appropriate levels of training and supervision so that anyone with an interest in the subject can develop skills and play an active role in the group's work.
3. To have fun! Although all work is undertaken seriously and to the highest possible professional standards, participation in AA fieldwork should be enjoyable and genuinely life-enhancing for all involved.

The HLF-funded Altogether Archaeology project had 580 registered volunteers and completed a wide range of fieldwork projects at a variety of sites and landscapes throughout the North Pennines. Work was delivered as a series of modules, directed by appropriately qualified professional archaeologists whose role was to provide training for volunteers as well as directing fieldwork. Modules included large-scale landscape survey using lidar and aerial photography, field survey including geophysics, and excavation at several carefully chosen sites. As a result of participation in this work, and other projects elsewhere in northern England, the Altogether Archaeology group now includes several experienced field archaeologists capable of supervising fieldwork without a need for constant professional supervision. However, the group aims to continue developing positive links with professional contractors, academic institutions, local authorities, other local heritage groups and the North Pennines AONB partnership (and in particular its Historic Environment Working Group – HEWG), to the mutual benefit of all. Indeed, the name 'Altogether' was originally chosen to signify the desire for all interested in the archaeology of the North Pennines to work effectively together, an aim that still lies at the heart of the group's philosophy.

Much further information about Altogether Archaeology, including reports on all completed fieldwork projects, can be found on the group's website: www.altogetherarchaeology.org

1. MESOLITHIC

c10,000 – 4,000BC

Introduction

The Mesolithic (middle stone age) period runs from the end of the last glaciation, approximately 10,000BC, through to the advent of farming in the early Neolithic, in about 4,000BC. The period is conventionally divided into two. The earlier Mesolithic begins in the cool post-glacial period, when much of the North Sea was still dry land, and runs through to about 8,000BC by which time the climate was much warmer and rising sea levels were inundating the North Sea; Britain was an island by about 7,000BC. The later Mesolithic covers the period between approximately 8,000BC and 4,000BC. Evidence for the Mesolithic environment of the North Pennines is patchy, but using what information we have from the area, coupled with information from comparable uplands elsewhere, we can attempt a reasonably accurate overview. It is important to bear in mind that Mesolithic people relied upon the natural world for everything including food, clothing, shelter, tools and weapons, and that many resources were only available seasonally. Elements of the natural world must also have dominated the cosmology of these people, who in addition to having complex practical relationships with their landscape would have led complex spiritual lives. As we will see below, all the evidence points at Mesolithic people having lived nomadic lives, visiting particular places within the North Pennines on a seasonal basis as part of a well-established annual round. Much can be learned about the ways in which people may have lived here during the Mesolithic through ethnographic studies of other pre-agricultural societies from various places around the world.

At the onset of the Mesolithic, in about 10,000BC, as the climate became less severe following the end of the 'Ice Age', much of the North Pennines was a herbaceous tundra type landscape with a few stands of birch, hazel and willow in more sheltered spots. Surrounding lowlands saw the gradual expansion of mixed woodland, with pine, birch, oak, elm, and hazel. Although the climate was warming quite rapidly, it was still colder than today, and also much drier. This mixed landscape provided a range of resources for Mesolithic people to exploit. Wild animals that could be hunted and eaten include now-extinct species such as aurochs (wild cattle), megaceros (giant deer) and elk, as well as red deer, wild horse, and a range of smaller species. We know from the classic early Mesolithic site of Star Carr in North Yorkshire that dogs were domesticated by this time, and presumably played a role in hunting expeditions. Carnivores including bear and wolf also shared this landscape with Mesolithic people.

In the later Mesolithic the climate became progressively warmer and wetter. The so-called 'Atlantic period', from about 6,000BC to 3,500BC, is sometimes referred to as the 'climatic optimum' - the mixed deciduous forest in the lowlands, dominated by oak and lime, became more dense, reducing available grazing land and leading to the eventual demise of the large herbivores noted above. The uplands, in contrast, had a less dense cover of open woodland with the mixed forest giving way with increasing altitude to open birch and pine woodland and eventually to open grassland. This mixed landscape in the uplands would have been richer in plant and animal resources than the lowland forest, especially during the summer months. Animals of the dense forest include roe deer and wild boar, while the rivers

continued to provide plentiful fish, wild fowl and other food as they had during the earlier Mesolithic. All of these resources were exploited seasonally in the North Pennines by communities that probably moved into the lowlands for the winters, perhaps all the way to the coast where marine resources, including seals, fish and shellfish would provide a reliable food source through until the spring.

Our evidence for Mesolithic people in the North Pennines exists almost exclusively in the form of lithics, stone tools and debitage associated with the manufacture of these tools, that survive in the soil when all other evidence has been lost. Lithics have been found in many places, most often on the surfaces of ploughed fields but also in other places where the ground has been disturbed including during the archaeological excavation of later sites. The recent spectacular discovery of a timber-built Mesolithic roundhouse on the Northumberland coast at Howick, dating from about 7,800BC, demonstrates that such structures were built by Mesolithic people, but it takes a fortunate set of circumstances for such sites to be preserved, and even more good fortune for us to actually find them. That said, there is much potential for the preservation of Mesolithic sites beneath the peat of the North Pennines uplands; a key aim must be to find and investigate some such sites before they are destroyed by erosion of the peat. Most Mesolithic sites in the uplands of the North Pennines were almost certainly seasonally occupied campsites, and people may have used tents not unlike the tepees or wigwams used by Native American communities in more recent times.

Although the North Pennines is of enormous potential with regard to Mesolithic studies, relatively little fieldwork has been undertaken over recent decades. In fact, only one excavation has been designed specifically to investigate a Mesolithic site, that at Cow Green, directed by Rob Young for the Altogether Archaeology project in 2015 (completed in 2018). Many other sites are known either through the recovery of lithics from ploughed fields or eroded ground, or through lithics discovered during the excavation of later sites. While the discovery of Mesolithic sites may be problematic, the interpreting of data from known sites is also far from straightforward. In Weardale, for example, Young observes that a concentration of sites is known from the area around Stanhope and Eastgate, and accounts for it by the fact that many fields are ploughed here and these have been searched for lithics in the past. He also notes that the spread of known Mesolithic sites up the dale corresponds with the limits of ploughing, and that sites above 305 metres OD lie buried beneath peat deposits and are only known from areas where this peat has been eroded. The distribution of known finds therefore has as much to do with ground disturbance in recent times as with actual patterns of activity in the Mesolithic, and this should be borne in mind when considering any aspect of the Mesolithic in the North Pennines.

The early Mesolithic

Although others must surely await discovery, only three early Mesolithic sites are currently known from the North Pennines, all in Teesdale: Towler Hill, Staple Crag, and Hindon Edge.

Potentially the earliest evidence for human occupation throughout the North Pennines comes from Towler Hill, on a river terrace at 150m OD above the south bank of the Tees, just east of Lartington (Coggins et al 1985). The lithics here were recovered by Tim Laurie from the surface of a ploughed field, but the site is now under pasture so unfortunately is not available for further fieldwalking. Of

particular interest is the presence of a few potentially late Upper Palaeolithic artefacts, including large backed pieces and end scrapers. Also present are microliths of both early and late Mesolithic form, so this may well be a site occupied, though not necessarily continuously, over several thousand years.

Another early Mesolithic site is known at Staple Crag. Here, on the south bank of the Tees, downstream from Low Force and just east of Winch Bridge, more than 200 worked pieces of flint (mostly of mottled grey, characteristic of the Yorkshire Wolds) and chert (presumably sourced locally) have been recovered from the eroding river bank. The finds include cores, scrapers, microliths, blades and blade fragments, together with much waste material or debitage – the result of flintworking on site. Some of the finds are characteristic of the early Mesolithic, as are two shale beads also found here. The bank has now been revetted with large boulders and the erosion rate much reduced, but the original extent of the site, and the nature of what may remain, are not known and can only be established through fieldwork. It would not be a great surprise if it turned out to be an extensive site that Mesolithic people returned to on an annual basis for centuries, and may have continued in use through into the later Mesolithic.

The Staple Crag and Towler Hill sites are perhaps best regarded as a base-camps, to which groups of people would return for perhaps a few weeks each year, linked no doubt to the availability of fish in the river. While in residence here, task groups would set out into the surrounding landscape to hunt and gather particular resources; many such sites relating to such activity probably lie buried beneath peat in the uplands, but finding them will not be easy.

Another early Mesolithic site has been recorded at Hindon Edge, Langleydale (Brown & Brown 2008), on the fringes of the North Pennines about 5km east of Eggleston. Flints were noted here within molehills, and an area of some 30 square metres was partially excavated in advance of ground reinforcement. More than 500 pieces of worked flint, including tiny spalls, were recovered, and have been studied by Tim Laurie. This site surely demonstrates that many more early Mesolithic sites must await discovery in comparable landscape settings on the fringes of the North Pennines.

The Late Mesolithic

Sites of later Mesolithic character are known from a range of different landscape contexts throughout the North Pennines. This account begins with Weardale, where detailed synthesis of a range of sites has been undertaken by Rob Young, then moves to Teesdale where similar analysis has been attempted by Denis Coggins. It will then discuss sites from other areas, all of which are of interest but have yet to be studied in as much detail as the Weardale and Teesdale sites.

The later Mesolithic in Weardale

More work has been done on later Mesolithic of Weardale than on other areas of the North Pennines. Despite a lack of excavations, many sites are known through fieldwalking, and Rob Young

(1987), in what should be regarded as one of the most important contributions to North Pennines archaeology, has undertaken detailed analysis of these in an attempt to provide a model of later Mesolithic settlement and landscape. The model is probably equally applicable to other parts of the North Pennines which do not currently lend themselves to similar levels of analysis due to a comparative lack of known sites. Since the completion of Young's survey, later Mesolithic material has been recovered at two locations on Bollihope Common, during excavations of later archaeological features (Young and Webster 2006; 2008; Young, Webster and Newton, 2008, 2011). These new finds fit neatly into the general pattern discussed below.

Young analysed 83 sites along the length of Weardale from which later Mesolithic material has been recovered, about half of which are from the upper dale and thus may be considered as lying within the North Pennines. The finds were made by various individuals over the years, notably Edward Hildyard who searched the line of the new water pipeline from Burnhope reservoir all the way down the Dale, making numerous discoveries, and also discovered flint scatters in more than thirty ploughed fields; in the words of Rob Young, 'there was hardly a field between Eastgate and Stanhope where he drew a blank' (Fell & Hildyard 1953, 1956). This material was by no means all Mesolithic; it includes Neolithic and early Bronze Age components and is thus also relevant to the next chapter. The Mesolithic sites range in height from 200 to 569 metres OD, occupying locations including river terraces, lower valley slopes and upland fells. It is important to note that the distribution of known sites correlates well with the extent of recent ploughing on the terraces and lower slopes, and with other ground disturbance at higher levels where the ground above 305 metres OD is generally peat-covered and known sites correlate with areas of peat erosion. While acknowledging that the distribution of known sites owes as much if not more to these patterns of ground disturbance than to actual patterns of Mesolithic activity (there must be hundreds of unknown sites throughout the North Pennines that may always escape detection), Young nevertheless offers tantalising glimpses of the complex ways in which Mesolithic people must have interacted with their landscape.

Young's thesis includes much detailed analysis of the finds from all the known sites, and combines this with a study of natural resources available for exploitation by later Mesolithic communities of Weardale, using information garnered from ethnographic studies and work elsewhere in northern England to construct a highly plausible model of Mesolithic life in the area. At different times of year, and in different places throughout the Weardale landscape, people would have been able to exploit red deer, roe deer, aurochs (wild cattle), wild boar, beaver, freshwater fish (especially trout, sea trout, eels, and salmon) and wild fowl. A wide variety of plant foods was also available, including seasonably available fruits, nuts, berries, roots, tubers and fungi.

Combining this information with an in-depth knowledge of the landscape and evidence from ethnographic studies of pre-agricultural societies elsewhere in the world, Young has attempted to interpret some of lithic scatters from Weardale within a model of landscape exploitation that sees groups of people migrating between the uplands and the coast in accordance with a long-established seasonal round. The following couple of examples are provided by way of illustration.

The site at Bell's Quarry, at 553 metres OD on Burtree Fell, 1.5km north of Cowshill at the top of the dale, is well placed to exploit what was probably the upper forest edge. Further down the dale, the cluster of sites from around Eastgate, at c230 metres OD, are well sited for the exploitation of what must have been a well-wooded riverside landscape. The river here would have provided

much fish, and the gravel beds of the many tributaries in this area would have been ideal spawning grounds for sea trout and salmon. The seasonable availability of sea trout and salmon here may be the main factor behind the concentration of Mesolithic campsites, probably summer and autumn base-camps occupied over many centuries.

Further down the Wear, sites at Binchester and Evenwood, each of which were well sited for exploited of a range of resources, were perhaps occupied in spring and autumn as bands of people moved between summer camps, such as Bell's Quarry and Eastgate, and winter quarters which could have been as far away as the coast.

The later Mesolithic in Upper Teesdale

In Upper Teesdale, fewer later Mesolithic sites are known than in Weardale. The known sites are discussed by Coggins (1986a). The Altogether Archaeology excavations at Cow Green, the only excavations undertaken specifically to investigate a Mesolithic site, must also be considered here, as must a few other sites from outside Coggins' area of study.

The excavation of an enigmatic earthwork feature, consisting of a long, low mound overlain by a circular bank, at Middle Hurth (located midway between the Langdon and Ettersgill Becks, some 2km north of the Tees at 450 metres OD) resulted in the recovery of 469 pieces of worked stone, mostly of late Mesolithic form (Coggins and Fairless 1997). Neither the mound nor the circular feature is Mesolithic, but there must have been a Mesolithic settlement of some kind in the immediate area, the lithics from which were incorporated within the soil that was scraped up to form the mound. Rob Young's detailed analysis of the finds from Middle Hurth leads him to interpret the site as 'a later Mesolithic hunting camp on the forest edge, geared up for the manufacture and/or repair of hunting related equipment'. He interprets the presence of broken microliths as possibly indicating their arrival on the site within the bodies of dead animals, and notes that presence of burnt flint suggests the presence on site of a hearth, though one was not noted during the excavations. He further suggests that the site may be very late in the Mesolithic, and that the two leaf-shaped arrowheads within the assemblage could be evidence of contact with very early Neolithic communities. It may be significant that the site lies only 300 metres south of Teesdale Cave, which it is reasonable to assume would have been occupied in some way by Mesolithic people.

Other sites, in what are now quite isolated locations, from which small late Mesolithic assemblages have been recovered include: Merrygill Holm, on the south bank of the Tees at a height of 400 metres OD, at the foot of Cronkley Fell; Birkdale, east of Cocklake Sike about 1km south-east of Cauldron Snout; and Hard Hill, high up near the source of the Tees at 686 metres OD, where two microliths and five flakes of flint were found in apparent association with a cattle horn (Coggins (1986a).

We must now consider the recent Altogether Archaeology excavations on the shore of Cow Green Reservoir (Frodsham 2015, Young 2017). The site was originally discovered by Lance Moore who noticed some lithics eroding out of the reservoir bank. It appears to sit adjacent to a natural spring high above what would have been (prior to the construction of the reservoir) the north bank of the Tees. It was clearly being seriously damaged by erosion of the bank, and it was not known how

much of it survived. The excavations recovered in excess of a thousand lithics, most of which were chert but also including a variety of different types of flint. Unfortunately, no evidence of hearths or structures was recovered, and it is assumed that the core of the site had already been eroded away by the time the site was discovered. A fragment of hazel nutshell has provided a radiocarbon date of about 8000 BC for activity at the site. This is substantially earlier than had been anticipated on the basis of the lithics, demonstrating how little we know for sure about the chronology of the Mesolithic in the North Pennines. The analysis of samples from the site has demonstrated that people here were exploiting natural resources including lime, birch, willow or poplar, and hawthorn, as well as hazel. Peat cores taken during the fieldwork, which have yet to be analysed, may yet tell us much about the local environment before, during and after the Mesolithic. There must be many more such sites in the vicinity, possibly concentrated here due to the natural route between Cumbria and County Durham/North Yorkshire which follows the Tees at this point.

Coggins has analysed several pollen cores from Upper Teesdale in relation to possible Mesolithic activity (Coggins 1986a; Johnson & Dunham 1963). In a number of different places, decrease in oak, elm and pine are noted, together with a marked increase in hazel, dated to the first few centuries of the fifth millennium BC. At Hard Hill, high up at 686 metres OD, flints and two cattle horns were recovered from this level, suggesting that the changes in vegetation may be linked to human activity, perhaps clearing vegetation at the woodland margin to encourage the growth of hazel while also provide grazing land to attract herds of wild cattle. Further cattle horns have been recovered from what may be similar contexts, including one from Middle End Moor that had apparently been burnt and cut. An example from Teeshead, at 770 metres OD, was found in association with three flints.

Further down Teesdale, a large Mesolithic assemblage has been recorded at Blackton Smeltpit near Eggleston. Inspired by earlier finds from Allendale Common (see below), where the vegetation had been killed by fumes from chimneys from the lead smelting works, leading to erosion and thus exposing flint scatters sealed beneath the peat, Charles Trechmann explored the area around the Blackton Smeltpit chimney and discovered a vast array of material (Trechmann 1912).

Although tantalising, all this evidence taken together shows us that people were certainly active in Upper Teesdale during the later Mesolithic, and their impact on the landscape may have been substantial. It seems that a settlement pattern similar to that suggested above for Weardale, with base camps and extraction camps integrated a seasonal round that could have included movement far down the valley during the winter, perhaps in tandem with the migration of wild cattle, was in place.

The later Mesolithic in other parts of the North Pennines

In addition to Weardale and Teesdale, discussed above, later Mesolithic sites are known from several other places in the North Pennines, though other landscapes have not been subject to comparable levels of analysis.

Allen Valleys

The Mesolithic of the Allen Valleys has hardly been studied at all, but there is no reason to suppose that the pattern here will differ greatly from that of Weardale. One place is worthy of particular note due to the vast quantity of flints recovered there. This is the area around the old chimneys on Dryburn Moor, at a height of 450 metres OD on the interfluvium between the West and East Allens about 3km south-west of Allendale Town. These chimneys took fumes from the Allendale Smeltmill, and as a result of the poisons within these fumes the local vegetation around the chimneys was killed, leading to erosion of the surrounding peat. The Rev W Howchin described the site towards the end of the nineteenth century, noting that the area had long been known as a good location for finding prehistoric flints (Howchin 1880); others have been found more recently. Many must have been lost, but still in excess of a thousand have been recorded from this locality. They include arrowheads and an axe that post-date the Mesolithic, but also numerous scrapers, flakes, saws, cores and ‘chippings’ that are probably largely Mesolithic in date. These are largely of flint, of ‘all shades of colour’, though Howchin also implies (without providing detail) that much worked chert was also discovered here.

Howchin records that he searched other areas and found a few flints in several of these, including sites in Upper Weardale considered by Rob Young in his thesis discussed above. Other finds were made on Langley Mill Fell, Ramshaw Fell, Plenmellor Fell, Tow’s Bank (Coanwood), and Haltwhistle Fell. While we can’t be sure how many of these are Mesolithic, they again illustrate the potential for evidence of Mesolithic settlement in parts of the North Pennines which have yet to be studied in any detail.

Upper Derwent Valley

A late Mesolithic site on Birkside Fell, at 380 metres OD some 3km west of Blanchland, was investigated by Chris Tolan-Smith of Newcastle University in the mid-1990s. (This work still awaits full publication – though many details are contained within an interim report: Tolan-Smith 1997). Finds include several geometric microliths typical of the Late Mesolithic, along with pyramidal blade cores, a number of micro-burins and proximal blade segments, regarded as the bi-products of microlith manufacture. The site lies on a coll which would have provided a natural access route for groups moving between the Tyne catchment and those of the Rivers Derwent and Wear to the south. The discovery of two flakes which appear to be of petrological Group VI, was unexpected. No other Neolithic finds were made at Birkside Fell, and the two items in question - which are not axes, but flakes - may imply that Group VI material was being used by Mesolithic groups, who carried it with them on their annual cycle of travels long before the well-known Neolithic ‘axe factories’ at Langdale became operational. This suggests groups that spent the winter on the Cumbrian lowlands, perhaps in the Eden Valley or on the Solway, may have spent some of the year in the North Pennines, where they would have come into contact with other groups that spent the winters on the Durham coast (as discussed in Young’s work on Weardale, noted above).

Some 10km east of Birkside Fell, an assemblage of late Mesolithic date, comprising a tiny scraper, a notched blade segment, a long unretouched blade and seven flakes, together with a single flake exhibiting marginal retouch that may be earlier, was found at Edmundbyers in the 1930s (Waddington 2004). There is no reason to believe that many further late Mesolithic settlement sites do not await discovery in the Upper Derwent Valley.

South Tynedale

The burial mound at Kirkhaugh, Alston Moor, which hit the international headlines following the discovery of a gold tress-ring here during the Altogether Archaeology excavations in 2014 (see Chapter 2), was constructed on a site which millennia earlier had been used as a Mesolithic campsite. In a similar way to the earthwork at Middle Hurth in Teesdale, when the mound was raised a large number of Mesolithic flints were incorporated within it (Kirkpatrick 2015).

Eden Valley and Fellside

Few Mesolithic finds are known from the Cumbrian sector of the North Pennines, though there is no reason to doubt that plenty of sites here still await discovery. During the Altogether Archaeology excavations of a supposed Bronze Age burial mound on Brackenber Rigg (Appleby golf course), a few flints of Mesolithic character were recovered (Slater 2013), as were a single microlith and some possibly Mesolithic flakes during the investigation of the Tortie Stone near Hallbankgate (Vyner 2013). The results of fieldwalking undertaken by the Living Amongst the Monuments project in the Eden Valley are awaited with interest, as they will throw some light on Mesolithic activity between the Eden and the Fellside (Clarke *et al* 2008). In 2018, a single small worked flint flake was recovered from the top of Dufton Fell (Cumbria) at a height of 690 metres OD; on its own this tells us little, but does demonstrate that Mesolithic people were active at such a high altitude (Frodsham 2018).

Summary

Evidence for Mesolithic activity throughout the North Pennines is rare, but offers a tantalising glimpse of a lifestyle that must have included a great deal of mobility, with people moving between different campsites throughout the year. This seasonal round, and the sites visited within it, must have been imbued with great spiritual significance amongst Mesolithic people. Myths and legends would be associated with particular places, linked to the ancestors and the cosmos, and while these are now lost, ethnographic examples from more recent times, such as the Aboriginal songlines of Australia, offer us clues as to how they may have worked. Certainly, living in the Mesolithic would have been about much more than making flint tools, hunting and gathering, but our understanding of the spiritual aspects of Mesolithic life will always be reliant on informed speculation rather than hard fact.

2. NEOLITHIC

c4000 – 2400BC

The Neolithic period saw one of the most profound developments in human history – the introduction of farming. This resulted not only in the production of food, in contrast to hunting and gathering by which people had survived since the beginnings of time, but also in profoundly different ways of thinking about and ‘being in’ the world. The full implications of this are too profound to discuss in any detail here, but from this point on society was based essentially on the production of its own food, leading eventually to the factory farming of the modern era. Questions of when and why, never mind how, people in this area first took up farming require much further fieldwork at carefully chosen targets.

In addition to farming, the Neolithic sees the introduction of a range of ceremonial monuments, including tombs for the ancestors, new lithic technologies including polished stone axes, and pottery. We know from elsewhere in northern England that this new package had arrived by about 4,000BC. The extent to which it was introduced by new settlers from the continent, in contrast to its adoption by native ‘Mesolithic’ communities, is still debated by archaeologists, though there is little doubt that there was a degree of immigration. The domestic stock (cattle, sheep, goats) and seed (wheat, oats) have origins that can be traced back to the Middle East, and their progress can be traced across Europe as agriculture expanded steadily outwards from this point of origin.

We can only guess at the impact this new way of life may have had on communities that had lived traditional Mesolithic lives for generations. It may well be that farming was taken up later in the North Pennines than on adjacent lowlands to east and west, and for much of the Neolithic this area was perhaps largely occupied only seasonally. But now, perhaps, people saw their role as proactively managing *their* herds and flocks in the upland summer grazing grounds, rather than reactively *following* herds of wild cattle and deer as their predecessors had done for millennia. The evidence we have suggests that permanent farmsteads in much of the uplands did not arrive until well into the Bronze Age. But what can we say about life here during the Neolithic?

Lithics and settlement

Polished stone axes were produced during the Neolithic period, by the first communities to take up farming. Although they were clearly of functional use, for example to clear woodland for agricultural fields, and for a variety of woodworking tasks, they also seem to have been of peculiar ceremonial significance in a way that is impossible for us to appreciate today. We know, from careful analysis of many hundreds of examples, that they come from particular quarries often located at remote, inaccessible and sometimes spectacular places in the landscape, even when comparable stone was available much more easily. For example, at Langdale in the Lake District, where stone axe quarries were located high on Pike O’Stickle. Axes from here found their way all over Britain and further afield during the Neolithic (Bradley & Edmonds 1993).

The nature of this ‘axe trade’ is not well understood, though communal gatherings at the great Cumbrian stone circles may have played a significant role; pieces of worked Langdale stone were found during recent Altogether Archaeology excavations at Long Meg which was probably a key site in the ‘export’ of axes from Cumbria across into Yorkshire, Durham and Northumberland, and possibly also for flint heading from Yorkshire into Cumbria.

Ethnographic research into pre-industrial societies at various places throughout the world, for example in New Guinea, suggests that stone quarrying and axe production were imbued with symbolic significance, and had to be done correctly; stone outcrops could, for example, be considered as the bones of the ancestors, so in peoples’ minds the axes were literally being made ‘of the ancestors’. We will never know the detailed ethnography of axe production and use in Neolithic Britain, but something along these lines is highly likely. On a more prosaic level, although we currently know very little about Neolithic activity throughout the North Pennines, these axes demonstrate that people were here, clearing the land for farming.

Upper Teesdale

In his survey of Upper Teesdale, Denis Coggins (1986a) notes that ‘no Neolithic site has yet been excavated.....nor indeed has any indisputably Neolithic site been identified’. His discussion of Neolithic activity here consists almost entirely of the analysis of stone axes and palaeoenvironmental data. Among the eleven axes recorded from Upper Teesdale are one from an axe factory in Cornwall, found at Bowlees, and a fragment of one of greenstone which is probably from the axe factories at Langdale, Cumbria, found at Birk Rigg adjacent to the ancient track over from Cumbria known as the ‘Green Trod’. An axe from Cauldron Snout, found in 1912 (Wooler 1912; Coggins 1986a), had been recorded as jadeite, which would make it a very rare and important discovery, but has recently been reclassified as of Cumbrian tuff (Alison Sheridan pers comm.). A further fragment of a Cumbrian greenstone axe was found during the excavation of an early medieval farmstead at Simy Folds. Two axes of flint are recorded (from Bowes Close and Peghorn Lodge, about a kilometre apart, either side of the Harwood Beck about 1km east of Cow Green reservoir). The source of the flint is not known, but is obviously not local; these axes may have been made elsewhere, perhaps in Yorkshire, or may have been made locally of imported raw material. Collectively, these axes exhibit much variety and demonstrate contacts with distant lands, though the nature of these contacts remains obscure.

Weardale

Rob Young (1994) has catalogued sixteen Neolithic axes from upper Weardale (ie from above Wolsingham). Unfortunately, half-a-dozen of these, from around Stanhope, are now lost and nothing can be said for sure about them. Of the other ten, Young makes the interesting observation that all but one (the exception being the example from Rogerley Quarry, Frosterley, at 215m OD) are from the north side of the Wear at heights of above 300m OD. Examples are known from near Cowshill, Lanehead, St John’s Chapel, Rogerwell Hush (above Crawley Edge, just NE of Stanhope), Whitley Rigg (near Parkhead, Stanhope; NPVM) and Rookhope. A likely explanation of this pattern is that they were somehow lost while their owners were engaged in woodland clearance work at the upper forest margin, perhaps to clear areas for cultivation, or to improve pasture. It is also

possible that they were used to lop branches to obtain leaf fodder. It has also been suggested that some 'axes' may have been used as ploughshares to break up the ground for sowing seeds, though whether any of the Weardale examples saw such service is unknown. Regardless of exactly how the axes were used, it is possible that their distribution relates to the gradual movement into Weardale of early farmers, perhaps linked to the gradual adoption of agricultural practices by native Mesolithic communities that we know had occupied these areas (albeit perhaps seasonally) for millennia. The lack of cereal pollen from upland pollen diagrams could be interpreted as evidence that early farmers were primarily pastoralists, but alternatively it could be that cereals were grown in some places but the pollen did not reach the sites from which cores have been examined. The jury must remain out in this issue until we have more evidence on which to base our interpretations.

It is interesting to note that the known distribution of flint scatters, the best (although admittedly flimsy) evidence we have for settlement locations, in Weardale is rather different from the distribution of stone axe finds. These other lithic concentrations are concentrated more on lower ground towards the valley bottom (eg at Eastgate), although we must bear in mind when discussing such distributions that they were only found as a result of ploughing, which doesn't occur at higher altitudes. The recovery of lithics of apparent Neolithic date from a few higher locations, for example on Allendale Common where the vegetation was killed off by fumes from nineteenth-century lead mining, reminds us that things were happening on the higher ground, even if the main settlement concentrations were on the valley floor.

An axe from St John's Chapel (Weardale) appears to have been manufactured of rock from the Whin Sill; this may conceivably have originated at an as yet unlocated quarry somewhere in the North Pennines, though other locations, such as the Northumberland coast, are equally possible on geological grounds.

In addition to the stone axes discussed above (all of which are stray finds with no archaeological context), Rob Young in his 1987 overview of the Wear Valley records 22 sites in the upper dale at which lithics of Neolithic or early Bronze Age date have been found. Intriguingly, these include six sites, including at Rookhope and Eastgate, where apparently Neolithic flintwork (eg leaf-shaped arrowheads) has been found in association with what otherwise appear to be Mesolithic assemblages. In three of these cases, barbed-and-tanged arrowheads of early Bronze Age date have also been found. A similar scenario occurs at the Blackton Smeltpit site near Eggleston in Teesdale, where three apparently Neolithic and three apparently early Bronze Age arrowheads were found within an essentially Mesolithic assemblage, and the same phenomenon has been noted at many other sites throughout northern England and further afield. A comparable situation occurred at two Altogether Archaeology excavations: the Tortie Stone, where the very small assemblage included a microlith and a barbed-and-tanged arrowhead, and Kirkhaugh, where a Mesolithic assemblage was recovered from the immediate vicinity of the Chalcolithic burial which included barbed-and-tanged arrowheads. In the latter case, we know that the Mesolithic occupation predated the burial by a very long time, perhaps five millennia, but had the field been ploughed flat and all the lithics recovered together through fieldwalking, and had the other finds of jet and gold not been present, then this may not have been so apparent.

Rob Young lists half-a-dozen flint scatters from Upper Weardale, all but one of which are above 300m OD. Four of these (Westernhope Burn, East Newlandside, Horsley Burn, and Bankfoot

Quarry) are close to tributaries of the main river. These could all have been temporary hunting camps, or upland seasonal settlements linked to pastoralism (rather like the shielings of medieval and later times). Young notes that the site at Westernhope Burn is particularly well placed for such a seasonal camp, in a sheltered location with easy access down to the lower valley and also up onto the fells.

A further site requiring brief mention is Kellah Burn, near Featherstone Castle in South Tynedale. During investigations here by Newcastle University in the 1990s, a building of possible Neolithic date was uncovered, and a possible axe-polishing stone discovered (Johnston & Pollard 1998). A cup-marked stone lies nearby. An early Bronze Age burial (discussed later in this chapter) was also discovered here, within a cairnfield that could be evidence of Bronze Age or earlier agriculture. The Kellah Burn excavation remains unpublished, but it may be that progress in local Neolithic studies can be made by locating and investigating this kind of site, on unimproved moorland where features have not been trashed by later ploughing.

To summarise, although the evidence is frustratingly ambiguous, there was clearly a human presence of some kind throughout much of the North Pennines during the Neolithic. This may well have been largely seasonal, as it may have been during the preceding Mesolithic. Without doubt, much more evidence is out there; we just need to find more of it and work out the right questions to ask of it.

Ceremonial monuments

In some parts of Britain, the Neolithic is characterised by the building of often massive and spectacular tombs and ceremonial monuments. One of these, the magnificent stone circle complex of Long Meg and her Daughters (Little Salkeld), was the subject of a survey and excavation project undertaken by the Altogether Archaeology project in 2013 and 2015 (ASDU 2013, 2016a; Frodsham 2020). This was chosen for analysis because it was considered to be a key site in cross-Pennine communication networks, an assumption backed up by the results as finds included artefacts of Langdale tuff from the central Lake District, flint from Yorkshire, and pitchstone from the Isle of Arran. The complex lies at what seems to have been a key location linking riverine transport on the Eden (linked via the Solway to the Irish Sea province) and overland routes to Yorkshire and Northumberland. Although more work is needed to demonstrate the chronology in detail, the recent excavations suggest that a vast earthwork enclosure here could be as early as 3900BC, while the stone circle probably dates from about 3100BC.

The ditched enclosure, of which there appears virtually no sign on the ground surface, lies immediately north of the circle and measures 210 metres north-south by 200 metres east-west. Much of its interior is now occupied by farm buildings, and no ancient features are visible within it. Another potentially early Neolithic enclosure, perhaps contemporary with that at Long Meg, has recently been recognised on Birkett Knott, 3km south-west of Kirkby Stephen in the Upper Eden Valley (Hamilton-Gibney 2011; Oswald and Edmonds 2020). The location is magnificent, at the threshold between the narrow upland valley of Mallerstang and the broad, fertile plain of the Vale of Eden which extends as far north as the eye can see. The visible remains of the possible Neolithic site consist of the ephemeral rubble banks of a large enclosure measuring approximately 140m x 120m enclosing the craggy summit of Birkett Knott. There appear to be at least six entrances or

‘causeways’ through the bank. It is quite possible that similar as yet unrecognised sites could exist elsewhere in comparable landscape settings in and round the North Pennines. Lower down the Eden, another probable example has been recorded as a cropmark south of the village of Hayton, on a gentle west-facing slope between the Eden and the Gelt (Small 2008). This is defined by an apparently discontinuous ditch measuring 188m by 180m, and looks very much like a Neolithic causewayed enclosure; if it is then it is of very great importance. It should be investigated further to assess its chronology and possible links with the Long Meg enclosure. A cropmark enclosure at Glassonby is recorded in the Cumbria HER as possibly Neolithic, but without any details. A further possible example, also a cropmark recorded from the air, is known south-west of Warwick Bridge, just outside the project area (*ibid*).

The Long Meg stone circle, the third largest in England and fifth largest in the British Isles, measures c110 by 93 metres. It is currently impossible to know the original number of stones, and hard to be sure about the current number given that some are broken and partly buried, but recent analysis suggests a total of 68 ‘Daughters’ in the circle, of which 26 still stand, plus Long Meg herself standing some 20 metres outside the circle’s south-west ‘entrance’, in line with setting sun at the winter solstice as seen from the centre of the circle. The ‘entrance’ is framed by two outlying portal stones. Long Meg stands 3.8 metres above the turf, and is estimated to weigh some 9 tonnes. She is of red sandstone and displays incised spirals and concentric circles, similar to art found in Irish Neolithic tombs, on her east face; she may well have been quarried from an already decorated river cliff above the Eden. Her ‘Daughters’, although they display much variety of form, are nearly all of rhyolite (a form of granite), originally from the Lake District and usually assumed to have been deposited in the Eden Valley when the glaciers melted at the end of the Ice Age. Particularly massive stones stand at approximately (but not exactly) the south, east and west points of the perimeter. Another stone circle was recorded to the south-west of Long Meg in the eighteenth century, but no trace of this is thought to survive. Other features have been recorded from the air in the vicinity of Long Meg, some of which could be Neolithic.

Two other large stone circles, now both largely lost, stood a few kms to the north of Long Meg. That at Grey Yauds, on Harry’s Common, while not approaching Long Meg in terms of grandeur, must originally have been quite an impressive monument. In his survey of Cumbrian stone circles, John Waterhouse (1985, 151) observes that ‘of all the Cumbrian stone circles known to have been destroyed the greatest – and saddest – loss is Grey Yauds’. In 1772 it was recorded as having 88 large stones, up to 1.5 metres in height, in a ring about 50m in diameter, with an outlier 5 metres to the north-west. Today, sadly, only a single stone (thought to be the outlier) remains standing, and several large boulders can be seen in the base of the nearby stone field wall; the site was presumably cleared in the name of agricultural improvement linked to the enclosure of the previously open common land in the early nineteenth century. The remaining stone is quite impressive, standing about 2 metres high. Why it should have been left in such splendid isolation when the rest of the circle was destroyed is not known. It is possible that important remains may lie buried at Grey Yauds; geophysical survey here may well prove worthwhile.

The other example is part of a complex of several stone circles and other monuments recorded in the area of Broomrigg Plantation (Hodgson 1935; Hodgson & Harper 1950; Hodgson 1952). The largest of these, known as Broomrigg A, was recorded in 1934 as being oval with a maximum diameter of 50 metres. Today only its northern arc survives above ground, with only three stones

standing to heights in excess of 50cms. An avenue of stones 35 metres wide was recorded heading north-west from the circle. The site was partially excavated in 1950, before the creation of the surrounding plantation, but nothing to date the circle was found. A new survey, using geophysics, might well prove worthwhile. Several smaller sites, probably all of early Bronze Age date, lay around this large circle, some of which were also investigated by Hodgson prior to the creation of the plantation. The site known as Broomrigg B is a small cairn circle only about 3.5 metres in diameter with just four surviving stones. It must originally have contained a central burial, but excavations in 1950 found that it had previously been disturbed and no evidence of a burial survived. Broomrigg C was excavated in 1948-9 and found to consist of 14 stones, with a diameter of about 15 metres. Within it were several cremation burials including one within a large collared urn. Other finds included jet beads from a necklace, a jet button, a miniature urn of uncertain purpose, and what may have been a bronze knife. Several other sites, including standing stones, cairns and possible hut circles, have been recorded at Broomrigg; these are probably mostly of Bronze Age date but the large stone circle could well be Neolithic.

A few stone circles within the North Pennines (all small in size and certainly not comparable with Long Meg), such as that at Osmaril Gill on Barningham Moor, the circle of apparently fallen stones adjacent to the present-day road at Lune Head, the now lost example at Standing Stones Farm, Eggleston, and a few further examples in the Eden valley, could be of late Neolithic or early Bronze Age date; further work is needed to investigate and clarify their chronology.

While no certain Neolithic monuments are known from elsewhere in the North Pennines, one potentially very important discovery was made during the Altogether Archaeology Lidar Landscapes survey of the Allen Valleys. This is of a large roughly circular embanked enclosure, with its ditch inside its bank, just west of Allendale Town. Much of the site has been flattened through a combination of ploughing and soil erosion, but about a third of it appears to survive quite well within a single field that has not been ploughed to the same extent. Stewart Ainsworth, who led the Lidar Landscapes project, has provisionally interpreted this site as a later Neolithic henge, making it potentially contemporary with the Long Meg stone circle (Ainsworth 2016; Ainsworth et al 2020). If he is right then this is a very exciting discovery. It needs to be checked through a programme of field investigation. There is a fair chance that more sites of possible Neolithic date could be found during further lidar surveys, especially around the fringes of the North Pennines.

Much important fieldwalking has been done in the Eden Valley by volunteers as part of the Living Amongst the Monuments project, the finds from which are currently being investigated and catalogued (Clarke *et al* 2008). The results of this work will tell us much about settlement patterns around Long Meg during the Mesolithic and the Neolithic, enabling comparisons to be made with the results of comparable projects in Yorkshire and County Durham, and those small pockets of the North Pennines where lithics have been recovered from ploughed fields or otherwise disturbed ground.

Rock art

Rock carvings known as ‘cup and ring marks’ date from the Neolithic period, and are commonly found in some parts of northern England, notably in north Northumberland where some very complex decorated panels can be seen. No-one knows what the carvings meant to those who

produced them; explanations range from functional symbols that acted as some kind of signposts, to religious motifs of huge spiritual significance to those who made and used them.

There is something of a tendency to regard rock art as a separate subject in its own right, but this should be avoided as we are unlikely to learn much by studying it in isolation. Rather, we should seek to integrate rock art into mainstream Neolithic studies. Despite much work over recent years, they remain notoriously difficult to date with any degree of accuracy, and may legitimately be described as the greatest mystery in British prehistory.

Some of the most fascinating concentrations of rock art to be seen anywhere exist in the south-east of the North Pennines. Although most of the art here consists of relatively simple motifs, when compared to some of the more complex panels in, for example, north Northumberland or Argyll, these North Pennines examples offer much potential for future analysis. They have been comprehensively catalogued by Paul and Barbara Brown (2008), and may be considered as three separate groups. The group in Baldersdale includes at least 94 decorated stones. A further fascinating concentration survives a few kilometres to the south-east on Barningham Moor (140 individual panels), with another dozen on nearby Scargill Moor. Further north, on the north side of the Tees, a couple of dozen decorated panels have been recorded east of Eggleston.

In seeking to interpret this rock art, Brown and Brown suggest that the key concentrations survive on what were once important routeways through the landscape, in particular between North East England and Cumbria. This certainly appears to be the case, and it recalls the suggestion made above regarding the distribution of stone axes. But it doesn't address the actual purpose or 'meaning' of the carvings, their chronology, or their relationships with other sites. Much work remains to be done in these fields, and the North Pennines examples provide many opportunities where carefully targeted excavation could potentially provide fascinating results.

In complete contrast to the areas discussed above, other parts of the North Pennines (eg Weardale, Alston Moor, Allen Valleys) contain virtually no rock art at all. The reasons for this absence, which appears to be a real archaeological pattern rather than a result of recent quarrying or other activity as is sometimes suggested, are not known.

The Tortie Stone

The Tortie Stone, near Hallbankgate at the north-west corner of the North Pennines, is a large earthfast sandstone boulder onto which a number of circular cupmarks, including three with surrounding rings, have been carved (NPVM). Although many comparable examples of cup-and-ring art can be seen at the opposite (south-east) extremity of the North Pennines, the Tortie Stone and its near companion (a massive flat-topped outcrop known as Tortie 2) are the only known examples in the northern sector of the AONB. An Altogether Archaeology project undertook excavations here in 2011 to investigate whether the Tortie Stone was part of a stone setting, as other stones in the vicinity appeared to form a rectangle (Vyner 2013). However, although a single cup mark was found on one other stone it appears that all the stones were in their natural positions where they had been dumped by the glaciers at the end of the Ice Age (certainly the Tortie Stone was not a fallen 'standing stone' as had previously been suggested). Perhaps people in the Neolithic also wondered whether the arrangement of boulders here was the work of their ancestors rather than of nature, giving the site peculiar significance to them and leading them to create the cup-and-ring marks.

It was hoped that the excavations would provide clues as to the date of the carvings, but sadly no datable samples were recovered. Several flint artefacts were found in the immediate vicinity, but these ranged in date from the Mesolithic to the early Bronze Age, so cannot be used to date the rock art, although it is certainly interesting that people seem to have gathered here over such a long period. Perhaps the place was of some special significance to many generations of prehistoric people, or alternatively maybe it was just a convenient stopping off place on some long-lost route between other places. Despite the best endeavours of the Altogether Archaeology volunteers, the Tortie Stone retains her secrets. We will probably never know for sure why Neolithic people chose to embellish this particular stone with cup and ring marks, but whatever the reason the site is important in demonstrating a Neolithic presence in an area where it is otherwise unknown.

Any attempt to explain the purpose or ‘meaning’ of cup and ring marks in areas where they are common, such as in parts of Upper Teesdale and Baldersdale towards the south-east corner of the North Pennines, must also account for their presence at outlying sites like Tortie, and their absence from other areas.

Summary

In summary we must conclude that there is frustratingly little evidence of Neolithic activity within the North Pennines, although we do have tantalising clues in the form of lithics, rock art and palaeoenvironmental evidence. It is quite possible that settlement was concentrated on the lower ground, with the high moors used for a combination of seasonal grazing and hunting. While attention is naturally drawn to the great Neolithic monuments such as Long Meg (at which further work is needed), it may be that much progress can be made through the recognition and investigation of small apparently domestic sites such as Kellah Burn. Finding these will not be easy, but rock art may provide some clues.

3. CHALCOLITHIC and EARLY BRONZE AGE c2400 – 1500BC

Some archaeologists refer to a transition period between the late Neolithic and early Bronze Age as the 'Chalcolithic' (copper age), also sometimes known as the 'Beaker period' due to the distinctive ceramic 'Beakers' (probably drinking cups) characteristic of the period. Although there are very few sites of this period known from the North Pennines, it is a useful concept as it helps to demonstrate that there was no sudden development from Stone Age to Bronze Age. It is possible that some of the sites discussed above, including small stone circles and rock art, could date from this period rather than the Neolithic.

A recent important development resulting from recent aDNA work (comparing ancient DNA from Beaker burials with earlier and later burials throughout Britain), is that the Beaker period saw a clear genetic change following 2500 cal BC (Olalde et al 2018; Chris Fowler pers comm). This is best explained through immigration linked to the introduction of Beakers, though the actual number of immigrants probably numbered hundreds rather than thousands and the process may have extended over several generations; it was certainly not an 'invasion' as suggested in the popular press. Mobility within Beaker populations, including immigration from the continent, is further demonstrated by the astonishing results of recent isotopic research (Parker Pearson *et al* 2019). Analysis of half a dozen Beaker burials from north-east England (though none from the North Pennines) was included in Olalde's work, the results of which concur with the national picture. These results have profound implications which will be challenging to interpret alongside apparent elements of continuity and change in cultural practices from the late Neolithic through into the early Bronze Age c.2500-2000 BC. The aDNA work also suggests that later Beaker and early Bronze Age populations (e.g. Food Vessel associated) are genetically similar, and distinct from Neolithic ones, and later Bronze Age populations seem to continue the Beaker and early Bronze Age genetic patterns. The middle Bronze Age changes in settlement and agriculture so obvious in the archaeological record (discussed in the next chapter) do not, therefore, seem to coincide with changes in genetic ancestry such as that which seems to have occurred during the Beaker period. The implications of all this for northern England remain to be resolved, but the 'appliance of science' to this particular period, including aDNA and isotopic evidence linked to increasingly accurate radiocarbon dating, is now playing an increasingly important role alongside more conventional archaeological evidence in the study of the Chalcolithic and early Bronze Age.

Our evidence for the Chalcolithic and early Bronze Age of the North Pennines is dominated by burials, with little evidence for the nature of settlement. It is possible that settlement in the uplands was still largely seasonal, though permanently occupied settlements presumably existed by his time in the sheltered valley bottoms. Lithic scatters in Weardale, for example at Eastgate, may represent some such settlements, but there is precious little we can say for sure about them.

Flint barbed and tanged arrowheads, of which many have been found throughout the North Pennines (including eight recorded by Coggins from Upper Teesdale), date from the Chalcolithic and early Bronze Age, but in themselves they tell us little about the nature of activity throughout the landscape. An individual example may have been lost during a hunting expedition, while others

may originally have been deposited with burials, or lost within a settlement, to be later disturbed by the plough or natural erosion.

Kirkhaugh

The most celebrated Chalcolithic site in the North Pennines is the burial cairn at Kirkhaugh, South Tynedale. Originally excavated in 1935 (Maryon 1936), and re-excavated by the Altogether Archaeology project in 2014 (Fitzpatrick 2015), this dates from about 2300BC and is the earliest known burial site in the North Pennines, as well as one of the most important Beaker burial sites in Britain. It is a very rare example of an early metal worker's grave, the only other certain example from Britain being the Amesbury Archer from near Stonehenge. It is one of only ten sites in Britain where gold 'hair-tress' ornaments (amongst the very earliest metal objects known from Britain) have been found; the Kirkhaugh examples are exquisitely made, the detail is much more intricate than that of the Amesbury examples and others (NPVM). They were quite possibly the very first metal objects ever seen by anyone in the North Pennines. In addition to the gold, the burial contained a Beaker, exquisitely made barbed and tanged flint arrowheads, jet buttons, and a 'cushion stone' (a portable anvil used by the very earliest metalworkers). The only other known British burial containing a cushion stone and gold artefacts is that of the Amesbury Archer. Analysis of the Amesbury Archer's teeth proved that he came from the Alps, but for some unknown reason moved to Wessex, where he died in about 2,400BC. Unfortunately, re-excavation of the Kirkhaugh site in 2014 failed to recover any organic remains that might have provided similar information about the person buried here.

The Kirkhaugh burial may be regarded as marking the very start of local ore prospecting, leading in due course to the Roman exploitation of lead and silver, and eventually to the vast post-medieval lead industry for which the area is internationally famous. We assume that whoever was wearing the gold came to the North Pennines as part of a small group of prospectors in search of natural gold and copper (both were worked cold; bronze was not yet invented), but that something went horribly wrong resulting in his death; his comrades then gave him an appropriate burial. Although it is unlikely that any gold was ever found in the North Pennines, it is highly probable that some copper ore was readily available at or near the surface; future research may yet locate and investigate early copper mines.

Very few other Beaker burials are known from the North Pennines (examples include How Tallon on Barningham Moor, where a mound excavated in 1897 (Coggins & Clews 1980) also included at least one later burial, and Hindon Edge, Langleydale, excavated exactly 100 years later in 1997. Both are discussed and illustrated in Brown & Brown 2008). The reason for the rarity of beaker burials throughout the North Pennines is not known, though it may well be that further examples exist within as yet uninvestigated mounds or flat graves.

Dryburn 'henge'

Another important Chalcolithic site investigated by the Altogether Archaeology project is the 'henge' at Dryburn on Alston Moor (ASDU 2016b). This roughly circular enclosure provided dates in the late third millennium cal BC, but no clues as to its purpose. It occupies a nodal point in the

landscape, which may be significant if it was a place visited by people on journeys across the North Pennines.

Early Bronze Age burials

The Chalcolithic merges into the early Bronze Age by about 2,000BC. Throughout the North Pennines, we still have no clear evidence of settlement, and it may be that the higher ground was still being occupied on a seasonal basis. Several early Bronze burial mounds, in addition to the few Beaker burials noted above, are known from the North Pennines; some of which are discussed below.

Kirkcarrion and Upper Teesdale

In Upper Teesdale, the very distinctive hill of Kirkcarrion occupies a prominent position in the landscape just south of Middleton in Teesdale. It was once crowned with a large burial cairn that was dismantled in the early 19th century to provide stone for nearby field walls (Coggins 1986a). This cairn contained a cist, within which was an urn containing a cremation; the urn was taken to Streatlam Castle but sadly now appears to be lost. A little to the west of Kirkcarrion, at Holwick, a jet bead necklace (of which all but two of the beads are sadly now lost, the two being in the British Museum) was found within a barrow in 1867, though sadly no record of the barrow nor any other finds from it survive. Two possible barrows, one of which may well be the one from which the jet was recovered, are known from the vicinity of Holwick: both may well repay investigation using modern techniques.

The ‘Eggleston Urn’, discovered in 1967 eroding out of the bank of the Tees, contained the fragmentary cremation of a child aged perhaps 5 or 6 (Coggins & Clews 1980). The urn appears to be a later Bronze Age type, although burials from the later Bronze Age are otherwise unknown throughout the North Pennines. No other finds are known from the immediate vicinity. If the cremation still survives within the Bowes Museum then it should be subjected to C14 dating.

A particularly impressive group of at least eight turf-covered cairns, three of which are quite large and appear undisturbed, occupies a level platform on Burnt Scar, Crossthwaite Common, with magnificent views northwards over the Tees. Coggins (1986a, p87) noted that ‘this recently noticed site is likely to be an important one requiring detailed survey and excavation’. A survey of the site was duly completed, along with excavation of one of the cairns that recovered fragmentary cremations apparently of an adult and a child, along with some lithics (Young et al 1992). There is certainly potential for further work here. The fact that this fine site lay undiscovered until the 1980s certainly suggests that comparable sites may still await discovery in Teesdale and elsewhere in the North Pennines.

During the Altogether Archaeology investigation of the medieval settlement at Well Head, Holwick, the opportunity was taken to excavate a nearby circular feature, initially thought to be a possible round house (Green 2019, 2021). This proved to have been much damaged by ploughing, but a substantial well-constructed stone bank survived around part of its perimeter. A single radiocarbon date of 1830 +/-80 BC was obtained from charcoal sealed beneath this bank, and the site is now

interpreted as an early Bronze Age ritual site, probably a form of ring cairn, though no evidence of any burials survived within it.

Crawley Edge

A burial cairn with a radiocarbon date of c1700BC was excavated in 1976-77 at Crawley Edge, above Stanhope (Young & Welfare 1992). This is fascinating for a number of reasons, not least because it forms part of a wider landscape of immense interest, on account of which it will be considered further in the next section covering early Bronze Age settlement. The cairn lies within an extensive cairnfield of more than forty individual mounds, but it is not known how many of these contain burials. Two cairns, immediately adjacent to each other, were excavated. The smaller of the two contained nothing of interest, while the larger one covered a cremation within an upright collared urn, set in a pit roughly at the centre of an arrangement of thirty stones set in an oval approximately 4 x 3 metres. The urn apparently contained material scraped up from a funeral pyre, but unfortunately the bone was badly decomposed and nothing can be said about the individual(s) buried here. Also within the cairn, though not directly associated with the cremation, were three jet beads, presumably once part of a necklace. Surprisingly few other potential burial cairns are currently recorded in Weardale, and to date this remains the only excavated example.

Birkside Fell

A ring cairn at Birkside Fell, Blanchland, was excavated by Chris Tolan-Smith and colleagues from Newcastle University in 1996-7 (Tolan-Smith 2005; NPVM). The monument consisted of a sub-circular paved area contained within a ring of loose stone and earth, the containing ring having an inner kerb of large boulders. The urn was found upright within a pit, sealed beneath the paved surface of the cairn interior. It was off-centre, suggesting that other burials may also have been present, but no further evidence of burials was found during the excavation. The urn is 43cm high and is well decorated with filled triangles on its collar with impressed herring-bone decoration on the upper portion of the body beneath the collar. Within the urn was cremated bone, radiocarbon dated to about 1850BC, from two adults; one thought to be aged 35-44 and the other 20-40. Due to the nature of the surviving bone, and the way it was all mixed up together, it is not possible to be certain of the sex of each individual, but one of them was apparently a robust male. Combined burials like this are not particularly unusual; they presumably result from two bodies being cremated, perhaps on the same pyre, after which the ashes are gathered up and placed in the urn – it does not seem to have been necessary for the entire cremation to be included, just some of the cremated bone together with charcoal. The reasons why these two people were cremated and their ashes interred here together at Birkside will remain forever a mystery. It is possible that contemporary settlements may survive in the area, but further investigation is needed before we can be sure about this.

Kellah Burn

A couple of kms west of Featherstone Castle in South Tynedale, a Newcastle University project in 1996-98 investigated a distinctive U-shaped plateau formed by the erosion scarp of the Kellah Burn (Johnston & Pollard 1998). The visible archaeological remains on this plateau include at least fifteen clearance cairns, barrows, cup-marked stones, linear earthwork features, cord-rigg, prehistoric and

medieval settlement remains, and traces of industrial activity. In one place a stone lined pit was excavated and found to contain a Bronze Age cordoned cremation urn. Sealed behind the largest of the stone slabs was a small smooth decorated stone, perhaps originally used as a quern. The unusual decoration, nothing like conventional ‘cup-and-ring’ marks, consisted of a group of pecked parallel lines the significance of which is unknown: suggestions that it could possibly form the outline of a human figure seem unlikely. The finds and features from this trench are suggestive of a Bronze Age enclosed cremation cemetery. Although the urn is described in an interim report as a ‘cordoned cremation urn’, it looks from photographs very much like a collared urn, similar to other urns from the North Pennines discussed here. The Kellah Burn complex seems to include features ranging in date from Neolithic to medieval, and is certainly worthy of further investigation. Hopefully the results will be fully published sometime soon.

Brackenber Moor

Several early Bronze Age burial cairns are known from the Eden Valley. A recent important addition to this corpus is the site excavated by Altogether Archaeology on Appleby Golf Course, Brackenber Moor. Previously thought to be a Roman signal station, this turned out on excavation to be an early Bronze Age structure that contained a cremation burial in an inverted collared urn together with a couple of small accessory vessels (Railton 2011, 2018). Subsequent investigation of another mound on the golf course failed to locate any evidence of burial (Slater 2013).

Bronze Age cairns and cairnfields

On the basis of currently available data it is not possible to be sure about the relative chronologies of the early Bronze Age burial cairns, such as those discussed above, and the extensive cairnfields (discussed in the following section) that occur in some places and are generally interpreted as evidence of middle Bronze Age settlement and agriculture. In some places, notably Crawley Edge, burial cairns occur within cairnfields, but the fact they occur in the same place doesn’t necessarily mean they are contemporary. The recovery of a saddle quern from one of the excavated cairns on Crawley Edge suggests settlement close by, as it unlikely, in the excavator’s opinion, to have been transported over any great distance (Rob Young pers comm.). More fieldwork is required at different sites to resolve the chronology of such potentially complex landscapes.

The Altogether Archaeology survey project at Ravensheugh Crag (OAN 2015), north of Hadrian’s Wall, is a good example of the kind of initial survey work that is required; this should be replicated at many other places and ideally should lead to small-scale carefully targeted excavations to address a range of issues including chronology. The Ravensheugh survey recorded rock art, burial cairns, a four-poster stone ‘circle’, field clearance cairns, burnt mounds, cord-rigg fields and other features extending through into historic times. While an outline chronology of the landscape as whole was suggested, excavation of individual features will be required to add detail before we can be sure how the different elements of such landscapes relate to each other. Over recent years, the Tynedale North of Wall Group has carried out much important survey work in landscapes comparable to Ravensheugh, including areas south of the Wall at Greyside (2019) and Howden Hill (2020). Both surveys demonstrated a wealth of previously unrecorded medieval and prehistoric features on these uplands, suggesting a long history of farming extending back to the Bronze Age. (Reports on all the group’s surveys are available at: tynedalearchaeology.org.uk).

Whatever the detailed chronology, by the middle Bronze Age, about 1600BC, permanently occupied farmsteads of round houses and fields seem to be present in parts of the North Pennines. Some of these may well be in the same places as earlier burial cairns, which may still have provided foci for ceremonial activity, perhaps continuing to enshrine ancestral rights to the land. However, in general terms, activity in the uplands seems from this point on to have focussed on the construction and maintenance of homesteads and fields rather than ceremonial and burial monuments; the ‘ancestral landscapes’ of the Neolithic and early Bronze Age were giving way to the ‘agricultural landscapes’ of the later Bronze Age and Iron Age (Frodsham 2006).

4. LATER BRONZE AGE and IRON AGE c1500BC – 100AD

Middle Bronze Age settlement and farming c1500 – 800BC

Introduction

In common with other upland areas of northern England, a profound change seems to have occurred in the North Pennines during the middle Bronze Age: the setting up of the first permanently occupied farmsteads (as opposed to seasonally occupied settlements) together with field systems. These occupants of these farmsteads must have practiced agricultural regimes that enabled breeding stock to be maintained throughout the winter, and seed to be retained for planting the following season, beginning the process that still continues on upland farmsteads throughout the North Pennines today. In some places, notably Crawley Edge (Stanhope), discussed below, there are cairnfields which appear to include field clearance cairns (piles of stones removed from the surface of ploughed fields) as well as burial cairns. Although not visible on the surface, these areas may well also include buried remains of timber roundhouses. They offer the potential for integrated projects to study all aspects of Bronze Age life and death. Burial cairns such as that at Crawley Edge have been discussed in the previous section and only passing reference will be made to them here, even though they may well be contemporary, at least in part, with the field systems discussed here. It is important to note that not all features within the area of a cairnfield need necessarily be contemporary. Recent work by Altogether Archaeology members in partnership with the Tynedale North of the Wall group, at Ravensheugh (OAN 2015) and elsewhere in the Hadrian's Wall corridor, has demonstrated the complexity of what can appear initially as fairly simple landscapes. In many places throughout the North Pennines, such landscapes contain features such as rock art, burial cairns, ceremonial monuments, clearance cairns, burnt mounds, later prehistoric fields and other features that can be provisionally broken down into different phases through detailed survey, but, as noted at the end of the previous chapter, excavation will be required to add detail to the rough phasing thus demonstrated. These landscapes have rarely been studied in the past, largely on account of their visible features being far from spectacular, but their detailed study has much to tell us about everyday life in prehistory. Their occupation may well have begun on a seasonal basis, perhaps in the Neolithic or even the Mesolithic, leading to permanently occupied farmsteads from the middle Bronze Age and into Iron Age and Roman times.

Bracken Rigg and Upper Teesdale

The first Bronze Age farmstead to be recognised in northern England was excavated in 1977 at Bracken Rigg, close to High Force in Upper Teesdale (Coggins & Fairless 1983). This consisted of a single roundhouse within an irregular L-shaped enclosure of about seven hectares. A nearby cairnfield may also be evidence of contemporary agriculture, though this remains uninvestigated.

The excavators note that the enclosure would have been suitable for ‘the many operations involved in livestock farming where it is necessary to confine animals for short or long periods – calving, weaning, milking, castration, culling etc.’ On balance, although palaeoenvironmental evidence was frustratingly absent due to the nature of the soil, it is thought likely that the Bracken Rigg farmstead was occupied throughout the year and its occupants practised a mixed agricultural regime.

The roundhouse at Bracken Rigg seems to have consisted of a timber roof supported on a ring beam set on six large posts erected in a rough hexagon midway between the centre and the external wall. Three super-imposed hearths lay at the centre of the house, one of which yielded a radiocarbon date of around 1450 cal BC, in the middle Bronze Age. This date ties in neatly with evidence for extensive tree clearance and cereal cultivation from three Upper Teesdale pollen cores, suggesting that people were clearing woodland to create pasture and arable plots at about this time. It is not known when or why the site was abandoned.

Coggins notes that the Bracken Rigg farmstead, at 387 metres OD, is at a higher elevation than farmsteads of later prehistoric date. This is presumably due to the climate having been milder during the middle Bronze Age – just a couple of degrees on average can make a crucial difference to the length of the growing season, making farmsteads potentially viable at these altitudes where they would not be during the cooler Iron Age. Any roundhouse settlements that do survive at comparable elevations to Bracken Rigg may well be Bronze Age in date: Coggins (1986a, 31) lists nine such sites at elevations ranging from 335 to 457 metres, all on the south side of the Teesdale fault: all would justify detailed investigation. Coggins further suggests that these settlement sites, located about 1.5 to 2km from each other, may have belonged to system of large farming units, linked to a series of long contouring field boundaries that may have related in some way to the regulation of grazing rights. In addition to these upland sites, it is of course probable that many more Bronze Age farmsteads existed at lower altitudes, but now lie beneath later settlements or have been destroyed by ploughing.

Recent lidar survey (Frodsham 2017) of the complex multi-period landscapes south-west of Middleton-in-Teesdale has recorded unenclosed roundhouses and clearance cairns within a system of irregular stone-walled field systems of Bronze Age character on the north-east slopes of Crossthwaite Common. The houses here were presumably of timber with either a low stone wall, or completely of timber but surrounded by a ring of field clearance stone; either way, other houses, exclusively of timber, probably also survive here, but are not detectable by lidar. The results of this work have yet to be fully evaluated but, although this general area was heavily exploited during later prehistoric and medieval times, it does seem that extensive areas of Bronze Age landscape have survived relatively intact, offering exciting opportunities for future study.

Crawley Edge and Weardale

No Bronze Age houses are known in Weardale, though they must surely have existed. It is probable that timber roundhouses stood within cairnfields such as that at Crawley Edge, which contained the excavated burial cairn discussed above (Young & Welfare 1992). The Crawley Edge cairnfield consists of at least forty separate mounds, spread over a gently sloping south-facing spur overlooking the Wear Valley, at a height of about 300 m OD. Most of the cairns appear to be

unstructured piles of stone, simple byproducts of field clearance rather than sepulchral monuments, though some do appear to have possible kerbs and could contain burials like the excavated example; without further excavation the nature of each individual cairn cannot be known for sure. A Neolithic polished stone axe was found at Rogerwell Hush, just north of the Crawley Edge cairnfield, suggesting that clearance of the natural woodland here could have been underway back in Neolithic times.

During the survey of Stanhope deer park (Nichol & Gledhill 2004, 2005, 2006), several features of Bronze Age date were recorded including burnt mounds (probable sweat lodge or sauna sites) and many cairns that could be field clearance or burial (or both). It is almost certain that some houses must have stood in this area, probably within field systems like that at Bracken Rigg, but they may now lie concealed beneath (or have been destroyed by) later prehistoric sites. It is also possible that some of the flint picked up in lowland fields in Weardale may be indicative of Bronze Age settlement, though any evidence of houses or other structures may have been destroyed by ploughing during subsequent times.

As with Teesdale, discussed above, recent lidar survey suggests the survival of areas of Bronze Age landscape in Weardale (Frodsham 2017). The best example is at a height of 326m OD, above White Well Crag, east of the Westernhope Burn about a kilometre south of its confluence with the Wear. It is possible that the field system here may have covered a much larger area as it is encroached upon by a very extensive later prehistoric field system to the north-east. It may have been located here to take advantage of natural springs. The fields are very irregular, and still contain quite large cairns – presumably the result of field clearance, though some may contain burials like the excavated example at Crawley Edge. No houses were recorded at this site, but they would have been timber and evidence for them probably will survive below ground amongst the fields.

Ravock Moor and Stainmore

On Stainmore, a coaxial field system, with field boundaries of low stone banks, and an extensive cairnfield, both apparently of Bronze Age date, have been recorded at Ravock Moor, just north of the A66 about 3km west of Bowes (Vyner *et al* 2001). Although small-scale excavation failed to provide clear evidence of chronology, the excavators favour an origin in the early Bronze Age and suggest that the remains probably relate largely to pastoralism. Some of the cairns here are thought to be probably sepulchral, although further excavation will be necessary to resolve this. No houses have been recognised within the Ravock Moor field systems; it is possible that people lived in timber round houses within or adjacent to the field systems. Remains of such houses may well still survive within the ground, but with no visible surface trace.

Scordale and the Eden Valley

Further west, an extensive Bronze Age field system, within which lie several apparent roundhouse platforms, has been recorded at Scordale (between 250 and 300 metres OD, c1km north-east of the village of Hilton, in the Eden Valley). This consists of more than forty clearance cairns and irregular but generally quadrangular fields defined by low walls of stone and earth covering at least 9 hectares of the gentle south-facing slope above the north bank of the Hilton Beck (Hunt & Oswald 2006). Some of the clearance cairns may contain burials, but this cannot be proved without excavation. The field system may have been in use for quite some time, as some clearance cairns

appear to overlie earlier lynchets, formed by the downslope movement of soil as a result of ploughing. Two further Bronze Age settlement sites have been identified a short distance to the west, with another higher up the Swindale Beck. A little further afield to the north-east, two more sites lie either side of Stow Gill. These six sites (all of which are scheduled monuments) are of the same general character, consisting of a combination of round houses, cairns and irregular enclosures. It may well be that further examples survive to be discovered in the general area. A survey project here, combined with carefully targetted, small-scale excavation, could prove very useful in teasing out the relationships between different features as well as providing some absolute dating that would be useful not only here but also to our understanding of comparable landscapes elsewhere.

In the north-west corner of the North Pennines, on the RSPB Geltsdale reserve, a probable Bronze Age settlement of at least three unenclosed roundhouses was discovered on Tortie Hill during the Altogether Archaeology excavation of the nearby cup-and-ring marked rock. This site has yet to be surveyed.

Kellah Burn, Tynedale

The cairnfield here consists of fifteen individual cairns, all undated though they are thought likely to be Bronze Age. Excavations here by Newcastle University in the 1990s (currently unpublished) uncovered evidence of activity extending back to the Neolithic, including a possible Neolithic building and an axe-polishing stone. An early Bronze Age burial (discussed above) was excavated from within what appears to be an enclosed cremation cemetery. It is to be hoped that this project is published soon as the site is some importance in its own right (especially if it does demonstrate continuity of occupation from Neolithic through into Bronze Age times), as well as being of potential relevance to comparable sites elsewhere in the North Pennines.

Pedham's Oak, Upper Derwent Valley

Several 'scooped' roundhouse platforms have been reported from the vicinity of Pedham's Oak, along with a cairnfield with in excess of thirty small cairns (Newton 2014) . Scooped house platforms, where scoops are made into a hillside to produce a level circular platform on which to construct a roundhouse, are commonly found in other upland areas of northern England, notably in the Cheviots, and can date from Bronze Age or later times. If the Pedham's Oak site really is settlement of this type then it is very important and should be accurately surveyed. However, until it is assessed there is little more we can say about it.

Alston Moor, the Allen Valleys and Hexhamshire

Recent lidar surveys on Alston Moor and in the Allen Valleys have failed to record any definite Bronze Age landscapes, which is perhaps surprising but may be a result of the remains being quite ephemeral rather than because people didn't live in the these areas at the time. Field systems consisting of little more than small cairns, for example, may avoid detection by lidar, especially when only low resolution lidar is available. On Alston Moor in particular, there is a chance that some prospecting for copper occurred during the Bronze Age, and this may have led to some copper mining, though probably not on a large scale. A couple of potential Bronze Age mining sites

have been identified and, although high in the hills and difficult to access, these should be subjected to detailed analysis.

The sites discussed above, at locations throughout the North Pennines, suggest that many more Bronze Age settlements must have existed, though finding them may not be easy. Recent lidar surveys in Teesdale and Weardale have identified field systems that appear to be Bronze Age, but these require detailed assessment on the ground. These landscapes are generally far from spectacular in outward appearance, but they have much to tell us about everyday life in the Bronze Age. Their further analysis, involving small-scale excavation, should be regarded as a priority.

Ritual and ceremonial sites

In contrast to earlier periods, once the burial mounds of the early Bronze Age went out of fashion there is no evidence for burial, and no sign of the construction of ritual monuments, throughout the North Pennines. This may be because the fields somehow took on a ceremonial role in addition to their practical role in the production of food. Whereas in earlier times communities may have looked backwards to the ancestors, now they were involved in the planning of next year's food supply, perhaps regarding themselves increasingly as in control of certain aspects of their future, and therefore became more forward looking, less dependent on the ancestors. This is not to say that the ancestors were not important, they almost certainly were, but people no longer felt the compulsion to build burial mounds and other ceremonial monuments. This was probably a gradual change, and it seems that during the earlier Bronze Age communities were still building burial mounds while ploughing their fields, in places like Crawley Edge. But more detailed investigation of such sites is necessary before we can be sure exactly what was going on when.

One curious aspect of religious belief during the later Bronze Age is the presence of what appear to be ritual hoards. While it is possible that some hoards were buried for practical reasons, with the intention of recovering them at a later date, the locations of many, particularly in wet places (they are often found during drainage work) demonstrates that they were not buried for such reasons.

Heathery Burn, Weardale

The Heathery Burn hoard is one of the most fascinating and important ritual hoards of late Bronze Age metalwork ever found in Britain (Greenwell 1894; Britton & Longworth 1968; Britton 1971; Harding & Young 1986; NPVM). The objects were deposited in the centuries around 900BC in a cave, extending more than 150m underground, through which the Heathery Burn flowed above its confluence with the Stanhope Burn, about a mile north of the River Wear. The cave was destroyed by quarrying in the mid 19th century, when most of the finds (more than 200 objects) were made.

The finds, some of which are lost, are now mostly in the British Museum (196 objects). They include: bronze swords, axe-heads, spearheads, knives, horse fittings, rings, a razor, and a bucket; a bracelet and lock-ring of gold; objects of carved bone, antler, tooth and sea-shell; lots of pottery (now mostly lost) and a few flints. Of particular interest are eight bronze 'nave-bands', thought to have been mounted on the hubs of wheels of carts or chariots; these are possibly the earliest

known evidence for wheels in Britain. Some human remains from at least 3 skeletons were also found, though there is no proof that these are contemporary with the Bronze Age artefacts.

Although several other hoards of late Bronze Age date are known from the North Pennines, the range of objects and the nature of the cave render Heathery Burn unique. Ritual hoards are often associated with wet places, and the fact that the burn actually flowed through the cave must have been of considerable significance; it is not difficult to see how the flowing water and the underground cavern (potentially linked in some way to a concept of ‘the underworld’) provided a potentially powerful combination. The ‘sensible’ thing to do with old bronze objects was to recycle them into new objects, but here the choice was made to deposit them in a sacred cave, presumably as offerings to the gods. Whether the site was used exclusively by local communities, or whether people came here from afar, is not known, but it is unlikely that all the objects were made locally. The presence of seashells demonstrates links with the coast, presumably the North Sea coast, but whether or not people actually came here from the coast is not known; the objects could have been traded between communities.

The Eastgate hoard

A hoard of fifteen late Bronze Age bronze objects, including spearheads and axeheads, was found by a labourer in about 1812 ‘under some large rough stones’ on land near Hag-Gate on the south side of the Wear opposite Eastgate (Cowen 1971; Wilson 1816; NPVM). Although little is known about the original circumstances of deposition of these objects, they are best interpreted as a ‘ritual hoard’, although it is possible that they were hidden here for more prosaic reasons but never recovered. The Eastgate objects consist of: five leaf-shaped spearheads, a fragment of a socketed sword or knife, four socketed axes, a ferrule for a spear shaft, a socketed gouge, a socketed hammer and two thin discs that may have been part of a horse harness. Very similar objects are known from the Heathery Burn hoard, the site of which is only about 5km to the east, but it is not known whether the two sites were originally linked in any way. It is known that the Eastgate objects were retained by Rev Wilson until his death in 1843, but they are now officially described as ‘missing’. It is known that they survived, in good condition, until 1967, when they were seen in a private house ‘somewhere in Westmorland’, but rather mysteriously the location of this house is unknown.

The Gilmonby hoard

A hoard of 123 bronze objects, including swords, axes and spearheads, all dating from 1000-800BC, was found in 1980 during drainage works in a field near Gilmonby village (Coggins & Tylecote 1983; NPVM). This is one of the most important late Bronze Age hoards from northern England; in terms of the number of objects, it is second only to the Heathery Burn hoard discussed above. The presence of copper ingot, a spigot (waste material resulting from casting bronze in a mould) and broken swords and other objects within the Gilmonby hoard has led some archaeologists to believe that rather than being a ritual hoard these objects were buried by a craftsman who intended to recover them later and use the metal to manufacture new bronze objects. If this is correct then the location, at the east end of the Stainmore Gap, is possibly significant; perhaps the location relates to the use of Stainmore as a major communication link between the NE and NW, as it was in Roman and later times. At present there is no confirmed late Bronze Age context for the find in the

vicinity, but its presence here certainly suggests there could be other sites of similar date awaiting discovery in this area.

A ‘new’ hoard from near Barnard Castle

A hoard of thirteen bronze items, including five socketed axes, four leaf-shaped swords, two axe heads and a pair of spear heads, was found by metal detectorists in a field near Barnard Castle in August 2015; the exact findspot has not been publicised in order not to encourage potential treasure seekers. The finds are estimated to date from 900-800BC and bear close similarity to those in the Gilmonby hoard. They were apparently spread over an area of the field some 100 metres across, having been moved around by ploughing over the years. Further analysis of the findspot will be necessary to assess whether this is another probable ritual hoard from a wet area.

In addition to the above hoards, occasional stray finds of isolated bronze artefacts have also been made in the North Pennines. Some of these were found in ‘wet places’ and may also be a result of ritual activity.

The end of the Bronze Age

Bronze technology was superseded by the introduction of iron working from about 800BC. The implications of this for communities in the North Pennines were profound, as whereas access to copper and bronze was easily controlled, iron ore was readily obtainable in many places. Some Bronze Age settlements seem to have been abandoned by, or during, the Iron Age, while others probably saw continued occupation and now lie buried beneath settlements of later prehistoric date. These later prehistoric settlements and their sometimes extensive field systems are covered later in this chapter.

Possible ‘hillfort’ type Iron Age enclosures

In some parts of northern England there is a tendency for large enclosures, commonly termed ‘hillforts’, to be built during the later Iron Age. In many cases there were preceded by timber-built palisaded enclosures. These palisades and hillforts can include large numbers of roundhouses, and are usually thought of as defensible settlements, though it may be that their ramparts were as much about prestige as a need for defence. However, despite recent lidar surveys, very little evidence has been found of such enclosures in the North Pennines, the following two examples being the best contenders.

At High Northgate in Weardale (just north of Sunderland Farm towards the NE corner of Stanhope medieval deer park) a large circular enclosure survives as a prominent earthwork approximately 120 metres in diameter (Young 1993). Unusually, the ramparts appear to consist of a double bank with central ditch, with clear gaps, which may be original entrances, to the east and west. This site is clearly older than the medieval park wall, but it is impossible to say how much older. Excavations

in the 1960s were inconclusive as to its chronology or function. This is clearly a contender for a late prehistoric enclosure of some kind, though it doesn't really fit any particular stereotype. Its apparent link with natural shakeholes, and its circular form, could lead to a suggestion of it being even older than Iron Age, but its chronology can only be ascertained through further excavation.

Recent lidar survey in Weardale has identified an unusual double-banked enclosure at Billingshield, near Eastgate; this might be Iron Age in date but could potentially be earlier (Frodsham 2017). This appears to be at the heart of an extensive field system, but the field banks overlie the ramparts, suggesting it may be considerably older than the fields. A single large mound, perhaps a burial mound, lies within the interior. The site occupies what could be termed a 'strategic place' in the landscape, on a natural plateau facing towards the confluence of the Rookhope Burn and the Wear. No other site quite like this has been recorded anywhere else, it may well have Bronze Age origins and could have been a very important place for the communities of prehistoric Weardale. It is certainly a site that demands detailed investigation. In the adjacent field to the west of this site what appears to be a more typical late prehistoric settlement, containing at least one roundhouse, surrounded by apparently contemporary fields.

A further Weardale monument that should be briefly mentioned here, although it remains undated, is the large rhomboidal enclosure of The Castles near Hamsterley (Fairless 1997). This consists of a large (c. 80 by 85 metre) area enclosed by substantial stone-built wall and external ditch, with no visible internal features. It was first recorded in the eighteenth century (Hutchinson 1794a) and surveyed in the early twentieth century (Wooler 1904), after which it was partially excavated on two occasions (Hodgkin 1913, 1934). More recently, in 2007, it was investigated by Chanel 4's *Time Team*. The report on the *Time Team* excavations (Wessex Archaeology 2008; McKinley 2014) demonstrates that even excavation of such monuments can sometimes be frustratingly inconclusive:

The monument remains enigmatic both in terms of date and function. Though clearly constructed by a substantial work force as a defensive fortification, there is little evidence to support by whom and for what it was used. It may have served as a demonstration of power, its use may have proved unnecessary by change of circumstances, or occupation may only have been temporary or seasonal. The date of the original construction seems most likely to be Late Iron Age, with possibly post-Roman reuse of parts of the structure.

A couple of large earthwork enclosures, which could be classed as hillforts, are known near Cotherstone in Teesdale. The larger of these was recognised only recently on lidar (Frodsham 2017).

An apparent palisaded enclosure has been recorded enclosing a hilltop at Briar Dykes, 4km south of Harter Fell on the north side of Baldersdale within a very busy multi-period landscape with evidence of occupation stretching back to the Mesolithic. Originally discovered by Ken Fairless in 1982, a small-scale excavation was undertaken here by Fairless and Coggins; this uncovered an apparent palisade slot in the base of its ditch, but unfortunately an anticipated radiocarbon date for the site seems never to have been obtained (Fairless 1989, 190). It is probably an Iron Age site, but little more can be said for sure about it without detailed survey and further excavation.

Several earthwork enclosures that could be classified as small hillforts are known from the higher reaches of the Eden Valley, though most probably fall more readily into the class of enclosed farmsteads like so many recorded from lidar in the areas discussed below; excavation is required to assess their nature and chronology. Lower down the Eden, Hallsteads Iron Age Camp (a type of site that would be referred to elsewhere as a ‘hillfort’) lies at the northern edge of Castle Carrock Reservoir. The earthworks were damaged during construction of the reservoir in the early twentieth century, and the HER notes that there is debate amongst experts as to whether surviving earthworks are natural or artificial. The site should be investigated as if it is an ‘hillfort’ then it would be of considerable local importance. The Highrigg hilltop enclosure at Hayton may also be an Iron Age hillfort, though alternatively the ramparts here could be of much later date and relate to the plantation that still occupies the site.

Late prehistoric settlement and agriculture

Whereas hillfort-type enclosures seem to be lacking throughout most of the North Pennines, the same is certainly not true of small Iron Age or Roman period enclosed settlements, often referred to as ‘homesteads’, ‘farmsteads’ or ‘native settlements’. A late twentieth-century map of late Iron Age or Roman ‘native settlements’ in northern England (Higham 1986, p187) shows hundreds of examples throughout Northumberland, Durham and Cumbria, but only four within the North Pennines (all in Upper Teesdale), together with a string of a dozen or so below the scarp along the east side of the Eden valley, and three to the north in Tynedale. Since then a number of survey projects, including lidar surveys undertaken by Altogether Archaeology members, have dramatically altered this situation. Several dozen of these settlements are now known here, many in association with quite extensive field systems. However, only four have seen any excavation, and many still await detailed survey. It is important to stress that it can be impossible to tell from surface evidence alone whether these sites belong to the pre-Roman Iron Age, the Roman period, or straddle the boundary between the two. For convenience, these sites are grouped together within this section, to which appropriate reference will be made in the Roman chapter that follows. The following account describes a selection of these sites, including all that have seen excavation (note that detailed discussion of recent lidar surveys has yet to be worked into this overview – the dramatic results of this work demonstrate that settlements and often extensive field systems covered many areas in Teesdale, Weardale and elsewhere; for an interim discussion see Frodsham 2017).

Upper Teesdale

Two settlement sites at Forcegarth Pasture, above the north bank of the Tees close to High Force, were partially excavated by Denis Coggins and Ken Fairless in the 1970s. Forcegarth Pasture North is a D-shaped whinstone-walled enclosure on the north bank of Smithy Sike, at a height of 320m OD. Within the enclosure is a three-roomed house complex of stone and timber with an attached circular structure, and further circular foundations adjacent. Two circular structures also stand outside the enclosure to the north. The site sits within an extensive field system which it is thought to be at least partly contemporary. The excavations, in 1972-74, concentrated on the

central building complex; finds include querns, a spindle whorl, native pottery, pot boilers, birch bark (possibly used for containers, thus accounting for the paucity of pottery, but also possibly used for roofing), and evidence of iron smithing. Charcoal from a hearth within one of the houses, considered by the excavators to be quite late in the site's history, gave a single radiocarbon date of 1810 +/- 70 BP (which calibrates, rather unhelpfully, to 67-385 calAD at 95% confidence). This can't be used to prove that site dates from the pre-Roman Iron Age, but certainly makes it a distinct possibility, especially if it dates a late episode in the site's overall chronology.

Forcegarth Pasture South, excavated 1974-5, lies at 320m OD, some 150m south of Forcegarth Pasture North. It consists of a circular enclosure 40m in diameter set into a south-east facing slope. The interior contains an irregular row of stone and timber roundhouses on scoops cut into the hillside, two of which were excavated. A ring-groove of an earlier house was found sealed beneath the cobbled floor of one of these. Finds included loom weights, querns, hones, pot boilers, a stone cylindrical figure, evidence of iron smithing and, significantly, pottery of both native and Roman type. The Roman pottery is probably of mid to late second century date. A radiocarbon date of 1740 +/- 90 BP (which calibrates to 76-534 calAD at 95% confidence) was obtained from the ring groove underlying one of the stone-built houses, and is therefore from an early stage in the development of the site.

On the basis of the radiocarbon dates, and the presence of Roman pottery at Forcegarth Pasture South, the excavators consider the south site to have been a successor settlement to Forcegarth Pasture North, where only native pottery was found. This is certainly not an unreasonable interpretation, but it should be stressed that the available dates do not provide detailed chronologies for the sites, the occupation of which may well have overlapped. It may legitimately be questioned why a ring-groove house should be being built at the 'later' south site after a second phase of stone house building at the 'earlier' northern site, just 120 metres away.

The two Forcegarth settlements lie within an extensive field system extending over some 50 hectares, much of which appears to be contemporary with the settlements, though there are also medieval elements to it. It includes areas of lynched 'celtic' fields, large enclosed pasture fields, small irregular fields or paddocks, double walls of possible cattle drifts, and at least one further roundhouse settlement. The inhabitants of the settlements thus appear to have been engaged in mixed agriculture, and three stray finds of quern stones from close to the settlements provide evidence that crops were being processed here.

The Forcegarth Pasture complex is particularly important in terms of its archaeology and also its place in the history of North Pennines archaeological fieldwork. However, the complex can be interpreted in different ways, and we must be cautious in accepting the interpretation offered by its excavators on the basis of limited excavation and only two radiocarbon 'dates', both of which have margins of error amounting to centuries. A more detailed understanding of this crucially important complex must await further fieldwork.

An intriguing site at Dubby Sike, now flooded beneath Cow Green Reservoir, was revealed during the drought of 1984, when the waters of the reservoir were particularly low. An excavation was undertaken over four weeks before the site disappeared again beneath the rising water (Coggins & Gidney 1988). Prior to the construction of the reservoir, the site occupied a gentle south-facing slope on the east bank of the Dubby Sike, at a height of 488m OD. The site consisted of two parts,

separated by a gap of 30m. The eastern area included a ring cairn and a sub-rectangular structure. The western area had a group of curvilinear building foundations, including circular buildings with courtyards, extending over at least 30m by 20m. No hearths were encountered within the buildings, and finds that could have helped to date the structures were entirely absent. Four radiocarbon dates were obtained from various contexts, on the basis of which the entire complex appears to date from the late Iron Age, between about 250BC and AD190. Given its high elevation the site may well have been occupied only seasonally; it could have been linked with the exploitation of local iron deposits. An intact beehive quern was found quite close to Dubby Sike during the nearby Altogether Archaeology Cow Green excavation when the reservoir was low in summer 2018 (Frodsham in prep). This appears to be a votive offering (Dave Heslop pers comm.) and may relate in some way to activity at Dubby Sike.

Lower down the dale, on Holwick Fell, investigations at one of the early medieval settlements at Simy Folds (Coggins *et al* 1983) included the excavation of a hearth for which an Iron Age radiocarbon date (around 400BC) was obtained. Pottery of apparently native Iron Age type has been recovered from another, unexcavated settlement at Simy Folds. Denis Coggins has suggested that the Simy Folds early medieval settlements could have been built on old abandoned Iron Age settlements; if so, their inhabitants may have been engaged in ironworking using locally available ore.

What appears to be a very well-preserved settlement, of up to seven stone-built roundhouses each up to 5m in diameter within a stone-walled enclosure, survives at the foot of Blea Beck, on a north-facing slope on the south side of the Tees opposite Dineholm Quarry (Coggins 1986a). A few metres upslope from this site, a sizeable heap of iron slag has been recorded. It is not possible to establish any kind of chronological relationship between settlement and slag heap on the basis of surface analysis alone, but it is certainly possible that they are related.

Elsewhere in Upper Teesdale, Coggins has recorded another nine sites with roundhouses, including those at Wynch Bridge, Pasture Foot and Crossthwaite Common (Coggins 1986a).

Denis Coggins has noted the very high elevation above sea level of several apparently late prehistoric settlement sites in Upper Teesdale, and has speculated that this could be related to the exploitation of local iron ore. He notes that during the eighteenth and nineteenth centuries AD, farms were established at heights of up to 500m OD, their occupants combining farming with lead mining, and suggests that a comparable situation, linked to the exploitation of iron rather than lead (which had no practical use in pre-Roman times) may have existed in Upper Teesdale in late prehistory. It is also possible that some sites could have been occupied only during the summer, in a later prehistoric version of the medieval transhumance system, with people and stock moving up into the hills for the summer months, when the exploitation of iron could have gone hand in hand with management of stock on the open fell.

Many of the above sites, and other previously unknown examples in Teesdale and Baldersdale, have been recorded by Altogether Archaeology members and others during recent lidar surveys (Frodsham 2017). The results of this work have yet to be fully analysed but one newly discovered site demands particular mention. This, an almost intact settlement and fieldsystem at Wemmergill, along the line of the current road just north of Selset reservoir, is one of the most spectacular new sites to have been discovered anywhere in the North Pennines over recent years. It came as a

complete surprise as no sites had previously been recorded in the area and at 370m OD its elevation is rather higher than most such sites. It appears to consist of a settlement complex, containing several round-houses, focussed on a couple of enclosed homesteads, from which a remarkably well-preserved field system extends to the east and the west over a distance of some 2km (the only serious damage seems to be that caused by the construction of the current road, and the large quarry towards the east of the complex, at Scarth Hills). Within this field system, trackways are clearly visible in places; it appears as though at least some of the fields may have been laid out along the line of a main trackway – perhaps a precursor of the current road through this part of Lunedale. No other comparable sites were recorded further down Lunedale to the east, which is perhaps surprising, but the landscape around Thringarth, of small, irregular stone-walled fields, has clearly been quite intensively farmed in post-medieval times so it is quite possible that older settlements here may have been destroyed, or may still lie concealed within the fieldscape.

Weardale

The recent survey of Stanhope deer park, led by Tom Gledhill and Ros Nichol, resulted in the discovery of fifteen farmsteads (including two probable but unconfirmed examples) within extensive field systems (Nichol & Gledhill 2004, 2005, 2006). The reports refer to these as ‘Romano-British’, but any or all of them could actually have pre-Roman origins; without excavation it is impossible to be sure of their chronology. The deer park covers some 25 square kilometres, north and south of the Wear, between Westgate and Stanhope. The ground varies in height from 240 to 450 metres OD. Gledhill and Nichol refer in their project report to a ‘vast complex of fields and settlements’, noting that the field system to the north of the Wear extends pretty much continuously in a band up to a kilometre wide for some 5km between Westgate and Eastgate. To the south of the Wear, the field system appears more fragmentary, due to more recent land improvement, but is still impressive. Interestingly, the settlements to the south of the river, on north-facing slopes, appear to be located at lower elevations closer to the river than those to the north, presumably because the north-facing slopes were colder. Recent lidar survey (Frodsham 2017) provides much more information, including discovery of some new sites, making the late prehistoric and Roman landscape here no less interesting than that of Upper Teesdale discussed above.

The settlements recorded within the deer park show much variation in form. A particularly good example, consisting of at least three roundhouse platforms each c7 metres in diameter within a square embanked enclosure approximately 50x50 metres in overall size, survives near Rose Hill. A fragment of a quern of Iron Age or Roman date was found nearby; this was probably originally used within the settlement. The settlement is clearly contemporary with the extensive field system within which it lies.

As part of a long-term project analysing aspects of the landscape from Mesolithic to post-medieval times at Peg’s House on Bollihope Common, about 3km south of Stanhope, two adjacent sub-rectangular enclosures either side of a small burn at 350m OD were excavated (Young 2017a; Young & Webster 2001, 2006, 2008; Young, Webster & Newton 2008, 2011). Each was associated with a substantial stone roundhouse. The eastern enclosure contained evidence of industrial activity in the form of a second-century AD iron working furnace and charcoal production pit, along with a stone-flagged area that was probably also associated with metalworking. The excavation

here recovered native and Roman pottery, along with Roman glass from possibly quite high-status multi-coloured glass bangles. Iron slag and lead slag was also recovered, much more of which can be seen eroding from the stream banks between the two enclosures. It seems that people living here in the second century were engaged in a combination of industrial and agricultural operations, just as so many occupants of the miner-farmer landscapes of post-medieval times would find themselves some seventeen centuries later. Intriguingly, evidence was also found of what appears to be a timber-built roundhouse underlying the eastern enclosure, suggesting that settlement here could extend back into the pre-Roman Iron Age. This could therefore be another example of a settlement site with occupation extending from the Iron Age (if not earlier) through into Roman times and possibly beyond. The Bollihope Common project is a key contribution to North Pennines archaeology and its full publication is eagerly awaited.

Alston Moor

The English Heritage Miner-Farmer project recorded 25 certain and probable late prehistoric or Roman period settlements on Alston Moor (Oakey *et al* 2012; Ainsworth & Oswald in prep). These consist of one or more circular buildings (usually referred to as ‘roundhouses’, although their function cannot be known without excavation) within enclosures formed by earthen banks or stone walls. Several of them appear to have apparently contemporary field systems.

The largest and most complex of these is at Gossipgate, east of Alston (Oswald & Oakey 2011). It appears to consist of several scooped enclosures adjacent to each other, and thus is probably of multi-phase construction. Almost fifty circular building platforms have been recorded here; if these all held houses which were occupied simultaneously then the population here could have been in the hundreds. An extensive field system surrounds the Gossipgate settlement, though it is not possible to say from surface evidence alone which elements of this relate to the settlement and which are medieval. The terraces on the slope beneath the settlement are probably contemporary with it, and the extensive coaxial field system to the east may well be. This coaxial system extends upslope as far as a substantial head dyke which extends for at least 3km. In one place this head dyke is overlain by (and therefore predates) an earthwork linked to a late prehistoric or Roman period settlement, suggesting that the dyke itself could be late prehistoric. This has major implications for the scale of agricultural operations on this part of Alston Moor (and conceivably elsewhere in the North Pennines) during late prehistoric and Roman times.

A comparable example to Gossipgate, also seemingly an agglomeration of several small scooped enclosures, survives at Annat Walls. The reasons why Gossipgate and Annat Walls are of such size while others are generally on the scale of single farmsteads is not known; perhaps for some reason these two sites were occupied for much longer than the others, conceivably even through into post-Roman times.

The only one of the Alston Moor sites to have been subjected to excavation is Gilderdale Burn, just south of Epiacum Roman fort. Investigations took place here in 2014 as part of the Altogether Archaeology project, under the direction of Richard Carlton and Stewart Ainsworth (Carlton & Ainsworth in prep). The site is crossed by a stone field wall and lies partly within improved pasture and partly on unimproved moorland; the excavations were designed in part to evaluate the effect of land improvement on the site, though the main research aim was to discover whether the site was Iron Age or Roman in date, and to assess the possible relationship between it and the adjacent

Roman fort. Finds were few, including a few small sherds of what appear to be native Iron Age pots, a stone disc that may have been a loom weight, and a fragment of a glass bangle. Analysis of samples from the central hearth and a drain cut into the floor of one house provided evidence for the use of spelt wheat and hulled six-row barley, and the presence of chaff indicates the local cultivation of these crops. There was also evidence for weeds that occur commonly in arable fields, notably brome, while sedges and buttercup suggest damp meadow conditions. Charred hazelnut shells indicate that wild crops were also being harvested and consumed at the site. Charred heather twigs were present in abundance; these may be indicative of a heather thatched roof, though heather may also have been brought to the hearth along with peat which may have been used as fuel. Heather may also have been used for bedding or as fodder. Although the excavations only examined two small areas within the site, and there is undoubtedly scope for further work, the results suggest the site was originally a pre-Roman Iron Age farmstead, perhaps abandoned after only a brief period, possibly at the onset of the Roman period, and that the site was later remodelled for some as yet undetermined alternative use during the Roman period.

Hexhamshire, the Upper Derwent valley and the Allen Valleys

Several late prehistoric settlements were recorded during recent lidar survey of the Allen Valleys and Hexhamshire (Ainsworth 2016) and the Upper Derwent valley (Frodsham 2017). Prior to this work, a handful of late prehistoric settlements were known from these areas; after the lidar surveys the total is now in excess of twenty.

Three sites that were known about prior to the lidar surveys are on Burntshieldhaugh Fell, above the east bank of the Devil's Water, about 4km north-west of Blanchland (NAA 1993). All three lie within what appear to be extensive contemporary field systems, in part well preserved though damaged by later agricultural and industrial activity. The northernmost of the three lies at 285m OD on a north-west facing slope above the Devil's Water and consist of at least two roundhouses (one of which is large, with an internal diameter of 7m) within a square-shaped enclosure with sides 45m long, set within an irregular system of large, roughly rectangular fields. The central example lies 250m to the south, of the northern one, on a west-facing terrace at 295m OD. This also consists of at least two roundhouses within a roughly square enclosure, and is also set within an apparently contemporary irregular field system. The third example is some 800 m south of the central one, and is rather higher at 340m OD. It consists of an enclosure about 40 x 60 m, containing three large roundhouses, each between 7 and 8 m in diameter. This settlement, like the other two, sits within an extensive field system. A further settlement in this general area was discovered during the recent lidar survey, on Embley Fell, although no evidence of internal houses can be discerned on the lidar. These four sites, so close to each other and apparently contemporary, invite questions about their occupants and how they related to each other.

At Edge House, Hexhamshire, a late prehistoric settlement was known prior to the lidar survey, but examination of the lidar has revealed that remnants of an extensive field system, aligned upon the settlement, also survive here despite more recent ploughing. The fields are large, up to 100m in width; their length is unknown as they extend beyond the boundary of the survey area.

In the Upper Derwent Valley, a late prehistoric settlement has been recorded immediately east of Edmundbyers village, surviving within a sea of medieval ridge and furrow. Also of relevance here, although no actual settlement site is known, are three fragments of rotary querns found in 2015 on

the shore of Derwent Reservoir, below Pow Hill country park, when the water level was very low. The fact that three stones were found so close to each other suggests that a settlement must have existed here. There were reports of an apparent roundhouse being exposed in the general area of the find, but this is not confirmed. A close inspection should be made of this area next time the water level is low.

Ainsworth's (2016) report on the Allen Valleys and Hexhamshire lidar survey includes discussion of twenty known late prehistoric settlements and enclosures within the survey area, together with five field systems of apparently contemporary date. Ainsworth classes sites as 'settlements' if they have reasonably clear evidence of internal structures, and prefers to classify other enclosures of similar form, but without evidence of internal structures, more cautiously as 'enclosures'. There is a good chance, however, that all these sites were originally settlements, containing roundhouses and other structures; alternatively, they may have been stock enclosures. For example, a roughly square enclosure at Hindley Wrae, located above the confluence of the East and West Allen rivers, measures 56 by 50 metres which is well within the range of known settlements elsewhere in the North Pennines. Nearby, on the opposite side of the East Allen, a similar but larger enclosure survives at Kilburn, within a complex field system.

A couple of interesting sites were recorded from lidar on Holm's Hill and, 180m to the south, at East Garret's Hill, on the east side of the East Allen Valley. Ainsworth classes one of these as a settlement and one as an enclosure, but both may well be settlements. They lie adjacent to an extensive field system which if 'down south' would be termed 'celtic fields' and definitely classed as late prehistoric. These fields, each some 100m wide and up to 300 long, radiate outwards from the settlements down the east side of East Allendale. It appears here that we have a couple of enclosures, perhaps both settlements, and an extensive contemporary field system, meaning we have a largely intact late prehistoric landscape available for study.

One further site worthy of mention is at Leadgate Farm, north of Ninebanks above the east side of the West Allen Valley, where an enclosure 68m by 50m includes what appears to be a single roundhouse platform; there is also evidence here of an adjoining field system. A second, less well preserved settlement lies just 500m to the south.

In his discussion of the Hexhamshire and Allen Valleys sites, Ainsworth notes that all the settlements and field systems have been damaged, to varying degrees, by more recent ploughing. It seems almost certain that further contemporary sites, of which no surface trace survives, must have existed; remains of some of these may lie concealed beneath the turf, while the sites of others were no doubt used for later settlements including some that are still occupied today.

Stainmore

At Mellwaters, in the Greta Valley a couple of kilometres west of Bowes on Stainmore, three well-preserved late prehistoric settlements and apparently associated field systems survive as prominent earthworks; these have been surveyed, though not excavated (Laurie 1984; Robinson 2001). The enclosed settlement at East Mellwaters, adjacent to the Sleightholme Beck, consist of at least three roundhouses within an oval embanked enclosure; the enclosure bank is stone-faced. The east side of the enclosure bank (possibly along with further roundhouses) has been robbed of stone to build the sheepfold that now partially overlies the settlement. To the east of the main

enclosure, a second, rectilinear enclosure contains three small circular features, possibly small houses. This appears to be a classic North Pennines late prehistoric settlement, similar in form to many others discussed above. A substantial ditched enclosure lies about 300m south-west of this settlement, on the crest of the escarpment above Sleightholme Beck. It may be of similar date, though again this is impossible to say without excavation. No internal features are visible within it; it may have been a settlement or stock enclosure.

On the opposite (north) side of the Greta, an unenclosed scooped settlement has been recorded, though it is acknowledged that without further investigation it is not possible to be certain that the scoops are house platforms rather than small quarries. This appears to bear comparison with a site at Healaugh in Swaledale, which excavation proved to be a multi-phase site with occupation probably during the Iron Age and/or early Roman period.

The third settlement in the Mellwaters cluster, immediately south-east of East Mellwaters Farm on the opposite (north) side of the Sleightholme Beck from the enclosed settlement described above, is an unusual platform settlement consisting of a series of a series of rectangular platforms cut into the hillside. If a settlement, it would seem to have consisted of lines of dwellings running along the contours, but there are no visible clues as to the nature of these dwellings. No closely comparable sites are known from the North Pennines, although a few (unexcavated and undated) sites of similar form have been reported in Swaledale. The site could be Iron Age, Roman or later in date.

Two separate ancient field systems, both quite extensive, have been surveyed at Mellwaters. One of them, centred on the East Mellwaters platform settlement described above, is of very unusual form for the North Pennines, consisting of narrow rectangular fields surrounded by earthen banks. The unusual, regular nature of this field system suggests it must be contemporary with the settlement, which sits in the middle of it, but without excavation it is impossible to date them. An Iron Age and/or Roman date is generally assumed, but we must ask why they are not of the same form as other sites of this period; a later date is certainly possible.

The extensive West Mellwaters field system is more characteristically Iron Age/Romano-British in form, bearing close comparison with that at Forcegarth in Teesdale, discussed above. It may well be contemporary with the enclosed settlement, although this is some way to the east on the other side of the Sleightholme beck.

Collectively the Mellwaters sites represent a fascinating palimpsest that is certainly worthy of further investigation. It may hold clues to settlement here before, during and after the Roman occupation.

Also of interest to late prehistoric agriculture on Stainmore is the presence of cord-rigg at a site adjacent to the Coach and Horses, just east of the Bowes Moor Hotel (Annis 2001). This was discovered during the excavation of a post-medieval earthwork, and is the southernmost known example of cord-rigg which is commonly found in the Hadrian's Wall corridor (where in some cases it underlies Roman military sites) and in the Cheviots where it occurs in association with many late prehistoric settlements. It was not possible to say from the excavation whether the cord-rigg here was spade-dug or ploughed, though the excavator presumes the former. Neither was it possible to say what was grown here, or how extensive the cultivated area was, as the cord-rigg extended outside the excavation trench and no sign of it survives on the surface. This obviously has

implications for the presence of buried evidence of contemporary cultivation at other late prehistoric settlements throughout the North Pennines.

Elsewhere on Stainmore, the Rey Cross settlement, on a ridge just below the Roman Camp with extensive views southwards over the River Greta, appears to consist of more than one phase. Some unenclosed roundhouses seem to have been superseded by rectangular structures. This may have been a seasonal settlement, perhaps occupied over many centuries. It may have origins back in the Bronze Age, and it is interesting to note that pollen evidence from just 0.5km away suggests cultivation of cereals somewhere in the vicinity at some point between about 2100 and 1900BC.

The Eden Valley

Martin Railton provides a brief but useful overview of late prehistoric settlement in the Eden Valley (Railton 2007), in which he notes that 'the southern end of the Eden Valley in particular provides extensive evidence for 'native' settlements and associated field systems', but that there is 'an appalling lack of dating evidence for native settlements in Cumbria.' He notes that we still rely on the (albeit excellent, for their time) surveys published by the Royal Commission back in the 1930s (RCHME 1936), and that distinguishing between Iron Age settlements and enclosures on the one hand, and 'Romano-British' complexes on the other, is often impossible on the basis of surface evidence alone. It is also worth noting that some of these sites may have seen occupation extending into post-Roman times. Possible Iron Age settlements include Castle Hill near Dufton, consisting of several roundhouses within a roughly D-shaped earthwork enclosure, and the Druidical Judgement Seat on Brackenber Moor, near Appleby, although finds from recent fieldwork suggest this could have earlier origins (Railton 2009). Many of these settlements retain evidence for contemporary field systems, while elsewhere, for example at High Cup Gill and Middle Tongue (both near Murton), evidence of field systems that could be Iron Age or Roman survive without obvious evidence of accompanying settlements. Closer attention must be paid to these Eden valley sites, and to comparing them with late prehistoric landscapes recorded elsewhere in the North Pennines.

Further down the Eden, where fields have been heavily ploughed over recent centuries, extensive remnants of field systems of probable Iron Age or Roman date have been recorded as cropmarks; details of these are held by the Cumbria Historic Environment Record (Frodsham 2019). A good example of such a landscape has been recorded at Low Moor, west of Hayton. This appears to include an enclosed settlement within an extensive field system that includes trackways between the fields. A further settlement enclosure of similar date has been recorded 1km west of Castle Carrock. At least one and possible two such enclosures survive as cropmarks north of Williamgill Wood, Farlam.

In fields south-west of Castle Carrock an extensive cropmark complex has been recorded extending across several fields; this has been named the 'Roxboro field system' after the house at its northern end. It consists of a large oval enclosure, a D-shaped enclosure, a trackway and a field system comprising large rectilinear fields divided by ditched field boundaries. This type of field system, where the fields are set out with one prevailing axis of orientation (with most field boundaries either aligned with this axis or at right angles to it) is termed a 'co-axial field system' – it could be of Iron Age or Roman date. A further cropmark complex exists at Carlatton, including a large sub-oval hilltop enclosure, a D-shaped enclosure, a trackway and an extensive field system. Again, this could

well date originally from the re-Roman Iron Age but have remained in use through into Roman times.

North of Middle Gelt Bridge, a cropmark complex consisting of an Iron Age or Roman rectilinear settlement enclosure, associated ditches and smaller enclosures or hut circles has been recorded. The enclosure measures 67m by 63m and is defined by a single ditch with an entrance in the east side. Four smaller enclosures, including at least one possible hut circle, exist within the enclosure. Four further small enclosures or hut circles and a number of short linear ditches exist around the exterior of the rectilinear enclosure. A similar enclosure has been recorded 225m to the north. Many other cropmarks, such as some of those in the vicinity of Long Meg, may prove to be Iron Age and/or Roman, and it may well be that further settlements and field systems will be recorded in the Eden Valley when high-resolution lidar imagery becomes available for the area.

Summary

Clearly, parts of the North Pennines were very busy during later prehistory, being littered with small settlements of round houses, in many cases surrounded by extensive field systems. Although some of these sites have been known for along time, the distribution has expanded dramatically through recent lidar surveys. Somewhat frustratingly, it is not possible to tell on the basis of surface evidence alone whether or not these sites are pre-Roman in origin. In a few cases where excavation has taken place (Forcegarth, Bollihope, Gilderdale Burn), occupation does seem to date from Roman times, but may have earlier origins. It would be fascinating to undertake a programme of detailed survey and small-scale, carefully targeted excavation to try and establish a chronology for these sites and analyse the extent to which they vary throughout different areas of the North Pennines, as well as establishing more about the agricultural, industrial, religious and other activities of their inhabitants.

5. ROMAN c71-410AD

Roman archaeology, for obvious reasons given the presence of Hadrian's Wall and other visually impressive ruins, has always been at the forefront of archaeology in northern England, but is sometimes good to remind ourselves that the Roman period represents a mere dozen generations of an archaeological heritage stretching back over more than 10,000 years. That said, those dozen generations saw some spectacular developments, and the Roman period is certainly one that justifies independent analysis within this document.

The Roman period in the North Pennines begins with the conquest of northern England in the AD 70s, and runs through until the end of Roman rule in AD 410. At the time of the Roman invasion of southern Britain under Claudius, in AD 43, the area of the North Pennines seems to have been within the territory of the Brigantes. The Brigantes, rather than being a single tribal group, were probably a confederation of smaller tribes, led at the time of the invasion by Queen Cartimandua, who seems to have had a reasonable relationship with Rome, presumably largely due to the fact that the Romans could do without military conflict in the north while they were consolidating their occupation of the south. However, this relationship declined rapidly from AD 69, when the empire was in chaos following the death of Nero and troops were probably recalled from Britain. Cartimandua was ousted by her former consort, Venutius, who was hostile to Rome. Troops were sent north, probably initially in AD 71, under the command of Quintus Petillius Cerialis (Governor of Britain AD 71-74) to defeat Venutius, rescue Cartimandua, and occupy the territory of the Brigantes, bringing it unambiguously within the clutches of the Empire. Subsequent campaigns under Gnaeus Julius Agricola (Governor of Britain AD 78-84) consolidated Roman control over northern England and much of Scotland based on a network of roads and forts.

In the previous chapter we considered the numerous late prehistoric roundhouse settlements of the North Pennines, noting that it is impossible to tell from surface evidence alone whether these date from the pre-Roman Iron Age or Roman times, or indeed whether their occupation straddles the (in many ways non-existent) divide between the two. For this reason, they were considered together, but there can be no doubt that the occupation of many if not most of them, together with the use of the extensive field systems with which many are associated, extended into the Roman period. For this reason, this chapter contains a brief section entitled 'Romans and natives' which offers some thoughts as to the ways in which the lives of the people who occupied these homesteads and worked these fields may have interacted with the Roman military machine. It is with the Roman military, however, that this chapter must begin.

Military installations and the road network

The North Pennines lies within what was a vast border zone at the northern extremity of the mighty Roman Empire, controlled by a complex network of roads and forts. The upland zone is ringed by roads, with forts at strategic locations. It is notable how the main Roman roads correspond with today's main roads: The A66 through Stainmore in the south, the A6/M6 in the

Eden valley, the A69 (roughly parallel to the Roman Stanegate) to the north, and the A68 (corresponding to the Roman Dere Street) to the east. Forts are set out along these roads at strategic places from which the uplands of the North Pennines would have been managed. On Dere Street, the major river crossings were all guarded by major forts: Piercebridge (*Morbium* or *Magis*) on the Tees, Binchester (*Vinovia*) on the Wear, Lanchester (*Longovicium*) on the Browney, and Ebchester (*Vindomora*) on the Derwent, with the town of Corbridge to the north on the Tyne. While no roads have been found leading into the North Pennines from these forts, there was presumably a system of tracks linking the uplands with Dere Street.

In the south, Brough (*Verteris*) to the west and Bowes (*Lavatris*) to the east guard either side of the strategic Stainmore pass. The fort at Greta Bridge, also on the Stainmore road, occupies lower ground 10km east of Bowes, about 15km from the junction of the Stainmore road with Dere Street at what is now Scotch Corner, 8km north of the Roman town of Catterick. To the north, the Roman towns of Carlisle and Corbridge are key locations in the management of the frontier, between which garrisons were located at the Stanegate forts of Brampton, Vindolanda and Newbrough, and the slightly later forts along the line of Hadrian's Wall a little further to the north. All these forts are complex sites, most with extensive *vici* (civilian settlements), and all will have been linked in some way to those parts of the North Pennines closest to them. However, we will not be considering here the forts to the north (information about which is readily available in numerous publications about Hadrian's Wall), or those along Dere Street to the east, or those to the west which are located west of the Eden so don't generally feature in discussions of the North Pennines; to attempt to do so would risk doubling the size of this volume. Instead we will focus on the upland road known to us as the Maiden Way, between Kirby Thore and Carvoran via Whitley Castle (*Epiacum*), and the road over Stainmore, both of which actually traverse the North Pennines. Other possible Roman roads, including one between *Epiacum* and Corbridge recently investigated by Altogether Archaeology, are also discussed below. (Anyone with an interest in Roman roads should consult the website of the Roman Roads Research Association, www.roadsofromanbritain.org; this includes an interactive map of the road network throughout Britain, and is regularly updated following new discoveries resulting from the study of lidar imagery).

Before moving on to the detailed consideration of these routes however, we should note that the construction of Roman roads and buildings (and, of course, Hadrian's Wall) required vast amounts of stone. For obvious reasons, this would have been quarried as close as possible to its intended destination. In many places, Roman quarries have no doubt been obliterated by later quarrying, but in some cases, such as at *Epiacum*, they have been identified, though the remains are far from spectacular. There is, however, one quarry site, at the north-west corner of the North Pennines, that is of great interest to Roman scholars: the Written Rock of Gelt, a group of nine Roman inscriptions of which only six now are legible, cut into the vertical face of a sandstone quarry about 9m above the river on the north side of the River Gelt. The quarry is 5.5 km south of Hadrian's Wall and is thought to have been exploited during repair work to the wall in the early years of the third century. The inscriptions are in a poor state of preservation, and very difficult to access due to collapse of the river bank; they were recorded using modern 3D laser technology by Newcastle University in 2019. A similar site, Pigeon Clint Written Rock, survives a little to the south, near ground level on the rock face at Pigeon Clint on the south side of River Gelt. This consists of an inscription, believed to be the names of soldiers of the Sixth Legion, measuring 140cm long with the tallest letters 15cm high. On the rock face some three metres further south is a small niche where a projecting altar has been cut.

Stainmore

The road over Stainmore, part of an important route between York and Carlisle, was a key element of the North Pennines Roman infrastructure, probably from very early during the Roman occupation. It is guarded east and west of Stainmore by forts, Bowes in the east and Brough in the west, the strategic importance of each being emphasised by the presence of a medieval castle within the Roman ramparts. However, before considering these forts or the road upon which they lie, we should consider the marching camp at Rey Cross, which straddles the highest point of the present-day A66. This camp appears to predate the Roman road, which seems to have been aligned in relation to it, and may be amongst the very earliest Roman sites in Northern England, perhaps constructed in AD 71 or 72 during the initial advance north from York towards to Carlisle under Cerialis.

The Rey Cross camp is defined by a single bank, with an external ditch in places, which encloses a vast interior of 8.5 hectares. Eleven entrances exist in the ramparts, all probably original; the modern A66, on the line of the Roman road, passes through two of these. The entrances (other than those through which the modern road passes) all have external traverses in the form of roughly circular mounds about 19 metres outside the line of the rampart; these interrupt a direct approach to the entrances.

The Rey Cross camp, along with many other sites on Stainmore, was investigated during three years of fieldwork from 1989 to 1991 undertaken in associated with roadworks to improve the A66 (Vyner *et al* 2001). This work included the excavation of the ramparts and an entrance in the south-east, and also two small areas of the camp interior towards its south-east corner. No evidence was found of any of internal buildings, which is not surprising as soldiers on the march would have spent the night in tents. Pottery of late second/early third and fourth century date suggests some sort of occupation on at least two occasions long after the camps original construction, although the nature of this occupation could not be established from the excavated areas. The ramparts were found to be constructed of turves and earth. While the site is vast, it has been calculated that the ramparts could have been constructed by a couple of thousand men in only about three hours, so it could have been built, at least initially, for a single overnight stay by a legion on the march, although of course it could also have been used on subsequent occasions.

It is interesting to note that two further camps (both now ploughed flat and visible only as cropmarks) of comparable size and form are known along the Roman road between Rey Cross and Carlisle. These are Crackenthorpe (30km west of Rey Cross, near Kirkby Thore) and Plumpton Head (22km north of Crackenthorpe, and 22 km south of Carlisle). It seems entirely plausible that these could all be overnight camps on the route of Cerialis' first march from York to Carlisle. In this context it is interesting to note that tree-ring dating of the ramparts of the first fort at Carlisle suggest that this was constructed over the winter of AD 72-73; if the camps were constructed en route to Carlisle then they must date a little earlier than this.

The Roman road over Stainmore is thought to date originally to the campaigns of Agricola from AD 78. It has been excavated in several places, and was clearly well maintained, being resurfaced on a number of occasions. The construction method varied from place to place along the length of the road, but seems to have consisted essentially of a base layer of large cobbles (probably brought up

from the bed of the River Greta to the south) overlain with gravel, with an apparent kerb of larger cobbles in some places. Drainage ditches have not been recorded, though they may have been present in some places. Four milestones, at least three of which are of late third century date, are known from the line of the road; many others presumably lie buried on the moor.

We must now consider the forts to either side of Stainmore. The fort at Bowes (*Lavatris*) stands immediately south of the line of the Roman road, followed here today by the main village street (Welfare 2001). The north-west quarter of the fort interior is occupied by the twelfth-century castle, while the church of St Giles, also of twelfth-century date, occupies the north-east corner. The south-east quadrant contains the village cemetery, and Roman deposits are disturbed with every fresh grave. Only the south-west quadrant survives relatively undisturbed under pasture.

The fort is roughly square in plan, with sides 130m long. As a result of disturbance since medieval times, no internal features of Roman date are visible. Excavations from the 1960s to the 1980s, as yet not fully published, indicate that the fort has a complex history with at least half a dozen structural phases. The earliest fort, with ramparts constructed of turf and timber, seems to have been associated with the Agricolan campaigns when the road across Stainmore was first constructed; it must date from about AD80. Later phases were in stone, the latest of which seems to date from the late fourth century. A defended annexe may have existed to the north of the fort, though this is uncertain. The remains of a bathhouse, partially excavated in the early nineteenth century, can be seen to the south of the fort, though these remains are hard to interpret without further excavation. The water seems to have reached the baths via an aqueduct all the way from the Deepdale Beck some 6.5km to the north-west; although investigations in 1991, as part of the A66 improvement scheme, failed to date this feature, there seems little reason to doubt its Roman origin, though it may also have been used in later times. Little is known of the vicus at Bowes, which may have been substantial; small-scale excavation in 1966 uncovered a road lined with timber buildings to the east of the fort, suggesting that much more may lie buried here for future investigation.

The Roman fort at Greta Bridge, 10km east of Bowes on the road (now the A66) that joined Dere Street at Scotch Corner, overlooks the River Greta to the east. It covers about 1.4 hectares and was defended by a single rampart except in the south where a double rampart can still be seen. These ramparts are damaged in places, including in the north where the site is overlain by the Morritt Arms hotel, but survive well in the south where the main ramparts still stands to a height of 2.4 metres. Inscriptions and other finds from the site suggest military occupation from the early 2nd to the late 4th century AD. There has been little fieldwork here. Excavations in the 1920s included the investigation of roads and buildings of 2nd century or later occupation opposite the Morritt Arms, and in the 1970s excavations, east of the river Greta, both north and south of the Roman road, revealed evidence of a dozen stone-built strip houses dated to not later than the early 4th century. A 12m by 14.6m timber courtyard house, of at least 10 rooms, which was burnt down, was revealed beneath late 3rd or early 4th century stone foundations; finds of Hadrianic pottery suggest this could have been the mansio of the Trajanic and Hadrianic fort. Geophysical survey in 2014 revealed evidence for stone buildings throughout the fort interior, but little evidence of a vicus on the flat land to the south of the fort, though buildings here could potentially have been largely of timber and thus avoided detection during the survey (Adcock 2014). Greta Bridge is little-known in comparison to many other Roman forts, but the fort and settlement here potentially played a significant role in cross-Pennine affairs and certainly warrants further study.

To the west, the Stainmore road was guarded by the fort at Brough (*Verteris*). Just as at Bowes, the strategic importance of the location is emphasised by the presence of a medieval castle within the Roman ramparts. Small-scale excavation of the fort interior in the 1950s uncovered stone buildings, demonstrating that much survives within the ground, but little can be said for certain about the site's history. A substantial cemetery, part of the vicus consisting of stone and wattle-and-daub structures, and a bath-house were investigated in the 1970s during roadworks to the east of the fort. Although detailed evidence is lacking, the fort was probably originally founded by Agricola at about the same time as Bowes, and was then occupied continually through until the late fourth or early fifth century.

There is an important find from Brough that seems to throw some light on Roman lead or silver mining in the North Pennines (Richmond 1936). A collection of 133 discarded lead seals of third-century date, probably dumped here by an imperial agent based at Brough to organise the redistribution of consignments arriving from various sources throughout Cumbria, includes eighteen bearing the stamp of the Second Cohort of Nervians stationed at the time at Whitley Castle (*Epiacum*, at the heart of the North Pennines – see below). One of these refers specifically to 'metalla', meaning the product of a mine; the most likely explanation is that this consignment was lead, or perhaps silver, from mines in the North Pennines, sent by the Second Cohort of Nervians from its base at *Epiacum*, via the Maiden Way, to some unknown southern destination, perhaps York.

In addition to the forts at Brough and Bowes, the fortlet of Maiden Castle guards the western approach to the top of Stainmore (Welfare 2001). This is a substantial structure, with an internal area of about 40 by 30 metres, surrounded by a massive stone wall, now largely tumbled, some 2 metres thick. Investigations in the nineteenth century recorded this wall still standing up to five courses high, with a core of mortar-bound rubble. Excavations, unfortunately only poorly recorded, took place here in 1914. They uncovered stone buildings within the interior, and recovered coins and pottery suggesting occupation from the mid second century through to the late fourth. The exact functions of this fortlet, and the ways in which its garrison complemented those at Brough and Bowes, are unknown, though they must have been closely related to the road, the line of which deviates to pass around the north side of the fortlet.

Stainmore 'signal stations'

Eight probable timber towers or 'signal stations', three of which have been excavated, are known on Stainmore between Brough and Bowes, the major forts to west and east of the pass (discussed above). Further examples may have stood within the camp at Rey Cross and the Maiden Castle fortlet, in which case there would have been ten sites set an average of 2km apart. (Further examples exist to the west in the Eden Valley, though one of these, on Appleby golf course, was deleted from the list in 2011 after Altogether Archaeology excavations revealed it to be an early Bronze Age burial site containing absolutely nothing Roman). The eminent Roman scholar, Ian Richmond, suggested back in the 1950s that these towers could represent part of a signalling system extending all the way from York to what may have been the headquarters of the entire Hadrian's Wall system at Stanwix (north of Carlisle). While there are many gaps in this supposed

system, which probably never existed, the sites on Stainmore may have functioned as a communication link between Brough and Bowes, though exactly how they operated as an integrated system remains to be demonstrated. Only one of the sites is securely dated; the Bowes Moor tower, 3km east of Rey Cross camp and 6km west of Bowes. This dates from about 350, and seems to have been only sporadically occupied prior to being finally abandoned in the early 400s. However, it differs from the others, for example in being rectangular rather than circular in plan and having a substantial adjacent annexe, so we cannot assume the others (which themselves vary substantially in size and form) to be of similar date.

The Maiden Way and Epiacum

The Roman road known to us as the Maiden Way runs between the forts of Kirkby Thore in the south and Carvoran in the north. The fort of Whitley Castle (Epiacum) lies roughly halfway along its length, just north of Alston. The line of the road itself was surveyed in the mid nineteenth century by William Bainbridge (1855) and more recently by Philip Graystone (1994). Graystone notes that the road ‘is of quite exceptional interest. Some sections are remarkably well preserved, especially in the southern part of its course, where it climbs to a height of 650 metres in crossing Melmerby Fell. As an example of Roman engineering skill it can have few equals in Britain’. Although lost through agricultural improvement at its north and south ends, much of the road can still be seen on higher ground where the construction method varied according to local conditions. Roman metalling, kerbstones and drainage ditches can still be seen in many places, though in others the present-day surface is the result of more recent resurfacing. It is worth noting that in contrast to the Stainmore road discussed above, no signal towers or other associated structures are known along the line of the Maiden Way, other than the forts discussed below. A new survey using lidar and aerial photography combined with field inspections might provide some fascinating results.

The site of *Bravoniacum* Roman Fort is located within the village of Kirkby Thore in the Eden Valley, Cumbria (NY637265) close to the meeting point of the Roman road over Stainmore (part of the key route between the important Roman cities of York and Carlisle, now followed here by the A66) and the Maiden Way. It lies roughly equidistant between the forts of *Voreda* (Old Penrith) to the north-west, and *Vertis* (Brough) to the south-east, each at a distance of some 20kms, while *Epiacum* (Whitley Castle) lies 25km to the north along the Maiden Way. Recently, it has been proved using lidar evidence (Toller 2014; see also www.romanroads.org/gazetteer/cumbria/cumbriapages.html) that a key Roman road extended 25km southwards from Kirkby Thore to the fort at Low Borrowbridge, itself the focus of recent fieldwork by the Lunesdale Archaeology Society (Hooley et al 2019), and beyond towards Lancaster and eventually Chester. This means that *Bravoniacum* was located at an important crossroads on the road network, although the exact lines of the roads in the immediate vicinity of the fort are not known.

Little remains to be seen of *Bravoniacum* above ground as it has been subject to much stone robbing and ploughing and now lies under pasture. It is dissected by the modern road through the village with approximately one third of the area under the road and housing to the south-east. The remainder of the fort lies within a field to the north-west. The outer defences of the fort are visible as banks under the present-day field boundaries to the north-east and south-west. A short section

of bank is preserved in the eastern corner of the field and appears in cross section where it has been cut through by the road.

Evidence from the vicinity of the fort indicates that it is part of a large Roman complex with associated *vicus* settlement. Excavation in 1961 at the eastern corner of the fort established that a turf and timber fort had been constructed during the Flavian period (AD 69-96) and was destroyed around AD 120-125 (Charlesworth 1964). This was replaced by a stone fort on the same alignment but with a rampart 11m outside that of the earlier fort.

Three small-scale excavations between 1963 and 2010 (eg Gibbons 1989), linked to housing developments in the vicinity of the fort, have uncovered evidence of occupation through into the fourth century, though the extent and nature of the *vicus* is still only poorly understood; there is much scope for further work here. Antiquarian reports suggest the presence of a ‘walled town’ at Kirby Thore, but this is no longer thought to have existed.

Many fascinating objects of Roman date have been recovered from *Bravoniacum* over the years, several of which are now in the British Museum. Collectively, these give an indication of the importance of the place in Roman times. Thirteen inscribed stones are known from the vicinity of the fort, including seven altars and three tombstones.

The geophysical survey undertaken by Altogether Archaeology in 2013 (Wardell Armstrong 2013) detected the fort’s north-west defensive ditch and wall along with twin-towered gateway, the remains of buildings within the fort including the headquarters building (*principia*), and internal fort roads. To the immediate north-west of the fort, the survey detected evidence of a civilian settlement (*vicus*) consisting of strip buildings either side of a roadway defined by ditches. It is possible that this road led between the fort’s north-west entrance and the Maiden Way, which presumably left the main York-Carlisle road at an as yet undetected junction somewhere close to the fort. The survey demonstrates that although the fort and *vicus* have clearly been damaged by ploughing, much remains within the ground here that could tell us a great deal about what was clearly a very important Roman station, located at the south end of the Maiden Way and thus of much relevance to the North Pennines.

Carvoran (*Magna* or *Magnis*), uniquely, is both a Stanegate fort and a Wall fort. Apparently originally of Trajanic date, it seems to have been rebuilt in stone under Hadrian. The Stanegate and the Wall are very close at this location, so the fort was retained throughout the life of the Wall, even though the vallum passes between it and the Wall. Although all the Stanegate forts are potentially of relevance to the North Pennines, they are covered by the Hadrian’s Wall Research Framework (Symonds & Mason 2009) so are not considered in any detail here. Carvoran is, however, of special interest by virtue of its location at the north end of the Maiden Way. It was located here to guard the South Tyne Valley, as well as forming part of the Stanegate ‘frontier’ system, but whether the Maiden Way was laid out in relation to the fort, or the two were planned to some extent together, is unknown. The fort measures 129 by 123 metres, covering 1.65 hectares. The fort walls and interior have been much robbed since medieval times; for example, to build nearby Thirlwall Castle. However, geophysical survey has demonstrated that substantial remains of an extensive *vicus* lie buried between the fort and the Stanegate, mostly south of the fort but also extending around its west and east sides. In addition to being a major fort throughout

the Roman occupation, Carvoran seems also to have been an important civil settlement, its importance presumably linked to traffic passing across the North Pennines via the Maiden Way.

This brings us to the key Roman establishment within the North Pennines, the fort at *Epiacum* (Whitley Castle), the highest stone-built Roman fort in Britain at 330 metres above sea level. The only conceivable explanation for its presence here is that it was built as a base from which lead and silver mining in the surrounding hills could be managed; indeed, the exploitation of mineral resources must also be the explanation for the construction of the Maiden Way as its route across the high ground between Epiacum and Kirkby Thore makes no sense otherwise.

Described on account of its extraordinary ramparts and lack of attention from archaeologists in the past as ‘one of the best-preserved forts in the entire Roman Empire’ (Stewart Ainsworth pers comm.) Epiacum has recently been the subject of a very detailed survey by English Heritage (Went & Ainsworth 2009). This recorded the site in very great detail, using a combination of aerial photography, high resolution lidar, geophysical survey, and detailed ground observation linked to accurate topographic survey. A new company, Epiacum Heritage Ltd, has been set up to manage the site within its local landscape (see www.epiacumheritage.org) and a dedicated research framework has been compiled for it (Archaeological Practice 2018).

Went and Ainsworth provide a fascinating overview of past work at Whitley Castle. The earliest known antiquarian account of the site is by William Camden, who visited in 1599. Reginald Bainbrigg, headmaster of Appleby Grammar School, visited in 1601 and memorably described ‘.....a mightie, stronge and large fortress, defenced with a double ditch and walls, made by the Romaines’.

Several altars and other inscribed stones were found during farm improvement operations, or noticed built into farm buildings, between Camden’s visit and the early twentieth century. The best known of these, an altar depicting Apollo in various forms, including as Mithras, now on display in the Great North Museum, was found in 1837 while digging drains near the fort’s north-east corner. Another altar to Hercules was found in the same area in 1803, suggesting this area, which had a natural spring, may have been a focus for religious activity, perhaps containing shrines and temples.

The earliest known excavation at Whitley Castle occurred in 1809, when the bath-house which overlies the fort’s flattened outer north-east ramparts was uncovered (Hodgson 1840) and found to contain ‘a very perfect hypocaustum’ (the hot bath or steam room, with underfloor heating). Within the floor, above stone floor slabs, were several layers of mortar containing lime and lead mine spar – clearly indicating that lead mining had taken place somewhere in the vicinity.

In the 1820s the farmer uncovered a layer of ‘manure’ close to the bath-house, and spread much of it on the surrounding land. This ‘manure’ contained many Roman leather shoes (including those of men, women and children) and other interesting objects including decorated pottery, querns, lead piping, glass, a wooden comb and jet bracelets; clearly it had been a Roman rubbish dump or midden, and the leather had been preserved due to the waterlogged ground conditions just as was the case, rather more famously, at Vindolanda. Virtually all of these objects now sadly seem to be lost, but there must be much more still buried in the ground.

The only excavations to take place here during the twentieth century were those of Noel Shaw in 1957 and 1958 (Shaw 1959). These consisted of single trench, some 55 metres in length, across the northern ramparts extending about 15 metres into the fort interior where part of a granary was exposed; the line of this trench can still be seen on the ground today. The results proved that much of the masonry of the substantial stone wall which stood atop the inner rampart survives where it fell, and that substantial remains of stone buildings survive buried within the fort interior. Pottery of early second-century date was found in a sealed context adjacent to the rampart, proving that the rampart could be no later in date than this. It seems probable that the fort is Hadrianic, built at about the same time as Hadrian's Wall, though it could possibly have been initially constructed a few years earlier, under Trajan. Shaw recorded a couple of phases of rebuilding, but the dates of these are not clear. Fragments of third and fourth century pottery attest to continued occupation until towards the end of the Roman occupation, although what happened here following the eventual collapse of Roman administration in the early fifth century is not known.

During the early 21st century, an annual molehill survey of the fort interior was undertaken by Altogether Archaeology volunteers between 2011 and 2015, resulting in the recovery of hundreds of small objects including pot sherds, iron nails, coins, and beads of glass and jet. These objects are in the process of being catalogued and a full report will be produced, helping to tell the tale of everyday life here in Roman times (Frodsham & Young in prep). One observation that can be made at this stage is that not a single fragment of clay tile was found anywhere on the fort (neither was any reported from Shaw's excavations in the 1950s), so all buildings were presumably roofed with stone slabs or heather thatch. Other recent fieldwork has included a watching brief on the dismantling of the stone fieldwall across the fort, resulting in the recovery of several querns and other worked stones, and the digging of a few test pits in and around the parade ground by local volunteers (Young 2017b).

The fort is strategically located roughly halfway along the Maiden Way, a day's march from Carvoran to the north and Kirby Thore to the south. It occupies a relatively sheltered location, with easy year-round access northwards along South Tynedale to the Hadrian's Wall region. The main access route was presumably always from the north, given the rough upland terrain crossed by the Maiden Way to the south. There are hints, such as the presence of a possibly earlier field system to the north and the name 'Epiacum' (the root of which is probably a native name 'Eppius', linked to the Celtic word for horse), that the site may have been occupied on pre-Roman times. However, any surviving evidence for such early occupation will now lie sealed beneath the fort, and is unlikely to be encountered without large-scale excavation.

Epiacum's unique rhomboidal form is due to the shape of the gently sloping knoll on which it is built. The extraordinary ramparts that enclose this knoll seem to have begun life as a fairly routine circuit of two banks and ditches, with a third and fourth set being added later in some places. In a late phase, the western ramparts became very elaborate, for reasons we don't understand; it is difficult to find a practical military explanation for their final form.

Access to the Epiacum was via a branch road that left the Maiden Way to the north and the south, passing through the fort's north and south gates, in a manner that has been likened to the access to a motorway service station. This arrangement enabled the fort to stand effective guard over the line of the Maiden Way (from which it must have appeared spectacular to anyone passing along the

road), while enabling through-traffic to pass by without having to encroach upon the fort or the vicus. In short, it was an ideal location for a number of reasons.

The fort interior is fairly conventional, except that the buildings had to be squashed to fit within the rhomboidal ramparts. A combination of ground survey, lidar and geophysics has led to the recognition of all the usual structures within the fort. The Headquarters building (*principia*) occupies the centre, with the commanding officer's house (*praetorium*) to its south, and a large granary (a small part of which was uncovered by Shaw's excavations) to the north. Six barrack blocks occupy the rear (west) of the fort interior, with four further barrack blocks at the front (east); the long platforms of some of these barrack blocks survive very clearly as earthworks. The bath-house, positioned over the fort's flattened outer north-east ramparts was added at some stage when the ramparts here were no longer considered necessary; there must have been an earlier bath house somewhere on the site.

In their survey report, Ainsworth and Went speculate that the fort may have been designed to accommodate six centuries of infantry (each of 80 men), one to each of the smaller barracks, and four squadrons of cavalry with a total of 128 troopers, with horses, occupying the four larger barracks. Cavalry would certainly have played a useful role in policing of the surrounding land, but whether or not some of the barrack blocks were for horses as well as men is unlikely to be resolved without excavation.

A large (c1.8 hectare) relatively flat area to the south of the fort was tentatively identified during the English Heritage survey as a probable parade ground. This identification was based largely on the absence of other features here; hardly anything other than medieval ridge-and-furrow was recorded during topographic or geophysical survey. Parade grounds are thought to have existed at most auxiliary forts, where they were used for drill, training and ceremonies, but many have been built over and few have been identified with certainty. The best-known example in northern England is at Hardknott in the Lake District. During the excavation of the Gilderdale Burn farmstead, south of the fort at Epiacum, the opportunity was taken to open a couple of evaluation trenches on the site of the presumed parade ground. In both trenches, sandstone cobbling or flagging was encountered just a few centimetres below the turf. It therefore appears not only that the Epiacum parade ground has been discovered, but that it survives in remarkable condition. Further work is required to investigate it in more detail.

Outside the fort ramparts, to the north and west, ground survey and geophysics have recorded the remains of a quite extensive civil settlement (*vicus*). To the west, there appear to be narrow building plots either side of the road approaching the fort, arranged so that the buildings had their gable ends facing onto the road. This is a typical pattern seen in many other *vici*, for example Housesteads and Vindolanda. Much of this settlement was eventually buried beneath the expanded western ramparts, though when and why this happened is not known. The other area of civilian settlement, to the north of the fort, is very different in character and may belong to more than one period. There appear to be lots of small paddocks or fields without buildings here, in contrast to one large building platform which has been interpreted as the perhaps the site of a *mansio* (a hotel used by government officials while travelling on business) or possibly the grand headquarters for a senior official stationed here to oversee lead (and silver) mining. In their survey report, Ainsworth and Went highlight the presence of women's and children's shoes in the domestic rubbish dug up from around the bath-house in the nineteenth century, noting that they

illustrate presence of more than just soldiers living in the settlement at Epiacum. The same point can be made with regard to the jewellery found by Altogether Archaeology members during the Epiacum molehill surveys.

Epiacum is undeniably one of the most fascinating archaeological sites in the North Pennines, with massive potential for future investigation the results of which would be of value to the study of the entire frontier zone. As noted in the Epiacum research framework, targeted excavations within the vicus could prove to be more interesting and informative than further investigations within the fort interior, though carefully targeted small-scale investigations within the fort would certainly be of potential value, to students of post-Roman as well as Roman times.

Other Roman roads

While the status of the Stainmore and Maiden Way roads as Roman is beyond question, there are two other claimed Roman roads for which it is rather less clear. One of these is the supposed road between Epiacum and Corbridge. Speculation that this road existed in Roman times has existed since the seventeenth century; it is shown on Horsley's map of Hadrian's Wall produced in 1732 and on many subsequent maps. It used to be thought that a Roman fort existed on the line of this road at Old Town, Allendale, but the existence of this fort is now thought unlikely. Using a combination of documentary survey and field observation, and in particular lidar, Altogether Archaeology members Greg Finch and Martin Green found what they thought could well be the remains of this road surviving as a low earthwork in the area around Hexham racecourse. To investigate the feature, Altogether Archaeology members undertook excavations at two places along its line in 2016 (Green & Finch 2017). Although these excavations failed to prove beyond doubt that the road is Roman, they certainly suggest that it is. This conclusion is lent support by the road's projected course underneath Hexham racecourse, 1 km to the east, where it is not respected by the medieval fields and tracks shown in later maps of the area, suggesting that it was already forgotten by medieval times. Seven trenches were excavated across it, proving that its structure is similar to Roman roads elsewhere in the north, for example the Maiden way where this was investigated as part of the Altogether Archaeology project near Epiacum fort. The basic structure was a slightly cambered surface of random sandstone rubble about seven metres wide, with large kerbstones surviving in places, and roadside ditches in one place. There was no covering of gravel or sand; it seems that the topsoil was simply scraped off to expose the underlying clay, which was then slightly cambered before the sandstone rubble was laid upon it, after which the soil was presumably replaced. This would form a simple road surface, probably usable by horse and cart under most conditions; the method may be likened to that of a farmer putting hardcore down in a muddy gateway. Whether or not this road extended all the way to Epiacum is still to be resolved; no sign of it has been noted on lidar anywhere along its projected route to the west of the excavated portion, and it may be that its purpose was primarily to enable the transport of coal from mines at Stublick Colliery (though there is currently no proof that this area was being mined in Roman times) and other resources to Corbridge. Further work is planned to further investigate this road; for now it is fair to regard it as probably Roman, linking this part of Hexhamshire with Corbridge, but on the basis of current evidence we are unable to confirm the opinion of the early antiquarians who confidently recorded a road all the way from Corbridge to Epiacum.

The second claimed Roman road, labelled unambiguously as ‘Roman’ on modern OS maps, runs north-south over Bollihope Common to the south of Stanhope (Forster 1992). It has been dismissed as definitely not Roman on account of the fact that it overlies medieval features in at least one place (Rob Young pers comm.), but of course roads can be resurfaced many centuries after their original construction, perhaps after a long period of being unused, so this does not preclude this particular one having ancient origins. However, those that claim it as Roman have to answer the basic question of where it was going to, and from. To the south, it heads in the general direction of Bowes, some 20km south of Bollihope, but nothing of Roman date is known along this possible route. It clearly heads towards Stanhope in the north, but nothing Roman is known from this part of Weardale. It is perhaps worth noting a single historical reference to the demolition of a ‘Roman fort’ just west of Stanhope, close to where the first edition OS map records the name ‘Roman’s Close’, to provide stone for field walls in the early nineteenth century (Alastair Robertson pers comm.). While it is surely inconceivable that a Roman structure could have completely escaped the attention of antiquarians, this remains a curious reference that is worth investigating. If the Bollihope road is Roman, and if it does head down into Weardale at Stanhope, then it is quite possible that something, perhaps a small fortlet or a compound linked to the lead industry, could have existed here. It is also possible that the road could have been constructed to link the valley bottom with lead mines around Bollihope, with no need for it to extend further south (this would compare with the suggestion above that the Hexham Fell road, rather than extending all the way from Corbridge to Whitley Castle, could have been primarily for the transport of coal to Corbridge). This possible length of Roman road should be subjected to the same kind of analysis as the Hexham Fell road in the attempt to define its character and ascertain its probable chronology.

Regardless of the chronology of the Hexham Fell and Bollihope roads, there must have been a network of minor roads and tracks linking rural places with the main Roman roads. Many of these tracks are probably followed by today’s roads. It is also possible that the rivers may have been used for the transport of agricultural produce and natural resources outwards from the North Pennines. It may be that detailed analysis of rural sites, including farmsteads, field systems and possible lead mines, could throw light on the Roman transport network, but for now there is little else we can say about it.

Religion

This is not the place to review the complex picture of religion throughout the Roman north, which is covered in a number of publications (eg see de la Bedoyere 2002 for a general overview of religion in Roman Britain). In general terms, the Roman authorities were tolerant of local beliefs, as long as they didn’t conflict with conventional Roman religion. In some cases, it is clear that local deities became closely associated with Roman gods, resulting in hybrid deities that could be worshipped by serving soldiers and others, including local people and others who may have come here from some far-flung corner of the empire. The example of Vinotonus Silvanus from Scargill Moor, discussed below, is perhaps a perfect example of this fusion of classical Roman religion with native belief. Here we will briefly review some evidence of religious practice from the North Pennines. As with so many aspects of Roman life in the North Pennines, our survey must begin at Epiacum, in particular with two second-century altars, both found in the nineteenth century adjacent to a spring just north-east of the fort (Went & Ainsworth 2009; NPVM). It is thought that

this area could have been the religious centre for the Epiacum complex, though the ground here is much disturbed, as well as very wet, and nothing was found here during the recent English Heritage survey.

The taller of the two altars (140cm high), now on display in the Great North Museum, was found in 1837 and is dedicated to the sun god Mithras (or Apollo), perhaps worshipped here as the local deity Maponus. The inscription is largely illegible, but seems to refer to the Second Cohort of Nervians which formed the garrison at Epiacum during the second century. The iconography of the altar's four faces is clearly identifiable with the cult of Mithras, including the sun god wearing a radiate crown, and his accomplices Cautes and Cautopates, both holding torches. When found, the altar was fitted into a stone pedestal, itself set on four stone pillars each of which had a coin placed between it and the overlying pedestal. One of the coins dates from the mid-second century; the others are unrecorded but probably of similar date. The discovery was made while digging a drain through the boggy ground, and it is thought that a temple to Mithras (a Mithraeum, similar to the well-known example at Brocolitia on Hadrian's Wall) may have stood here and that the natural spring was significant in the choice of location for this. Mithraism, which originated in Parthia and Armenia, became a very popular religion within the Roman army during the first and second centuries. It has many similarities to Christianity and, odd as it may sound, had a few things worked out differently then it is quite conceivable that the modern western world could have ended up as essentially Mithraic rather than Christian.

The second Epiacum altar (height 86cm), now somewhat oddly to be seen in Bedford Museum, was found sometime prior to 1812. It was dedicated to Hercules by Gaius Vitellius Atticianus, a centurion of the sixth legion. It depicts classical Mediterranean themes (on one panel, Hercules fighting the Hydra, and, on another, Hercules as a boy strangling serpents), apparently interpreted by a Celtic sculptor. When found, it was fixed in a socket, so was presumably still in its original location. It was found in association with fragments of a giant statue of Hercules, suggesting that both may have originally have stood together within a temple, parts of which may yet survive within the ground.

According to notes made by the distinguished historian John Hodgson in 1817, the area where the altars was found was known locally as 'the burial ground', and many 'curious stones' had been found here. If some or all of these had been tombstones, then we would know that this was the location of the cemetery, but sadly there is no record of their nature. There must be a substantial cemetery somewhere at Epiacum, the investigation of which would be enthralling. It is possible that it exists somewhere close to the temples, but more likely that it is further away from the fort, probably to north or south along the line of the Maiden Way.

A further altar, dedicated to Minerva and Hercules, was recorded in 1716, but is now lost; whether or not it comes from the same general area as the above two altars is unknown, but it provides further evidence of the worship of classical Roman gods at Epiacum. Collectively, the Epiacum altars are important in demonstrating that classical Roman religions were practiced at Epiacum, at the heart of the North Pennines. (Readers familiar with Alston may consider the worship of a sun god here, even today, as somehow appropriate). They are also important in demonstrating the potential for further such discoveries at Epiacum where, despite much recent survey work, we still know little about the religious practices of the people who lived here in the three centuries during which the fort was garrisoned.

Evidence of a different kind of religious practice in the vicinity of Epiacum exists in the form of the so-called 'Head of Ayle' (NPVM). This fine stone 'celtic' head was found built into a drystone wall at Middle Row, near the hamlet of Ayle (after which it is named), high above the east bank of the South Tyne near Kirkhaugh, overlooking the line of the Maiden Way Roman road and the fort of Epiacum (Whitley Castle). Its original context is unknown, but there are a number of natural springs in the immediate vicinity and it is probable that the head once embellished a 'sacred spring' somewhere in the locality.

Several similar heads are known from northern England, and although they are definitely 'celtic' rather than 'Roman' in character, they are all found quite close to Roman forts, and there is no record of any such heads having been produced in Britain prior to the Roman occupation, although they were popular in parts of continental Europe (Lindsay Allison-Jones pers comm.). This has led to the intriguing suggestion that this example may have been produced by a serving soldier who came from a European community which produced such heads, and was seeking to continue with his native religious tradition while serving in Britain. We know that the garrison at Epiacum was at one time the Second Cohort of Nervians, originally based in what is now Belgium, so this provides a possible context for such a scenario. The stone from which the head is carved is probably local, but this has yet to be confirmed geologically and it may be from elsewhere; if the latter then this would be interesting, suggesting that the carving was brought to South Tynedale from afar. The head has several distinctive characteristics which demonstrate its authenticity. It appears to have two small bumps above its forehead representing horns, suggesting it could be Belatucadros, a little-known Celtic god linked to warfare and hunting who was worshipped by serving Roman soldiers at several places along Hadrian's Wall, in some cases being equated with Mars, the Roman god of war. The evidence for this comes in the form of several inscriptions on altars, for example from Carvoran and Coventina's Well at Brocolitia (Carrowbrough). Another stone head thought to represent Belatucadros, with more prominent horns than the Head of Ayle, is known from Carvoran fort, just a few kilometres to the north along the Maiden Way. To the south, further inscriptions recording Belatucadros are known from Brocavum (Brougham), at a strategic position on the Roman road network at the south-west corner of the North Pennines.

An extremely interesting altar was found in 1747 on the north side of the Bollihope Burn, just west of Bollihope Shield Farm, close to a spring (NPVM). It was placed in the garden of the Old Rectory in Stanhope in 1941, and transferred in 1993 to its current home in St Thomas Church, Stanhope. The full inscription is translated on the official Roman Inscriptions of Britain website as:

'To the Divinities of the Emperors and Unconquerable Silvanus, Gaius Tetius Veturius Micianus, prefect of the Sebosian Cavalry Regiment, on fulfilment of his vow willingly set this up for taking a wild boar of remarkable fineness which many of his predecessors had been unable to bag'.

The inscription is of third century date, when the *ala Sebosiana* was based at Lancaster; it therefore appears (as originally suggested by Ian Richmond in 1955) that Micianus must have been visiting Weardale, perhaps staying at Binchester, for some reason. It suggests that during Roman times Weardale may well have been a favourite hunting ground for soldiers from nearby forts, as it would be for the Bishops of Durham in medieval times. Much of the natural woodland had been cleared for agriculture by the third century, but many places were clearly still sufficiently wild to make for good hunting. Sylvanus was an ancient Italian god of trees and woodland, the origin of his name

being rooted in the Latin for forest – silva. He seems also to have been closely associated with fields, in particular field boundaries, and with cattle and sheep. He is perhaps best regarded as the Roman god of the countryside, sharing many characteristics with Pan, the Greek god of forests, pasture, and shepherds. He was linked with wild places and the dread of the unknown; this may account for his presence at Bollihope and at other wild places in the north Pennines. Temples were not built in his honour; rather he tended to be worshipped in private at sacred natural places where simple shrines were sometimes built.

Another altar from Weardale was found some 6km north-west of the Bollihope example, on the east bank of the Rookhope Burn, about 500m north of its confluence with the Wear (NPVM). This was found in 1869 by some local schoolboys at Eastgate; it resides today at The Old Fulling Mill Museum in Durham, while a replica stands at the bus stop on the A689 near the Cross Keys Inn, some 300m south of the actual findspot. This altar, from an area otherwise completely lacking in Roman military finds, was dedicated to Sylvanus by Marcus Aurelius Quirinus who we know from other inscriptions was stationed at Longovicium fort (Lanchester) as prefect of the First Cohort of Lingonians in about 240. It is often assumed that this altar must have been linked to hunting like the Bollihope example discussed above, but there is nothing in the dedication to confirm this. It is perhaps probable that hunting provides the most likely context for the presence of a military officer at this location, but Sylvanus was primarily a god of trees and woodland, not hunting, and it is possible that a shrine may have existed adjacent to the burn here, not unlike those on Scargill Moor discussed below.

Further finds from Roman Weardale with an almost certain religious dimension are the six second-century silver coins ('denarii') from Slitt Wood, Westgate; now on display in the Weardale Museum (Weardale Museum 2005; NPVM). These coins were found, along with several others which are now lost, in an area well-known for its medieval and post-medieval lead mining heritage. There is good reason for believing, though as yet no archaeological proof, that mining for lead and silver was underway here in Roman times. These coins may well have been offerings made at a shrine, either in anticipation of, or in thanks for, a good return from mining operations. Several other Roman coins have also been found in the vicinity, though sadly these all now appear to be lost. The coins range in date from 101 to 175 AD, though their date of deposition could be later. They include coins of Trajan, Hadrian, and Antoninus Pius, and feature what must have appeared to many residents of Weardale as impossibly exotic Roman deities and far-away places. (One, for example, features a camel; it is probably fair to assume that real camels would not have been seen by many residents of Roman Weardale.) Exactly how and why these coins found their way to Slitt Wood is not known, but it almost certainly relates in some way to Roman lead and silver mining in the area. Their presence here, along with that of other lost examples, suggests that rather more may have been going on in the wilds of the North Pennines during Roman times than we currently appreciate.

To the south, in Teesdale, a hoard of at least a dozen bronze coins was found along with a much-corroded spearhead in an old quarry at High Force in the mid nineteenth century (Coggins 1986, p42). These are of early fourth-century date, all but one of them being of Constantine I (who was declared head of the western Roman Empire at York in 306, and ruled over the entire empire from 324 until his death in 337). Whether or not this was a ritual hoard cannot be known, but the findspot, very close to the spectacular High Force waterfall, suggests that it may well have been deposited here as a gift to the gods, linked to the long-established sacred nature of wet places.

Whether it was placed here by a Roman soldier, a native farmer, or someone else, cannot be known. Only one Roman military find has ever been made in Upper Teesdale – a bronze shield boss, found in 1857 at White Force, possibly during lead mining operations. As with the coins from High Force, we simply cannot know how this came to be deposited here, but it may not be insignificant that White Force, though nowhere near as spectacular as High Force, is also a waterfall.

Two small Roman temples or shrines, probably of early to mid third-century date, were excavated in 1946 at a remote location high up on Scargill Moor, adjacent to the Eller Beck (Richmond & Wright 1948). The site lies about 3km south of the fort of Lavatris (Bowes), with which it was presumably related in a similar way to that argued above for Epiacum and the ‘head of Ayle’. At least two altars from the Scargill Moor shrines are dedicated to Vinotonus, a local deity unknown elsewhere, about whom we know nothing for sure, although the conflation of the name with Silvanus on one of the altars suggests that both may have been similarly linked with woodland and hunting.

One of these shrines, sometimes referred to as ‘The Temple of Vinotonus Silvanus’, was a rectangular stone-built structure about 5 x 3 metres in size, with an entrance to the east. Set against the west wall, opposite the entrance, was an altar dedicated by a centurion of the First Cohort of Thracians (known to have been stationed at Lavatris from the early third century). It can be translated as: *‘To the god Vinotonus Silvanus, Julius Secundus, centurion of the First Cohort of Thracians, gladly, willingly and deservedly fulfilled his vow’*. The second shrine, ‘The Temple of Vinotonus’, is circular with a diameter of about 6.5 metres and an entrance facing east; its construction method is similar to that of the other shrine, with which it is probably contemporary. An altar, dedicated by the commanding officer of the First Cohort of Thracians, was set against the west wall facing the entrance. Its inscription can be translated as: *‘To the god Vinotonus, Lucius Caesius Frontinus, prefect of the First Cohort of Thracians, from Parma, gladly, willingly and deservedly fulfills his vow.’* It is interesting to note that the officer who dedicated this altar was from Parma in northern Italy, reminding us of the extent to which serving soldiers travelled around the empire, reaching such far-flung places as Scargill Moor. Fragments of several further altars, all probably dedicated to Vinotonus, were also recovered from the Scargill Moor shrines, but nothing meaningful can be gleaned from what remains of their inscriptions.

Numerous further examples of altars and other inscriptions of relevance to Roman religious belief have been found at other Roman forts and vici around the fringes of the North Pennines. In summary, and although there is still much fascinating research to be done on the subject, it seems fair to conclude that people in the Roman North Pennines, whether serving soldiers from afar or natives born and bred here, worshiped a range of deities whose roots lay partly in local heritage and partly far away in classical Rome.

Romans and natives

This chapter has concentrated on Roman military archaeology, but in many ways the most interesting aspects of the Roman period are those dealing with interactions between the Roman military and native society, and the ways in which these changed through time. Although some

villas have been recorded in the Tees Valley, none have been recorded further up Teesdale than around Piercebridge, above which, and throughout the entire North Pennines, settlements (other than those at Roman military sites) seem to have consisted of roundhouses of traditional Iron Age form. The previous chapter contains much discussion of late prehistoric roundhouse settlements, noting that it can be impossible to tell from surface evidence alone whether these date from pre-Roman or Roman times. It is probable that many, if not most, were occupied into the Roman period, and is tempting to see something of a ‘miner-farmer’ landscape (not unlike that of post-medieval times) in operation here, with occupants of the farmsteads working in Roman lead mines as well as in their fields. Palaeoenvironmental evidence suggests that mixed farming was taking place in much of the North Pennines throughout Roman times, and it is quite possible that the native farmsteads, some of which are associated with extensive field systems, were not merely self-sufficient but were providing surplus grain and meat for the Roman military.

A Roman military find from the fringes of our area, but which by nature of its importance warrants special mention, is the Crosby Garrett ceremonial cavalry helmet (Breeze 2018). This was found by a metal detectorist in 2010 at the site of a native settlement, where it had been carefully dismantled and buried with some formality apparently in the mid fourth century, by which time it may already have been a hundred or more years old. How did it end up on a native site, several kilometres from the nearest known Roman road? Had someone living here served in the Roman army? Was it somehow obtained, legitimately or otherwise, from a Roman settlement? And why was it dismantled and buried with such apparent formality? We will never know the answers to such questions, but it certainly demonstrates some kind of link between ‘native society’ and the Roman military. On balance it seems quite likely that it was buried as some sort of votive offering. One wonders what the person who buried it would have made of its sale price when auctioned by Christie’s a few weeks after its discovery, and following careful restoration: £2.3 million!

While it may well be that local farming families on Alston Moor and elsewhere became involved in the Roman lead industry, there is currently no real basis on which to begin an investigation of this. The Miner-Farmer project surveyors attributed only one area of workings, and that only tentatively, to the Roman period. This area is just south of Hole House, on the east bank of the upper South Tyne about 12km south of Epiacum, and consists of irregular, shallow workings extending over about 6 hectares. The ore here is of very high quality, containing an unusually high concentration of silver, and is remarkably similar in chemical composition to lead found at Corbridge, suggesting that at least some lead from this vicinity found its way northwards, presumably via the Maiden Way or the recently confirmed Epiacum-Corbridge road (discussed above), to the frontier zone. The workings here are recorded on the first edition OS map as ‘old workings’ (as opposed to the more usual ‘disused’), so there is reason to think that they could be very old. The first edition map also records the fieldname ‘Chesters’ here, and antiquarian accounts record the finding of Roman coins in the vicinity. Prior to relatively recent ploughing, a large earthwork enclosure existed adjacent to the river; this may have been of Roman date and could have been some kind of working camp linked to lead mining operations. However, whether or not any of this complex is actually Roman is unlikely to be confirmed without further investigation in the field. Evidence of Roman mining in the surrounding hills, and elsewhere, may well have been destroyed by subsequent larger scale activity, though there is still a fair chance that Roman sites could be identified in future.

6. EARLY MEDIEVAL (c410 – 1066)

Introduction

The period referred to by archaeologists as the ‘early medieval’ saw fundamental changes in society that bridged the gap between the end of imperial Roman rule in the early fifth century and the introduction of feudal medieval society in the eleventh. It witnessed the passing of political power from the might of Rome to the newly emergent kingdoms of England and Scotland, via successive waves of Anglo-Saxon and Scandinavian (Viking) settlers, whose cultures merged to varying degrees with those of the native British. It also witnessed the change from a Latin and Brythonic (or Celtic) speaking population to one that conversed primarily in early English, though the extent to which the period actually saw an influx of English-speaking Anglo-Saxon immigrants remains unclear. Christianity became the dominant ideology throughout Britain; many churches that still exist today can trace their origins back to the early medieval period. A major change in the pattern of settlement saw a change from small, scattered farmsteads with roundhouses to villages of rectangular houses, though exactly when and how this happened in the North Pennines is poorly understood, a situation not helped by the complete absence of coinage and pottery which are so important to our understanding of the preceding Roman period.

Despite the dramatic developments outlined above, the period has not been extensively studied in the North Pennines, where very few excavations of early medieval sites have taken place. However, recent work by Altogether Archaeology volunteers at St Botolph’s Chapel in Frosterley, Weardale, (discussed below) clearly demonstrate the potential for carefully targeted fieldwork to contribute to greater understanding of the period. This chapter presents a brief historical overview of the early medieval North Pennines, before considering some specific sites within sections on settlement, agriculture, industry, religion and burial.

Historical framework

1. The post-Roman ‘Dark Age’. (c.400 – 600AD).
2. The Kingdom of Northumbria, including the Northumbrian ‘Golden Age’. (c.600 – 867AD).
3. The Viking Kingdom of York, the ‘Liberty’ of the Community of St Cuthbert, and the Kingdom of Cumbria. (c.867 – 1000AD).
4. The kingdoms of England and Scotland. (c.950 – 1100AD).

1. The post-Roman ‘Dark Age’ (c.400 – 600).

Roman administration was over by 410. From this date no more Roman pay chests would arrive at the forts of northern England, which for three centuries had acted as the administrative and to a

large extent the economic foci of the frontier zone. This marks the beginning of what is often referred to as the ‘Dark Age’, on account of the lack of information we have about it. Although glimpses are offered by a few archaeological excavations, ancient (and generally unreliable) written sources and place name studies, little is known about the period throughout the whole of northern England, and virtually nothing in the North Pennines.

It is generally assumed that largely independent ‘warrior aristocracies’ grew up in different places, including at several Roman sites. In the past, excavations at such sites were understandably focussed on the Roman remains, and much evidence for Dark Age activity was probably destroyed in the haste to reach Roman levels. More recent excavations have, however, recorded evidence of activity extending well past 410 into the later fifth and sixth centuries; for example at Carlisle, Birdoswald, Vindolanda and Binchester. It thus appears that such ‘post-Roman’ occupation may well have been the norm rather than the exception, though much further work at a number of places will be necessary before its nature across the north can be properly quantified and interpreted. It is not unreasonable to assume, given the relative lack of medieval and later activity at the site, that evidence for some sort of Dark Age occupation will survive beneath the turf at Epiacum.

Within a few generations of Roman rule, it seems that these warrior aristocracies throughout northern England had merged into three British-speaking and apparently Christian kingdoms, the nature of which remains obscure in many ways. The extent to which one or more of them may have laid claim to the uplands of the North Pennines is simply not known. To the north-east lay Brynaich, centred on Bamburgh, which may have extended as far south as the Tyne or the Tees. South of this was Deifr, centred on the old Roman city of York and including most, if not all, of present-day Yorkshire. What is now County Durham may have fallen wholly or partly within Brynaich or Deifr, depending on the location of the border between the two. To the west, perhaps occupying all of what is now Cumbria, was Rheged, quite possibly, though by no means certainly, centred on the old Roman city of Carlisle. We don’t know where the boundaries of these early kingdoms were, or even whether they had clear boundaries at all. While it is tempting to suggest that the North Pennines may have fallen partly under the jurisdiction of all three, in a way perhaps not dissimilar to the present-day arrangements whereby the area is divided between Cumbria, Durham and Northumberland, this can be no more than speculation and nothing can be said for sure on the basis of current knowledge. It is perhaps doubtful whether control over the North Pennines was regarded as a priority by the aristocracies of any of the three kingdoms; the area may have been regarded as a kind of upland no-man’s land between the three. This of course assumes that access to mineral resources, in particular lead and silver, was not as important during Dark Age times as it had been to the Roman authorities.

2. The Kingdom of Northumbria, including the Northumbrian ‘Golden Age’ (c.600 – 867).

During the fifth and sixth centuries north-east England saw an influx of pagan Anglo-Saxons from across the North Sea, and by the mid sixth century a new Anglian aristocracy had assumed control of Northumbria. In the year 547, Ida landed at Bamburgh and took control of Brynaich – known from this point as Bernicia. To the south, the kingdom of Deifr, now known as Deira (covering Yorkshire) was also under Anglian rule. Ida’s grandson, Aethelfrith, conquered Deira, thus creating the formidable new kingdom of Northumbria (literally ‘the land north of the Humber’). Edwin, rightful king of Deira, was forced into exile and in 603 his sister was married to Aethelfrith, thus

uniting the Bernician and Dieran dynasties. Aethelfrith's military strength gained him control of much of Scotland, north-west England and the midlands, as well as his Northumbrian heartland in what is now north-east England. Although Northumbria was now united, competition, and sometimes violent conflict, between the aristocratic dynasties of the two sub-kingdoms would be a feature of its development throughout the seventh century.

If Christianity had gained a foothold in the north-east during Roman times, then it seems soon to have faded away: it certainly had no place in Aethelfrith's world. In 616, Edwin, himself still a pagan at this stage, defeated Aethelfrith in battle and assumed control not just of Deira but of the whole of Northumbria. Under Edwin, the Anglian Kingdom of Northumbria expanded far to the west, incorporating the British Kingdom of Rheged along with the Isle of Man and parts of north Wales. On account of his military prowess, Edwin was recognised as *Bretwalda* – effectively overking of the whole of Britain. From Canterbury, the Roman church gained a foothold here when Edwin married Aethelburh, princess of Kent, in 625. Edwin was subsequently converted and baptised by Aethelburh's chaplain, Paulinus, at York in 627.

Edwin was killed while fighting the combined forces of Cadwallon of Gwynedd and Penda of Mercia at the battle of Hatfield Chase, near Doncaster, in 633, eventually being succeeded by Oswald, son of Aethelfrith, who had spent Edwin's reign in exile in Scotland where he had become a devout member of the British church. The north-east corner of the North Pennines witnessed a key event in 634, when, in the aftermath of the Battle of Heavenfield (thought to have been fought on the line of Hadrian's Wall, in a beautiful location place now marked by the atmospheric little church of St Oswald), the fleeing Cadwallon was killed by Oswald's forces on the banks of the Rowley Water, near Whitley Chapel about 5km south of Hexham. After this, Oswald became king of a re-united Northumbria, eventually following Edwin in becoming *Bretwalda*, and setting the scene for the onset of the Northumbrian Golden Age.

Oswald invited Aidan, from Iona, to set up a new monastery in the British tradition on Lindisfarne: this replaced York as the spiritual centre of the Northumbrian kingdom. The inconsistencies between the two churches came to a head in the 660s, when King Oswiu (like his brother, Oswald, a member of the British church) married Edwin's daughter, Eanflaed, who, having spent Oswald's reign in exile in Kent, was firmly allied with the Roman church. King and Queen, both devout Christians, thus celebrated Easter as much as four weeks apart, a situation which could not be allowed to continue. It was eventually resolved at the Synod of Whitby in 664, at which the Roman church emerged triumphant and York again became Northumbria's pre-eminent religious centre. Despite not infrequent periods of conflict, the reigns of Edwin, Oswald and Oswiu (all of whom were recognised as *Bretwaldas*) provided relative stability in which Christianity became firmly and irreversibly established, providing the context for popular saints such as Cuthbert, Hild and Bede. The next two kings, Ecgfrith and Aldfrith, also enjoyed great power, but during their reigns the previously dominant kingdom of Northumbria was in relative decline. Subsequent kings never approached the three *Bretwaldas* in terms of their influence throughout Britain, and Northumbrian power declined from the late seventh century as political infighting led to a series of short-lived reigns: during the eighth century Northumbria had no less than fifteen kings, several of whom were assassinated or exiled. However, as Northumbrian political power waned, the church continued to thrive. In addition to its God-given spiritual power, gifts of land from Oswald, Oswiu and other kings ensured that the church became phenomenally wealthy in financial terms. It was this wealth that underlay the development of the Northumbrian Golden Age.

Regardless of any inspiration of spiritual fulfilment that they may have received through the new religion, it is doubtful whether most people living in the North Pennines during the seventh or eighth-centuries thought of themselves as living in a Golden Age. The story of the Golden Age really is one of royalty and the church, while the vast majority of Northumbrians lived out their lives as peasants, working the land and paying rent to the landed aristocracy who in turn supported the king.

3. The Viking Kingdom of York, the ‘Liberty’ of the Community of St Cuthbert, and the Kingdom of Cumbria (c. 867 – 1066).

Following the collapse of the great Anglian Kingdom of Northumbria, the area seems to have become divided into four ‘successor states’. To the north-east, north of the Tyne and perhaps as far north as the Forth, kings, and later earls, of Northumberland continued to rule from Bamburgh. This area does not, however, impinge on the North Pennines so is not considered further here. The other three of the ‘successor states’, the Viking Kingdom of York, the ‘Liberty’ of the Community of St Cuthbert, and the Kingdom of Cumbria, certainly are of relevance to different parts of the North Pennines so are briefly considered here.

3.1 The Viking Kingdom of York

The area of the North Pennines south of the Tees, probably as far west as Rey Cross on Stainmore, fell within the Viking kingdom of York (part of what has become known as the ‘Danelaw’) between 867 and 954.

The destruction of the Kingdom of Northumbria is often thought to have begun with the first Viking invasion of Lindisfarne in 793, but in fact there is little evidence of further Viking raids into Northumbrian territory until the Viking ‘Great Army’ sacked York in 866, then moving north to plunder Tynedale before returning to capture York in 867. The Great Army was subsequently defeated by King Alfred, who thus retained control of most of southern England, but a section of the Great Army, under Halfdan, remained ‘up north’, establishing the Viking kingdom of York, which retained control over much of the land between the Humber and the Tees until the assassination of the last of the Viking kings, Eric Bloodaxe, in 954. An early thirteenth-century source, which there is little reason to doubt, records that Eric Bloodaxe was ‘treacherously killed.....in a certain lonely place which is called Stainmore’. It has been suggested that the Rey Cross may have been erected to mark the place of his death, but, while his death may have occurred close to the spot, the cross is more likely to have been a boundary marker at the point where the main road across Stainmore passed between the kingdoms of Northumbria (or the Viking Kingdom of York) and Cumbria.

3.2 The ‘Liberty’ of the Community of St Cuthbert

Place-name and other evidence suggests there was very little Viking settlement north of the Tees. This seems to be related to the fact that the area between the Tees and the Tyne was effectively under the control of the Community of St Cuthbert (*congregatio sancti Cuthberti*), which left Lindisfarne in 875, taking the body of Cuthbert with them, and re-established the seat of the

bishopric at Chester-le-Street in 883, relocating to Durham in 995. Exactly how this community developed into what was effectively a self-governing ‘liberty’, covering much of what is now County Durham, is not fully understood. As the holder of St Cuthbert’s liberty, the Bishops of Chester-le-Street and later of Durham (who would in later times become known as the ‘Prince Bishops’ on account of their political as well as religious authority) had powers normally reserved for the king, such as the holding of courts, minting of coins, and (of particular relevance to the North Pennines) ownership and exploitation of mines.

The Community of St Cuthbert claimed to be the successor of the original monastic community founded by Aidan on Lindisfarne back in 635, which we know was actively acquiring land between the Tyne and the Tees at least as early as the mid-ninth century. During the ninth, tenth and eleventh centuries, the Community received numerous grants of land from the Viking kings of York, early kings of England (eg Athelstan and Canute), and local lords. The earliest of these grants known from historical sources is that of the area between the Tees and the Wear to the west of Dere Street, a vast area including a large chunk of the North Pennines, made during the incumbency of Bishop Ecgrid (c.830-845).

Traditionally, the explanation for the Community’s acquisition of so much territory owes much to a miracle of St Cuthbert, but whatever the actual explanation, presumably the result of a combination of religious ideology and political pragmatism, it seems that the Christian Viking kings of York were content to see the Community of St Cuthbert hold sway over this huge swathe of territory. The traditional story of the Community travelling throughout northern England with the body of Cuthbert, having fled Lindisfarne in fear of Viking raids, is fanciful; it is far more likely that the decision to relocate to Chester-le-Street reflects a practical response to various circumstances, including the demise of Hexham as an episcopal see and the nature of relations with Viking kings of York to the south. The Community’s decision to relocate its headquarters from relatively isolated Lindisfarne to Chester-le-Street, and subsequently to Durham, was surely a proactive and positive move on their part, presumably with the blessing of the Viking authorities in York, even if they did subsequently seek to justify it through the traditional story of the flight from Lindisfarne in the face of the pillaging, pagan Vikings.

3.3 The Kingdom of Cumbria

West of the Pennines, Cumbria, which was part of the Kingdom of Northumbria at its greatest extent but may always have retained a degree of autonomy under sub-kings, was spared the ravages of the Great Army but seems to have been partly settled by Norse Vikings, probably via Dublin and other Irish bases established during the first few decades of the ninth century. From the early tenth century, the area was ruled by ‘Kings of the Cumbrians’, though the area of influence and the extent of the power of these so-called kings remain poorly understood. The area seems to have retained an essentially British character, and following the decline of the Northumbrian kingdom the largely autonomous ‘new’ kingdom of Cumbria may legitimately be seen as a successor to the old British kingdom of Rheged. Place-name evidence suggests significant Viking influence within this kingdom, including Norse settlement as noted above but also Danish settlement (place-names ending in ‘by’, such as Appleby in the Eden Valley) which presumably came from Yorkshire, via Stainmore.

4. The kingdoms of England and Scotland (c.950 – 1100).

The Northumbrian successor states discussed above were all short-lived. Following the death of Eric Bloodaxe in 954 (traditionally thought to have occurred in the vicinity of Rey Cross on Stainmore) the old Viking Kingdom of York was absorbed into the emergent kingdom of England, under the control of a dynasty whose roots lay in Wessex. In the west, from the early eleventh century, Cumbria was amalgamated into the kingdom of Scotland, then seems to have become briefly merged with the Earldom of Northumbria before again becoming Scottish, eventually to become permanently 'English' following the taking of Carlisle by William Rufus (King William II) in 1092. Somewhat confusingly, the Liberty of Tynedale, which included much of what is now the Cumbrian North Pennines, subsequently (and through until 1296) became the property of the Scottish Crown, though it lay within England and English kings retained the mineral rights. This led to much confusion on Alston Moor, where of course lead and silver mining was very important. In the north, the Earldom of Northumbria was divided along the line of the Tweed between Scotland and England. Only the 'liberty' of St Cuthbert maintained a significant degree of independence; although it was effectively now within the Kingdom of England, the power of the 'Prince Bishops' of Durham would have a profound influence over much of the North Pennines during medieval times (as discussed in the next chapter).

The detailed history of the manner in which the North Pennines passed from Roman control in the early fifth century to be part of the Kingdom of England by the eleventh is of course far more complex than the basic outlines presented above, but it is important to bear this basic framework in mind when considering developments during the early medieval period. The extent to which it actually impacted on ordinary families living in the North Pennines must be open to question. To try and fit the available archaeological evidence neatly into the above historical framework, given the lack of excavations and well-dated sites, would involve a great degree of speculation, much of which would perhaps be largely pointless. For this reason, the following overview is structured thematically rather than chronologically. Much carefully targeted fieldwork will be necessary before we can hope to present a meaningful overview of the early medieval archaeology of the North Pennines, linking sites on the ground to their wider historical context.

Settlement and agriculture

To begin by stating the obvious, we know very little about early medieval settlement in the North Pennines. This is due to a number of factors, chief amongst which are probably that many early medieval settlements lie buried beneath later settlements and most buildings were of timber, making them difficult to recognise in the field. This makes the location of demonstrably early medieval settlements difficult by conventional methods such as aerial photography, lidar, or even walkover survey. In many places we can see remnants of settlements and field systems that we classify as 'late prehistoric' or 'Roman' intermingled with others that we call 'medieval', but with nothing of 'early medieval' date to close the gap between them. These areas were presumably occupied during early medieval times, but we have yet to recognise the evidence. Perhaps some of our 'Roman' settlements remained in use rather longer than we currently think, while some of our 'medieval' settlements may have origins in pre-Conquest times. Perhaps also there are buried

remains of timber buildings in these places that we have yet to discover. The fact that this period within the North Pennines seems largely to have been aceramic, with no evidence for a monetary economy, means that neither pottery nor coins, so important for dating earlier and later sites, are available to identify phases of occupation as early medieval.

The search for immediately post-Roman settlement should begin in and around known Roman sites, including farmsteads as well as forts and vici; probably also along the lines of known Roman roads. It is often said that the Romans ‘left Britain and went home’, but for the vast majority of serving troops in the frontier zone, this was their home – they had nowhere else to go. What happened to these Roman communities, the serving soldiers and their families together with the many civilians whose livelihoods depended on the military market, remains a mystery. It is generally assumed that relatively independent war bands grew up at the Roman forts, consisting initially of the troops abandoned by Rome and subsequently of their descendants. Recent fieldwork has demonstrated continued occupation of forts at Binchester, Birdoswald and Vindolanda, while possible post-Roman activity has also been postulated at Piercebridge and Brougham. It would not be surprising to find evidence of occupation into the fifth century and possibly beyond at other forts such as Kirkby Thore, Bowes and Brough, the latter two of which occupy strategic positions either side of the Stainmore pass and would later become sites of medieval castles. What happened in immediate post-Roman times at Whitley Castle, in the heart of the North Pennines, is completely unknown, but the relative lack of disturbance through later developments means that any evidence of Dark Age occupation here may well lie well preserved within the ground. Such speculation is all very well, but clear evidence of early medieval activity at any of these sites is unlikely to be demonstrated without careful excavation and scientific dating. It is also possible, as noted above, that occupation may have continued beyond the Roman period at some of the late prehistoric/Romano-British settlements discussed above. Careful analysis of some of these may suggest some contenders for post-Roman occupation, such as the extraordinary site at Gossipgate on Alston Moor (Oakey *et al* 2012; ASDU 2012b).

Some early post-Roman settlement has been suggested in upper reaches of the Eden Valley, although the evidence is, at best, patchy. It has been suggested that a group of settlements near Crosby Ravensworth, close to the source of the River Lyvennet, could be the location of ‘Llwyfenedd’ referred to by the tenth-century Welsh poet, Taliesin, as the home of the Urien, late sixth-century king of the post-Roman British (Welsh speaking) kingdom of Rheged, in the decades before the area was absorbed into the Anglo-Saxon kingdom of Northumbria (David Petts, pers comm.). While it would be fascinating to investigate this claim through archaeological fieldwork, for now it must be regarded as little more than intriguing conjecture.

Of relevance to the opposite (north-east) corner of the North Pennines, Brian Roberts has recently attempted some fascinating speculation regarding the ways in which Romano-Celtic society in the lands around Hadrian’s Wall evolved into the early Anglo-Saxon world during the centuries following the end of Roman rule (Roberts 2015). He notes that ‘Crossing this bridge is extraordinarily difficult: those scholars focusing on Rome reach forward in time only with great caution, while those treating the Anglo-Saxons must seek origins in what are essentially folk myths and very limited archaeological evidence.’ His approach is, however, surely the right one, using a wide range of evidence to make informed speculations about things we are perhaps never likely to know for sure. Greg Finch (pers comm.) has similarly studied the landscape, settlement pattern, place name elements and history of Hexhamshire and the surrounding area. He speculates that the

putative Anglian shire of Hexhamshire, with its 90 square miles of mixed lowland and higher ground, was once part of a larger sub-Roman 'shire' also comprising Corbridge and 'Bywellshire' to the east. Where this land unit crosses Hadrian's Wall it is centred on the Roman fort of Halton Chesters, which overlooks the important town of Corbridge. Bywell shows the pattern of an early monastic foundation, and a Bishop of Lindisfarne was consecrated there in 803. Hexhamshire might possibly have been carved off from this larger estate and deliberately settled by the mid seventh century to protect Corbridge from incursions from the west. It is noticeable that St. Wilfrid's church and crypt does not occupy the most prominent location within Hexham overlooking the river, now occupied by Prospect House, suggesting that this site was already occupied by the 670s (Ryder 1994a, p216).

Back in the south-west, at Fremington, adjacent to Brougham Roman Fort in the Eden Valley, close to the road over Stainmore, a small settlement of seventh- or eighth-century date was excavated in advance of pipeline construction in the 1990s (Oliver *et al* 1996). This is a good example of how developer-funded excavation can provide important and often surprising results, though the relative lack of large-scale developments in the North Pennines makes such work rare here in comparison to many other parts of northern England. The Fremington settlement consisted of at least four sunken-floored buildings ('grubenhäuser') and apparently also a large timber-built hall typical of early Anglo-Saxon settlement. Sites like Fremington generally leave no surface trace, unless they lie within cultivated fields when they may show up as cropmarks under certain conditions, which has led to their recognition in several places in, for example, north Northumberland. The lack of cultivated fields throughout most of the North Pennines means we have no idea of knowing how many similar such settlements may survive throughout the area, and of course some such early settlements may well lie buried beneath, if not destroyed by, later settlement.

Denis Coggins provides us with a good overview of early medieval settlement in Upper Teesdale. He notes that there are 'few identifiable archaeological traces' of the period, and that 'not a single stray find can be attributed with any confidence to this period' (Coggins 1986a). However, his own excavations at Simy Folds (discussed below) represent an important contribution to our understanding.

Coggins notes that the admittedly very limited pollen evidence can be interpreted as suggesting that mixed agriculture continued from Roman through early medieval times in both Upper Teesdale and upper Weardale, though where the people were living in immediately post-Roman times, if the known Romano-British farmsteads were not still occupied, remains a mystery. He speculates that a site at Pasture Foot (south of the Tees opposite Dineholm Quarry), with one large rectangular building and several circular ones could represent early medieval re-use of a Roman period hamlet, but without excavation this interpretation, though eminently plausible, must remain conjectural.

One of the most important early medieval sites in the North Pennines was excavated by Denis Coggins and Ken Fairless at Simy Folds, at a height of 380m on Holwick Fell (Coggins *et al* 1983) The site consists of three farmsteads of similar form, each consisting of a long rectangular building aligned east-west, with an adjoining sub-rectangular building aligned north-south, within a small enclosed yard. The farmsteads are set within a field system that the excavators consider to have prehistoric origins. Two of the farmsteads have provided eighth-century radiocarbon dates along with evidence for small-scale iron-working, but finds were sparse. Two nearby sites of very similar

form, at Holwick Castles and Willy Brig Sike (Crossthwaite Common) are unexcavated but probably of comparable date. Coggins records several other potentially pre-Conquest sites with rectangular buildings, but notes that these could well be of post-Conquest date and the only way to tell will be through excavation. The early medieval landscape around Holwick is certainly of enormous potential importance, and without doubt deserving of further study. Detailed contrasts and comparisons between this region and other parts of the North Pennines during early medieval times should also prove of interest.

Coggins further observes that Upper Teesdale was apparently part of the estate of Gainford (centred on the early monastery of 'Gegenforda'), owned by the Community of St Cuthbert, but nothing is known of the ways in which settlement and land use here were integrated with places further down Teesdale. It has been suggested that the Simy Folds settlements could have belonged to communities with Scandinavian (or 'Viking') roots, having reached Upper Teesdale via the Eden Valley, rather than Anglo-Saxon incomers from the east. Although the radiocarbon dates seem a little early to support this idea, it is nevertheless quite plausible such communities did settle here, as there were certainly links between the Eden valley and Upper Teesdale and both saw significant Scandinavian settlement. One link between the two regions must have been via the old Roman road across Stainmore, which retained great strategic importance long after the end of Roman rule, a fact reflected by the presence of medieval castles at the Roman fort sites of Bowes in the east and Brough in the west. In terms of visible field archaeology, there is little to demonstrate the significance of this route during early Viking times, but the death of Eric Bloodaxe here in 954 was a significant event, and the discovery of a hoard of nineteen Viking-period silver bars and other silver objects at Old Spital, Bowes, further demonstrates the significance of this key cross-Pennine route.

Very little is known about early medieval Weardale. In his book 'Weardale: Clearing the Forest', Peter Bowes discusses medieval and later times in some detail, but is able to offer no more than three pages of text, most of it complete speculation, about early medieval times (Bowes 1990). He describes the possible forms of early villages at Wolsingham and Stanhope, but nothing else. Since he wrote this book, however, the dramatic results of the Altogether Archaeology excavations at St Botolph's Chapel have demonstrated that Frosterley, not Stanhope or Wolsingham, has the oldest evidence for post-Roman settlement in Weardale. Previously, Frosterley was thought to have medieval origins, but the chapel (discussed below), and by inference some sort of adjacent settlement, is now dated back at least as far as the eighth century. St Botolph was a contemporary of St Cuthbert and is thought to have died in 680; in medieval times he was an important saint and many churches were dedicated to him, though Frosterley is the most northerly known example. The name 'Frosterley' is Norman in origin, and the oldest known reference to it is in the late 12th-century Boldon Book, but prior to the Norman conquest the village may have been known as Bottlingham, after St Botolph. It is of course highly likely that Stanhope and Wolsingham have equally early origins, but at present we have no archaeological evidence on which to base such claims. It is perhaps doubtful whether any early medieval settlements existed higher up the dale than Stanhope, where the land may have exploited primarily for seasonal grazing and hunting, though it is also possible that small-scale exploitation of lead and silver occurred in some places.

On Alston Moor at the heart of the North Pennines, and despite the very detailed work undertaken recently by expert English Heritage surveyors during the Miner-Farmer project, there is frustratingly little that we can say about the early medieval period. In his excellent book 'A History of Alston Moor', local historian Alastair Robertson (2010) provides only a brief section on early

medieval times, most of which is a discussion of place names (considered further below). The overview of the Miner-Farmer project published by English Heritage (Oakey et al 2012) notes that occupation at some of the twenty-five Romano-British settlements recorded within the project area may well extend into post-Roman times, and that some elements of medieval field systems may represent continuity of use from Roman or even pre-Roman times. However, not a single feature recorded during the Miner-Farmer survey has been unambiguously dated to any period between the end of Roman rule and the Norman Conquest. Given what we know of the busy landscapes and economies of Alston Moor during Roman and medieval times, it is inconceivable that the area was not also well populated during the intervening six centuries. Evidence for such occupation remains elusive; we need to think carefully about what form this evidence could take, and where we might best look for it. A similar situation to that on Alston Moor exists in other areas where lidar-based surveys have taken place over recent years, namely the Allen Valleys and Hexhamshire (Ainsworth, 2016), and Upper Teesdale, Weardale and the Upper Derwent Valley (Frodsham 2017). In her very comprehensive survey of the parishes of Muggleswick and Edmundbyers (Upper Derwent Valley), based on a combination of documentary (including place-name) and field research, Sheila Newton notes that both villages may well have early medieval origins, and pre-Conquest churches, but that no clear evidence exists (Newton 2014). Wherever we chose to look, the early medieval period throughout the North Pennines remains frustratingly elusive.

Place names

Place-name studies potentially have much to offer our understanding of settlement throughout the early medieval North Pennines, though (as clearly evidenced by the account of the name ‘Pennines’ in the introduction to this volume) place-name ‘evidence’ must always be interpreted with caution unless research is done to the highest standards. As with many areas of Britain, the names of large rivers are Celtic in origin and thus seem to have been consistent since prehistoric times: Eden, Allen, Tyne, Derwent, Wear and Tees are all Celtic. Many minor watercourses, in contrast, have names with apparently early English or Scandinavian origins, as evidenced by the use of the terms ‘burn’ and ‘beck’, which suggest a greater degree of Scandinavian settlement in the Eden valley and in Teesdale than in Weardale, for example. Similar analysis of other landscape terms can be equally enlightening.

Alastair Robertson, in his ‘A History of Alston Moor’ (Robertson 2010), briefly discusses a number of place names with apparent early medieval origins. ‘Shield’, a word used to describe summer pastures, is contained within Newshield, Lovelady Shield and Foreshield, while the Scandinavian equivalent ‘skalis’ is contained within Scalebank. Other Old Norse terms contained within Alston Moor place-names include ‘beck’ – stream, ‘fors’ – waterfall (eg Nent Force), ‘gill’ or ‘ghyll’ – ravine or gully (eg Garrigill), ‘gate’ – road (eg Gossipgate), and ‘fjall’ – fell (eg Flinty Fell, Rotherhope Fell). Although many such Old Norse elements occur in place names here, most small rivers are referred to as ‘burns’ (Old English) rather than ‘becks’ (Old Norse) which are common in the Eden valley to the west. Clearly there is a mix of Anglo-Saxon and Old Norse influence in the place-names of Alston Moor. Robertson suggests, despite the lack of archaeological evidence, that Alston and Garrigill both have early medieval origins: the former as ‘Aldwin’s town’, the latter incorporating the personal name ‘Gerard’.

Sheila Newton's thorough investigation of the parishes of Muggleswick and Edmundbyers (Upper Derwent Valley) finds much evidence for Old English influence in place names, and also some Old Norse (Newton 2014). Both villages appear to have pre-Conquest names (the former has been interpreted as 'the dwelling of the son of Mucel', the latter as 'Edmund's byres') while most smaller settlements in the region appear to have later names. She concludes that while there are many potential pitfalls in the use of place-names, *'the safest conclusion from the evidence assessed is that the parishes of Muggleswick and Edmundbyers had agricultural settlements at least as early as the Anglo-Saxon / Anglo-Scandinavian period since the names of places within the parishes are derived from Old English and Old Norse.'*

Settlement names throughout the North Pennines have a range of forms that must be interpreted with great caution, but their careful analysis can shed light on changing settlement patterns from early medieval times onwards. In general terms, what appear to be Anglo-Saxon habitative names, although far from thick on the ground, can be found throughout the North Pennines. Examples include: Middleton, Mickleton, Eggleston, Cotherstone (Teesdale); Wolsingham and possibly Bottlingham, which may be the original name of Frosterley (Weardale); Catton (Allendale); Alston (Alston Moor); Addingham, Murton, Brampton, Hilton (Eden Valley). Scandinavian names, generally ninth- to tenth-century in origin, by contrast, appear to be concentrated in the Eden Valley – examples include Glassonby, Appleby, Kirkby Stephen and Kirkby Thore. A detailed place-name survey of the entire North Pennines, analysing the names of settlements and natural features, and possibly also field names, to the highest possible standard, should be a priority, and would potentially tell us much about patterns of settlement during early medieval and medieval times.

Industry

It is generally assumed, although clear evidence is sparse, that the lead and silver resources of the North Pennines were exploited on quite a large scale during Roman times, with the fort of Epiacum (Whitley Castle) and the road known to us as the Maiden Way constructed to facilitate this. During medieval times, the region's mineral resources certainly were exploited on a large scale (as will be discussed in the next chapter). However, the extent to which lead, silver and other mineral resources were extracted during early medieval times remains unknown.

Certainly, the North Pennines landscape during the early medieval period must have been primarily agricultural (allowing for the fact that much of the upland may have been unimproved 'waste'). That said, there are hints at industrial activity, albeit on an apparently small scale. The excavations at Simy Folds recovered evidence for iron working, though perhaps only on an essentially domestic scale. On Bollihope Common (Weardale), linked to Rob Young's long-term project investigating the landscape here from prehistoric to post-medieval times, lead slag, possibly waste from silver refining, has been dated to 880-1030 AD (Manchester 2002). The 2010 season at Bollihope examined an enclosure with an associated hut scoop/platform, the construction of which impeded the drainage of a local flush resulting in the formation of a peat bog that grew to extend over the enclosure wall. Radiocarbon dates for the beginnings of this bog, along with site stratigraphy, suggest the beginnings of sediment build up against the enclosure wall at about 950 AD (Young et al 2011). The enclosure is therefore earlier than this date, and there must be a fair chance that activity here was linked with the nearby lead working noted above. Lead slag of similar date has also been found at Parmontley Hall in West Allendale. There must be many more places where

evidence for the pre-Conquest exploitation of lead, silver and possibly other mineral resources, survives, though doubtless in many places such evidence has been destroyed by larger scale medieval and post-medieval industrial activity.

Religion: churches and sculpture.

Although this section is almost exclusively about Christianity, we must first consider some apparent evidence for Anglo-Saxon pagan religious practice. This comes from a curious site known as Middle Hurth, near Langdon Beck in Upper Teesdale (Coggins & Fairless 1997). Although probably prehistoric in origin, the site in its latest phase consisted of a roughly circular 2m wide earthen bank about 15m in diameter, for which two radiocarbon dates in the sixth century (or thereabouts) were obtained. Although little can be said about it for sure, this monument defies any interpretation other than 'ritual' or 'ceremonial', and, as Denis Coggins points out, the close proximity of Teesdale Cave with its (albeit undated) beheaded human skeleton may not be entirely irrelevant.

A further site worthy of mention is the church, or rather the churchyard, of St Cuthbert's in the tiny village of Beltingham, near Bardon Mill in Tynedale. The church is remarkable (being the only example of a perpendicular church in the whole of Northumberland), but dates from the sixteenth century so is of no relevance here (although it must certainly overlie an older church). What is of relevance is the fact that the churchyard contains a couple of Roman altars that were found here, a fine Anglian cross of apparent seventh-century date, and three ancient yew trees, the largest of which is quite wonderful and could be anything up to 2,000 years old. This appears to be a splendid example of an ancient pagan sacred site, the power of which was appropriated by the Christian church at some point probably during early medieval times. It is quite probable that a timber church was built here at about the time the stone cross was originally erected, by which time the sacred ancient yew may already have been centuries old. Beltingham reminds us that the power and importance of places can be reflected in things other than conventional archaeological features; the yew tree here is as much archaeology as are the Roman altars, the Anglian cross and the church itself.

Middle Hurth and Beltingham serve to remind us that not all sites fit readily into conventional classificatory boxes, and even those that appear to do so may turn out on detailed investigation to hold surprises. It is probable that many such surprises relating to early medieval activity remain to be discovered throughout the North Pennines.

Following the accession of the Christian King Oswald to the Northumbrian throne in 634, and his appointment of Aidan as Bishop of Lindisfarne, communities throughout the North Pennines presumably began turning to Christianity and the building of churches soon became commonplace. Most were probably constructed initially in timber and rebuilt later in stone, leaving very little if any archaeological trace of original timber structures.

Arguably the most celebrated early church in the whole of the northern England is Escomb (Weardale), on the eastern fringes of the North Pennines near Bishop Auckland. Thought to have been founded in about 670, and built largely of stone plundered from the nearby Roman fort of *Vinovia* (Binchester), Escomb is one of only three complete Anglo-Saxon churches in Britain. Some

new windows were added in medieval times, and the main doorway has been modified, but other than this the church stands pretty much as it was originally built: an extraordinary survival from the height of the Northumbrian Golden Age. Its simple structure consists of a long rectangular nave and a square chancel, entered through a tall, narrow arch, quite probably salvaged in its entirety from *Vinovia*.

Until recently, Frosterley in Weardale was generally thought to have had medieval origins (NAA 2005), but recent investigations by the Altogether Archaeology project at St Botolph's Chapel have uncovered evidence for an early medieval church that in its original form may well have been contemporary with Escomb (ASDU 2016c). The earliest of a series of radiocarbon dates, from a post-hole sealed by a later floor, is 585-881 AD. Later dates (eighth or ninth century) come from sealed contexts beneath the church's stone walls. Taken together, these could suggest that the first church here was of timber, which would be expected given the lack of a conveniently located Roman fort from which to plunder ready-made masonry. The subsequent development of the site is not at all clear as it had been badly trashed at some point after its abandonment, but the earliest stone building does appear potentially very similar to Escomb. The fact that there was such an early church here, together with a stone cross and perhaps a quite sizeable cemetery (both discussed below), not only demonstrate the antiquity of Frosterley but also invite us to consider how many other North Pennines settlements could have similarly early origins.

In contrast to Escomb, all other early medieval North Pennines churches have been largely if not completely rebuilt during medieval and later times. However, churches generally continued to occupy the same sites, so those that do have pre-Conquest origins could potentially have archaeological evidence of early medieval activity still buried in the ground around them. Churches in and around the North Pennines for which an early medieval origin been demonstrated or claimed through the survival of apparently pre-Conquest fabric or sculpture are few in number: examples being Stanhope, Edmundbyers, Romaldkirk, Addingham and Kirkby Stephen. Several other churches are known to have been standing by the twelfth century, and many of these must have originally been founded back in Anglo-Saxon times. However, given the difficulties involved in excavating within churchyards, proving the antiquity of individual churches will not be easy.

It is beyond the remit of this account to analyse, or even list, all possibly early medieval church sites throughout the North Pennines, but careful consideration of all such sites within their local landscape contexts would be a very worthwhile exercise. It is worth stressing the obvious point that wherever early medieval churches did exist (with the exception of small monastic churches) they must have been built to serve adjacent settlements. So, even if nothing of early medieval date survives visibly in their immediate vicinity, much evidence may survive in the ground.

Sculpture

Amongst of the real glories of the early medieval period are the often stunningly beautiful carved stone crosses and other sculptures. While these come in a wide range of styles (indeed, every example is unique), they are usually classified into one of two groups: 'Anglian period', dating from the seventh to the ninth centuries, and 'Viking period', dating from the tenth and eleventh centuries.

The recent extraordinary discovery of an Anglian period stone cross, of probable early eighth-century date, during Altogether Archaeology excavations at St Botolph's Chapel, Frosterley, has thrown new light on the origins of the village and on this mysterious phase of Weardale's history (ASDU 2016c). The Frosterley cross is carved from a distinctive type of fossiliferous limestone known as Roker Dolomite, probably from outcrops near the famous Golden Age monastery of Monkwearmouth (Sunderland), founded in 674. St Peter's at Monkwearmouth formed a twin monastery along with St Paul's at Jarrow where the Venerable Bede (672-735) lived and worked. This was one of the most important monasteries of the Northumbrian Golden Age, and would have had extensive workshops run by the most skilled craftsmen of the time (Cramp 2005, 2006; Turner *et al* 2013). It is assumed that the Frosterley cross must have been made there, then transported up the Wear to be erected at the Chapel of St Botolph, which may well date originally from about the same time, though it could be up to a few decades earlier or later. Tradition locates 'St Botolph's well' close to the site of the chapel; although no sign of a well was noted during recent fieldwork, if a 'holy well' was present here then it could provide an already ancient context for the cross and the chapel, as some such wells are thought to have been significant in prehistoric and Roman times, later becoming appropriated by the Christian church.

The Frosterley cross was found broken into many pieces, having apparently been deliberately smashed up; the top of the shaft was found in the grave of a man buried face down in a shallow grave (discussed further below), dated to the late 9th or 10th century, possibly to about the time that Monkwearmouth and Jarrow monasteries were abandoned following their sacking by Vikings. There is still much work to be done on the remains of the Frosterley cross, and other finds associated with it (including a unique and currently undated stone head, possibly also carved from Roker dolomite), before we can approach the telling of its full, fascinating story. The cross is a key piece of evidence in demonstrating the ancient origins of the settlement of Frosterley and appears to demonstrate intriguing links between this relatively inaccessible inland 'backwater' and one of the great establishments of the Northumbrian Golden Age at Monkwearmouth.

The only other early medieval stone cross known from the North Pennines uplands is the one now standing in Kirkhaugh churchyard, apparently once used as a gatepost (Cramp 1984). This appears to be of local sandstone and is of simple, plain form. Its closest parallels are from the North York Moors where they seem to have functioned as boundary or roadside crosses. It is possible, therefore, that the Kirkhaugh cross originated as a roadside cross, only later being moved to the sanctity of the churchyard. Kirkhaugh lies close to the Roman fort of Epiacum, and may have been a significant place throughout early medieval times, though the cross appears to be quite late in date, probably from the latter half of the eleventh century (and therefore technically perhaps medieval rather than early medieval).

Other Anglian period sculpture (Cramp 1984; Bailey & Cramp 1988) is known from the fringes of the North Pennines in Tynedale (Hexham, Corbridge, Bywell), Weardale (Escomb, St Andrew Auckland, Aycliffe), Teesdale (Winston on Tees), and the Eden Valley (Addingham, Penrith, Lowther, Kirkby Stephen). To the north, the stunning cross at Bewcastle is a little far north to include in a study of the North Pennines. Viking period sculpture (*ibid*) is known from many of the same sites, and others: Tynedale - Hexham, Corbridge, Warden; Weardale - Escomb, St Andrew Auckland; Teesdale - Gainford; Eden Valley - Addingham, Glassonby, Appleby, Kirkby Stephen.

Gainford, as an estate known to have been owned by the Lindisfarne Community, is of particular interest. Links between the Eden Valley and Teesdale during Viking times, suggested elsewhere in this chapter, is perhaps supported by concentrations of sculptured stone in both regions, though there are no examples known from in between (other than Kirkhaugh, which is not on a route between the two). The known sculpture from the region probably reflects links with the Viking Irish Sea province, and also with York and the Danelaw. The concentration of sculpture from St Michael and All Angels Church at Addingham, a place that might not appear initially as of any great historic significance, is fascinating for a number of reasons, not least the fact that this is the closest church to the great Neolithic complex of Long Meg (not that any direct connection between the two is suggested). The original church at Addingham (immediately adjacent to the Eden and abandoned long ago due to erosion of the riverbank) could have been the site of an early monastery, though the evidence for this is flimsy. Further discussion of the wider significance of all this sculpture is beyond the remit of this account; suffice it to say that any account of the early medieval period in the North Pennines must pay it due regard.

The Kirkhaugh cross currently stands in splendid isolation as the only example in the heart of the North Pennines. However, its presence here, coupled with the recent discovery of the Frosterley cross, suggests that more such carvings may once have existed in the uplands. Further examples may well still await discovery through carefully planned archaeological investigation or as chance finds.

Burials

Accounts of early medieval society in northern England invariably include much discussion of excavated cemeteries, which tell us much about the living as well as the dead. However, no extensive early medieval cemeteries have been investigated within the North Pennines. The area lies between two known clusters of early Christian (British) inscribed gravestones of fifth- and sixth-century date, in Wales and the Scottish Borders, although one early such stone is known from near Vindolanda, and another possible example, possibly of seventh-century date, was recorded at the old church site in Addingham in the Eden Valley. There are also a few possibly early non-Christian burials from the Eden valley, all of which were excavated long ago and their interpretation is questionable (David Petts pers comm.). There are half a dozen examples of possible seventh-century burials inserted into prehistoric burial mounds, from sites near Crosby Garret, Shap, Great Asby (2), Kirkby Stephen and Warcop. These are accompanied by grave goods such as swords, spears, knives, buckles, shears, a shield, a bronze bowl and a glass bead. There are, however, no comparable examples from elsewhere in the North Pennines; this might be interpreted as suggesting that Anglo-Saxon incomers were settling in the Eden Valley during the fifth, sixth and seventh centuries, but not elsewhere in the region. Alternatively, of course, it may simply be that they were settling elsewhere but we have yet to find them.

Three particularly interesting early medieval burial sites from the North Pennines are worthy of particular note: Wydon Eals, St Botolph's (Frosterley) and Cumwhitton.

The earliest of these is Wydon Eals, near Featherstone in South Tynedale (Hutton & Blenkinsopp Coulson 1825; Hodgson 1840, p350; Snagge 1873; Carlton & Frodsham in prep. NPVM). Here, in 1825, while digging drains on Wydon Eals Farm, several timber coffins were located at a depth of

some five feet. Writing in 1840, Hodgson describes these ‘mysterious and time-hallowed remains’ as ‘made of round boles of oak, riven in two and fastened down again with an oaken peg at each end’. Subsequent investigations in 1869 uncovered several more coffins, one of which contained a skull. The coffins look very much like dug-out canoes, which given their location adjacent to the river may not be entirely coincidental. Snagge (1873) describes them in great detail. Three survive locally in private ownership while another is at Durham Cathedral; many others probably still lie within the ground, though their condition may have deteriorated following draining of the site. Until recently they were undated, and thought by some archaeologists to be Bronze Age, but a sample of one was radiocarbon dated in 2011 to the late seventh or early eighth century. Hodgson records that several similar coffins were found in the nineteenth century eroding out of the old churchyard in Haltwhistle, adjacent to the South Tyne, one of which was displayed in the Market Place. There is no record of a church at Wydon Eals, although the land here is recorded in a document dated 1223 as ‘Temple Land’, and for some unknown reason was owned until the late nineteenth century by the Dean and Chapter of Carlisle. The radiocarbon date suggests that these burials date from within a generation or two of the lifetime of St Cuthbert, during the so-called Northumbrian Golden Age, but the extent to which they were influenced by pagan or Christian tradition remains open to question. A very similar coffin was found at Quernmore, near Lancaster, in 1973. This contained traces of a body within a woollen shroud and provided a near-identical radiocarbon date to that from Wydon Eals; it appears to be an isolated burial and there is nothing to suggest that it may have been Christian.

Until very recently, the Wydon Eals site was unique, within the North Pennines and elsewhere, but what seems to be in many ways a similar site, containing more than 80 burials in tree-trunk coffins, has recently been excavated at Great Ryburgh in Norfolk (Hilts 2016; Fairclough 2018). This site, like Wydon Eals, was adjacent to a river, and the coffins had been naturally preserved in waterlogged ground. While no direct relationship between the two sites is suggested, the form of the coffins and the lack of grave goods, together with similar dates, certainly invite comparisons. The Great Ryburgh cemetery is considered to be Christian, and the remains of a timber building there are thought likely to represent a small church. The possible significance of this for the interpretation of Wydon Eals must await further work; for now, questions such as who the people were that were buried at Wydon Eals, the extent to which they were Christian, and where they lived, remain unanswerable with any degree of certainty.

The Altogether Archaeology excavations at St Botolph’s Chapel, Frosterley, referred to above, have demonstrated that that the chapel dates back to the eighth century, if not earlier (ASDU 2016c). It is not known how many early medieval burials survive in the vicinity of the chapel, but a particularly intriguing one was investigated during the excavations. This is of an adult male, buried face-down with his head to the west in a shallow, poorly-defined grave. Apart from the unusual position of the body within the grave, the most curious aspect of this burial is the fact that the top of the shaft of the early medieval cross (discussed above) was found lying directly on the back of the individual, a circumstance which could surely not have occurred by chance, especially given the largely undisturbed condition of the skeleton. The skeleton was not lifted (due to lack of resources to undertake the necessary analysis) and was instead carefully reburied, although one leg bone was retained for dating: the radiocarbon date suggests the individual probably died at some point in the tenth century, possibly a little earlier. Serious thought should be given to reopening the trench and excavating the grave in its entirety, as it could tell us much about the context of this curious burial within the context of Viking-period Weardale. No other intact burials were uncovered during the

excavations, but much disturbed human bone was encountered in various places. This represents at least six individuals: one perinate, neonate or infant, two young juveniles, two older juveniles, and at least one adult. One of these burials provided a radiocarbon date identical to that for the skeleton described above. St Botolph's still retains huge potential for furthering our understanding of early medieval Weardale.

The third burial site to be briefly considered here is the early tenth-century Viking cemetery at Cumwhitton, on the east bank of the Eden beneath the steep scarp slope of the North Pennines (Paterson *et al* 2014). Originally found by a metal detectorist in 2004, this was subsequently excavated by Oxford Archaeology North. It is the only currently known Viking cemetery (not counting isolated single burials) in the whole of northern England, and one of only ten in the whole of Britain. It contained the graves of six apparently quite wealthy individuals, two women and four men who may well have been related. All were richly furnished with grave goods such as swords, spearheads, knives, brooches, beads, buckles and a drinking horn. Some of these objects seem to have been made in Scandinavia while others were of local manufacture. Who these people were, and why they lived and died here, will never be known, but they clearly demonstrate that 'Vikings' were living here in the tenth century – presumably many others lived elsewhere in the Eden valley and potentially over into Teesdale, where similar sites may await discovery. In passing we should also mention the Viking warrior burial, with sword, knife and shield, from the churchyard at Great Ormside (3km south of Appleby). The exquisite eighth-century Ormside bowl, one of the finest pieces of Anglo-Saxon silverwork ever found in England, comes from the same church and may have been included with the Viking burial. It has been suggested that it could have been looted by the individual in the grave during a raid on York, though this is of course no more than speculation.

The early medieval period in the North Pennines remains very poorly understood, but there is certainly much potential to further our understating of it through detailed investigation of known sites and the careful search for others. Further work at Frosterley and Wydon Eals would be a good start.

7. MEDIEVAL

c1066 – 1550

There is much more material available for the medieval than for earlier periods, including, for the first time, genuinely useful (if often frustratingly vague) documentary sources that can be used alongside archaeological field evidence to inform us what was going on throughout the North Pennines. The wealth of material available means that this chapter cannot realistically hope to offer anything more than a very general overview; there is not scope to consider individual sites in any detail.

After a general introduction, this chapter provides overviews of selected areas incorporating summaries of some recent important work, before providing a brief summary of key themes. It is hoped that in due course it will be enhanced to provide a more comprehensive account of the North Pennines throughout medieval times.

Introduction

The medieval period as usually considered by archaeologists to run from the Norman Conquest of 1066 through to the Henry VIII's Dissolution of the Monasteries in the 1530s, although more significant end-point for the counties of northern England is perhaps the Union of English and Scottish Crowns and James I in 1603. Either way, the end of the period as defined by archaeologists was of debatable significance for people living in the North Pennines at the time. For the purposes of this exercise, we will use an arbitrary cut-of date of c1550, with developments after this time classed as 'post-medieval' and covered in the following chapter.

After the Norman Conquest of 1066, King William ordered the 'harrying of the north' aimed at wiping out all potential opposition to his rule throughout northern England. We don't know how this affected communities within the North Pennines, but any that showed as much as a whiff of dissent risked being wiped out, their villages razed to the ground and their farms destroyed. The newly conquered land was divided up amongst William's loyal followers, many of whom built castles to protect their newly acquired and often vast estates. The area's transport and communications network was still very much based on the Roman road network and some important Norman castles, of which Brough and Bowes are good examples, were built on the site of Roman forts. Other major medieval castles were constructed at numerous places around the fringes of the North Pennines: examples include Barnard Castle, Raby, Prudhoe, Penrith and Appleby. Many smaller but still impressive castles were also built in medieval times, such as those at Langley and Cotherstone. The North Pennines area was not as badly affected by the Anglo-Scottish conflict of the 13th-16th centuries as the northern regions of Northumberland and Cumbria, but there was still a more-or-less constant risk of violent raids which undoubtedly had a negative impact on the region, meaning that landowners were generally loath to invest in developing their estates – hence few stone buildings, other than castles and churches, were built, hardly any of which survive anywhere throughout the North Pennines. Perhaps the most significant military

event in the North Pennines was the Weardale Campaign of 1327 which appeared to be heading towards towards a major battle involving tens of thousands of soldiers in the vicinity of Stanhope (the newly crowned Edward III was present at the English camp), but major conflict was avoided following the retreat of the outnumbered Scottish army (Rogers 2000; Huff 2008; NPVM).

Most of today's towns and villages in and around the North Pennines were in place by medieval times. Little is known about most, though the potential to discover more through archaeological research is in some cases very high. Detailed analysis of any is beyond the scope of this overview, though it is worth briefly mentioning a few. In the south, either side of Stainmore, Bowes and Brough were strategically important medieval settlements, each with a castle on the site of a Roman fort. In Teesdale, Cotherstone has its castle, and Romaldkirk its ancient church; higher up the dale, agricultural settlements existed by the twelfth century at Holwick and Newbiggin, the occupants of which may also have been engaged in iron and lead mining. In Weardale, the property of the Bishops of Durham throughout medieval times, the ancient villages of Wolsingham, Frosterley and Stanhope have probably been occupied continuously since before the Conquest, while Westgate developed as the headquarters for Weardale Forest and subsequently for Stanhope Park. Edmundbyers, Muggleswick and Blanchland in the Upper Derwent valley were all occupied during medieval times. Allendale is recorded from as early as 1174, when the church is recorded as belonging to the Prior of Hexham; sadly this church, having probably been largely re-built at least twice in the meantime, was demolished in 1807 to make way for the new church of St Cuthbert. Nothing survives above ground of the old church or the medieval settlement, although the layout of the present town may echo something of its medieval origins.

At the heart of the North Pennines on Alston Moor, documents demonstrate that Alston and Garrigill were occupied by the twelfth century, though nothing of medieval date survives above ground at either. A little to the north, in the South Tyne valley, Kirkhaugh existed in some form in medieval times, though, again, nothing survives to be seen in today's landscape. Further north in South Tynedale, settlements existed in association with small castles at Featherstone, Blenkinsopp, Bellister and Langley, with the town of Haltwhistle, granted a market charter by King John in 1207, providing an urban focus on the main road between Carlisle and Newcastle. To the west, in the Eden Valley, many of the villages that skirt the Fellside (eg Castle Carrock, Cumrew, Newbiggin, Croglin, Renwick, Gamblesby, Melmerby, Kirkland, Milburn, Knock, Dufton, Murton, Hilton) were already in place during medieval times, with the towns of Appleby and Kirkby Stephen as focal points to the south-west. Some of these places are considered further in the regional summaries, below.

Most medieval villages consisted of rectangular houses clustered round a green or, more typically in the upper dales, set out along a road, each house having a long field known as a 'toft' behind it. Alongside the king and his barons, the other great power in medieval times was the church; many villages had their own parish church, to which a 'tithes' representing 10% of agricultural production was payable by all villagers. Beyond the village were communal 'ridge-and-furrow' fields and hay meadows, and beyond these, communal grazing land and woodland. The upland pastures in the hills (such as the Weardale vaccaries mentioned below) were originally occupied seasonally by herdsman who moved out from the villages in spring along with sheep and cattle, living in crude shelters known as 'shielings' through the summer before returning with their beasts the following autumn. The beasts would then be over-wintered in the fields, being fed largely on hay harvested

from the village hay meadows. Some such sites developed into permanently occupied farms, several of which still survive today.

The people of the medieval North Pennines were not engaged solely in agriculture. Although the heyday of the lead industry would not occur until post-medieval times, records demonstrate that significant lead and silver production was underway on Alston Moor and in Weardale by the twelfth century. Iron working was also significant in some places. Little archaeological evidence of the medieval lead industry has been noted in the field, presumably because later, larger-scale workings have obliterated any evidence that may otherwise have survived.

While the medieval settlements of the North Pennines each have their own story to tell, a key question is what was going on in the vast open spaces between them. The medieval use of the uplands of northern England has recently been considered by Angus Winchester, whose excellent account makes good use of documentary evidence and archaeological survey (Winchester 2000). He explains how the uplands were managed and exploited for a range of purposes including hunting, grazing, mining and quarrying; how boundaries were determined and maintained; and how rights of turbary (digging for peat and turf) and estovers (cutting of heather or ling for thatch, and bracken, timber and other vegetation, for a range of uses) ensured access to these vital resources for everyone. The efficient management of the uplands was dependent on a combination of law enforcement and self-regulation, all overseen by the manor courts.

Following the Conquest, much of the North Pennines landscape was initially managed as extensive hunting forests. The term ‘forest’ in this context does not imply trees, but that the land was subject to special forest laws. These forests include:

The King’s Forest of Geltsdale

Gilderdale

Allendale

Weardale

Harwood/Teesdale

Milburn

Lune

Brough under Stainmore

Stainmore

These areas were ‘the upland portions of great baronial estates anchored in the surrounding lowlands’ (Winchester 2000, p10). While their general areas are known, much interesting work, using a combination of documentary research and landscape survey, could be done to define their boundaries more closely. As time went by, some of the forests were increasingly exploited for mineral reserves and cattle ranches, and the landscape of forests gave way to one of large parks within which herds of deer were managed but could still be hunted. Many parks are known from within the North Pennines, including Muggleswick and Stanhope, at both of which significant fieldwork (discussed below) took place during the Altogether Archaeology project.

There is not space here to consider all these old forests in any detail, though some are mentioned within the regional summaries below. By way of example, a few brief notes on two, at opposite

corners of the North Pennines, will be presented here: the King's Forest of Geltsdale in the north-west, and Stainmore in the south.

A survey of Geltsdale was proposed within the Altogether Archaeology project, but for various reasons not completed. The following notes are based on a project design for that work that could be resurrected at any time (Oxford Archaeology North 2014). The Forest of Geltsdale was first recorded in the Lancerost Priory's Cartulary in 1210 AD as '*forresta mea Geltesdale*', a hunting forest perhaps with some land set-aside for rearing and managing deer, pigs and cattle. The Cartulary of Lanercost documents charters, deeds, land and financial administration for the twelfth to fourteenth centuries, and some documents mention the River Gelt and Geltsdale referring to grazing in the lord's 'wastelands', the payment of pannage for pigs, and the rights of the Canons of Lanercost to the tithes of Geltsdale (Todd 1997). The adjacent manor of Castle Carrock was a medieval village with an apparently moated manor house (North Pennines Archaeology 2009; Oxford Archaeology North 2004). After 1485 the land was held by the Prior of Hexham, and at the dissolution it was granted to the Barons of Gilsland (Hutchinson 1794b). Hutchinson observes that the land was considered 'extra-parochial', meaning it lay outside the remit of any manorial or parish administration; it does not seem to have been part of the parish of Castle Carrock during the medieval period or early post-medieval period. Indeed, a document of 1688 lists the manors within the barony of Gilsland as separate from the 'forests of Geltsdale and Brerethwaite', and in the Inquisitions of Elizabeth I Geltsdale is mentioned as having a 'forest wall' (Hutchinson 1794b, 149).

During the seventeenth and eighteenth centuries the Howards of Naworth Castle (the family of the Earl of Carlisle) held these lands. Geltsdale was not marked on the seventeenth century county maps, and, although the River Gelt was noted, the maps showed nothing but a great void in the area of Geltsdale. Forests and parks, where present, were routinely marked in such maps and depicted with palisade or trees, sometimes being coloured in green, but Geltsdale was not noted at all until Donald's Map of Cumberland of 1774, which annotated the *King's Forest of Geltsdale* and then also on Carey's map of 1787. Donald marked Geltsdale House on his map but it is interesting to note that Hutchinson (1794b, 184) reported that there was no dwelling house in the forest of Geltsdale; the farmer who managed the land lived on an adjoining farm in the parish of Castle Carrock and paid his taxes from there. Whatever its detailed history, and in spite of much industrial activity during post-medieval times, Geltsdale today still has the feel of a vast empty hunting forest, and (in complete contrast to Bishop of Durham's great Forest of Weardale, which saw much medieval and post-medieval settlement, as discussed below) much of it has probably not changed greatly in appearance since medieval times.

Another great hunting forest that remains essentially empty to the present day is that of Stainmore, extending south of the A66 at the south-east corner of the North Pennines. Stainmore, although since Roman times the main east-west route across the North Pennines, seems to have attracted virtually no medieval settlement along its route, due in part, perhaps, to the use of the road by Scottish invaders and raiders on several occasions. The only settlement of note seems to have been a hospital at Old Spital (1km east of the Rey Cross Roman camp), established by the nuns of Marrick in about 1171 and presumably located here to provide service for travellers on the road (Vyner *et al* 2001, p130). To the east, Bowes (a particularly fascinating village that is crying out for detailed archaeological investigation) was a strategic settlement in Roman times as it was after the Norman Conquest and presumably, although we have no evidence, during intervening centuries. Nothing is known of the origins of its Norman castle, but in 1171 ownership was

assumed by Henry II who strengthened it, including building the new keep of which forms today's dramatic ruins. Despite its strategic importance, it seems to have been abandoned by the mid-fourteenth century, and was never reoccupied; most of its masonry would eventually be recycled within the adjacent village. The castle and manor of Bowes belonged to the Lordship of Richmond until 1441, as did the vast hunting forest of Stainmore which extended southwards from the River Greta into Arkengarthdale, and most of which remains as empty today as it must have been in medieval times, when any kind of development that might have infringed forest law was strictly prohibited. A single vaccary, at Sleightholme, established in the late fourteenth century, and possibly also some small-scale coal mining at Tan Hill, seem to be the only medieval developments within this part of the hunting forest.

So, when considering medieval times in the North Pennines, we must realise that, at least to start with, a large proportion of the uplands were owned by wealthy landowners based around the fringes of the region, and managed largely for recreation as great hunting forests. Access to them by local people was permitted for certain reasons, but the forest laws were rigidly enforced. As time went by, each forest area underwent its own unique process of development; some, like Stainmore and Geltsdale, remained essentially empty – others, like Weardale, as we will see below, were intensively exploited for both agriculture and industry.

Alston Moor

The medieval history of Alston Moor is outlined by local historian Alastair Robertson, on whose account the following summary is largely based (Robertson 2010). Following his march north to Carlisle in 1092, William Rufus (William II) assumed firm control of Cumberland for the kingdom of England. A royal mint was newly established in Carlisle, to which silver was supplied from Alston Moor (referred to in a document dated 1130 as 'the silver mine of Carlisle'). It is recorded that coins of William Rufus were found during the mid-nineteenth century in an old drift that was being re-worked near Garrigill, suggesting that mining was underway here in the late eleventh century, but unfortunately these coins are now lost and the story cannot be substantiated.

Little is known of the origins of Alston and other medieval settlements in the area, but we know that a church was standing in Alston by 1154, and there was a chapel at Garrigill by 1215 – both may have considerably earlier origins. Three ornate medieval grave slabs of probable twelfth- or thirteenth-century date survive at Alston church; Alastair Robertson speculates that one of these could have marked the grave of Galfrid, the earliest known priest at Alston who was personally appointed by Henry II in 1154. The church remained royal property through until 1378, when it was appropriated by Hexham Priory.

In the mid-twelfth century, William de Vetricont was installed as Lord of the Manor of Alston Moor. Somewhat confusingly, he held Alston Moor on behalf of the Scottish Crown, from the English Crown, as part of the Liberty of Tynedale. As Robertson explains, most residents of Alston Moor were tenants of the Scottish Crown, but all mineral rights were retained by the English kings, who granted the miners special rights and privileges in exchange for an annual fee of ten marks. Through until well into the fifteenth century, the miners lived in separate self-regulating communities, only becoming integrated into the wider agricultural community after the Stapletons, who already held the mining franchise, also became lords of the manor in 1426. Very little is known

of the medieval mining operations on Alston Moor, though hints of possible smelting sites exist in place names referring to ‘bayles’ (bayles or boles were early smelting furnaces), such as Middle Bayles, High Bayles and Bayle Hill, all within a couple of kilometres of Alston.

In 1209, Ivo de Veteripont, son of William and the second Lord of Alston Moor, gave much land in and around Alston to Hexham Priory. This included 2,000 acres of upland pasture at Tynehead (about a third of the entire manor); land that subsequently came to be known, for obvious reasons, as Priorsdale. The priors of Hexham were thus closely involved in the medieval story of Alston Moor, right through to the priory’s dissolution in 1537.

Twelfth-century documents record that lead from the ‘lead mine of Carlisle’ was being used at Windsor Castle in 1167, and a decade later, in 1177, a hundred cartloads of lead were sent to the new Cistercian abbey at Clairveaux in Normandy. Sometimes also referred to as the ‘silver mine of Carlisle’, the mines of Alston Moor were clearly producing good quantities of both lead and silver, just as they probably had back in Roman times. In 1176, during the reign of Henry II, the mines were rented for the astronomical sum of 500 marks (about £333) per annum. However, the boom time was apparently short lived, as the rent was down to only 10 marks (about £6.50) per annum by 1211. Mining did not cease (in the 1230s Henry III offered special protection and privileges to the miners, in exchange for a fee), but it was not as profitable as it had been. In 1255, Henry III sent some miners north to Wark to work for the Scottish king, as they were redundant on Alston Moor.

Robertson links what is known of the medieval history of Alston Moor to the fate of the de Veteriponts and various English and Scottish kings through the thirteenth and fourteenth centuries. Interestingly, he speculates that boundary crosses, of which Killhope Cross is the best known of five known survivors, may have been erected around the perimeter of the manor in 1279, when Alston Moor was returned by Edward I to the Scottish King Alexander III (having reclaimed it for himself the previous year following a series of complaints about the management of mining operations by the de Veteriponts).

The de Veteriponts were based at Randalholme, north of Alston, now arguably the single most important domestic building in the whole of the North Pennines. The current buildings are of many phases and incorporate a tower-house dating back at least as far as the 16th century – a very rare survival within the context of the North Pennines.

Robertson notes that life on Alston Moor in the fourteenth century must have been dominated by the constant threat of raiding from the Scots, and several such raids are recorded. Largely as a result of such problems, and the downturn in mining revenues, the Manor of Alston Moor was recorded in the will of Robert de Veteripont, who died in 1371, as ‘of no profit above its expenses’.

An interesting observation made by Robertson is that there may have been several German miners operating on Alston Moor in the fourteenth century. The Germans were renowned for their mining skills during medieval times. Robertson speculates that Blagill was a medieval mining site, its name deriving from ‘blei’, German for lead.

Two important later fifteenth-century documents that hold many clues relating to medieval life on Alston Moor are the Paine Roll and the Drift Roll. Although both date from late in the medieval period, they must enshrine laws and practices extending well back into medieval times. The oldest

known version of the Paine Roll dates from the reign of Henry VII (Welford 1912; Winchester 2000). It was the code of civil law for the manor, and lists fifty penalties for breaking these laws. It was enforced at the Manor Court held at Low Byer (the name of which probably relates to ‘bye-laws’). The laws relate to Border defence (all able men had to practice archery), game and fishing, and farming. With regard to the latter, it is specifically stated that ‘everie man make his hedges of his head dyke sufficient and able’, without any gaps, by spring time each year, so that when stock was taken up onto the upland unenclosed grazing grounds, it could not wander back into the enclosed fields below. Big fines were payable by anyone who failed to maintain their portion of head dyke. The Drift Roll relates specifically to the rights of tenants to drive stock along prescribed routes, often at prescribed times, to and from grazing grounds. This gives an insight into agricultural arrangements in the pre-enclosure era. It will be interesting in the light of the results of the Miner-Farmer project (discussed below) to relate these routes to maps and see whether any patterns of potentially related earthworks or trackways can be discerned.

The field archaeology of Alston Moor was surveyed in detail by English Heritage as part of the Miner-Farmer project; a summary of the medieval landscape is contained within the project’s ‘Aerial investigations and mapping report’ (Oakey *et al* 2012). Perhaps surprisingly, very little evidence of medieval mining or other industrial activity was recorded. This could be because such evidence has been destroyed in many places by later activity, or it may be that remains classified by the project as post-medieval could have earlier origins. Either way, we know from documentary sources that lead and silver mining was underway by the twelfth century, and there were complaints in the fifteenth century that the woods of Alston Moor had been cleared by miners (Raistrick & Jennings 1965, p99).

The Miner-Farmer survey has recorded lots of fascinating evidence relating to medieval agriculture, much of which ties in well with the documentary sources. Although agriculture here is now almost entirely pastoral, and probably has been since the seventeenth century, there was clearly much arable farming in medieval times. Ridge-and-furrow field systems, representing medieval agriculture of probable twelfth- to fourteenth-century date, are located on lower valley sides, below 385m OD, notably along the valleys of the South Tyne and Ayle Burn, and in Gilderdale. A particularly good system survives immediately below the Roman fort at Whitley Castle, in apparent association with earthworks that could represent a medieval settlement at Holymire (Went & Ainsworth 2009; Archaeological Practice 2018). The furrows within these field systems considerably improved drainage, enabling crops to be grown on soils that were seasonally waterlogged, while the ridges slightly increased the soil temperature during the growing season which can make a real difference to growth rates at these high altitudes. Lynchets, parallel ridges resulting from soil movement due to ploughing on slopes, are also present on many valley sides, in some places overlain by ridge-and-furrow. In some cases, these exist close to late prehistoric settlements, such as Gossipgate (discussed in Chapter 3) with which they may well be contemporary, although some could have been reworked in medieval times. Elsewhere, for example at Dodbury, broad, regularly spaced field banks, probably once topped with hedges, have been recorded running downslope and creating a regular pattern of rectangular fields. These are thought to be probably medieval, but in some cases could have earlier origins. Elsewhere, on flattish ground, ditched (rather than banked) field systems have been recorded, which could be medieval. Examples can be seen east of High Galligill, and west of Alston in the vicinity of the deer park described below. In these cases, the ditches have clearly been designed to function as drains as well as dividing up the fields.

Head dykes, built to separate the arable land and improved pasture from the unimproved moorland above, have been recorded in several places. They are especially well preserved in the South Tyne Valley, up and downstream of Garrigill, and around Mohope Moor, north-east of Alston; in both these cases they have been traced for several kilometres, in some places being overlain by post-medieval field boundaries. These head dykes relate to the Paine Roll discussed above, and are a physical reminder of the rigid agricultural calendar, enshrined in law, observed by medieval communities on Alston Moor. A few enclosures and a couple of apparent buildings of probable medieval date do exist above the head dykes, although their dating is not secure; they probably relate to stock management.

The Paine Roll instructs farmers to go with their stock to the shieling grounds for the summer months, where cattle and sheep would graze on the open fell. A good example of a shieling settlement, consisting of a cluster of about twenty rectangular buildings known as the Whitley Shielings, survives on the north bank of the Gilderdale Burn (Fairbairn & Robertson 2007a, 2007b). Although the site remains undated, such transhumance systems are thought to have died out during the sixteenth century as improvements to enclosed pastures closer to farms and villages enabled stock to be retained closer to home throughout the year.

The Miner-Farmer project has recorded in detail the moated site at Hallhill, or at least what remains of it; it lies on the west bank of the South Tyne and half of it has been lost to the river. This has been referred to as 'Alston Castle', but its original date and purpose are unknown. It could be a moated hunting lodge linked to the adjacent deer park, the pale of which has been mapped from lidar. The park is presumably 'Walnewood' (Wanwood), for which Robert de Veteripont was granted an emparking licence in 1337. The pale, consisting of a large bank with internal ditch (to prevent the deer from escaping), encloses an area of some 56 hectares including many springs that would have provided ample water for the deer. Further evidence for the ancient presence of a park here is provided by the names of farms in the area on nineteenth-century OS maps: Low Park, Park, Mid Park, Nether Park, High Midpark, and High Park.

Substantial ditched and banked enclosures were recorded during the Miner-Farmer project adjacent to four farms in the north of the project area, for example at Mill House near Kirkhaugh. Although they vary in form, and no features are recorded within them, these are all interpreted as medieval enclosures that may have contained farmsteads, precursors of the post-medieval farms that occupy the same sites today. If they are the sites of medieval farms, they will help to fill what is currently a large gap in the settlement record of Alston Moor; fieldwork is necessary to assess their chronology and function.

The archaeological landscape of Alston Moor has been recorded in very great detail by the Miner-Farmer project. The area was clearly of importance during Roman times, as dramatically illustrated by the presence of the great fort at Epiacum which can only have been built here to oversee lead and silver mining. Although there are no such dramatic archaeological remains from the medieval period, the area was clearly still of great importance as a mining centre. There are hints that the Epiacum area may have retained some importance, despite the growth of nearby Alston; a very fine thirteenth-century bronze skillet was found here in the early twentieth century, hinting at high status settlement within what became the manor of Whitlaw. Throughout Alston Moor, numerous features of medieval date have been recorded, many of which tie in nicely with information gleaned from the available documentary sources to inform the above overview. There is now much

potential for the detailed investigation of some of these features through high-resolution survey, and possibly small-scale excavation, to give us a better understanding of this fascinating area, at the heart of the North Pennines, throughout medieval times.

Allen Valleys and Hexhamshire

Altogether Archaeology members, under the expert guidance of Professor Stewart Ainsworth, completed a lidar survey of about 250 square kilometres of Hexhamshire and the Allen Valleys, finding over 1,000 'new' (ie previously unrecorded) archaeological sites while also providing new information about others (Ainsworth 2016). Most of the new sites are post-medieval, but the project has also made a very useful contribution to our understanding of the area in medieval times. Before outlining the results of this work a brief introduction to the medieval history of the area will be presented.

The term 'Hexhamshire' has meant different things at different times. As speculated in chapter 5, it may have originated as a district of the pre-Conquest Kingdom of Northumbria, centred on Hexham, but granted to the Bishop of Durham following the Conquest. Early in the twelfth century, Henry I, concerned by the great power of the Durham Prince Bishops, relieved them of parts of their realm, including Hexhamshire, which was granted to the Archbishop of York, and administered independently of Northumberland until 1572. Today, the label 'Hexhamshire' refers specifically to a civil parish comprising Hexhamshire High, Middle, West and Low Quarters.

An overview of medieval Hexhamshire is contained within *The Black Book of Hexham. A Northern Monastic Estate in 1379* (Britnell *et al* 2011). The Black Book of Hexham contains a detailed survey of the priory's estates in 1379, and is a key source for the social, agrarian and landscape history of northern England in medieval times. In 1379 the priory owned property scattered throughout more than a hundred different townships across the northern counties. By the time of its dissolution, in 1536, about 30% of its income was generated from within Hexhamshire. The following passage, from the introduction of the 2011 book, is worth quoting in full:

Hexham Abbey, founded in 1113, was a house of Augustinian canons. It was of middling wealth, with an income (net of pensions and chaplains' salaries paid by the priory) of about £251 18s. 2d. a year at the time of its dissolution in 1536. Its local base was the town of Hexham, its largest block of properties being in the town itself and nearby at Bingfield, Anick, Sandhoe, Dotland, and other smaller places in the Liberty of Hexham. The Liberty, otherwise called Hexhamshire, stretched from Bingfield and Cocklaw north of the Roman wall southwards to Whitley and Allendale, with the Liberty of Tynedale bordering it to the west and Devil's Water to the east. The word 'shire' in this context was a particular type of lordly estate sometimes known as a multiple estate because it had a central point -- in this case Hexham -- and numerous appendages all under the jurisdiction of a single lord. Originally some of these appendages would have been townships, others would have been grain farms, or special units for sheep or cows. The lord of Hexhamshire was not the priory, however, but the archbishop of York, and the priory was obliged to the archbishops for their endowment here. The archbishop had jurisdiction over the Liberty, with the right to exclude the king's officers, but allowed the priory a subordinate role. The Black Book reports that within Hexhamshire the prior and convent had

soke and sake and other liberties, namely enforcement of the assize of bread and ale, and their servants bearing the rod to make distrains, summons and attachments, and correction of all trespasses of all their tenants in the prior's court'. This represents in fact a fairly ordinary level of lordly jurisdiction.

Allendale lay towards the western boundary of Hexhamshire, and the church here is recorded as early as 1174 though it may have existed much earlier (Frodsham 2009a; Williams 2007). A few documents refer to Allendale, but little can be said for sure about its medieval history. The Northumberland Lay Subsidy Roll of 1296 (Fraser 1968) names 16 residents of Allendale, on the basis of which the population has been estimated at about 300, but this could include outlying settlements as well as the town.

Angus Winchester's map of the forests and chases of the North Pennines and Border Hills shows the Forest of Allendale occupying all the high ground in the south of Hexhamshire, bordering Alston Moor to the south-west and the Bishop of Durham's great Forest of Weardale to the south (Winchester 2011, 12). Although he notes that the northern boundary of Allendale Forest is not known for sure, it presumably must have lain somewhere to the south of Allendale town.

Winchester notes some interesting figures relating to agistment in Allendale Forest in the year 1422 (*ibid* 94). Agistment involved the seasonal movement of stock into the uplands for the summer months, but did not involve the corresponding movement of people, as occurred in other cases where the people lived for the summer in upland shieling settlements. Rather, agistment involved the driving of stock to summer pastures where they were left, perhaps under the care of local herdsmen, and a fee was paid to the landowner for each animal involved. A key difference between the use of shieling settlements and agistment is that the former was appropriate for animals that required milking, because people were on hand to do it, whereas agistment was more suitable for beasts such as horses, geld cattle, and flocks of wethers or hogs. The records of 'agistment in the forest' relate to both West and East Allendale, and demonstrate that the forest was being used to generate income, not simply set aside for hunting, by the early fifteenth century.

Many features of medieval and probable medieval date have been recorded by Altogether Archaeology members during the recent Lidar Landscapes survey of the previously very poorly recorded Allen Valleys and Hexhamshire (Ainsworth 2016). A dozen settlement sites of probable medieval date were recorded, including four apparent deserted medieval villages previously known only from documentary sources: Kingswood, Parmontley, Keenley and Whitfield. Elsewhere, remains of settlements that could be medieval or post-medieval, or a combination of the two, have been recorded; these should all be evaluated on the ground. For example, at Hay Rake (a couple of kms south of Allendale Town) where a bastle house was built in post-medieval times, complex earthworks suggest a medieval precursor may have existed here. The same may be true of other places where bastles were built, some of which survive within still-functioning farmsteads. Several medieval field systems were recorded from lidar, including a well-preserved landscape of broad, curved ridge-and-furrow west of Catton in East Allendale, and a system of cultivation terraces at Cupola Banks at the confluence of the East and West Allens. In several places, linear earthworks consisting of banks and ditches were interpreted as probable head dykes, though these had all been truncated by more recent ploughing. Head dykes separated the in-bye land (for arable cultivation and good quality grazing) from the open fells and moorland (used for summer grazing), and prevented the uncontrolled movement of stock between the two. It is possible that some of the agricultural terraces, and the sections of head dyke, could be older than medieval; closer

observation in the field will be necessary to resolve their chronology for sure. Other features of probable medieval date recorded from lidar include trackways, earthwork enclosures of unknown purpose, and two probable park pales (stockproof boundaries surrounding deer parks) at High Broadwood Hall (just west of Allendale Town) and Dotland (south of Hexham). Earthworks were also recorded at Low Mill Haughs, about a kilometre south of Langley Castle, which could be the site of a lost chapel; the area is recorded as Chapel Plains on old OS maps and parish records of 1680 refer to burials at 'the old church'. A further fifteen settlement sites, nineteen field systems, nine trackways and three industrial (probably all lead mining) sites were recorded as either medieval or post-medieval, it being impossible to be sure of their chronology from the lidar alone. All of these sites demand investigation in the field.

The results of the lidar survey can now be combined with other archaeological and documentary evidence to attempt a comprehensive overview of Hexhamshire and the Allen Valleys in medieval times, enabling comparison with other parts of the North Pennines such as Weardale to the south and Alston Moor to the west. This should then be used to inform a programme of detailed site survey and possibly small-scale excavation to further enhance our understanding of this previously poorly recorded area.

Weardale

A very useful overview of medieval Weardale, on which the following account is closely based, is provided by Peter Bowes in his book, *'Weardale – Clearing the Forest'* (Bowes 1990).

Whatever arrangements were in place prior to the Conquest, by 1100 Weardale was wholly under the control of the Bishop of Durham, forming part of the vast estate known as Aucklandshire, managed from Bishop Auckland. All residents of the dale, mostly based in the villages of Stanhope and Wolsingham (but also possibly Frosterley) were now feudal tenants of the Prince Bishops. Rents, along with large quantities of agricultural produce, were paid annually to the Bishop. Whether or not lead and silver mining provided any revenue to the Bishops at this early time is not known, but it may well have done. Of arguably even more significance to the Bishops during the twelfth century and beyond was the vast, unsettled hunting forest, extending over some sixty square miles above Stanhope (Drury 1976, 1978a). Every autumn, people from villages up to 40 miles away travelled to Weardale to help with the Bishop's great roe hunt, a great social occasion as well a practical exercise to secure large quantities of venison for the winter. The Bishop stayed during the hunt at a grand hunting lodge at Westgate which included a sixty-foot long timber hall, together with chamber, chapel, kitchen, larder and dog kennels. During the year, local farmers were entrusted with management of the forest and the deer therein. Several small hunting lodges probably stood within the forest; an earthwork at Cambokeels, visible from the A689 between Eastgate and Westgate, may originally have been one of these although excavations in the 1940s recovered coins and other artefacts of fifteenth-century date, suggesting an alternative purpose (Hildyard & Charlton 1947; Hildyard 1949).

Bowes provides what he freely admits, in the absence of clear archaeological evidence, are speculative accounts of how Stanhope and Wolsingham, with their churches, manor houses and peasant dwellings, village greens, and surrounding field systems, may have developed during early

Norman times. The earliest known documentary reference to Wolsingham dates from 1135, when the Bishop granted land here to the monks of Newminster Abbey. Frosterley presumably also existed at this time, given that we now know it was there in some form in early medieval times.

The Boldon Book, dated 1183, is a great survey of the Bishop of Durham's estates, comparable to the Domesday Book which did not cover this area (Austin 1982). It tells us that Wolsingham had at least 42 houses and a population of about 210, while Stanhope had at least 47 houses and 230 people. A flavour of life in Wolsingham is given by the descriptions of some of the men listed in the Boldon Book, such as Ralf the beekeeper, Henry the shepherd, Adam the clerk, and William the priest. All paid rent to the Bishop, and also provided agricultural and other services to the Bishop's estate. Bowes speculates on the basis of the names recorded in the Boldon Book that while Wolsingham appears to have been largely Norman in character, with its new church, Stanhope, still retaining its old Anglo-Saxon church, may have been of more traditional character, with many people still proud of their roots back in earlier times. The evidence for this comes in the form of names such as Meldred and Aldred the smiths, Ethelred, Osbert, Arkill, Colin and Goda – all good Anglo-Saxon names, the like of which are not recorded in Wolsingham.

The Boldon Book refers to Ralph Sly of Frosterley, whose name has been translated as 'Ralph the Crafty'. The latter has been taken to imply 'craftsman', on the assumption that he may have been involved in the working of Frosterley Marble; however, if 'sly' is the correct meaning of the name, then such a link is clearly erroneous. Within Stanhope parish (which included Frosterley) the Boldon Book also records Lambert the Marble Mason, who held 30 acres of land free of rent as long as he remained in the Bishop's service. Presumably this 'service' related to the working of Frosterley Marble, although the chronology of the Frosterley Marble quarries, or indeed the methods by which the stone was quarried and transported to Durham, are not well understood. At some point during medieval times, in advance of the construction of the Cathedral's magnificent Chapel of the Nine Altars in the later thirteenth century, Frosterley marble was being quarried and used at several ecclesiastical establishments, including for the font at Frosterley's very own little Chapel of St Botolph, fragments of which were found during the recent Altogether Archaeology excavations. It would continue to be used at a range of churches and other buildings throughout County Durham and further afield (St Thomas' Cathedral in Mumbai, India, being probably the most distant) through into the twentieth century. The study of the uses of Frosterley marble from medieval through to recent times is a fascinating subject in its own right.

In addition to the villages at Stanhope, Wolsingham, and presumably Frosterley, large farms were established by the time of the Boldon Book in the surrounding area of the lower dale at Bradley, Broadwood, Greenwell, Harperley, Peakfield and Rogerley, and others at Bishopley, Thornley and Stanhope Hall would soon follow. The 'ley' place-names imply clearings from the forest, suggesting that these were indeed 'new' estates, carved out from previously uninhabited moorland. The Prince Bishops were looking to maximise income from their land in Weardale, in addition to enjoying their great hunt each autumn.

In association with these new farms, large areas of moorland were taken in from the fell, on both sides of the river, and surrounded with newly-built head dykes. The grass within these new enclosures was artificially improved through drainage and liming, raising the productive capacity of the land in comparison to the open fell above, which nevertheless was still used seasonally for extensive grazing.

Big changes occurred in the Weardale landscape in the mid-thirteenth century. Following a change in the law that enabled the 'disafforestation' of hunting forests, the great forest of Weardale was divided up into a walled deer park, extending between Eastgate and its headquarters at Westgate, and several new cattle ranches or 'vaccaries' were established on the disafforested land. Hunts, based at Westgate, still took place each autumn, but not on the same scale as previously. As Peter Bowes eloquently notes, the deer park 'satisfied Norman nostalgia and prolonged, in a diminished form, the pleasures of the chase a little longer.' The 'prey' was now semi-domesticated herds of fallow deer within the park, rather than wild roe deer that had previously roamed freely through the forest. The park wall, essential to keep the deer in and cattle and other animals out, extends for some 13 miles. At the same time as the park was set out, Westgate Castle was rebuilt as a very grand headquarters not only for the park but also for the Bishop's mining operations in the dale (discussed below).

In May and June 2011, Altogether Archaeology volunteers, under the guidance of Archaeological Services University of Durham, undertook an evaluation of the site of Westgate Castle (ASDU 2012a). From the mid thirteenth century (and possibly earlier) through until the early seventeenth, Westgate Castle was one of the most important buildings in the North Pennines (Eggleston 1899; Drury 1978b; Cambridge *et al* 1983; Manchester 2001; NAA 2005; Frodsham 2010b). It provided the 'west gate' of the Bishop of Durham's great deer park of Stanhope, and functioned as the administrative headquarters for the Bishop's extensive estate encompassing the old Forest of Weardale. By the mid 17th century it lay in ruins and its masonry was robbed and reused in various adjacent buildings. Using the results of a detailed site survey, including geophysics, three trenches were opened to search for remains of the castle. Although no sign of it could be seen on the surface, substantial in-situ remains were found in two of the trenches, including several courses of a spiral staircase built into one corner. It is quite likely that the architect(s) and craftsmen who built Westgate Castle had worked previously on the Cathedral, such is the exceptionally high quality of the castle's architecture. The main walls are seven feet thick, bound together with mortar containing lots of fluorspar, evidence of medieval lead and silver mining in the vicinity. Finds included thirteenth-century pottery that ties in well with the castle's presumed construction date of about 1250. On completion of the excavation, the remains were reburied to save them for the future, as to consolidate them for public display was unfortunately impractical for various reasons, and in any case would have been extremely expensive.

Although by far the largest, this was not the only new deer park constructed at this time in Weardale. Wolsingham also had one, some five square miles in extent, on the Waskerley Beck, and a smaller one at Helme Park. There may be others in the lower dale; if so then they could potentially be located through lidar landscape surveys.

The land above the new deer park was named 'The High Forest', and about thirty new vaccaries were set up here from the mid-thirteenth century. This was a huge undertaking and must have been carefully planned and managed by the Bishop's advisors. Most of these new ventures, each of which has its own story to tell, survive as farms or villages today; examples are Burtreeford, Wearhead, Burnhope, West Black Dene, Middle Black Dene, Daddry Shield and Weeds. They were probably occupied originally on a seasonal basis, but before long hay meadows were established and stock was managed at them all year round. Despite subsequent activity over the intervening centuries, careful landscape survey (including the use of lidar where available) may well enable the

recreation, at least in part, of the form of some of these pioneer medieval farmsteads; medieval documentary records relating to agricultural production at some of them still survive and can be used in conjunction with archaeological survey. Above the new farmsteads, common land was exploited for summer grazing, wood, heather (eg for thatching), stone, peat (for fuel), and game. What could, and could not, take place on this land, just like everything else in the dale, was strictly controlled by the Prince Bishops.

The park remained in operation through until the very early fifteenth century, when, as part of Bishop Langley's major reforms in the dale (discussed further below), it was largely divided up between ten new cattle farms, and part of it was set aside for lead smelting. A small area at its heart, the so-called 'New Park' was retained for deer; subsequently reduced in size, this officially remained exclusively for deer through until 1661, though in practice it was used for other things as the deer became economically insignificant. A similar fate befell Wolsingham Park, which was divided up amongst four new farms by 1381 and which was also used for lead smelting.

It was noted above that large quantities of fluorspar were found mixed with the mortar used to build Westgate Castle. This fluorspar is a waste product of lead mining and demonstrates that mining on a considerable scale (presumably in the immediate vicinity as there would be little point in transporting the fluorspar any great distance) must have been underway in advance of the construction of the castle in the mid-thirteenth century. However, information about exactly where this mining was taking place, and the ways in which it was organised, remains elusive. It is quite likely that medieval (and possibly earlier) mining was taking place at Slitt Wood, and that evidence of it has been masked, if not destroyed, by later working.

In 1154, King Stephen granted all mineral rights within Weardale to his nephew, who happened to be Hugh, Bishop of Durham. Lead and silver mining thus provided a source of income to the medieval bishops, in addition to that from agriculture. Unfortunately for us, records of mining in Weardale during medieval times are sparse, being virtually non-existent for the twelfth and thirteenth centuries. In 1379, although we know nothing of the circumstances of the deal, Bishop Hatfield leased his Weardale mines to one Alice Birtley for fifty years. Alice paid the rent in the form of one-eighth of all lead produced. For whatever reason, this deal was replaced in 1391 by a new lease, to Robert de Watir, on different terms. In 1401, a successful Tyneside merchant, Roger Thornton, took out a twelve-year lease on four mines (including West and East Black Dene), as a condition of which he had to pay one-ninth of all ore (the 'lott ore') to the Bishop of Durham and one-tenth (the 'tithe ore') to the Rector of Stanhope. This condition remained in place, although later converted to cash payments rather than the actual ore, right through into the nineteenth century.

A big change occurred in 1406, when Bishop Langley completely overhauled his management of the dale, including making the decision to retain all the lead for himself, including the one-tenth previously destined for the Stanhope Rector, which instead was paid for in cash. Better records are available from this time, which give an insight into how the industry was organised. Surprisingly few miners seem to have been working in the dale; only fifteen were recorded in 1426, the same number in 1527. The men worked in partnerships of two or three. Interestingly, these medieval records make reference to men with surnames still common in the dale today, for example Bainbridge, Emerson, Featherstone, Nattress, Peart and Stobbs. Records demonstrate that the total annual production of ore in 1426 was 90 tonnes; this figure varied from year to year, ranging up to

131 tonnes. The miners were paid on an annual basis, retrospectively, according to the difficulty of extracting the ore from wherever they were working; up to 5 shillings per ‘load’ (a load was about 380kg, or the weight of five men) in the most difficult circumstances, but usually much less. They were only paid for what they produced; the Bishops faced no financial risk whatsoever. Some of the early mines mentioned in the records were at West and East Sedling, West and East Blackdenlough, Ireshopeburn and Daddry Shield. Much of the early mining was probably done by the Bishop’s agricultural tenants, who could work part-time in the mines as well as tending their farms.

Most of the ore produced during the fifteenth and sixteenth centuries was transported down the dale by horse and cart for smelting at Wolsingham Park; records show that the carrier was paid about one old penny per mile per cartload. Some smelting also took place in the old park at Stanhope during the fifteenth century. Smelting was a skilled task, at this time done mostly in simple furnaces known as ‘bole hills’ or ‘baal hills’. From the early fifteenth century there were also some stone hearths with bellows powered by water-wheels. The smelting was presumably undertaken in the parks (now little, if at all, used for deer) as these were the only places where sufficient quantities of timber survived to make the charcoal needed to fuel the furnaces. Records show that in 1426 about 36 tonnes of lead was smelted in Weardale; by 1524 this has almost doubled to nearly 70 tonnes (which required about 175 tonnes of ore). The main market for all this lead was London, mostly via the Tyne, although much was also used more locally. Peter Bowes estimates that the Bishops made a profit of about £1 per tonne.

Despite all the above discussion of the medieval lead industry in Weardale, we currently have very little archaeological evidence on which to base detailed discussion of what took place where, never mind when, in the medieval dale. This is something that will hopefully change as more detailed archaeological surveys are completed.

Holwick, Upper Teesdale.

There are some similarities between medieval Weardale, discussed above, and medieval Teesdale, but also many differences. There is not scope here to present an overview of Upper Teesdale throughout medieval times; instead the focus will be on an extraordinary medieval landscape, very different from anything in Weardale, which was surveyed in detail as part of the Altogether Archaeology project. This is the landscape around Holwick, 5km upstream of Middleton-in-Teesdale. Full details of the survey are contained within a comprehensive report (Oxford Archaeology North 2011) available on the Altogether Archaeology website.

In the winter of 1069-70 (a year or two shy of the thousandth anniversary of the Roman invasion of the area) William the Conqueror, having already devastated Yorkshire in his campaign to stamp out any hint of rebellion ‘up north’, crossed the Tees to do likewise in Durham and parts of Northumberland. In response, Malcolm Canmore, King of Scotland, then invaded Durham and Yorkshire, probably arriving via either Stainmore or Teesdale, before being defeated at the battle of ‘Hundredskelde’, the location of which is unknown but a case has been made for it being Hunderthwaite, near Cotherstone. We don’t know what effect all this had on the residents of Holwick, but it could hardly have been positive.

In 1069, William appointed Count Alan of Brittany as Baron of Richmond. The Barony of Richmond, with its vast territory extending southwards from the Tees to the Swale, and thus including Upper Teesdale south of the river, was one of the most important fiefdoms in the whole of medieval England. It was originally managed from Gilling, but Count Alan built Richmond Castle as his new headquarters. In 1093, Guy Baliol was given the vast hunting forest of Teesdale and Marwood (the importance of such forests was discussed above in relation to Weardale); it was his son who some twenty years later began the construction of 'Bernard's Castle', from which Upper Teesdale was managed during medieval times. The local population was presumably involved in the management of the forest in a similar way to the Bishop's tenants in Weardale, but sadly we have no records of this.

The Altogether Archaeology survey focused on the in-bye land, between the edge of Holwick Scar and the Tees. It undertook a general landscape survey using aerial photography and lidar, linked to a walkover survey, and also completed detailed topographic surveys of several sites. It recorded features of all periods, but those of medieval date proved to be in many ways the most interesting. It also completed a documentary survey of the area, and while this was of great interest to post-medieval times (the extensive archives of the Strathmore Estate become relevant following the acquisition of area by the Bowes family in 1561), it was of limited value to our understanding of the medieval landscape. The earliest known documentary reference to Holwick is from 1235. The place-name is Anglo-Saxon and derives from either 'hol' meaning hollow, or 'holegn' meaning holly, together with 'wic' meaning a dairy farm. During the fourteenth century, Holwick was held by the Lords of Greystock as part of the Manor of Crossthwaite (Crossthwaite, on the south bank of the Tees between Holwick and Middleton-in-Teesdale, also has a rich archaeological landscape that demands further investigation).

Prior to the survey, the adjacent out-bye land of Holwick Fell and Crossthwaite Common had been surveyed and found to contain extensive remains of prehistoric and early medieval settlement and field systems, and also widespread evidence of medieval iron working (Coggins 1986a, chapter 8). The ore for this ironworking was sourced from two adjacent areas on Holwick Fell: the appropriately named 'Ore Carr', where bog ore was found near the surface, and 'Ore Pit Holes', where bell pits were sunk to access iron nodules in the shale bedrock. Heaps of slag from bloomeries are known in many places, nearly always adjacent to source of water, either a spring, a stream, or the Tees. Denis Coggins speculates that this could be because temporary water wheels were installed to power bellows, but it could also be because timber was more readily available in such locations to provide charcoal. Only one slag heap has been scientifically dated; this overlay one of the Simy Folds settlements described in the previous chapter and was radiocarbon dated to the later twelfth century. Evidence of iron working in the environs of Holwick was recorded at the prehistoric settlements at Forcegarth, and at the early medieval settlements at Simy Folds, so ironworking had clearly been underway here long before medieval times, but it seems probable that most of the visible slag heaps are medieval in date, and that ironworking was being undertaken on a larger scale than previously. In contrast to Weardale, there is no evidence of medieval lead mining in the area.

A distribution map based on the results of the Altogether Archaeology Holwick survey shows several medieval farmsteads almost exclusively located along the ring garth or head dyke, at the interface between the in-bye and out-bye land, strung out along the base of Holwick Scars. This must have been to enable ready access to the arable fields, to the north, and also the unenclosed

upland grazing up on the Fell to the south. The vast open field systems of the in-bye land consist in the main of huge cultivation terraces and lynchets; 702 separate lynchets were recorded within the survey area, most of them aligned SW-NE across the natural drumlins that lie along the valley. These represent the local equivalent of ridge and furrow, enabling ploughing on relatively steep slopes. Detailed discussion of this unique and spectacular field system, and speculation as to how it was worked, are contained within the project report. At some stage, the ploughing of these fields ceased, and the entire area was given over to pasture. We don't know when this happened, but it is tempting to link it to Black Death in the mid fourteenth century, a time when a shortage of labour and deteriorating climate led the abandonment of arable fields in many places in favour of pasture.

Following the survey, one of the settlements, Well Head, was selected for detailed study including excavations in 2017, 2018, and 2019. Analysis of results is not complete as yet, but the interim results have been published (Green and Frodsham 2019; Green 2019). In brief, the Well Head settlement includes ten rectangular buildings with associated yards and boundary walls. The buildings are irregularly arranged on and around a hillock by a spring; they survive as low dwarf walls of irregular whinstone blocks. Several are probably longhouses, others seem to have had agricultural uses (with some evidence of iron-working). Old maps show that the hamlet was unoccupied by about 1800. The largest of the excavated buildings was a very substantial longhouse, having animal pens at one end and domestic accommodation at the other, with a flagstone floor and hearth. The building shows evidence of adaptation and alteration over a long period of use, with artefacts (including spindle whorls and many medieval potsherds) indicating occupation from 1200 (possibly earlier) to 1700. Unexpectedly, pad-stones were found which would have supported a timber cruck-type frame; this implies a substantial building despite the relatively remote situation. Underneath the longhouse were two walls, not aligned either to the longhouse or to each other; hopefully, samples and pottery analysis will provide a date for these earlier structures.

Once the outlying farmsteads had been abandoned, settlement seems to have become concentrated in the village, where it has remained ever since, although outlying farms do still exist higher up the valley. The Holwick survey report includes much fascinating discussion of the ways in which this landscape developed in post-medieval times through to the present day. In summary, the report concludes that:

'the township of Holwick was a clearly defined, indeed constrained, area, and as such would have formed a cohesive community, but the [medieval] settlement was initially dispersed with settlements located along the southern arable/waste interface, including the Well Head and the Addison Pasture/Eel Beck farmsteads. Settlements further within the ring garth, such as at Middle Farm (present day Holwick village) and Longrigg Head, would have formed latterly and, significantly, these developed into slightly self-contained, almost nucleated, settlements.....The medieval agricultural economy of the settlement was mixed, but, to judge by the scale of the extant cultivation terraces, the emphasis was more on the arable than the pastoral side. This however changed at some point.....and former arable fields were put over to grazing animals.'

On the basis of the survey alone, it is not possible to be sure when the individual abandoned farmsteads were actually abandoned; some may have fallen into disuse at the time of the Black Death, while some were clearly occupied into post-medieval times.

The wealth of abandoned medieval settlements, the extensive contemporary field systems, and the evidence for iron working on the adjacent uplands, offer huge potential for a project to better understand the lives of the people who lived at Holwick in medieval times.

The Upper Derwent Valley (including Muggleswick and Blanchland).

The archaeology of the Upper Derwent Valley, other than its post-medieval lead mining heritage, is rarely discussed. However, in Muggleswick and Blanchland the area contains two of the most impressive medieval sites in the entire North Pennines. In addition, the historic village of Edmundbyers, although outwardly displaying little of its medieval heritage, has a medieval church. Pedham's Oak, now abandoned, and Ruffside, are both recorded as settlements of some importance in medieval times. Lidar survey (Frodsham 2016) is filling in the gaps between these known medieval sites, recording field systems and other features. Many possible bales, which could be lead smelting sites of medieval date, have been recorded on the valley sides south-west of Edmundbyers, but the chronology of these must be ascertained before they can be used as unambiguous evidence of medieval lead working.

The parishes of Edmundbyers and Muggleswick are the focus of an important PhD thesis by Edmundbyers resident Sheila Newton (Newton 2014). This comprehensive study presents everything that is known of the area's medieval history and archaeology, utilising a range of documentary sources as well as an in-depth knowledge of the local landscape. The results of this work are now supplemented by recent archaeological investigations at Muggleswick, discussed briefly below.

Edmundbyers

In terms of its building stock and its general form, there is little of medieval Edmundbyers to be seen today (NAA 2005; Frodsham 2009c; Newton 2014). As was noted in the previous chapter, the place-name 'Edmundbyers' is of Old English origin, suggesting a settlement existed here in pre-Conquest times. It is not known whether the settlement is named after King Edmund (939-946), St Edmund (a ninth-century king of East Anglia, to whom the church is dedicated) or someone else named Edmund who perhaps founded the village. The church may be of pre-conquest date, but further work is needed to clarify this.

The Boldon Book records that Edmundbyers was held by Alan Bruncoste 'for his service in the forest'. By the early fourteenth century, the village and surrounding lands seem to have been largely the property of the Prior and Convent of Durham. The village functioned as the township for the Prior's sizeable estate of Muggleswick (see below), becoming the location for the Halmote Courts.

Other than the church, no buildings of medieval date survive at Edmundbyers, though extensive ridge-and-furrow field systems (very well preserved to the east of the village), along with documentary sources, demonstrate there was a substantial medieval settlement here. There is

some debate about whether this was arranged around a large village green, or was a linear development along a track between the medieval settlements at Blanchland and Muggleswick. As part of the Prior's estate, the extensive ridge-and-furrow field system at Edmundbyers was presumably developed not just as a self-sufficient system for the villagers of Edmundbyers, but also to provide produce for the monastery at Durham.

Muggleswick

'Muglingwyc' is recorded in the Boldon Book of 1183, and various alternative spellings of the name (such as Moclyngeswyk, Muklingwyk, and Myglkynwyc) are recorded in other post-conquest documents. The Boldon Book records that the Prior of Durham (the head monk of the monastery at what is now Durham Cathedral) held extensive lands, including Muggleswick, on behalf of the monks. The manor of Muggleswick had previously been owned by the Bishop of Durham, but passed to the Prior some time before 1183, apparently in exchange for the manor of Hardwick near Castle Eden. All surrounding land was owned by the Bishop, who granted the Prior licence to assart (enclose and cultivate) 160 acres at Muggleswick, and to use further land as pasture. The Bishop, however, retained the hunting rights. A document dated 1229 refers to a large house ('domum magnam') constructed at 'Muclingwic' by Brother William of the Priory; this may have been constructed of timber. In the mid 13th century, perhaps in the 1260s, Prior Hugh de Derlington erected a 'camera' (Latin for 'vault' or 'arched chamber', implying a substantial stone structure) at Muggleswick, presumably on or adjacent to the site of Brother William's house, and it is the ruins of this that survive today as 'Muggleswick Grange' (Greenwell & Knowles 1896; Sobo 1996, nd; Frodsham 2009b; Newton 2014).

Prior Hugh's 'camera' must have been an extraordinarily impressive structure, much grander than anything seen at Muggleswick before or since. It was the centre from which the Prior's extensive lands at Muggleswick were managed. These lands became more extensive through time; three separate documents from the later 19th century record the granting by bishops of in excess of 1200 acres of wood and waste at Muggleswick to the Prior and monks of Durham. Of particular interest is a charter dated 1259, by which Bishop Walter de Kirkham granted to Prior Hugh de Darlington and the Convent (ie the monks) licence 'to enclose and impark their wood in the vill of Muclingwic'. This document describes the line of the stone wall erected around the wood in some detail; it would be a fascinating exercise to retrace this line in today's landscape to establish how much of the original boundary survives, and in what form. In 1311, Bishop Richard de Kellawe gave the Prior and Convent an area of wood and waste at Wascrothead, on the high ground south of Muggleswick; this was enclosed with an earthen bank, presumably originally topped with a hedge, which still survives today – it is shown on OS maps as a 'park pale'.

Through grants such as these, the Prior gained possession of the whole of Muggleswick parish, other than Rowley, and the area became a huge cattle and sheep ranch, much of it enclosed, sending large quantities of meat, hides and tallow to the monastery at Durham. There were also fishponds, which records suggest were still visible in the 19th century though they have not been noted during recent survey work. A document dated 1464 lists a hall, chapel, grange and dairy at Muggleswick, which seem to have been in poor condition as £26 13s 4d was required for repairs. At the same time the stock at Muggleswick consisted of:

43 oxen, 28 young oxen and heifers of 3 years, 45 cows, 26 young oxen and heifers of two years, 20 calves of a year old, 17 young calves, 85 sheep, 52 ewes, 27 hogs and 24 lambs

After the Dissolution of the Durham monastery in 1539, ownership of Muggleswick Grange passed briefly to the Crown, passing back to Durham in the form of the newly formed Dean and Chapter of the cathedral in 1541. The Dean and Chapter were the landowners through until the mid nineteenth century when responsibility passed to the Church Commissioners, who sold it to private landowners during the twentieth century.

Muggleswick was perhaps not as badly affected as regions closer to the border by Anglo-Scottish conflict in the 14th, 15th and 16th centuries, but we may assume that its status as a cattle ranch would have made it a particularly attractive target to cattle poachers during the era of the Border Reivers during the 16th and early 17th centuries. The grange must have had the facility to store stock safely when threatened, presumably within a stone-walled enclosure if not actually within the vaulted basement of the building itself. We don't know for how long the grange continued to function and its buildings remained in use, but it seems that some of today's buildings at Muggleswick were originally constructed, presumably using stone taken from the medieval ruins, during the 17th century.

In a campaign of survey and excavation extending over three seasons between 2010 and 2015, Altogether Archaeology members under the direction of Tom Addyman made numerous significant discoveries at Muggleswick, all of which are recorded in two substantial reports (Addyman Archaeology 2011, 2015). The initial season was designed to tie in with a large-scale project to consolidate the visible ruins at Muggleswick, led by the North Pennines AONB Partnership; this also included very detailed architectural survey of the standing ruins by Addyman Archaeology. All this work has enabled a far better understanding of the entire medieval complex. We know that a substantial and superbly built range of buildings extended along the south side of the grange complex, and that substantial previously unknown remains survive buried on the north side of the road. In addition, as a result of monitoring of a trench for the laying of an underground electricity cable to the church, we now know that remains of the original medieval church at Muggleswick survive buried beneath the current church. All this fieldwork has added greatly to our understanding of what is an extremely important site, standing today as a great monument to the links that existed between the Priory at Durham and this now little-visited corner of the North Pennines.

Blanchland

One of the most beautiful historic villages anywhere in Britain, Blanchland owes its present-day character to the nature and distribution of its buildings. Although these buildings are largely of 18th and 19th century date, the unique form and layout of the village are dictated principally by the form of the medieval Premonstratensian abbey, of which many architectural fragments still stand incorporated within later buildings (Knowles 1902; Frodsham 2008; Ryder 2012; Archaeological Practice 2014b; Young 2020). There are many small-scale quarries in the vicinity of Blanchland, and the village is constructed almost entirely from locally quarried stone, much of which has been recycled over the centuries. The intriguingly named Dead Friars Quarry (5km south of the village at the southern edge of the Blanchland Estate) still provides sandstone for paving and walling. Most

buildings have roofs of stone slates, quarried from Ladycross Quarry, just to the north of the Blanchland Estate in Slaley Forest.

The original grant to the Premonstratensians from Walter de Bolbec III included not only the site of the abbey, but quite extensive lands extending up onto Blanchland Moor to the north. By the time of its dissolution, the monastic estate included further land to the north, extending over about twenty square kilometres as far as Bulbeck Common and Acton Fell, and also about ten square kilometres to the south, extending as far as Bolt's Law and the intriguingly named Dead Friars Quarry. Within the context of the Upper Derwent Valley, this is a significant landholding; the influence of the abbey clearly extended far outside the confines of the abbey itself. Although the monastic estate was primarily agricultural, there is some documentary evidence for lead working here during medieval times. The earliest such reference is to mining at 'Shyldeyn' (Shildon) in 1475 (NAA 1993). The exact location of this early mining is not known, but it must have been somewhere on the Shildon Burn, just north of Blanchland, possibly very close to the current hamlet of Shildon which became an important mining site in post-medieval times. Mining in the Bolt's Burn valley, south-west of Blanchland, was underway by about 1525; the place-name 'Balehill' suggests that the smelting of lead took place here in medieval times, quite possibly earlier than the sixteenth century.

The original church at Blanchland, probably consisting of an aisleless nave and chancel about 50m long and 8m wide, is thought to date from about 1200. This subsequently underwent many changes, and much of the original nave was demolished; much of its original south wall remains in situ, now functioning as the churchyard wall. The cross standing within the churchyard is probably thirteenth-century. The lawn behind the Lord Crewe Arms represents the monastic cloister, which would appear to have been about 15m square. Remains of the original medieval buildings survive in many places within later buildings that preserve the original footprint of the cloister. During building works in 2014, the remains of the chapter house were excavated within the garden (Archaeological Practice 2014). The hotel itself occupies what was the western range of the cloistral buildings, including the tower which retains its medieval barrel-vaulted basement and many other medieval features.

It is chiefly the survival of the monastic outer court as the village square that gives Blanchland its unique character, its buildings altered and remodelled but still preserving the original plan. The 'Square' is actually 'L'-shaped; surrounding the claustral complex on the south and west. The court was entered by the surviving gatehouse on the north, and also by a second gateway at the south-east corner. The buildings of Blanchland have been recorded to an extent, but a detailed archaeological and architectural survey is long overdue.

Whether or not there was a village on or near the site of Blanchland in Anglo-Saxon times is not known. The medieval chronicler, Froissart, while describing Edward III's visit here in 1327 (see below), refers to 'a white abbey called from the time of king Arthur the Blance Lande'. Some have interpreted this passage as evidence of an early medieval monastery at Blanchland, but alternatively it may be that Froissart had confused his sources and was mistakenly referring to another 'Blanchland', more commonly known as Whitland, in Carmarthenshire, where a monastery was founded in the sixth century. While our Blanchland cannot claim such ancient origins, there has certainly been continuity of occupation here since 1165 when the surrounding land was gifted by Walter de Bolbec III, a Norman knight, for the establishment of a new abbey by Premonstratensian

Canons. This was established as a daughter house of Croxton Abbey (Leicestershire), founded by the Premonstratensians in about 1159. The Premonstratensian Order was founded by St Norbert in the 1120s: its first abbey was built by St Norbert at Premontre near Laon in north-east France. The fact that the Premonstratensians tended to choose remote places for their establishments may suggest that there was no settlement at Blanchland prior to their arrival, but we cannot be certain of this. By 1214, when the de Bolbecs granted further lands to the Abbey, it was already known as 'Blanchland': the name comes from the French 'blanche' meaning 'white' and is traditionally thought to derive from the white habits worn by Premonstratensian canons.

Exactly why Blanchland was chosen as the location for the new establishment is not recorded, although of course it would have been dependent on the land that Walter de Bolbec was prepared to provide rather than simply on the Canons' preferences. The place may have appealed to the Premonstratensians due to its relative remoteness, but in practice a number of established settlements, notably Hexham and Stanhope, lay within a day's travel, while the village of Edmundbyers and the Prior of Durham's grange at Muggleswick were even closer. Indeed, the site lay on what was presumably an already established route between Weardale and Tynedale, possibly at the point where a track joined this route to the line of Dere Street, which continued to provide the main north-south route through Durham and Northumberland long after the departure of the Romans. There were other Premonstratensian establishments to the north at Alnwick (Northumberland) and Dryburgh (Scottish Borders), and to the south at Egglestone (County Durham) and Easby (North Yorkshire), all of which were established during the twelfth century.

The Premonstratensians were not monks, but lived as communities of canons under very strict common rules: their lives were dedicated to God and they endured great self-denial and personal hardship, thought necessary to concentrate the mind and control the emotions. Although in this respect their lives mirrored monks of other religious orders, Premonstratensian canons did not seek isolation from surrounding communities but actively sought to serve them, for example by preaching in nearby villages. The Blanchland canons had the patronage of the churches at Bywell, Heddon on the Wall and Kirkharle, preaching at these and at a number of chapels in outlying villages.

Blanchland's isolation ensured that it hardly ever made the news and very little is known of its history. However, one famous event is recorded: on 31st July 1327, Edward III spent the night here while campaigning in the area against the Scots. Although no battle was fought on this occasion, the Scots did much damage to the Abbey's farms and set fire to its buildings. Edward subsequently granted the abbey some compensation in response to a petition from the abbot outlining the costs associated with the English army's temporary residence here and the damage done by the Scots over a thirty-year period. However, these were still difficult times for the Blanchland canons, made considerably worse a few years later by the Black Death, as a result of which it became increasingly difficult to find workers prepared to rent the Abbey's isolated farms, leading to less and less income.

During the late fifteenth century, the Abbey was inspected on a number of occasions by the Bishop of St Asaph on behalf of the Abbot of Premontre. Records of these inspections survive and paint a picture of a loyal but struggling establishment. At one time there were only eight canons, making it almost impossible to maintain the abbey and its estate while also undertaking preaching duties (both at Blanchland and at the outlying churches and chapels) in addition to maintaining the

Premonstratensian dictates of prayer and contemplation. Although the Blanchland estate provided plenty of food for the community, the Abbey was in constant debt due to the need to maintain its buildings along with the aforementioned parish churches for which it was responsible. The Blanchland canons were praised in these reports for their faithfulness, but reprimanded for deer hunting (which canons were not meant to do themselves) and for their slovenly appearance: the Bishop at one time demanded that they find themselves a washerwoman, a tailor and a barber.

The Abbey was dissolved by Henry VIII in 1536 (its annual revenue at the time was a mere £40) but given a new lease of life in 1537 so that the canons could continue undertaking services of worship and offering hospitality to travellers. This new life was, however, short-lived: Blanchland was finally surrendered to the Crown on 18th December 1539: the abbot, six canons and two novices were all granted reasonable pensions. There is a rumour (most unlikely to be true given that we have already suggested that the abbey was located on an established route) that Henry's commissioners got lost in the mist when seeking to undertake their inspection of the Abbey in 1535, and that the canons, thinking they had at least temporarily escaped inspection, celebrated by ringing the Abbey bell. With the benefit of hindsight, it can be seen that this was not the most intelligent thing to have done: the sound of the bell carried in the mist, the commissioners were drawn to the Abbey without further difficulty, and the inspection was duly completed. An alternative version of this tale tells of a party of Scottish raiders that were lost, but on hearing the bells managed to locate the Abbey and sack it.

Summary

The medieval landscape of the North Pennines was a complex patchwork of settlements, enclosed fields, unenclosed upland pasture and forest, and sites linked to the lead industry. Most of today's settlements were standing in medieval times, even though very few medieval buildings, other than castles and churches, survive. Although not discussed above, all these places must have been linked to each other, and to the surrounding lowlands, by a network of roads and tracks, some of which had been in place since Roman times. In the east, the influence of Durham was paramount, while land elsewhere was generally managed as the upland portions of great baronial estates managed from centres in the lowlands. In many ways the basic framework for the present-day landscape was now in place, though there would be huge upheavals through post-medieval industrial developments. Ancient documents give us tantalising clues as to the ways in which these landscapes were exploited by people, clues that can be built upon through carefully designed campaigns of landscape survey and site-specific archaeological fieldwork. The results of the recently undertaken lidar landscape surveys provide an ideal basis on which to build projects looking more specifically at particular areas, and also enable us to compare developments in different places to assess the extent to which developments were local or regional. Although it is fair to say that more is known about the North Pennines in medieval times than in earlier periods, we still have a great deal to learn.

8. POST-MEDIEVAL c1550-1900

This chapter incorporates substantial contributions by Greg Finch

General Overview

Much more is known about the post-medieval period than earlier times in the North Pennines. In addition to information gleaned through archaeological research, much evidence exists in a range of documents, including historic maps and photographs (eg Crosby 1989; Hutchinson 1999), and many important post-medieval historic buildings still stand throughout the North Pennines. Much more research has been done on this period than on others, meaning there are lots of published and unpublished reports covering numerous sites in varying degrees of detail. The sheer quantity of available material means that the account offered here cannot hope to be anything other than a very general overview, supplemented by more detailed discussion of a few particularly interesting sites.

A well-illustrated general overview is provided in *Lead Mining Landscapes of the North Pennines AONB* (Forbes *et al* 2003), and more detailed overviews of various areas within the North Pennines have been published over the years. Alston Moor is well served with such volumes, including Thomas Sopwith's *An Account of the Mining District of Alston Moor, Weardale and Teesdale* (1833), William Wallace's *Alston Moor – Its Pastoral People, its Mines and Miners* (1890) and, more recently, Alastair Robertson's *A History of Alston Moor* (2nd edn, 2010) and the English Heritage publication *Alston Moor, Cumbria - Buildings in a North Pennines landscape* (Jessop *et al* 2013). Peter Bowes' *Weardale – Clearing the Forest* (1990) includes an indispensable overview of post-medieval Weardale, while Sheila Newton's PhD thesis on the parishes of Muggleswick and Edmundbyers (2014) presents an important overview of this part of the Upper Derwent Valley. A useful overview of post-medieval Upper Teesdale is provided by Michael Rudd in his *The Discovery of Teesdale* (2007). The post-medieval archaeology of Stainmore is summarised in Vyner (ed.) *Stainmore: The Archaeology of a North Pennine Pass* (2001). Numerous papers on social aspects of the lead industry, as well as on the industry itself, have appeared in local journals such as *The Bonny Moor Hen* (the journal of the Weardale Field Study Society) and in edited volumes such as those produced by the Friends of Killhope (eg Chambers 2002). It is not possible to consider all this information here; readers with an interest in the post-medieval North Pennines are advised to familiarise themselves with all the above-mentioned publications, most of which contain substantial bibliographies of earlier work.

In addition, much detailed information is contained within the various county histories of Durham, Northumberland, Cumberland and Westmorland (the earliest of which date from the eighteenth century, before some of the things we now classify as archaeological sites were even built!). A further useful source of information about the post-medieval history and architecture of various historic settlements in and around the North Pennines exists in the form of a number of

conservation area character appraisals (eg Eden Valley District Council 2007; Frodsham 2009, 2010).

The recent Miner-Farmer project by English Heritage has recorded aspects of the post-medieval landscape of Alston Moor in great detail for the first time, using a combination of sources including lidar, enabling these to be studied alongside various documentary sources (a summary of this work is contained within the report by Oakey *et al* 2012). Similarly, aspects of the post-medieval landscapes of the Allen Valleys, Hexhamshire, the Upper Derwent Valley, Weardale and Upper Teesdale have been recorded from lidar by Altogether Archaeology members and others (Ainsworth 2016; Frodsham 2017). More generally, a crucial overview of upland agriculture in parts of the North Pennines is contained in Angus Winchester's *The Harvest of the Hills* (2000).

Life in the post-medieval North Pennines was dominated by the lead industry until the late nineteenth century, but farming was also important. This combination of industry and agriculture, with many people involved in both, has led to the term 'miner-farmer landscape' being applied to much of the area. Mining was on a relatively small scale until the late seventeenth century, but from this time until the late nineteenth century the industry operated on a huge scale and the landscape was transformed. Levels were driven miles underground to exploit the lead veins, and the ground surface became studded with mine complexes, dressing floors and smelt mills. The hills were criss-crossed by leats providing water power to various sites, often from specially constructed reservoirs, by flues taking noxious gasses away from the smelt mills to chimneys high in the hills, and by tracks and railways providing access to all the different sites. All of this was on a truly industrial scale: there were some smaller companies, but Weardale and the Allendales were dominated by WB Lead (owned by the Beaumont family and its predecessors the Blacketts), and Teesdale and Alston Moor by the London Lead Company.

Although landowners (including the church) and the mining companies made fortunes from lead (and silver), the miners themselves certainly did not. Many lived in small farmsteads scattered throughout the dales, working their shifts in the mines and also growing produce to support their families. Today's distinctive landscape of scattered farmsteads (most with a single building combining cottage, barn and hayloft) with a few small stone-walled fields, generally referred to today as the 'miner-farmer landscape', dates essentially from the eighteenth- and nineteenth-century heyday of the North Pennine lead industry, when at least a quarter of all Britain's lead came from the region. Many limekilns were constructed to produce quicklime, used on the fields to improve the fertility of the acid soils and as lime mortar for the construction of buildings (Robertson 1999). Today's rights-of-way network, criss-crossing the moors, is based largely on the system of tracks that grew up to serve all the isolated miner-farmer cottages, linking them with the main roads in the valleys. While the rights of way have survived, many of the settlements have not, their melancholy ruins serving notice of the rise and fall of the once great North Pennines lead industry (NEVAG 1997; Ruskin 2012).

While many miners lived in relative isolation in farmsteads dispersed throughout the upper dales, and many occupied new settlements founded by the mining companies such as Nenthead, Allenheads, and Middleton-in-Teesdale, others lived in long-established settlements, such as Stanhope, Alston and Allendale, that survived from medieval times and contained the ancient parish churches. Away from these ancient settlements, and despite the founding of Anglican chapels in several villages, the Church of England was never as influential in the North Pennines as

it was in surrounding lowland areas. Lead-mining families throughout the region tended to be Methodists rather than Anglicans, and numerous Methodist chapels were built from the mid eighteenth century, both within villages and at isolated roadside locations for dispersed communities. These chapels generally reflect local, vernacular tradition, though sometimes with allusions to Gothic or Classical. The lead mining companies supported education for North Pennine communities, and several new schools were founded during the nineteenth century in Teesdale, Weardale and Allendale, alongside numerous institutes and reading rooms.

Although lead was the dominant industry, it was far from the only one (Guy & Atkinson 2008). Iron was mined and worked on a local scale from medieval times, and from the mid nineteenth century on an industrial scale at Tow Law and Stanhope Dene. Elsewhere, limestone, sandstone, whinstone, fluorite, barites, witherite, zinc, copper and coal have all been worked on a large scale at various times. Frosterley marble, previously exploited in medieval times, was still quarried and used at numerous ecclesiastical and other buildings throughout the north-east and further afield (Noble 1989). North Pennine industries received a great boost during the mid nineteenth century with the introduction of the railways, and many small branch lines linked lead mine complexes, such as that at Rookhope, with the mainline network (Bell 2015). Industry also provided the impetus for mid nineteenth-century improvements to the road network, but in more remote areas pack ponies continued to tread well-worn tracks to get ores to the nearest road or railway. Brief overviews of stone quarrying and the iron industry, along with coal mining, peat cutting and limekilns, are included below.

Today, few domestic buildings from earlier than 1700 survive in anything like their original form, but many attractive eighteenth and nineteenth century houses do survive and collectively contribute much to the character of the North Pennines (McCombie 1992; Roberts 1994, 2021). These are invariably of local stone, often provided from small-scale quarries operated on an ad-hoc basis to meet fluctuating demand. Throughout the North Pennines, many important historic buildings, including churches and chapels, houses, farmsteads, and industrial complexes, have been surveyed over recent decades. Of particular note are Peter Ryder's unpublished reports on bastles (see also Ryder 1994, 1996) and on historic chapels, both of which should be published or at the very least made available online. An excellent example of the integrated study of buildings and landscapes is the work undertaken by English Heritage on Alston Moor, as illustrated in the popular publication *Alston Moor, Cumbria – Buildings in a North Pennines Landscape* (Jessop *et al* 2013). Much more such work could be usefully done elsewhere within the North Pennines.

There follows an overview of the history of the North Pennines lead industry, followed by a consideration of the effect of this industry on the North Pennines landscape. Much of this is reproduced, with extensive additions and amendments, from *The North Pennines Lead Industry, Key Sites and Proposals for Action*, an undated (?1999) report by the North Pennines Partnership.

A brief history of the North Pennines lead industry

The production of lead and lead products from native ores is no longer carried out in the UK. The lead industry can be broken down into four main components – mining, ore separation (washing), smelting, and production of lead products and compounds. Lead was mined and separated in the

North Pennines ore field and usually smelted here, but, with one exception (a shot tower at Alston), the fourth stage was not carried out here.

The geology of the British Isles resulted in many lead deposits being found in upland areas such as the Yorkshire dales, the Peak District, the Mendips and mid-Wales, as well as the North Pennines. Although there are common features across the national industry, each area developed a distinctive tradition of operation, dependent on a complex web of factors including geomorphology, availability of power and fuel, mining laws and traditions and access to capital.

Lead mining in the North Pennines has a long history, as discussed in earlier chapters within this volume. There is now a considerable body of published material on the North Pennines lead industry, covering its history, mines, methods of working and the form and nature of deposits, yet there are still gaps in our understanding of the development of the industry.

Enough medieval records survive to demonstrate a well-established mining and smelting industry by the middle-ages. It seems probable that the origins of lead mining in the North Pennines are prehistoric, but much fieldwork and research remain to be done on the early industry. Documentary work by Blanchard (who stresses the importance of the silver found in the ores) and fieldwork by Pickin, Young and others challenge traditional models of the early industry. Roman exploitation of the North Pennines ores remains unproven, though it is inconceivable that it did not occur, almost certainly on a large scale; the Maiden Way Roman road (which runs across the high hills between the Kirkby Thore on the A66 and Carvoran on Hadrian's Wall) and the fort at Epiacum (Whitley Castle, Alston) must owe their origins to lead and silver mining during Roman times.

Much more is known of the development of the industry from the 17th century onwards, and it is clear that a series of cycles of expansion and depression culminated in a period in the 1860s and 1870s when the North Pennines was the dominant lead producing area in Britain producing about a third of the country's lead.

A largely overlooked aspect of the rise of lead mining from the seventeenth century is the legacy of smelting sites around the periphery of the North Pennines. In medieval times lead metal was extracted from the mined ore in bales or boles, effectively open fires of dried coppiced wood usually set high on west-facing hills. They relied upon the prevailing wind to drive the temperature high enough for the metal to run from the ore into moulds, where it dried into 'pigs'. Many such 'bale hills' are still found as the names of features on hills throughout the North Pennines and Yorkshire Dales (Gledhill 1992). From the late sixteenth century lead smelting was improved by the greater control offered by indoor hearths using watermill powered bellows to create the required air draught. Dried 'chopwood' remained the principal fuel for a further century. This tended to be available in the river valleys away from and below the high fells in which mines were located. These locations also offered the reliable water flow needed to drive the mills. However, as soon as peat began to be used as fuel, from the 1680s/90s, new mills were constructed closer to the mines, to reduce the high cost of transporting ore by pony trains to be smelted, where up to half of the weight of ore would be lost (Finch 2014). Consequently, the remains of a number of abandoned seventeenth/early eighteenth lead smelting mill sites remain in an arc around the periphery of the North Pennines, located between the mines and the destination markets and ports of Newcastle, Sunderland and Stockton, such as at Blackton in Teesdale, Plankey Mill on the Allen and Red Lead

Mill in Hexhamshire. Few of them have been surveyed, but offer the potential to teach us much about the operation of the industry in its formative years.

The period from the mid eighteenth century to the third quarter of the nineteenth, which saw the construction of most of the upstanding remains visible today, also had a profound effect on the development of the wider landscape of the North Pennines. A considerable increase in population, a widespread expansion in land under farming, the influence of the major lead mining businesses, and a development of settlement in areas with no other forms of activity helped create the landscape we see today.

There is no tradition of mining laws or free mining granting privileges to individual miners in the North Pennines as occurs in Derbyshire and elsewhere. This is important, because it meant that the constraints to highly capitalised development on a regional scale did not exist in the North Pennines.

In the 19th century production of lead from the North Pennines can be split into three roughly equal sectors. One third of all lead came from small (often one-mine) companies. This is a type of production much more common in other areas and has tended to be overlooked in the North Pennines because of the fragmentary survival of the documentary record.

What differentiates the North Pennines from any other area of the country, however, is the dominance over a long period of time of two large businesses. The first was established by Newcastle merchant William Blackett in the 1660s, whose mining operations in Allendale and later Weardale, grew to a large scale before the end of the seventeenth century, and was sustained, latterly under the name WB Lead by his descendants the Beaumonts, for over two hundred years. They were joined from the early eighteenth century by the Quaker owned London Lead Company (correctly the ‘Governor and Company for the Melting of Lead with Pit Coal and Sea Coal’) which also survived for over two centuries – an unparalleled achievement. Each had about a third of North Pennines production in the 19th century, and each operated a number of mines and smelt mills across a wide geographical area. Their ability to invest capital, to plan extraction and smelting on a regional scale, and to bring stability to the industry had a profound effect on the social structure and landscape of the North Pennines.

Both mining companies fully understood the need to take a long-term view of the industry and both initiated and maintained well-conceived and ambitious exploration programmes. These were based on a thorough understanding of the local geology and the way in which this influenced the form, disposition and productivity of individual deposits and groups of deposits. During the 18th and 19th centuries the North Pennines orefield was not only contributing significant amounts of lead into the British economy but was contributing a wealth of novel ideas and concepts to the rapidly emerging science of geology.

The decline of the industry when it came was both sudden and rapid. In the late 1870s the price of lead collapsed, and with it most of the North Pennine industry. Some lead production continued into the 1930s and some mines turned to other minerals, but the history of the area for the past hundred years has been one of population decline, amalgamation of the miners’ smallholdings into larger farms, and the abandonment of the higher settlements. It is interesting to note the fluctuations in local population as the lead industry expanded then shrank. In Weardale, Stanhope

parish, which includes Killhope, Rookhope and many other mining communities, the population in 1801 was 5,155, doubling to 10,300 in 1871 before falling to 7,777 in 1901 and just 4,002 in 1981 (Bowes 1990, chapter 10). The population of Alston Moor in the late seventeenth century was estimated at just 555, rising to a peak of 6,858 in 1831, then falling to 3,384 by 1891 and just 1,128 by 2001. (Jessop et al 2013). The population of Allendale parish likewise halved between 1861 and 1891.

The post-medieval lead industry: some key sites

As noted above, the lead mining sites of the North Pennines can be broadly divided into three groups: mines, dressing floors and smelting sites, although these can, and often do, occur in close proximity to each other within extensive complexes. Most of these (including below ground workings) have been recorded in much detail, though recent work has demonstrated that significant discoveries remain to be made in many places. The North Pennines AONB Partnership's OREsome North Pennines project has recently undertaken important new survey and monitoring work, including integrated archaeological, geological and ecological survey.

Fascinating details of North Pennines mining sites are included in regional surveys originally published by the Northern Mine Research Society, some of which have subsequently been updated and reprinted. Key volumes within the series include *Weardale Mines* (Fairbairn 1996), *The Mines of Upper Teesdale* (Fairbairn 2009), *The Mines of Alston Moor* (Fairbairn 2008), and *Lead Mining in the Derwent Valley* (Pirt & Dodds 2002). A useful overview is provided by Les Turnbull (2006) in *The History of Lead Mining in the North East of England*.

The earliest workings, possible extending back to Roman times, would have been open-cast workings, but by post-medieval times many underground workings, reached from pits dug down from the surface and levels driven in from hillsides, were in use. During post-medieval times, some of these workings extended several kilometres underground. Some of the underground mining architecture, such as stone arching along levels, is of the highest quality. Driving new shafts and levels was, however, always to an extent speculative, a fact well illustrated by two very expensive projects, the Nentforce Level at Nenthead in the eighteenth century and the Blakett Level at Allenheads in the nineteenth. Both involved the cutting of levels several kilometres long, to help drain extensive mining complexes while also prospecting for new ore reserves. In the event, despite great expense on the part of the owners and huge efforts by the men on (and in) the ground, neither project proved particularly worthwhile. However, there are some good luck stories – the best known of which is probably the story of Hudgill Burn Mine near Nenthead. Here, early in the nineteenth century, two brothers took over an abandoned mine and soon encountered a source of silver-rich lead that made it one of the most profitable in the whole of the North Pennines, making both brothers very wealthy; one of them used income from the mine to build Nent Hall, now a very comfortable hotel. Sadly, such good luck stories are few and far between.

The raw material from the mines (known as 'bouse') had to be sorted at a washing or dressing floor, where the useful mineral was separated from useless waste material. The best-known dressing floor in the North Pennines, much of which has been conserved and partially reconstructed, can be seen at Killhope Lead Mining Museum (Forbes 1996, undated). This served

the adjacent Park Level Mine, and was largely powered by the giant water wheel that still survives on site. Recent work by the Altogether Archaeology project examined the floor of the buddle house at Killhope, unexpectedly uncovering substantial remains of buddles buried in the floor (Archaeological Practice 2013, 2014) Many similar dressing floors to Killhope existed at sites throughout the North Pennines, but as they relied on water power, they have in many cases been badly damaged once the maintenance of the water systems ceased but water continued to rush through them, washing the ground away. An Altogether Archaeology survey of watercourses at Nenthead, undertaken in 2014, demonstrates the complexity of the system, with numerous leats serving different parts of the site, all now subject to serious and rapid erosion now that the system is no longer maintained (NAA 2015) A good example of a washing floor, for which historic photographs survive showing it in operation in about 1900, can be seen at Whitesyke, above Garrigill.

The third stage in the process is smelting, to extract the lead from the ore. This took place at smelt mills, which in the North Pennines were constructed on a large scale to serve several mines. One of the most impressive mills was WB Lead's at Rookhope, which continued in use through until about 1930 by which time all the local mines had closed (Bowes & Wall 1995). The Rookhope complex was almost completely dismantled for building stone – the only obvious feature that survives is a single arch (the 'Rookhope Arch') of the flue system that took the poisonous fumes from the mill to a chimney a couple of kilometres away. Another important mill complex is Allen Mill, the ruins of which have recently been surveyed and partially conserved. Smelting took place here from the seventeenth century through to 1896. The system included two chimneys high on Allendale Moor which still survive, linked to the mill by stone-built flues some 4km in length. Many other smelt mill chimneys once stood elsewhere in the North Pennines, some of which survive: a fine example is Jeffrey's Mill Chimney above Ramshaw in the Upper Derwent Valley, where an important mining and smelting complex operated during the 19th century (Pirt & Dodds 2002).

Another important smelt mill that has seen recent survey, excavation and conservation work is that at Dukesfield, on the Devil's Water in Hexhamshire. This was WB Lead's most important mill in the 18th and early 19th centuries, but was deemed old fashioned and demolished in the 1830s. Recent work, begun during the Altogether Archaeology project (Archaeological Practice 2012) and completed by the Dukesfield Smelters and Carriers project (Carlton 2012, 2014, 2015), has included the survey and excavation of extensive remains here, together with the conservation of the gothic arches that once carried the flue to the chimneys on an adjacent hill.

A major smelt mill complex existed at Langley (where an impressive chimney still stands) during the 19th century. In Teesdale, an important smelt mill was built by the London Lead Company at Blackton, near Eggleston, in 1802. This replaced earlier nearby mills, and operated through until 1902. A smeltmill was present at Nenthead by the mid-eighteenth century and was greatly expanded by the London Lead Company so that by 1882 it was capable of smelting 8,000 bings of ore each year. The extraordinary story of the lead industry at Nenthead, and the 'model village' built to house its workers, is both lengthy and complex and cannot be considered here in any detail (see Fairbairn 2008; Thain 1957; Jessop *et al* 2013).

The lead industry and the ‘miner-farmer’ landscape

As noted above, this section is reproduced from *The North Pennines Lead Industry, Key sites and Proposals for Action*, an undated (?1999) report by the North Pennines Partnership), with many amendments and additions.

The lead mining industry had a substantial influence on the evolution of the landscape of the North Pennines and left an enduring legacy, not only in the physical remains of mining and related industrial activities, but also in the patterns of settlement and land use associated with it. (See Forbes *et al* 2003 for a useful and well-illustrated introduction to this vast subject).

The influence of the industry varies across the region. In some areas lead mining features remain minor elements in a landscape formed largely by other forces. In others, the influence has been greater; the physical remains are more significant and extensive and the effects on the development of the surrounding landscape more pervasive. In areas such as Upper Weardale, Rookhope, the Nent Valley, South Tynedale, West Allendale, Allendale and Hudeshope, landscapes can only be properly appreciated through an understanding of the mining industry itself and its relationship with the local geology, ecology and agricultural economy.

At the height of the industry the North Pennines was one of the most heavily industrialised upland landscapes in England. The extraction, processing and transport of lead and associated minerals had a substantial physical impact on the landscape and affected extensive tracts of land. The pattern of distribution of mineral bearing veins across the orefield led to dispersed workings and related operations. This, together with the need for water, fuel, and a degree of centralisation in the smelting process, required a high degree of organisation in the landscape and a complex infrastructure of transport routes and water supply lines. The industry is therefore best understood at the landscape level as a complex of interrelated features and processes.

The development of the transport network throughout the North Pennines is closely linked to the lead industry. Prior to the nineteenth century, transporting lead ore from the mine to the smelt mill, and from there to the sea ports on the Tyne or the Tees (from which it was taken by sea to markets, most notably London) was largely done by teams of pack horses. Some of the routes taken over the hills are still followed by rights of way today, and some survive as extensive systems of holloways, many of which have been recorded by recent lidar surveys. Roads in the North Pennines were generally atrocious, despite some improvements brought about by turnpike trusts in the later eighteenth century. In the 1820s the various turnpike trusts were merged, and John MacAdam, the famous road engineer, was brought to the North Pennines by the Commissioners of Greenwich Hospital to improve the network and thus greatly increase the efficiency of the lead industry. He observed in 1823 that the roads of the North Pennines were ‘altogether the worst that have yet come to my knowledge.’ Many improvements were made, including to the roads over Hartside and through Upper Teesdale and Weardale. The London Lead Company also funded new roads in the 1820s. These new roads were well built and well managed, and half a century after MacAdam’s damning observations the Cumberland County Road Surveyor was able to state in 1879 that the roads of Alston Moor were ‘the best managed.....I ever had the pleasure of looking over.’ During the later nineteenth century, the railways played an important role in transport. Like the roads, these were built primarily for industrial use, but were also used by local people to get about

within the North Pennines and for more distant travel. No rail link was ever built across the heart of the North Pennines, but Alston was linked to Tynedale and Wearhead to Bishop Auckland and Darlington, while a railway linked Bowes and Brough across Stainmore. The Lambley Viaduct over the South Tyne is a spectacular reminder of the railway age in the North Pennines.

Before the expansion of the lead industry the North Pennines was a sparsely populated pastoral landscape of livestock farms strung out along the valley floors separated by broad expanses of moorland and fell, forest and park. Villages were few and restricted to the more sheltered land of the lower dales. Small-scale lead working was an essentially rural activity which supplemented incomes from agriculture. As the industry developed, the increasing population led to the development of new farms and settlements and new pressures on the land. At first this was a piecemeal process. New farmsteads were developed close to existing farms in small hamlets or farm clusters, the better in-bye land of communal meadows and pastures was subdivided, and new intakes were made from the moor. Mining and farming developed together, with subsistence agriculture supporting the often more uncertain income from mining.

As the industry grew, this process became more organised. New farms were developed along the moor wall, higher pastures were converted to meadow and new moorland intakes were improved to pasture through drainage and liming. In places it is difficult to distinguish the impact of lead mining from the more general processes of land improvement and enclosure taking place elsewhere in the uplands. Certainly, in some parts of the region large areas of moorland were enclosed as sheepwalks from the late 16th century to meet demand for wool for cloth-working, such as at Cockersfield in Hexhamshire, where the documentary record of a ‘new edifice ... with pasturage for 200 sheep’ in 1620 complements lidar imagery (Ainsworth 2016; Durham UL/CLV/f.420). It is clear, however, that lead mining fuelled the process in the orefields and led to a very high density of small farm units working land well above the previous limits of agriculture of about 300m. This is particularly notable in the upper dales where land was improved, and apparently cultivated, at over 550m; eg at Grassfield at the top of Teesdale. The allotment of land to farming families was often the primary purpose of enclosure and reorganisation, and the planned origin of these smallholdings remains visible in the standardised design of farm buildings and regular layout of allotments.

There is something of a tendency to regard open-field systems with ridge-and-furrow as medieval, and the regular enclosed fields of the enclosure movement as post-medieval. However, recent lidar surveys have demonstrated the presence in many places (eg Allen Valleys, upper Derwent Valley, Weardale) of often quite large-scale field systems consisting of large, irregular fields, often defined by earthen banks that may once have been topped with hedges (Ainsworth 2016; Frodsham 2017). These clearly post-date medieval field systems in many cases, and pre-date the enclosure movement. They may well cross the divide between the medieval and post-medieval period, and in many cases were probably created and managed by ‘miner-farmers’ who spent much of their lives working in the lead industry. Outside the mining zone other such small late eighteenth- and early nineteenth-century post-enclosure steadings can be found that supported the Galloway ponies that were vital to ore and lead transport, such as in Hexhamshire and lower Allendale. There is a strong case to say that much upland enclosure and building during this period was undertaken to meet the needs of industrial transport. Many of the farms are small, no larger than 10 hectares, and would have been completely uneconomic unless income was also being earned elsewhere. In fact, few if any of these farms would ever have been founded had the lead industry never existed, and

the North Pennines would have been much more open, perhaps akin in some ways to the Cheviots. In many ways the entire landscape, as much as the mines themselves, should be regarded as legacy of the lead industry.

Improved fields were produced through ploughing, liming and draining. Drainage, consisting of the construction of stone-lined conduits or rubble-filled trenches, often several feet below the surface of fields, was underway on quite a large scale from as early as the seventeenth century in some places. By the later nineteenth century, mass-produced ceramic pipes, delivered via the railways, offered a more efficient method of draining fields, most of which by this time were enclosed within stone walls in line with the maps produced by the enclosure awards. Enclosure of the fields took place at different times throughout the North Pennines, but was generally complete by the middle of the nineteenth century. On Alston Moor, for example, the initial Act of Enclosure is dated 1803, but Whitlow, the area immediately south of Epiacum Roman fort, was not actually enclosed until the 1860s. The enclosure of the fields with long, straight stone walls had a profound impact on the landscape, so much so that it is often hard to imagine how it must have appeared beforehand. New walling even extended to anciently enclosed land, with regular fields replacing earlier 'bulbous' enclosures, the outline of which can sometime still be seen on the land where the ruts of carriers' tracks skirt the now lost outer boundary between field and fell, as at Sinderhope in the East Allen Valley. Today, we value the stone field walls and many millions of pounds have been spent on their restoration, but in many ways the landscape may have been more attractive without them! Many of the farmsteads which provided the foci for this new enclosed landscape were also built (or rebuilt) during the nineteenth century; these display much regional variation across the North Pennines and their study is a fascinating subject in its own right.

With enclosure came a demand for agricultural and building lime, won from local limestone quarries and burnt in numerous limekilns (Robertson 1999). The demand for sandstone for building and drystone walling was met from local quarries. The increased pressure for grazing land and the demand for mining timber and charcoal was responsible for further decline in the woodlands of the dales, which remain sparsely wooded in comparison with many others in the Pennines. As with enclosure, these features are not unique to the lead mining landscape but are integral and important aspects of it.

As the industry developed from medieval times onward, its direct impact on the landscape, in addition to the gradual changes effected through social and population change, also grew. The presence of shaft mounds, spoil tips and the criss-crossing of tramways and railways all tattoo the hills of the North Pennines with the mark of mining. The scale of mining enterprises led in many places to the damming and channelling of water for power, causing the faces of many valleys to alter significantly. The scars of hushes on hillsides scoured of topsoil, the artificial dams and reservoirs, the leats of artificial watercourses and the channelling of burns and rivers have substantially modified the natural appearance of the dales and the flow of water through the landscape. Water power was absolutely essential to the lead industry, used, amongst other things, to work mine pumps, crushing equipment and smelt mill bellows. Waterwheels were installed at all the main mines, dressing floors and smelt mills. The best known such waterwheel is that at Killhope Museum, which is still operational, but many other sites had wheels of comparable size or even larger. Today, all other such wheels have been dismantled and sold for scrap, but some impressive wheelpits still survive, such as those at Brandon Walls (Weardale) and Nenthead (Alston Moor).

At Allenheads, a hydraulic engine, recently invented by the famous Newcastle industrialist and inventor, W. G. Armstrong, was installed in about 1850 to power the mine sawmill. Water power was also used for many other things at Allenheads, hence the ring of ten reservoirs, holding a combined volume of nearly 300 million litres, that surrounds the village. Reservoirs can be seen in many other places, often high on the moors where their purpose is not immediately obvious, but they were linked via leats to sites on lower ground, sometimes some distance away, where the water was used for a variety of purposes, often being channelled from piece of machinery to another to maximise its use, before eventually flowing away into a stream or river.

Some attempts to harness steam power were made, but the difficulty of transporting coal meant this was never commonplace. One well-known example is Shildon Engine House above Blanchland, recently conserved by the North Pennines AONB Partnership. The big engine house here was built in 1806 to house a purpose-built steam engine (transported to the site in pieces from the famous Boulton and Watt factory in Birmingham), intended to pump water from the very deep mines here (Crossley & Patrick nd). Sadly, no substantial new ore reserves were found, and the engine was sold for scrap, the engine house finding a new lease of life as housing for local miners. Altogether Archaeology members completed a survey and excavation project at the adjacent ‘Little Engine House’ in 2011-12 (Addyman Archaeology 2012).

While mining remained closely associated with agriculture, the industry also stimulated the growth of settlements. New housing developed in and around existing villages. In places this occurred in a piecemeal fashion as in Upper Weardale where villages coalesce to form a ribbon of development along the dale floor. Elsewhere the process was more organised; new housing was built by mining companies for workers, most notably at Middleton-in-Teesdale, Nenthead, and Allenheads. The high density of settlement, out of scale with the capabilities of the agricultural landscape, is a notable characteristic of the North Pennines orefields.

The London Lead Company had operated in the North Pennines from the early eighteenth century, but in 1792 sold its operations in Wales and Derbyshire to concentrate on the development of operations on Alston Moor and in Teesdale. Middleton-in-Teesdale, already a prosperous market town serving Upper Teesdale, was chosen by the London Lead Company as its headquarters for its operations in Teesdale. At the west end of the village, Middleton House, built in 1823, was designed by the famous Durham architect Ignatius Bonomi as the company’s Chief Agent’s residence, with workshops and other buildings to the rear. Towards the east end of the village, Bonomi also designed a new estate of 27 houses for London Lead Company workers, reached through a grand stone arch. In 1825, the company embarked on a comparable scheme at Nenthead on Alston Moor, though here there was previously only a small hamlet not a thriving village as at Middleton-in-Teesdale. The grand scheme at Nenthead included a market hall, clock tower, school, chapel, reading room and shops, in addition to 35 new houses (Thain 1957; Jessop *et al* 2013). Garrigill also became a key mining settlement, but in contrast to the planned settlement of Nenthead, it expanded in an unplanned manner from an agricultural hamlet into its present attractive form around a large green. Allenheads and Coalcleugh, at the head of the East and West Allen respectively, were also haphazardly laid out, despite being developed in very short order in the 1660s, although Allenheads was replanned in the mid-nineteenth century. Coalcleugh was deserted in the late nineteenth century, and the remains of the original seventeenth-century miners’ cottages await further investigation on the ground (Finch 2019). Nearby Alston, at the

crossroads of main routes through the North Pennines, had close links with the lead industry, but also had a wider role as the main town for the area.

The other large company operating in the North Pennines, alongside the London Lead Company, was WB Lead, whose headquarters was at Allenheads at the heart of an extraordinarily complex and extensive mining landscape. Allenheads Hall, within landscaped gardens, was built in the late 1840s as a grand residence for the company's general manager. The company built Allenheads School in 1849, and also other schools at Carrshield and Sinderhope. Of earlier origin, the grandest house in Weardale, Newhouse, was built north of Ireshopeburn in about 1700 for WB Lead's chief Weardale agent (Milburn 1992).

As noted above, Methodism was extremely important amongst lead mining communities throughout the North Pennines (Milburn 1989), with John Wesley having preached here on many occasions. Many historic nonconformist chapel buildings survive, often converted to houses. Most villages had two chapels, one Wesleyan and one Primitive Methodist. Some of these, such as those at Middleton in Teesdale, were built on a grand scale. Although the London Lead Company was founded and managed by Quakers, the company did not really promote Quaker worship; Quaker meeting houses survive at Alston, Allendale and Coanwood, but were never widespread throughout the North Pennines. The Church of England made attempts to woo nonconformist worshippers back into the fold, and several churches were substantially or completely rebuilt during post-medieval times: St Augustine's at Alston, for example, was completely rebuilt in 1769-70, and again a century later, in 1869-70, with the distinctive tower and spire added in 1886. Elsewhere on Alston Moor, St John's at Garrigill was rebuilt in 1790, and the new church of St John the Evangelist at Nenthead, designed by Ignatius Bonomi and John Augustus Cory, was consecrated in 1845. However, Methodism remained extremely popular amongst mining communities throughout the North Pennines, as demonstrated by the large number of surviving chapel buildings. The reasons for this must lie largely in the nature of the ways in which Methodism, both Wesleyan and Primitive, addressed the spiritual needs of the communities, but the fact that people could meet in relatively small numbers in local chapels, rather than having to travel to the nearest church, must also have been a factor. The story of Methodism in the North Pennines, including the reasons why it was so popular amongst mining communities, is fascinating but cannot be considered in any detail here.

The industrialisation of the North Pennines and its subsequent decline and reversion to pastoral agriculture had a profound influence on perceptions of landscape. Mining and processing works were abandoned and fell into decay. Smaller features were gradually absorbed back into the landscape, while some of the larger sites were demolished, reclaimed or reworked for other minerals. This process of decline extended to farm buildings and field boundaries as the agricultural economy adjusted to the decline in population and prosperity. Derelict farmsteads remain a feature of the upper dales although many have now been demolished or converted to other uses. The relatively small size of agricultural holdings survives together with some traditional agricultural practices and the tradition of dual employment. Increasingly holdings are amalgamated to form larger units and livestock rearing is intensified with a decline in both traditional grassland management and the maintenance of boundary walls and field barns.

The North Pennines lead industry was at its height in the heyday of topographical writing and painting, a factor which contributed to the oft-noted 'aesthetic shadow' covering the North

Pennines in this period. Notable exceptions are the visit of Charles Dickens to Upper Teesdale (he based Dotheboy's Hall on an institution at Bowes) and the work of JMW Turner who produced some dramatic images of High Force (Rudd 2007). More recently, WH Auden drew inspiration from the decaying remnants of the lead industry. He knew the area intimately and references to many North Pennines sites can be found in his poetry (Myres & Forsythe 1999). He referred to the North Pennines as his 'great good place', and likened his vision of eternal bliss to a limestone landscape. Although linked to the decline of the lead industry rather than its prime, this must now be considered as an essential element of the North Pennines lead mining heritage.

Stone quarrying

The repeating, if simplified, sequence of eastwards-dipping sedimentary beds of limestone, shale, sandstone and thin coal seams that are one of key features of the North Pennines' geology, have long given rise to the quarrying of stone for various purposes throughout the centuries. Sandstone was prized as building material, particularly when – as 'freestone' - it lent itself to relatively easy dressing into blocks. As a source of stone for grinding grain into flour in hand querns and later water-driven cornmills it became widely known as millstone grit. Because of the cost of transporting heavy low-value stone, sandstone quarries were small and widespread wherever decent outcrops could be found near where people wanted to build. Late eighteenth- and early nineteenth-century enclosure maps sometimes marked out suitable locations as public quarries, but many of these are likely to have been much older where they are located near settlements, and almost impossible to date. Careful study of old maps, aerial images and lidar can often suggest links between small isolated quarries and nearby settlement. Larger quarries, such as those near Wolsingham and in lower Teesdale that were worked more intensively from the nineteenth century, probably also have older roots but by the nature of the quarrying process the oldest workings have long since been lost (Beadle 1997). Limestone, although of limited value in building because of its permeability, had a wide variety of uses. The generally acidic nature of upland soil was counteracted by spreading burnt lime to improve grazing pastures, and the remains of many later eighteenth- and early nineteenth-century limekilns can be seen around the region. Limestone could also be used to stabilise road surfaces and played a key role in the development of the improved road network through the dales in the nineteenth century. Cheap transport was vital to more intensive quarrying, and the construction of railways into Weardale led to the development of large quarries, once again obliterating earlier workings. Frosterley marble, strictly speaking a limestone, had been prized for decorative building adornment for centuries, but it was the arrival of the railway from Bishop Auckland in 1847 that opened up intensive quarrying in the area, such as at Harehope. Fifteen quarries worked Weardale limestone in the nineteenth century (Hardie and Hammond 2007). An almost unbroken line of limestone quarries between Frosterley and Stanhope and into the Bollihope Burn is shown on the 1919 revision of the Ordnance Survey map, and 1,200 men were employed in the industry in Weardale in the 1890s, bequeathing the industrial feel of much of Stanhope's urban landscape today (Forbes and Young 2021). The quarrying of harder intrusive rocks, notably whinstone, also expanded during the industrial period (Beadle 1997), but where outcrops and associated rubble were conveniently located it has long been exploited on a domestic scale, as at Holwick Well Head in Teesdale.

Limekilns

Many limekilns were constructed throughout the North Pennines to produce quicklime, used on the fields to improve the fertility of the acid soils and as lime mortar for the construction of buildings (Robertson 1999). Many of these survive, in various states of disrepair; a few have been conserved in recent years as heritage sites. The majority were operated on a small scale, providing lime for local use, though a few operated on a more industrial scale. An impressive example of the latter is the Earl of Carlisle's complex at Clowsgill, c1km south-east of Hallbankgate. This included two banks of kilns and two substantial quarries, and was in operation from at least as early as the mid eighteenth century. In 1798 a horse-drawn waggonway was constructed linking the site with collieries at Tarnhouse and Talkin Fells, and on to Brampton where processed lime was stored at the staithes for onward sale. In 1837 this was replaced by a private railway, using steam locomotives, which remained in operation through until 1953. Unusually, the complex was provided with a waterwheel in 1844 to power wagons of limestone from the quarry floor up to the top of the kilns; wagons were usually hauled by horses and such a system is only known at two other sites in Britain (one in Scotland and one in Cornwall) but it must have been reasonably successful at Clowsgill as it remained in use for many years. Lime from Clowsgill was transported to Carlisle where it was used as lime mortar in building construction and also, from 1818, for the manufacture of town gas. Some lime from the complex was transported even further, to north-east England and Scotland. The Clowsgill kilns closed in about 1870 and were replaced by a new bank of kilns at Forest Head, about 1km to the south; these remained in operation through into the 1940s and still stand today as an impressive reminder of the once large-scale industrial operations in what is now a largely open, empty and silent landscape. The Clowsgill kilns have now been demolished, though substantial earthworks, including those of the waggonway, still survive on the site. Other impressive industrial-scale limekilns that can still be seen today include those at Bishopley, built by the Wear Valley Railway Company on the Bollihope Burn near Frosterley, and at Skears, Middleton in Teesdale, originally owned by the Bowlees Quarry Company and operated through into the 1960s by local company Harold Beadle & Co.

Iron mining and quarrying

Study of iron-ore mining and smelting in the North Pennines has been overshadowed by the enormous importance of the lead industry. Because iron rusts, it was constantly in demand for a wide variety of domestic, agricultural and industrial uses, whereas lead could be more easily recycled. It was therefore often worth exploiting relatively low quality sources of iron ore, including 'bog iron' on the moorland heights where acidic soils might react with iron-rich water to precipitate out iron compounds. The sparse documentary record of iron processing, thanks mainly to the lack of official attention given to humdrum ferrous metals compared to the taxation potential of tin and lead, means our knowledge of the industry well into the post-medieval period still relies heavily on archaeology. However the slag remains found at various bloomery sites in the uplands are hard to date without stratigraphic assistance. Iron was smelted at Burtreeford near the head of Weardale in the 1590s, although the precise site is now unclear (Forbes and Young 2021). The attempt to mine iron ore commercially on Alston Moor in the 1840s was short-lived for more intensive exploitation relied upon cheap transport (Robertson 2010). Thus it was that large-scale extraction of ironstone, often found in conjunction with lead veins, flourished in Weardale from the 1840s as railways were constructed up the valley. Perhaps the most dramatic remains are at the Westrigg

Opencut, above Westgate, where opencast ironstone working has left exposed the rocks encasing the 'shadow' of a lead vein mined out much earlier. A private railway connected a line of ironstone quarries at the 390m contour above the valley to inclines at Rookhope and then ran at even higher altitudes from Boltslaw to Parkhead (Bell 2015). Blast furnaces were established at Stanhope Dene and a long-lived steelworks at Wolsingham (Hardie and Hammond 2007; Forbes & Young 2021).

Coal mining

The large coalfields of Northumberland and Durham are well-known for their thick, economically important coal seams. However, the strata forming the main block of the North Pennines, laid down earlier in the Carboniferous era, also include thin coal seams. In many valleys, these seams have been mined, either from adits into the valley sides where the seams outcrop, or via bell-pits. Published research looks at the coal mines in the western part of the North Pennines (Brooks 2009; Smith and Murphy 2011), but little work has been carried out in the rest of the area. Members of Altogether Archaeology have examined all the first edition Ordnance Survey maps of the North Pennines (surveyed around 1860) and found circa 200 coal pits (many already abandoned). These mines are found in all parts of the area, but particularly concentrated in the South Tyne and West Allen Valleys, as well as the northern half of the Pennine Escarpment (Green, in preparation). As well as domestic use, the coal was used in limekilns. With improved transport of coal and lime in the nineteenth century, most of these mines ceased to operate, although at Ayle, near Alston, mining continued into the twenty-first century.

In the north-west corner of the North Pennines, quite complex industrial landscapes developed on the back of coalmining. A useful overview of post-medieval mining in the area, together with a distribution map of known sites, is provided by Smith and Murphy (2011). The map shows a cluster of collieries in the area around Tindale, Geltsdale and Castle Carrock, with another cluster east of Croglin and Renwick. These are briefly discussed below. The map also shows lead and barites mines on Haresceugh Fell, though it is important to note that lead mining did not occur anywhere in the scheme area on anything like the scale it did to the east on Alston Moor and elsewhere in the North Pennines. A single copper mine is shown east of Renwick, but this was apparently no more than a trial, the results of which are unknown; given the lack of subsequent work we may reasonably assume that nothing of great value was found.

In an arc extending roughly from Castle Carrock through Geltsdale to Tindale and Midgholme, the post-medieval story is as much if not more about industry than agriculture. Based largely on its coal reserves, this area was developed from the mid sixteenth century onwards by the Earls of Carlisle from their base at Naworth Castle. Industries included coal mining, quarrying (limestone, millstones and whinstone) and lime production. The scale of industrial operations here is immediately obvious from a glance at a first or second edition OS map, and modern lidar imagery still shows the scars of these various operations, including earthworks associated with numerous collieries and quarries.

The industrial archaeology of Upper Geltsdale has been studied in detail by Graham Brooks (Brooks 2004, 2009, and several undated survey reports). He has completed an important survey of a range of sites including some quite complex industrial landscapes extending over the southern slopes of Talkin Fell, the north end of Castle Carrock Fell, and the western side of Tarnmonath Fell. The range of sites recorded includes several abandoned dwellings and industrial buildings, eleven separate

collieries or coalmines (including Gairs Colliery at which several ruined buildings and other structures survive), fourteen limestone quarries, five limekilns, railways, roads (including six bridges), and also several sheep stells and other agricultural sites. An industrial site worthy of particular mention is the Tindale Zinc Spelter, built by James Henry Attwood in or shortly after 1845 on land leased from the Earl of Carlisle just south of Tindale (Brooks 1991; Smith & Murphy 2011). This processed ore from the lead mines on Alston Moor and also from the Isle of Man, Ireland, Germany and Sweden. Shown on 1st and 2nd edition OS maps as a huge complex just south of Tindale, the complex has been completely demolished, though substantial earthworks can still be clearly seen on lidar imagery.

South of this northern ‘industrial zone’, coal mining also occurred in the East Cumberland Coalfield at a number of colliery sites lying between the Croglin Water and Hartside. When the manor of Croglin was purchased by Charles, Duke of Somerset, in 1738, it included a colliery which remained in continuous operation through until 1864. There were also early coal workings at Hartside and Renwick, the earliest reference to these being in the account book of Lady Anne Clifford for 1665. The coal from these mines was not as high quality as that to the north around Tindale and Geltsdale, and was mined on a smaller scale, mostly being used for lime burning in numerous local limekilns. Graham Brooks has studied these sites in detail and notes that the archival records for them is generally very poor and often non-existent, and that the best record of the industry is what remains on the ground in terms of archaeological remains. Nevertheless he includes some interesting documentary references in an unpublished paper, which also describes what remains to be seen today at Croglin Colliery (Guide Pit), Haresceugh Colliery (sometimes called Staffield, Gillhead and Kirkoswald Colliery), Renwick Colliery (Bleaberry Gill, Thackmoor, Renwick Moor and Stockdale) and Burnt Edge Colliery.

Peat cutting

An aerial survey of damage to the peat areas of England (Natural England 2012) found that the North Pennines included a third of England’s peatlands, far more than any other area. However, it found no areas of peat cutting in the North Pennines. Clearly peat cuttings must have existed, such a plentiful local supply of fuel would have been used domestically, and lead smelting mills burnt large quantities in their ore hearths in the eighteenth and nineteenth centuries. Some may have been used in earlier centuries for smelting in bales. Finch (2014) shows that, as early as 1694, the tenants in the West Allen valley had to defend their turbarry against the new threat of local peat being dug for a smelt-mill. The smelt mills of the North Pennines, like those in the Yorkshire Dales, often had peat-houses to store and dry the peat ready for use. The Miner-Farmer project (Oakey *et al* 2012) found ample evidence of old peat-cuttings on the moors around Alston, and the recently available lidar images of most of the North Pennines confirm that there are indeed many areas of moorland peat-cutting elsewhere in the North Pennines.

At Holwick Scars, above the settlement of Well Head, there is a group of ruined buildings on the rim of Teesdale, one labelled ‘Peat House’ on the first edition Ordnance Survey map (Eastmead 2018). This was presumably used to store and dry the peat dug on the hills, before carrying it down into the settlement. Winchester (1984, 2000) describes the use of such moorland-edge domestic peat stores in Eskdale (West Cumbria), but they have not been noted in the Pennines. A group of Altogether Archaeology members has investigated the topic, checking first edition Ordnance

Survey maps of the area for evidence of peat cuttings and of peat-houses (Green, in prep). No peat cuttings were marked on the maps although there were many peat-related place-names. Similarly, apart from the instance already noted at Holwick, no buildings were labelled as peat houses, although there were several small buildings in locations suggesting that they could have been peat houses. Fieldwork is needed to investigate these, though it will be difficult to verify their original use. In some cases, usage may have changed over time, with old shielings perhaps becoming shooting huts, shepherds' refuges, or peat houses.

Summary

As noted in its introduction, this has been but the briefest of overviews of the post-medieval archaeology of the North Pennines. Much more can be said of the rise and fall of lead mining and other industries, of traditional farmsteads and field systems, of the development of towns and villages, of religion and in particular the network of Methodist chapels, and of transport including roads and railways. Changes in the landscape during the twentieth century, including during both World Wars, and the recent development of tourism, are also subjects worthy of study. The overriding theme of post-medieval archaeology in the North Pennines will, however, always be the nature of the miner-farmer landscape, and the ways in which people exploited the industrial and agricultural potential of the area. Although much is known, there is still huge potential to find out more through a combination of archaeological field investigation, architectural survey of historic structures, and documentary studies.

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Given the nature of this Resource Assessment, and its primary aim to provide a basic overview of the archaeology of the North Pennines, it relies heavily on secondary sources, as set out here. As subsequent versions are produced, it is intended that this section will be expanded to include further historic sources as well as references to new work.

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