

**A66 Northern Trans-Pennine Project
TR010062**

**3.4 Environmental Statement
Appendix 8.9 Historic Environment
Research Framework**

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**3.4 ENVIRONMENTAL STATEMENT APPENDIX 8.9
HISTORIC ENVIRONMENTAL RESEARCH FRAMEWORK**

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8.9 Historic Environment Research Framework

8.9.1 Introduction

Governing Concepts

- 8.9.1.1 This document seeks to provide an overview of the known Cultural/Historic Environment resource in the area of The Project. Against that background it seeks to identify key elements of the known resource, and also topics and areas where additional data may be anticipated and potential gaps. Archaeological visibility, and the extent and/or intensity of previous archaeological research and discoveries varying along the route, as it does in all areas of the country, and to provide a clearer context for what is and is not known this document utilises data from the areas immediately adjacent to the route - an area that has been termed the 'A66 Route Corridor' (ES Figure 8.9.1: Historic Landscape Character Areas (Application Document 3.3)).
- 8.9.1.2 Following discussions with Historic England and the Local Authority Curatorial Archaeologists for the three counties that, with Darlington Unitary Authority, cover the A66 Route Corridor it was agreed that the Research Framework should:
- Consider the wider Cultural/Historic Environment, not just the archaeological resource
 - Identify overarching questions
 - Highlight gaps in knowledge
 - Be presented as a narrative by Period
 - Propose opportunities for Public Engagement.
- 8.9.1.3 Subsequent discussions with Historic England led to the suggestion of a number of key 'Data Themes' that potentially cut across Period divisions:
- Chronology
 - Environment
 - Artefacts.
- 8.9.1.4 An initial review of the available data by the author suggested that it was appropriate to add a fourth Data Theme:
- Identification of new sites/topics¹
- 8.9.1.5 In addition, and as indicated above, given the paucity of pre-existing data within parts of the areas proposed for development, and to allow for the possible impact of temporary enabling works, an approach that considers the Cultural Resource within a broad 'A66 Route Corridor' (ES Figure 8.9.1: Historic Landscape Character Areas (Application Document 3.3)) has been adopted.
- 8.9.1.6 The themes and contexts developed in the Research Framework have been taken forward into the Detailed Historic Environment Mitigation

¹ 'Topics' is included due the recognition that aspects of 'Intangible Heritage' might warrant inclusion as part of the Cultural/Historic Environment (see section 8.9.1.2)

Strategy (Environmental Management Plan (EMP) Annex B3 Detailed Heritage Mitigation Strategy (Application Document 2.7))

- 8.9.1.7 The latter document sets out the Project commitments to maximising public benefit from the investigative works undertaken in connection with the construction of the Project.

Preamble

- 8.9.1.8 The Cultural Heritage of any region is a palimpsest developed over many millennia. In large part it reflects the geology, topography and climate of the area which will have influenced and at times controlled or restricted the nature of occupation and use. The time-depth represented in the A66 Route Corridor has to be accepted as extending back to the Late Upper Palaeolithic (approximately 11,000 - 8,000 BC), but only becoming generally recognisable in the archaeological resource from the Mesolithic onwards (approximately 8,000–4,000 BC) (see Table 1 and Appendix 8.1: Archaeological and Historical Background). Going forward, and certainly by the 20th century, if not the 19th, recorded social historical values can potentially be attached to historic assets in a way that is not readily possible for earlier periods, such as social and intellectual/political groups, for example the Westmorland Suffragists (Smalley, 2010)². Although the Industrial Revolution can be argued to see the greatest period of change in the historical and archaeological record, the rapid changes and developments, particularly in technologies, in the 20th century can also be seen in impacts on the landscape and within Society, perhaps none more so than the widespread use of the internal combustion engine (Turnbull, 2021)³. In addition, aspects of the developing field of *Intangible Heritage* (International Council on Monuments & Sites UK, 2003)⁴ are potentially highly important to the present day population, or particular groups, such as the traditions and functions of the annual Appleby Horse Fair for Romani and Traveller Communities.
- 8.9.1.9 In addition to the geology and topography the remains and results of previous phases of human occupation and exploitation will also have influenced succeeding phases. The presence of pre-existing structures and infrastructure, as well as the impacts of human activity with respect to and within the landscape may dictate the location of occupation sites and other physical remains, or facilitate, or limit, the nature of later land use.
- 8.9.1.10 Many other factors, such as changes in climate, political and social changes can also influence, or even dictate, agricultural potential and settlement location.

² Smalley R. (2010) 'The Westmorland Suffragists', Transactions of the Cumberland and Westmorland Architectural and Archaeological Society, 3rd series

³ Turnbull, J. (2021) The Impact of Motor Transport on Westmorland c. 1900-1939. Kendal: Cumberland and Westmorland Antiquarian and Archaeological Society. Extra Series 51

⁴ International Council on Monuments & Sites UK (2003) Exploring Intangible Cultural Heritage Report

8.9.2 Methodology

Resource Assessments and Research Frameworks

- 8.9.2.1 The origins of Resource Assessments and Research Frameworks in the Cultural Heritage sector lie in the 1990s and were driven by a perceived need to understand the state of archaeological knowledge (Resource Assessment), gaps in that knowledge (Research Agenda) and focussing or work to address the questions identified in the Agenda (Research Framework) (Oliver, 1996)⁵. This document seeks to extend that process to include wider Cultural Heritage considerations for the A66 Route Corridor beyond the conventionally 'archaeological'.
- 8.9.2.2 The three Counties and the Unitary Authority of Darlington impacted by the A66 Route Corridor are covered by three Research Framework regions: the North-West (Cumbria), the North East (Darlington and County Durham) and Yorkshire (North Yorkshire). The Research Frameworks for the North-East (Petts, with Gerrard 2006)⁶ and the North-West (Brennard, 2006)⁷ have been/are both being revised for second iterations, while that for Yorkshire has seen slower progress (Manby, 2003)⁸ (Roskams and Whyman, 2005)⁹. This document draws together information, commentary and research priorities from those documents as it is relevant to the area of The Project and the wider 'Route Corridor'. Where possible and appropriate it brigades together related topics and strategies from the three Research Frameworks.
- 8.9.2.3 Basic to any understanding of the present knowledge of the Cultural Heritage of a region are the relevant Historic Environment Records (HERs) which, for this Project are those held by: Cumbria County Council; Durham County Council (which also covers the area of Darlington Unitary Authority) and North Yorkshire County Council. The data, as used in this document, was extracted by the Amey/Arup Project Team for the accompanying Gazetteer (Appendix 8.8: Gazetteer) and it is summarised in Appendix 8.1: Archaeological and Historical Background. Portable Antiquities Scheme data for Eden District (Cumbria) County Durham and Darlington Unitary Authorities and Richmondshire District (North Yorkshire) has also been utilised and is referenced where used. Where necessary it is supplemented by reference to relevant data from the wider 'Study Corridor' and on

⁵ Olivier, A. (1996) Frameworks for Our Past English Heritage. London: English Heritage

⁶ Petts, D. with Gerrard, C. (2006) Shared Visions: The North-East Research Framework for the Historic Environment. Durham: Durham County Council.

⁷ Brennard, M. (2006) The Archaeology of North West England. An Archaeological Research framework for North West England: Volume 1 Resource Assessment (Archaeology North West vol 8); (2007) Research and Archaeology in North West England: Volume 2 Research Agenda and Strategy (Archaeology North West vol 9). For updated version see - North West Regional Research Framework The Research Framework for the North West

⁸ Manby T.G., Moorhouse, S. and Ottaway, P. (2003) The Archaeology of Yorkshire. An Assessment at the beginning of the 21st century Roskams, S. and Whyman, M. (2005) Yorkshire Archaeological Research Framework: resource assessment (2007) Yorkshire Archaeological Research Framework: research agenda (Yorkshire Archaeological Research Framework: research agenda | Historic England)

⁹ Roskams, S. and Whyman, M. (2005) Yorkshire Archaeological Research Framework

occasion sites or discoveries further afield which are referenced as appropriate.

- 8.9.2.4 The methodology applied to the available data is a period by period Resource Assessment that refers back to Appendix 8.1: Archaeological and Historical Background and discusses the Cultural Resource as presently understood, with reference to Appendix 8.1: Archaeological and Historical Background, sites and discoveries in the wider 'Route Corridor' and relevant archaeological literature. The same approach is adopted for the first part of the Research Framework, which is also supplemented by a section on Theme-based Research questions that can/or do cut across period boundaries. Key sites included in the Project Gazetteer (Appendix 8.8: Gazetteer) are shown on ES Figure 8.9.1: Research Framework Route Corridor and ES Figure 8.9.2: Gazetteer Sites Discussed in the Research Framework (Application Document 3.3)

Limitations on the data

- 8.9.2.5 As in any region of the UK local circumstances and the history of previous research have impacted on the character, level of detail and foci of the data available to archaeologists and historians.
- 8.9.2.6 During the 20th century the A66 Route Corridor has seen a particular focus on Roman-period sites, and particularly those associated with the Roman army: Greta Bridge (08-0002), Bowes (07-0002/07-9000), Brough-under-Stainmore (06-0004), Kirkby Thore (0405-0003), and Brougham (02-0002). In addition lesser military sites, including the well-known series of large temporary camps that includes Rey Cross (Welfare and Swan, 1995)¹⁰ and Redlands Bank (Crackenthorpe) (0405-0004), and fortlets, such as Maiden Castle (0405-0005), along with the Roman road (00-0001) (Margary, 1973)¹¹ itself have all received attention.
- 8.9.2.7 Unlike similar areas to the south (such as Swaledale and Wensleydale (Fleming, 1998)¹²) and north (for example Weardale and Upper Teesdale (Young, 1987)¹³(Coggins, 1986)¹⁴), Stainmore and the Upper Eden Valley, and to a lesser extent Lower Teesdale, have not received the same attention from researchers.
- 8.9.2.8 A significant exception to this generalisation is the long-term work focussed on the late Iron Age royal centre at Stanwick and associated settlements such as Rock Castle and Melsonby (Haselgrove, 2016)¹⁵

¹⁰ Welfare, H. and Swan, V. (1995) Roman Camps in England. London: Royal Commission on the Historical Monuments of England

¹¹ Margary, I.D. (1973) Roman Roads in Britain, 3rd edition, London: Baker

¹² Fleming, A. (1998) Swaledale: Valley of the Wild River. Edinburgh: Edinburgh University Press

¹³ Young, R. (1987) Lithics and Subsistence in North-eastern England. Aspects of the prehistoric archaeology of the Wear Valley, Co. Durham, from the Mesolithic to the Bronze Age. British Archaeological Reports, British Series, 161. Oxford: British Archaeological Reports

¹⁴ Coggins, D. (1986) Upper Teesdale: the Archaeology of a North Pennine Valley, British Archaeological Reports, British Series 150. Oxford: British Archaeological Reports

¹⁵ Haselgrove, C. (2016) Cartimandua's Capital? The Late Iron Age royal site at Stanwick, North Yorkshire, fieldwork and analysis 1981-2011. Council for British Archaeology Research Report 175. York: Council for British Archaeology

- 8.9.2.9 Highway improvement schemes have redressed the balance to an extent, including work on the A1 at Scotch Corner (Fell, 2020)¹⁶; Scotch Corner to Greta Bridge (Zant and Howard-Davis, 2013)¹⁷; on Stainmore (Vyner, 2001)¹⁸ and at Temple Sowerby (Zant, 2009)¹⁹.
- 8.9.2.10 Despite the highways work, which produced significant prehistoric, post-Roman, medieval and post-medieval evidence on Stainmore and from the Scots Dyke to Greta Bridge work, along with Bronze Age, medieval and post-medieval evidence at Temple Sowerby, in general we are still woefully ignorant of most periods over much of the length of the route.
- 8.9.2.11 Even for the Roman period our data is skewed to a few 'hot-spot' sites, notably the fort and vicus sites listed above. That said, particularly at Kirkby Thore, our understanding is often limited. At Brougham (02-0002), despite the publication of a major monograph on Roman burials (Cool, 2004)²⁰, our knowledge of that topic at the site is largely restricted to evidence from the 3rd century AD.
- 8.9.2.12 As a consequence and in contrast with a project such as the A428 Black Cat to Claxton Gibbet scheme in Cambridgeshire where the level of pre-existing data and understanding was such that it would:
'permit the ... A428 programme to be approached within an informed framework' (Evans, 2021)²¹.
- 8.9.2.13 The base level data for much of the A66 Route Corridor is so limited that a key research objective must be the development of a more robust data set that will allow the development and testing of research questions that will take understanding of the Cultural Heritage of the area forward.
- 8.9.2.14 The development of this document in parallel with the programmes of Phase 2 geophysical survey (Appendix 8.5: Geophysical Survey Report), and the programmes of geoarchaeological (Appendix 8.3: Geoarchaeological Desk-based Assessment and geochemical surveys (Appendix 8.7: Geochemical Survey Report) and trial trenching (Appendix 8.6: Trenching Report(s)) has been an iterative process. Established data sources such as: HERs, published material, grey literature reports and the Portable Antiquities Scheme database have been utilised, along with the PIE Report gazetteer developed from them for the A66 Project and the emerging results from the various strands of survey work and trial trenching undertaken to support the Environmental Statement.

¹⁶ Fell, D.W. (2020) Contact, Concord and Conquest. Britons and Romans at Scotch Corner. (Northern Archaeological Associates monograph 5). Barnard Castle.

¹⁷ Zant, J. and Howard-Davis, C. (2013) Scots Dyke to Turnpike: The Archaeology of the A66, Greta Bridge to Scotch Corner. Lancaster Imprints 18. Lancaster: Oxford Archaeology North

¹⁸ Vyner, B. (2001) Stainmore. The Archaeology of a North Pennine Pass. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹⁹ Zant, J. (2009) 'Archaeological Investigations on the A66 at Temple Sowerby 2006-2007', Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society 3rd series,

²⁰ Cool, H.E.M. (2004) The Roman Cemetery at Brougham, Cumbria. Excavations 1966-67. Britannia Monograph 21. London: Society for the Promotion of Roman Studies

²¹ Evans, C. (2021) Appendix C A428 Archaeology - Rationale and strategy p.1

Periodisation used in the Research Framework

8.9.2.15 Through-out the document the following broad periods are used to provide the chronological framework.

Table 1: Chronology²²

BQC ²³	Period	Sub-Period	Description	Minimum Date ²⁴	Maximum Date
Late Pleistocene	Palaeolithic		The period once referred to as the Old Stone Age. It is defined by the practice of hunting and gathering and the use of chipped flint tools. This period is usually divided up into the Lower, Middle and Upper Palaeolithic.	-500000	-8000
		Lower Palaeolithic	The earliest subdivision of the Palaeolithic, or Old Stone Age; when the earliest use of flint tools appears in the current archaeological record. A hunter gatherer society is a defining characteristic.	-500000	-150000
		Middle Palaeolithic	The second subdivision of the Palaeolithic or Old Stone Age. Characterized by the fine flake tools of the Mousterian tradition and economically by a hunter gatherer society.	-150000	-40000
		Upper Palaeolithic	The third and last subdivision of the Palaeolithic or Old Stone Age; characterized by the development of projectile points made from bony materials and the development of fine blade flint tools.	-40000	-11000
		Late Upper Palaeolithic		-11000	-8000
Holocene	Mesolithic		The Middle Stone Age, falling between the Palaeolithic and the Neolithic; marks the beginning of a move from a hunter gatherer society towards a food producing society.	-8000	-4000

²² After Historic England (amended)

²³ BQC = British Quaternary Chronostratigraphy

²⁴ Early Prehistoric dates amended to align with those used in Appendix 8.1: Archaeological and Historical Background and Upper Palaeolithic sub-divided to reflect Regional lack of material pre-dating the Late Upper Palaeolithic

BQC ²³	Period	Sub-Period	Description	Minimum Date ²⁴	Maximum Date
		Early Mesolithic	The earliest subdivision of the Mesolithic, or Middle Stone Age.	-10000	-7000
		Late Mesolithic	The latest subdivision of the Mesolithic, or Middle Stone Age.	-7000	-4000
	Early Prehistoric		For monuments which are characteristic of the Palaeolithic to Mesolithic but cannot be specifically assigned.	-500000	-4000
	Neolithic		The New Stone Age, this period follows on from the Palaeolithic and the Mesolithic and is itself succeeded by the Bronze Age. This period is characterized by the practice of a farming economy and extensive monumental constructions	-4000	-2200
		Early Neolithic	The earliest subdivision of the Neolithic, or New Stone Age.	-4000	-3300
		Middle Neolithic	The second subdivision of the Neolithic, or New Stone Age.	-3300	-2900
		Late Neolithic	Conventionally the third and latest subdivision of the Neolithic, or New Stone Age.	-2900	-2200 ²⁵
	Bronze Age		This period follows on from the Neolithic and is characterized by the increasing use of Bronzework. It is subdivided in the Early, Middle and Late Bronze Age.	-2600	-1600
		Early Bronze Age	The earliest subdivision of the Bronze Age.	-2600	-1600
		Middle Bronze Age	The second subdivision of the Bronze Age.	-1600	-1200

²⁵ Increasingly archaeological literature is including the concept of a British Chalcolithic, or Copper Age, in discussions of the latest part of the Neolithic and earliest part of the Bronze Age, covering the period of roughly -2400 to -2200. The exact usage of the term is variable with some scholars seemingly using it to mean 'Terminal Neolithic' (for example, Fowler, C. (2012) Chalcolithic and Early Bronze Age Burials in Northeast England, whereas other researchers link it to the Early Bronze Age (for example Speed, G.P. (2021) Living between the Monuments. The Prehistory of the Dishforth to Barton A1 Motorway Improvements. Barnard Castle: Northern Archaeological Associates:, pp.126-127). As the Chalcolithic as a term does not appear in the existing archaeological literature for the A66 Route Corridor, the significance of this 'academic debate' for this document is Speed's use of it as a distinct period in his consideration of the prehistory of A1 Dishforth to Barton Motorway Project which is an obvious potential comparator in future discussions of the results of work on the A66 Route Corridor.

BQC ²³	Period	Sub-Period	Description	Minimum Date ²⁴	Maximum Date
		Late Bronze Age	The third and latest subdivision of the Bronze Age.	-1200	-700
	Iron Age		This period follows on from the Bronze Age and is characterized by the use of iron for making tools and monuments such as hillforts and oppida. The Iron Age is taken to end with the Roman invasion.	-800	43
		Early Iron Age	The earliest subdivision of the Iron Age.	-800	-300
		Middle Iron Age	The second subdivision of the Iron Age.	-300	-100
		Late Iron Age	The third and latest subdivision of the Iron Age.	-100	43
	Late Prehistoric		For monuments that can be identified only to a date range from Neolithic to Iron Age.	-4000	43
	Roman		Traditionally begins with the Roman invasion in 43 AD and ends with the Emperor Honorius [allegedly] directing Britain to see to its own defence in 410 AD.	43	410
	Early Medieval		This dates from the breakdown of Roman rule in Britain to the Norman invasion in 1066 and is to be used for monuments of post Roman, Saxon and Viking date.	410	1066
	Medieval		The Medieval period or Middle Ages begins with the Norman invasion and ends with the dissolution of the monasteries.	1066	1540
	Post Medieval		Begins with the dissolution of the monasteries and ends with the death of Queen Victoria.	1540	1901
		Victorian	Dating to the reign of Queen Victoria.	1837	1901
		20th Century	Previously described as 'Modern'	1901	2000
		21st Century	Twenty-first century phases and events	2001	Present Day
		Uncertain	'Catch all' for uncertain period allocations		

8.9.3 Resource Assessment

Palaeolithic

- 8.9.3.1 As is apparent from Appendix 8.1: Archaeological and Historical Background data relating to the Palaeolithic within the A66 Route Corridor is almost non-existent, and there are no known sites from the Lower or Middle Palaeolithic from the North-West and North-East Regions of England. For the Late Upper Palaeolithic sites are known in Cumbria, County Durham and Yorkshire, with locations limited to coastal, cave and wetland sites, none of which are close to the A66 Route Corridor. However, probable Late Upper Palaeolithic flints are known from Towler Hill, Lartington, near Barnard Castle (Coggins and Young, 1989)²⁶, More recently The Portable Antiquities Scheme have recorded a 'probable' Late Upper Palaeolithic stone tool from 'near Beamish'²⁷ suggesting the potential for casual/redeposited finds of that date from the broader region and therefore the A66 Route Corridor.
- 8.9.3.2 The 'Living among the Monuments' Eden Valley Fieldwalking Project between Brougham and Temple Sowerby produced an assemblage of 'earlier prehistoric' worked flints (including: 03-0022 to 03-0035, 03-0043 to 03-0053) (Appendix 8.3: Geoarchaeological Desk Based Assessment section 3.3.1)²⁸. The assemblage included a probably Late Upper Palaeolithic blade (03-0020)²⁹, with the project also producing two other possible pieces of similar dates³⁰.
- 8.9.3.3 The previous point emphasises one of the major challenges in identifying/understanding the Palaeolithic in the North of England and beyond. In considering the Palaeolithic and Mesolithic of West Yorkshire Spikins notes: 'It is also likely that superficially similar Upper Palaeolithic industries with relatively large blades have been grouped in the 'Mesolithic category' (Spikins, 2010)³¹, and therefore the 'visibility' of the Palaeolithic resource can be obscured. The potential for such issues will need to be considered in seeking to understand the early prehistory of the study area.
- 8.9.3.4 Aerial and LiDAR survey have identified numerous paleochannels within the Order Limits for example north of the River Greta near Tutta Beck Farm³², and on a smaller scale close to Crooks Beck and Lowgill Beck³³.

²⁶ Coggins, D., Laurie, T. and Young, R. (1989) 'The Late Upper Palaeolithic and Mesolithic of the North Pennine Dales in the light of recent discoveries', in C. Bonsall (ed.) *Mesolithic in Europe*, Edinburgh: John Donald Publishers

²⁷ PAS reference: NCL-2FB3B6

²⁸ Cumbria HER: 45151; 45152; Appendix 8.3: Geoarchaeological Desk Based Assessment - section 3.3.1

²⁹ Cumbria HER: 45178

³⁰ Cumbria HER: 45240 and 45242 for which reports are in progress at the time of writing (M. Brennan *pers. comm.*)

³¹ Spikins, P. (2010) *Palaeolithic and Mesolithic Research Agenda*. Wakefield: West Yorkshire Archaeological Advisory Service

³² Appendix 8.4: AP and LiDAR Assessment Figure 18 and Figure 19 - Site 8_81

³³ Appendix 8.4: AP and LiDAR Assessment Figure 14 and Figure 15 - Sites 6_65, 6_71 and 6_72

Mesolithic

- 8.9.3.5 As noted in Appendix 8.1: Archaeological and Historical Background evidence for Mesolithic activity in the North Pennines generally is much sparser than in the Central and Southern Pennines (Brennand, 2006) (Higham, 1986)³⁴. While it is correct that early Mesolithic material is far less common in the northern Pennines when compared with areas further south, this is decreasingly true for later material. Work in Upper Teesdale and Upper Weardale to the North of the A66 Route Corridor has recovered significant quantities of largely Late Mesolithic material (Young, 1987). In Cumbria, Later Mesolithic material is known from sites to the west of the A66 Project area, between Shap and Kirkby Stephen (Cherry, 1987)³⁵ and also from Levens Park (Cherry, 2000)³⁶.
- 8.9.3.6 Before going on to report on very small assemblages, with limited amounts of diagnostic Mesolithic material from the 1988-91 work undertaken west of Bowes. Pickin observes that in
- 'the Stainmore Pass corridor [Mesolithic] surface finds are relatively common, given the low intensity of archaeological fieldwork in the area' (Pickin 2001c)³⁷.*
- 8.9.3.7 In addition, Appendix 8.1: Archaeological and Historical Background makes reference to:
- 'numerous lithic artefacts found through fieldwalking and through survey along the western coast and throughout the Eden Valley (02-0028, 03-0035, 03-0039, 03-0048, 03-0049)³⁸.*
- 8.9.3.8 Pickin's comments regarding the extent of research remain apposite here. Stainmore and the A66 corridor has not had the concentration of fieldwork seen further south (Spikins, 2002)³⁹ or further north (Young, 1987). The lack of Mesolithic material from the 1988-91 work on Stainmore (Vyner, 2001) may represent the serendipity of discovery, but the potential of Mesolithic discoveries, particularly in lower lying locations to the east and west of Stainmore proper is high. The early Mesolithic site at Little Holtby on the A1(M) (Speed et al., 2018)⁴⁰ demonstrates such potential as the site at Stainton West on the Carlisle

³⁴ Higham, N. (1986) *The Northern Counties to AD 1000* (Regional History of England), London: Longman, p.23

³⁵ Cherry, J. and Cherry, P.J. (1987) *Prehistoric Habitation Sites on the Limestone Uplands of Easter Cumbria*, Kendal: Cumberland and Westmorland Antiquarian and Archaeological Society Research Series 2

³⁶ Cherry, J. and Cherry, P.J. (2000) 'A late Mesolithic assemblage from Levens Park', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 2nd series 100

³⁷ Pickin, J. (2001c) 'Finds of flint, chert and stone from Bowes Moor', in B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Hartlepool: Tees Archaeology Monograph Series 1

³⁸ Eden District Council Museum's 'Living Among the Monuments' community fieldwalking programme has been ongoing since its first fieldwalking season in 2006, with results and findspots of prehistoric flints regularly added to the HER.

³⁹ Spikins, P. (2002) *Prehistoric People of the Pennines: Reconstructing lifestyles of Mesolithic Hunter-gathers on Marsden Moor*. Wakefield: West Yorkshire Archaeology Service

⁴⁰ Speed, G.P., Rowe, P., Russ, H. and Gardiner, L.F. (2018) 'A game of two (unequal) halves: the early Mesolithic site at Little Holtby, near Leeming, North Yorkshire', *Mesolithic Miscellany* 26(1)

Northern Development Route does for the Late Mesolithic/Early Neolithic (Brown, 2021)⁴¹.

- 8.9.3.9 Despite the relative lack of Mesolithic artefacts from the 1988-91 work on Stainmore there was palynological evidence of Late Mesolithic 'environmental manipulation' (woodland clearance). The clearance was probably extensive but not intensive, suggestive of a small population (Vyner, 2001).
- 8.9.3.10 The known distribution of Mesolithic sites and material, as with the late Upper Palaeolithic period, is likely to under-represent the true level of past human activity and, rather, reflect the relatively low intensity of archaeological fieldwork in the A66 Route Corridor.

Neolithic

- 8.9.3.11 The Mesolithic to Neolithic transition happened over an extended period of time in different parts of the country and it is highly likely that 'Neolithic' communities, generally regarded as representing the beginning of settled farming, and 'Mesolithic' communities, generally regarded as primarily hunter-gatherers, existed side by side as change happened over time⁴². In describing what may be regarded as the 'regional type site', Stainton West, Fraser (Brown, 2021) is careful to say that Neolithic practices could have been 'adopted or introduced', while offering a range of mechanisms for the proliferation of Neolithic practices:

'because of the degree to which geographically distant communities were socially and politically integrated, held together by established traditions of mobility, congregation, interaction and exchange, ...'

- 8.9.3.12 Whether the 'Neolithic inhabitants of Stainton West were descendants of the Mesolithic population is moot. They could be 'locals' who had adopted new cultural traits, or incomers who recognised the potential and resources of the Stainton West area.
- 8.9.3.13 There are alternative views on the relationships between Mesolithic and Neolithic communities. In discussing North-East England Waddington argues for a 'link between environmental change' ... [and] ... 'the development of a distinctive hunter-gatherer-farmer syncretic society' (Waddington, 2021)⁴³.
- 8.9.3.14 The Neolithic is most obviously identified by the appearance of major ceremonial and funerary monuments⁴⁴. The A66 Route Corridor links two areas with significant concentrations of ritual monuments. At its eastern end the Catterick Racecourse henge (Moloney et al., 2003)⁴⁵

⁴¹ Brown, F. (2021) 'Stainton West: a late Mesolithic and early Neolithic site on the banks of the River Eden', in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*, Oxford: Oxbow Books

⁴² Appendix 8.1: Archaeological and Historical Background - section 8.1.3.9

⁴³ Waddington, C. (2021) 'New light on the Neolithic: a perspective from north-east England', in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*

⁴⁴ Appendix 8.1: Archaeological and Historical Background - section 8.1.3.9

⁴⁵ Moloney, C., Holbrey, R., Wheelhouse, P. and Roberts, I. (2003) *Catterick Racecourse, North Yorkshire. The reuse and adaption of a monument from prehistoric to Anglian times*. Wakefield: Archaeological Services (WYAS) Publication 4

and the Scorton (Topping, 1982)⁴⁶ and (probable) Bainesse (Speed, 2021)⁴⁷ cursuses, the excavated palisaded enclosure and nearby putative major barrows suggested to underlie Castle Hills motte and bailey at Marne Barracks (Hale and Millard, 2009)⁴⁸ and, possibly, Pallet Hill in Catterick village (Vyner et al., 2011)⁴⁹.

- 8.9.3.15 To the west the group of monuments focussed on Mayburgh (Topping, 1992) close to the route of the A66 can be seen as part of a similar extensive ritual landscape incorporating the complex of monuments focussed on Long Meg stone circle (Frodsham, 2021)⁵⁰.
- 8.9.3.16 Two Neolithic, or possibly Neolithic enclosures are known within the 300m study area: Whinell Holme Circular Enclosure (03-0043) and Brougham Enclosure (03-0045). Within the Zone of Visual Impact (ZVI), some of the cairns on Ravock (07-0004) may have Neolithic origins.
- 8.9.3.17 At Chapel Dub, to the south-east of Crackenthorpe Hall geophysical survey identified a ring ditch, or circular enclosure 80m in diameter that could represent a further henge monument. Possible opposed entrances are located on the north-eastern and south-western sides, but other possible breaks in the circuit can also be seen, which could relate to the impact of latter activity, including ploughing⁵¹.
- 8.9.3.18 In proximity to the A66 Route Corridor occasional, apparently stray finds of Neolithic material are recorded by the Portable Antiquities Scheme (PAS), for example a possible flint knife from Bolam Parish⁵².
- 8.9.3.19 Rock art figures large in discussions of the Neolithic North (Brown and Brown, 2008)⁵³, but has limited visibility in the A66 Route Corridor. Frodsham summarises the situation for the eastern end of the A66 Route Corridor as part of:

The region's other main concentration of rock art sites is in the south, extending from Baldersdale and Teesdale southwards into North Yorkshire. ... Examples include Barningham Moor (where some 140 individual decorated rocks have been recorded), Scargill Moor, Stob

⁴⁶ Topping, P. (1982) 'Excavation at the cursus at Scorton, North Yorkshire 1978', Yorkshire Archaeological Journal 54

⁴⁷ Speed, G.P. (2021) Living between the Monuments. The Prehistory of the Dishforth to Barton A1 Motorway Improvements. Barnard Castle: Northern Archaeological Associates

⁴⁸ Hale, D., Platell, A. and Millard, A. (2009) 'A Late Neolithic Palisaded Enclosure at Marne Barracks, Catterick, North Yorkshire'. Proceedings of the Prehistoric Society 75

⁴⁹ Vyner, B., Innes, J., Bridgland, D. and Mitchell, W. (2011) 'The archaeology of the Washlands – a review', in D. Bridgland, J. Innes, A. Long, A. and W. Mitchell (eds) Late Quaternary Landscape Evolution of the Swale-Ure Washlands, North Yorkshire. Oxford: Oxbow Books

⁵⁰ Frodsham, P. (2021) 'A most noble work', at the heart of Neolithic Britain. Some thoughts on the Long Meg complex in the light of recent fieldwork', in G. Hey and P. Frodsham (eds) New Light on the Neolithic of Northern England, Oxford: Oxbow Books

⁵¹ Appendix 8.5: Geophysical Survey Report

⁵² PAS reference: Dur-C78481

⁵³ Brown, P. and Brown, B. (2008) Prehistoric Rock Art in the Northern Dales, Stroud: The History Press; Sharpe, K.E. (2021) 'Documenting English rock art: a review of the 'big picture'', in G. Hey and P. Frodsham (eds) New Light on the Neolithic of Northern England, Oxford: Oxbow Books

Green near Eggleston, East and West Loups's, Goldsborough, and Howgill Grange (Frodsham)⁵⁴.

- 8.9.3.20 Despite major monuments dominating discussion of Neolithic sites in the North, the evidence cited in the previous two sections suggests that it may be possible to identify the Neolithic in the A66 Route Corridor. That, combined with the evidence for an 'emerging Neolithic' in Swaledale and dales further south (Luke, 2021)⁵⁵, along with the recognition of new 'hengiform' monuments in the North Pennines (Ainsworth et al., 2021)⁵⁶, suggests that, as with the preceding periods, the Neolithic in the study area is potentially both under-recognised and under-researched.
- 8.9.3.21 On a regional level the distribution of Langdale hand axes is one of the key indicators of Neolithic 'connectedness', although the social mechanisms employed and/or demonstrated are, despite extensive and long-term academic interest (Bradley and Edmunds, 1993)⁵⁷, still debated (Bradley and Watson, 2021)⁵⁸. Lot 1 trial trench 89 at Brougham produced a polished axe of Seathwaite Fell Tuff from the Great Langdale (Group VI) factory (Wessex Archaeology, 2022)⁵⁹.
- 8.9.3.22 With respect to the A66 Route Corridor, it is noteworthy that evidence dating to the Neolithic from the 1988-1990 work west of Bowes was limited, although significantly there was clear evidence of the commencement of peat development during the Neolithic (Vyner, 2001).
- 8.9.3.23 Possibly relevant to the Neolithic, or perhaps of Bronze Age date, is a Scheduled standing stone located near Skirsgill⁶⁰ (01-001).

Bronze Age

- 8.9.3.24 As with the Mesolithic to Neolithic transition (see section 8.9.3.11) that from the Neolithic to the Bronze Age occurred over time and with 'Neolithic' and 'Early Bronze Age' practices overlapping chronologically. This is recognised in both the North-East and North-West Research Frameworks by the considerations of the Neolithic and Early Bronze Age (Petts, 2006) and the Neolithic and Bronze Age (Brennard, 2007) being brigaded together in chapters or sections. The Yorkshire Research Agenda separates the periods but makes the general observation that:

⁵⁴ Frodsham, P. (undated) 'North-East Regional Research Framework. Resource Assessment: Neolithic and Bronze Age (Consultation Draft)'

⁵⁵ Luke, Y. (2021) 'Out of the shadows: an emerging Neolithic in the Yorkshire Dales', in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*, Oxford: Oxbow Books

⁵⁶ Ainsworth, S., McOmish, D., Oswald, A. and Payne, A. (2021) Two newly-identified possible 'hengiform' monuments in the North Pennines, in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*, Oxford: Oxbow Books

⁵⁷ Bradley, R. and Edmunds, M. (1993) *Interpreting the Axe Trade*, Cambridge: Cambridge University Press

⁵⁸ Bradley, R. and Watson, A. (2021) 'Langdale and the northern Neolithic', in G. Hey and P. Frodsham (eds) *New Light on the Neolithic of Northern England*, Oxford: Oxbow Books

⁵⁹ Wessex Archaeology (2022b) A66 Northern Trans-Pennine Upgrade Lot 1: Penrith to Temple Sowerby, Cumbria. Archaeological Trenching. Post-excavation Assessment and Updated Project Design. Client report 245640.09

⁶⁰ National Heritage List for England 1007626

'Of particular importance is the point that conventional chronological divisions may obscure more than they show' (Roskams and Whyman, 2007)⁶¹.

- 8.9.3.25 The Early Bronze Age is perhaps most easily recognised through monumentality, with round barrows and, in upland areas, cairns being the dominant monument type. The funerary morphology extends to include cist burials⁶², that said there are numerous cases of Early Bronze Age monuments being built in association with pre-existing monuments, as in the case of the (at least) 10 barrows located in close proximity to the Thornborough Henges in the Vale of Mowbray (Harding, 2013)⁶³. What these monuments may mean can be debated, but at the very least there appears to be some form of ongoing recognition of the pre-existing importance of the area and probably of its prior ritual or sacred significance.
- 8.9.3.26 The visibility of barrows and cairns, such as those known in the study corridor: Sandford Moor barrow (06-0078) and ring cairn (06-0079), and the relative certainty with respect to their date or potential date, based on their visible morphology contrasts with the settlement evidence from the period.
- 8.9.3.27 In the wider A66 Route Corridor groups of barrows are known at Dufton and Bowes (07-0036 to 07-0039) and barrows/cairns form part of the complex multi-period landscapes known from Ravock Moor (Wyne, 2001)⁶⁴ and south of the A66 on Gayles and Barningham Moors, with the latter also bearing a stone circle in addition to How Tallon barrow (Vyner, 2001). In addition, a beaker and a food vessel found in a short cist burial are known from Brougham (Simpson, 1958)⁶⁵. Aerial survey has demonstrated the potential for the recognition of more barrows within the Study Area, including sites in lowland landscapes such as the probable barrow 193m east of Whinfall Park Cottages⁶⁶, which has further possible barrows nearby⁶⁷.
- 8.9.3.28 Where known, Early Bronze Age settlements tend to be enclosed and small-scale, while Middle to Later Bronze settlements tend to be unenclosed⁶⁸, with associated field systems. However, such morphologies have a long duration and can belong to the Iron Age/Roman period, or potentially even the early post-Roman, hence the common 'Prehistoric/Roman' periodisation used in Historic Environment Records. However, an element of the complex multi-period site at East

⁶¹ Roskams, S. and Whyman, M. (2007) Yorkshire Archaeological Research Framework: research agenda

⁶² Appendix 8.1: Archaeological and Historical Background - section 8.1.3.12

⁶³ Harding, J. (2013) Cult, Religion and Pilgrimage. Archaeological Investigations at the Neolithic and Bronze Age Monument Complex of Thornborough, North Yorkshire. York: Council for British Archaeology Research Report 174

⁶⁴ Where a morphologically diverse group of cairns may include clearance cairns, funerary monuments and possible houses

⁶⁵ Simpson, W.D. (1958) 'Brocavum, Ninekirks and Brougham: A study in continuity', Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society 2nd series 58

⁶⁶ Appendix 8.4: Archaeological and Historical Background - Figure 4 - Site 3_109

⁶⁷ Appendix 8.4: Archaeological and Historical Background - Figure 4 - Sites 3_107 and 3_108

⁶⁸ Appendix 8.1: Archaeological and Historical Background - section 8.1.3.16

Mellwaters (Laurie, 1984)⁶⁹ near Bowes, is suggested to represent a possible 'scooped settlement', a morphology dated to the Late Bronze Age to Iron Age, and well-known in the region (Mason, 2021)⁷⁰.

- 8.9.3.29 There is a dearth of evidence of Later Bronze Age enclosed sites in or close to the A66 Route Corridor. While the bulk of hillforts in England date to the Iron Age, defended or at least enclosed, higher status sites are known from the Late Bronze Age, with Eston Nab on the northern side of the North York Moors providing a relatively local example (Vyner, 1988)⁷¹. On a smaller scale the palisaded sites of Staple Howe (Brewster 1981) and Devil's Hill (Brewster, 1981)⁷² overlooking the southern side of the Vale of Pickering provide evidence for well-positioned enclosed sites of Late Bronze Age/Early Iron Age date that contrast with the unenclosed sites in the surrounding landscape.
- 8.9.3.30 Trail trenching near Carkin Moor Roman fort as part of Lot 3 produced a possible burnt mound in Trench 932⁷³. Burnt mounds, which can date from the Neolithic as well as the Bronze Age, are known from Plover Hall, Gilmonby (Still, 2022)⁷⁴, the Feldom military ranges near Richmond⁷⁵, with further unexcavated examples recorded in Teesdale and Weardale (Petts, with Gerrard 2006).
- 8.9.3.31 Ceramics become more common and Early Bronze Age Beaker pottery is a key cultural indicator. Flint continues to be used in large quantities.
- 8.9.3.32 Metalwork, although serving to give a name to the period is relatively rare, particularly earlier in the period. That said, the Portable Antiquities Scheme (PAS) have recorded two Early Bronze Age flat axes from the western end of the A66 Route Corridor, one large example from Long Marton⁷⁶ and a miniature one from Asby⁷⁷. Other PAS finds from the western part of the A66 Route Corridor include for the Middle Bronze Age a socketed spear from Kaber parish⁷⁸; a palstave axe from Penrith⁷⁹ and a palstave adze from Crosby Ravensworth⁸⁰. Crosby Ravensworth has also produced a fragment of a Late Bronze Age socketed axe⁸¹, with a Late Bronze Age founders hoard being recorded from 'near Kirkby Stephen'⁸². Towards the eastern end of the A66 Route Corridor the PAS records include a number of Middle and Late Bronze Age finds from

⁶⁹ Laurie, T.C. (1984) 'An enclosed settlement near East Mellwaters Farm, Bowes, Co. Durham', Durham Archaeological Journal 1

⁷⁰ Mason, D.J.P. (2021) Roman County Durham. The Eastern Hinterland of Hadrian's Wall. Durham: Durham County Council

⁷¹ Vyner, B.E. (1988) 'The Hill-fort at Eston Nab, Eston, Cleveland', Archaeological Journal 145

⁷² Brewster, T.C.M. (1981) 'The Devil's Hill', Current Archaeology 76

⁷³ Appendix 8.6: Trenching Reports, Lot 3 Report

⁷⁴ Still, B. (2022) 'Exploring the Prehistoric Landscape of the Greta Valley'. Lecture to the Prehistory Research Section of The Yorkshire Archaeological and Historical Society

⁷⁵ Appendix 8.6: Trenching Reports, Lot 3 Report

⁷⁶ PAS reference: LANCUM-CBA703

⁷⁷ PAS reference: LANCUM-8ADC2F

⁷⁸ PAS reference: DUR-CCF592;

⁷⁹ PAS reference: LANCUM-18EE15

⁸⁰ PAS reference: LANCUM-5CE338

⁸¹ PAS reference: LANCUM-D99FD1

⁸² PAS reference: LANCUM-O85EAC

around Bowes⁸³, including two hoards from Gilmonby⁸⁴ (where a large Late Bronze Age hoard was also found in 1980 (Coggins and Tylecote, 1983)⁸⁵ (Pickin and Vyner, 2001)⁸⁶. Other discoveries from the eastern end of the A66 Route Corridor include: an incomplete Late Bronze Age socketed axe from Wycliffe with Thorpe parish⁸⁷; a Middle Bronze Age dirk from Dalton parish⁸⁸ and a Late Bronze Age socket axe from 'near Hartford'⁸⁹.

- 8.9.3.33 The quantity of material from the eastern end of the A66 Route Corridor suggests the potential for high status settlement in the area. While the two hoards from Gilmonby could be explained as 'founders hoards', or coincidence, they could also be taken to suggest a local focus of wealth and power. The lack of Early Bronze Age material from the eastern end of the A66 Route Corridor could be readily explained as reflecting the relative rarity of metalwork in that part of the period. However, that argument could be reversed when considering the western end of the A66 Route Corridor as the presence of Early Bronze Age material could, although the quantity is low, be seen as possibly suggesting a focus of wealth and/or power west of Stainmore.

Iron Age

- 8.9.3.34 As with all transitions between periods that from the Late Bronze Age to the Early Iron Age will have happened over time with local variations in chronology and the expression of the changes. The Early Iron Age is not readily visible in the A66 Route Corridor, nor across the North of England generally as, along with the Middle Iron Age and much of the Late Iron Age, it is subsumed within the 'Later Prehistoric' catch-all date range applied to cropmark sites and earthwork sites, the latter particularly in upland areas.
- 8.9.3.35 Similarly, the apparent lack of major enclosed sites, such as hillforts and promontory forts serves to emphasise that limited visibility. The *Atlas of Hillforts in Britain and Ireland* (Lock and Ralson, 2017)⁹⁰ records only eight certain or possible sites between Scotch Corner and Penrith within c. 5km of the A66 and, with the exception of Stanwick, only two of them are over 1ha in size and both are located east of Stainmore (Lock and Ralson, 2017)⁹¹. While all are in potentially defensible locations, given their size and positioning few can readily be regarded as strategically

⁸³ PAS references: DUR-065531, DUR-764732, DUR-9E3CCD

⁸⁴ PAS references: DUR-1F5057, DUR-308251

⁸⁵ Coggins, D. and Tylecote, R.F. (1983) A Hoard of Late Bronze Age Metalwork from Gilmonby. Barnard Castle: Bowes Museum

⁸⁶ A useful summary of the earlier finds, as well as the metal detector find of a Bronze Age sword from Rey Cross and the nineteenth-century discovery of six Bronze Age penannular gold rings from Bowes is provided in: Pickin, J. and Vyner, B. (2001) ' Finds of Bronze Age metalwork from Bowes Moor', in B. Vyner, Stainmore. The Archaeology of a North Pennine Pass. Hartlepool: Tees Archaeology Monograph Series 1

⁸⁷ PAS reference: YORYM-980C73

⁸⁸ PAS reference: DUR-88691D

⁸⁹ PAS reference: DUR-3A05F1

⁹⁰ Lock, G. and Ralston, I. (2017) Atlas of Hillforts of Britain and Ireland.

⁹¹ From east to west: Castle Steads, Gayles - 1.2ha; Cockshot Camp, Ovington - 1.2ha; Barnard Castle, Marwood - 0.8ha; Brier Dykes, Hunderthwaite - 0.7ha; Dyke House, Stainmore - 0.2ha; Whitley Crag, Asby 0.26ha; Castlesteads, Lowther Park - 0.23ha

sited, other than possibly Cockshot Camp (Lock and Ralson, 2017), which could be seen as dominating the River Tees locally, and Dyke House (Lock and Ralson, 2017) which overlooks the western approach to the Stainmore gap. None are dated, other than by morphology, which suggests 'Late Bronze Age/Early Iron Age'.

- 8.9.3.36 The potential for additional substantial enclosures that may represent hillforts is demonstrated by the recognition of '... a univallate ditch encircling much of the ridge and unnatural disturbance upon the summit plateau ...' of Castleber Ridge. The site has been suggested as the location of a medieval castle (06-0069) but on the evidence available, could represent an earlier fortification⁹². A nearby bank, or dyke, forms part of a parish boundary but, while potentially medieval in origin, could possibly be late Prehistoric⁹³. Similar uncertainty surrounds the origins of the earthwork on Brough Hill and, quite reasonably, it is suggested that whatever its date it could have been subject to later reuse⁹⁴, a consideration could equally apply to other sites including Castleber Ridge.
- 8.9.3.37 The issues are further amplified by the limited recognition of material culture from the A66 Route Corridor and a lack of funerary evidence.
- 8.9.3.38 For the later Iron Age the picture is somewhat different given domination of discussions of the eastern part of the region by the complex of sites focussed on the Stanwick oppidum that includes Melsonby and Rock Castle (Haselgrove, 2016). This eastern bias was reinforced by the discovery of the associated major complex at Scotch Corner (11-0024 and 11-0025) (Fell, 2020). Both of these complexes, if they can be considered distinct, display their high status through their scale, wealth, variety of material culture and clear evidence of sustained long-distance contacts.
- 8.9.3.39 At the western end of the A66 Route Corridor a ploughed-down, poorly understood and undated 3ha 'defensive enclosure' at Clifton Dykes, located close to an important crossing of the River Eamont, has been proposed as a potential 'major centre' and
'on the grounds of size to be the focal point of late prehistoric settlement in the Penrith area' (Jones, 1999)⁹⁵
The suggestion possibly being supported by its:
'strategic situation, and its location in the centre of the best agricultural land' (Higham and Jones 1985)⁹⁶.
- 8.9.3.40 It should be noted that Clifton Dykes does not feature in the *Atlas of Hillforts of Britain and Ireland*⁹⁷. Whether-or-not the site represents a

⁹² Appendix 8.4: AP and LiDAR Assessment - section 4.2.25, Figure 13 - Site 6_15 - which suggests a possible Romano-British origin

⁹³ Appendix 8.4: AP and LiDAR Assessment -section 4.5.23, Figure 13 - Site 6_16.

⁹⁴ Appendix 8.4: AP and LiDAR Assessment - section 4.5.36, Figure 14 - Site 6_30

⁹⁵ Jones, B. (1999) 'The North West and Marginality Their Fault of Ours? A Warning from the Cumbrian Evidence', in M. Nevell (ed.) *Living on the Edge of Empire*, Archaeology North West 3.13

⁹⁶ Higham, N. and Jones, B. (1985) *The Carvetii*. Gloucester: Alan Sutton

⁹⁷ Lock, G. and Ralston, I. (2017) *Atlas of Hillforts of Britain and Ireland*.

Late Pre-Roman high status centre, at least in Cumbrian terms, it is clear that it bears little resemblance to the Stanwick/Scotch Corner complex(es) in terms of scale and, given the lack of evidence, presumably also in wealth and contacts. This again raises questions of regional variation within Northern England generally and across the A66 Route Corridor specifically.

- 8.9.3.41 Although, as noted in section 8.9.3.28 the North generally, including the A66 Route Corridor, has many effectively undated settlement sites that could be Prehistoric, Roman, or later⁹⁸. There is little evidence of a chronologically distinct Iron Age rural landscape. The scheduled 'Iron Age/Roman' site (09-0001) west of Carkin Moor Roman fort is a possible exception, along with elements of the East Mellwaters complex (07-0083) (Laurie, 1984) and the enclosure that forms part of the multi-phase Druidical Judgement Seat site (06-0002)⁹⁹.
- 8.9.3.42 A surprising outcome of the survey work undertaken to date as part of the A66 Project is the limited visibility of possible Iron Age/Roman-period settlement sites in the geophysical survey data. That additional data was collected for the period close to the Carkin Moor settlement¹⁰⁰, as well as the recognition of the ditched enclosure site containing ring ditches north-east of Ewebank¹⁰¹, suggests that the limited presence of such sites in the A66 Route Corridor may be a reality.
- 8.9.3.43 West of Appleby and north of Warcop the Lot 2 trial trenching recorded was is described as 'a density of' and 'a concentration of significant' prehistoric archaeology respectively¹⁰². The features included ditches, pits, gullies and, west of Appleby, in trench 1304, a likely roundhouse drip gully. The features were all located close to the Roman road, although not aligned on it, and in the absence of finds their dating should perhaps be treated with caution.
- 8.9.3.44 In terms of traditional archaeological thinking the whole of the A66 Route Corridor lies in the territory of the pre-Roman 'tribe' or confederation known as the Brigantes, whose territory, according to the second-century geographer Ptolemy, stretched from 'sea to sea' and extended from present-day Yorkshire to the Scottish borders (Hartley, 1988a)¹⁰³. During the Roman period, prior to AD 238 (Hartley, 1988b)¹⁰⁴, the Eden Valley was separated off from Brigantia to form part of a separate *civitas*, that of the Carvetii, which possibly incorporated a core area focussed on the Penrith, Eamont Bridge/Clifton Dykes area (Higham and Jones, 1985).
- 8.9.3.45 The political and social structures of the Brigantes, or the Brigantian confederation (Hartley and Gitts, 1988)¹⁰⁵, have received considerable

⁹⁸ Appendix 8.4: AP and LiDAR Assessment - sections 4.5.18-19

⁹⁹ National Heritage List for England 1007099. See Appendix 8.4: AP and LiDAR Assessment - section 4.5.5, figure 12

¹⁰⁰ Appendix 8.5: Geophysical Survey Report

¹⁰¹ Appendix 8.5: Geophysical Survey Report

¹⁰² Appendix 8.6: Trenching Report(s), Lot 2

¹⁰³ Hartley, B. and Fitts L. (1988a) The Brigantes. Gloucester: Alan Sutton

¹⁰⁴ Hartley, B. and Fitts, L. (1988b) The Brigantes. Gloucester: Alan Sutton

¹⁰⁵ Made up of sub-tribes or 'septs'

attention, despite a relative lack of evidence and a reliance on Roman-period sources (Haselgrove, 2016). Using the evidence of artefactual and settlement patterning Ross (Ross, 2011)¹⁰⁶ has sought to identify sub-regions, or 'Tribal Territories' within the area traditionally ascribed to the Brigantes. In doing that she assigns various parts of the A66 Route Corridor to three of her 'Territories':

- 3 - Lower Tees Valley incorporating Stanwick and which she regards as 'the core area traditionally attributed to the Brigantes'(Ross, 2011)
- 8 - Stainmore (with Upper Wensleydale and Swaledale) which she regards as 'apparently virtually devoid of settlement' and does not assign to any named tribal grouping or sept (Ross, 2011)
- 12 - Upper Eden Valley (above Penrith) which she assigns to "Unknown or Carvetii?" (Ross, 2011).

8.9.3.46 Whatever the value of Ross's approach it does serve to emphasise two points of importance:

1) for the Later Pre-Roman Iron Age there are greater quantities of material available from some parts of Northern England, including parts of the A66 Route Corridor which may support some detailed analysis, and

2) a need for caution when seeking to date sites purely by morphology. Her Appendix A assigns numerous sites known only from aerial photographs or as earthworks to the Iron Age without any qualification. Other researchers might more cautiously and reasonably regard these as 'Later Prehistoric', 'Later Prehistoric/Roman', or 'Iron Age/Roman'.

8.9.3.47 The potential of other categories of material to possibly inform discussions of regional groupings, or localised aspects of economies has been demonstrated by examination of the beehive querns of Northern England which has suggested distinctive local styles/traditions (Cruse, 2018)¹⁰⁷.

Roman

8.9.3.48 The Roman period is without doubt the most intensively studied period in the A66 Route Corridor. The Roman military history is superficially well-understood with a generally accepted narrative centred on conquest, occupation/control and decline/ending. However, much of that understanding flows from earlier, largely literature-driven, interpretative frameworks (Frere, 1974)¹⁰⁸ and datasets that predate significant developments in archaeological practice, notably the adoption and

¹⁰⁶ Ross, C.R. (2011) 'Tribal Territories' from the Humber to the Tyne. An analysis of artefactual and settlement patterning in the Late Iron Age and Early Roman Periods. British Archaeological Reports, British Series 540. Oxford: Archaeopress

¹⁰⁷ Cruse, J. (2018) 'Regionality in the Querns of Central Britain', in R.D. Martlew (ed.) Romans and Natives in Central Britain. Kettlewell: Yorkshire Dales Landscape Research Trust and Leeds: Yorkshire Archaeological and Historical Society

¹⁰⁸ Frere, S.S. (1974) Britannia. A history of Roman Britain. London: Cardinal

continuing development of a wide range of scientific and remote-sensing techniques (Wilson, 2016)¹⁰⁹.

8.9.3.49 While a number of 'honey-pot' sites have seen considerable, and in some cases extremely important, archaeological work these are mostly the relatively well-known Roman fort sites, and in some cases associated civilian settlements. From east to west: Greta Bridge (08-0002) (Casey and Hoffman, 1998)¹¹⁰, Bowes (07-0002/07-9000) (Frere and Hartley, 2009)¹¹¹, Brough-under-Stainmore (06-0004) (Birley, 1958)¹¹², Kirkby Thore (0405-0003) (Charleworth, 1965)¹¹³ and Brougham (02-0002) (Cool, 2004), along with the less well understood site at Carkin Moor (09-0001) (Zant and Howard-Davis, 2013). The other primary focus of research interest has been the series of large early Roman temporary camps that occupy the A66 Route Corridor: Cow Close (07-0086) (Mason, 2021), Rey Cross (Welfare and Swan, 1995), Redlands Bank (Crackenthorpe) (0405-0004) (Welfare and Swan, 1995) and the recently recognised site at Rokeby Park¹¹⁴ (Mason, 2021). In addition, there are other smaller camps and sites, such as those at Bowes Moor, Warcop (06-0003), Kirkby Thore 1-3, Brougham (02-0003)¹¹⁵ and the newly recognised camp west of Bowes¹¹⁶, along with the Roman 'signal stations' or towers (Richmond, 1951)¹¹⁷ (Grimes)¹¹⁸

¹⁰⁹ Wilson, P. (2016) 'Romano-British Archaeology in the Early Twenty-First Century', in M. Millett, L. Revell and A. Moore (eds) *The Oxford Handbook of Roman Britain*. Oxford: Oxford University Press

¹¹⁰ Casey, P.J. and Hoffman, B. (1998) 'Rescue excavations in the vicus of the fort at Greta Bridge, Co. Durham, 1972-4', *Britannia* 29

¹¹¹ Frere, S.S. and Hartley, B.R. (2009) 'Excavations at the Roman Fort at Bowes in 1966-67 and 1970', in S.S. Frere and R.L. Fitts *Excavations at Bowes and Lease Rigg Forts*, Yorkshire Archaeological Report 6. Leeds: Yorkshire Archaeological Society

¹¹² Birley, E. (1958) 'The Roman fort at Brough-under-Stainmore', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 58; Jones, M.J. (1977) 'Archaeological Work at Brough under Stainmore 1971-72: I. The Roman Discoveries', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 77

¹¹³ Charlesworth, D. (1965) 'Recent work at Kirkby Thore', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 2nd series 65; Gibbons, P. (1989) 'Excavations and Observations at Kirkby Thore', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 2nd series 89; LUAU (2001) Land At OS 8866, Kirkby Thore, Cumbria Archaeological Excavation. Unpublished Client Report no 2000-2001/(069)/AUA 8079

¹¹⁴ M. Haken personal communication

¹¹⁵ Welfare, H. and Swan, V. (1995) *Roman Camps in England*. London: Royal Commission on the Historical Monuments of England

¹¹⁶ Appendix 8.4: AP and LiDAR Assessment, Figure 16 - Site 7_76

¹¹⁷ Richmond, I.A. (1951) 'A Roman Arterial Signalling System in the Stainmore Pass', in W.F. Grimes (ed.) *Aspects of Archaeology in Britain and Beyond. Essays Presented to O.G.S. Crawford*. London: H.W. Edwards; Annis, R. (2001a) 'The Stainmore 'signal stations' or tower chain', in B. Vyner (2001) *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology; Symonds, M. (2018) *Protecting the Roman Empire. Fortlets, Frontiers, and the Quest for Post-Conquest Security*. Cambridge: Cambridge University Press, 194-195. Annis (p.98) lists the following confirmed and possible sites: Vale House, Bowes Moor, Roper Castle, the Punchbowl, Augill Bridge and Johnson's Plain

¹¹⁸ W.F. Grimes (ed.) *Aspects of Archaeology in Britain and Beyond. Essays Presented to O.G.S. Crawford*. London: H.W. Edwards; Annis, R. (2001a) 'The Stainmore 'signal stations' or tower chain',

(Vyner, 2001) (Symonds, 2018)¹¹⁹ (Annis)¹²⁰ and Maiden Castle (Collingwood, 1915)¹²¹ (Collingwood, 1927)¹²² (Welfare, 2001)¹²³ fortlet.

- 8.9.3.50 Recent work has suggested the existence of a further fortlet associated with Margary 82 near Augill Bridge, which has been suggested as providing 'support' and, presumably, accommodation those troops manning the towers (Ratledge, in prep)¹²⁴ (Zant and Clapperton, 2010)¹²⁵ (Gaskell, 2007)¹²⁶ (Martin and Reeves, 2001)¹²⁷
- 8.9.3.51 Less is known of non-military aspects of the Roman period in the A66 Route Corridor, although work at Greta Bridge (08-0002) (Casey and Hoffman, 1998), Bowes (07-0042, 07-0043, 07-0045, 07-0047, 07-0048) (Frere and Hartley, 2009), Kirkby Thore (0405-0003) (Charlesworth, 1964) and Brougham (02-0001, 02-0002) (Birley, 1932) has provided data relevant to the wider 'military community'. The 'military community' includes the populations of the associated settlements outside forts whose existence and economies are generally considered to be closely bound to the military (James, 2001)¹²⁸.
- 8.9.3.52 At Brougham, to the east of the Roman fort, Lot 1 trial trenches 89, 93 and 96 located *vicus* deposits similar to those recorded in 2007 (Zant and Clapperton, 2010), demonstrating that the extramural settlement extends further round the eastern side of the fort (Wessex Archaeology, 2022b).
- 8.9.3.53 Warcop has been suggested as a further focus of Roman-period activity on the basis of trial trenching as part of Lot 2 with possible elements of Margary Road 82 (00-001) observed along with ditches and other cut features. Evidence of occupation was most dense in trenches brigaded together in the report as 'Warcop West' and 'Warcop East', although some 'significant archaeology' was noted in trench 1522, part of the group called 'Warcop North'¹²⁹.
- 8.9.3.54 Similarly, although the existence of the Roman road (00-001) linking Scotch Corner to the Eden Valley (Margary, 1973) has long been recognised and has over time been investigated at various points

¹¹⁹ Symonds, M. (2018) *Protecting the Roman Empire. Fortlets, Frontiers, and the Quest for Post-Conquest Security*. Cambridge: Cambridge University Press

¹²⁰ Annis lists the following confirmed and possible sites: Vale House, Bowes Moor, Roper Castle, the Punchbowl, Augill Bridge and Johnson's Plain

¹²¹ Collingwood. R.G. (1915) 'Roman remains from Maiden Castle on Stainmore', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 2nd series 15

¹²² Collingwood. R.G. (1927) 'Maiden Castle in Stainmore', *Transactions of the Cumberland and Westmorland*

¹²³ Welfare, H. (2001) 'Maiden Castle fortlet, Stainmore', in B. Vyner (2001) *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹²⁴ Ratledge, D. (in prep.) 'The Roman Roads of Cumbria - Some Recent Developments, Part 1'; also *pers. comm.*

¹²⁵ Zant, J. and Clapperton, K. (2010) *Whinfell Holme to Hackthorpe Pipeline*, Penrith, Cumbria. Post-Excavation Assessment. Oxford Archaeology North Unpublished Client Report 2010-1102

¹²⁶ Gaskell, N. (2007) *Archaeological Excavations on Land at Frenchfields*, Penrith, Cumbria, North Pennines Archaeology Ltd Report CP/555/07. Unpublished Client Report;

¹²⁷ Martin, G. and Reeves, J. (2001) *Report on an archaeological investigation on land between the A66 and Frenchfield Farm*, Penrith, Cumbria, Carlisle Archaeology, Unpublished Client Report;

¹²⁸ James, S. (2001) 'Soldiers and civilians: identity and interaction in Roman Britain', in S. James and M. Millett (eds) *Britons and Romans: advancing an archaeological agenda*. Council for British Archaeology Research Report 125. York: Council for British Archaeology

¹²⁹ Appendix 8.6: Trenching Report, Lot 2 Report

(Robinson, 20001b)¹³⁰, recent work has demonstrated a potentially longer history and more complex story with a pre-Roman routeway and, locally, multiple or 'braided' routes (Fell, 2020) (Ratledge, in prep). Ongoing research, notably by the Roman Roads Research Association, is adding to our understanding of the network of Roman-period roads.

- 8.9.3.55 The issues identified in Sections 1.3,28 and 1.3.35 with respect to the dating of morphologically generic 'Prehistoric/Roman' rural sites hold good (Taylor, 2007)¹³¹, although a possible Roman-period site has been suggested east of East Mellwaters Farm (07-0003) (Mason, 2021) and the cropmark of a settlement near Redlands Bank (Crackenthorpe) temporary camp is scheduled as a Roman-period farmstead (0405-0001)¹³².
- 8.9.3.56 A common problem on rural sites of possible Roman date in Cumbria is the apparent lack of diagnostically Roman material, despite its availability in civil settlements associated with forts and despite evidence for Roman-period ceramics manufacture in the North-West (Brennard, 2006).
- 8.9.3.57 The A66 Route Corridor incorporates areas of reasonable agricultural land in the river valleys and the potential for sites, similar to the villa at Gargrave in the Aire valley, must be considered where favourable conditions exist. Such sites could potentially be focussed on Brougham or another of the forts sites, perhaps Brough-under-Stainmore given the possible procuratorial presence (Cowen, 1934)¹³³.
- 8.9.3.58 The Roman-period economy of the A66 Route Corridor is closely tied to the military presence, the forts and associated settlements presumably acting as local 'economic hubs'. Links to other sites in the north, other regions of Britain and, potentially, the wider Empire through both the military supply system and other supply, trade and/or exchange mechanisms, has been argued for similar sites in the North of England (Sommer, 1984)¹³⁴ (Smith et al, 2016)¹³⁵ can be assumed. That said, evidence from the A66 Route Corridor is limited and in the extra-mural settlement at Brougham the most significant recent work produced little evidence relating to its economy:

'With the exception of a few small fragments of metalworking debris from stratified Roman deposits, and a few more from cleaning levels and

¹³⁰ Robinson, P. (2001b) 'The Roman Road over Stainmore', in B. Vyner Stainmore. *The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹³¹ See the density of 'settlements that remain unclassified' - Taylor, J. (2007) *An Atlas of Roman Rural Settlement in England*. Council for British Archaeology Research Report 151. York: Council for British Archaeology, Figure 4.16

¹³² See Appendix 8.4: AP and LIDAR Assessment, Figure 8 - Site 4_5_70

¹³³ Cowen, J.C. (1934) 'A catalogue of Objects of the Viking Period in the Tullie House Museum, Carlisle'.

Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society, 2nd series 34,; Cowen, J.D. (1948) 'Viking Burials in Cumbria', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 48

¹³⁴ Sommer, C.S. (1984) *The Military Vici of Roman Britain*. British Archaeological Reports, British Series 129. Oxford: British Archaeological Reports;

¹³⁵ Smith, A., Allen, M., Brindle, T. and Fulford, M. (2016) *The Rural Settlement of Roman Britain. New Visions of the Roman Countryside Volume 1*. Britannia Monograph 29. London: Society for the Promotion of Roman Studies

modern contexts ... , no good evidence for the kinds of activities being carried on within the extramural settlement at Brougham was recovered from the 2007-8 investigations' (Zant and Clapperton, 2010).

- 8.9.3.59 At Greta Bridge there was evidence for metalworking, including bloomery refuse and smelting waste associated with the earliest timber buildings, but none of the later stone buildings 'gave any indication of [their] use' (Casey and Hoffman, 1998).
- 8.9.3.60 A fourth-century Roman pottery kiln was excavated near Carkin Moor Roman fort (Northern Archaeological Associates, 2017a)¹³⁶. Although the fort is essentially undated it is generally considered to be earlier rather than late Roman which suggests the presence of civilian settlement in the area later in the Roman period.
- 8.9.3.61 The exception in the A66 Route Corridor is Brough-under-Stainmore which has produced large numbers of lead sealings (Richmond, 1936)¹³⁷ (Birley, 1958), possibly used to protect 'bulkier bales of merchandise or official stores' (Frere et al, 1990)¹³⁸. While it is impossible to know what type of goods or materials any seal was used to protect, they do provide evidence as to from who/where the packages received originated. In the case of the Brough sealings this included at least 20 dispatched from *Legio II Augusta*, two from *Legio VI Victrix*, as well as others from a variety of auxiliary units (Bidwell and Hodgson, 2009)¹³⁹. The appearance of the word *metal(lum)* (metal) on the reverse of four sealings, including one from *Cohors II Nerviorum* (Second Cohort of Nervians) which was stationed at Whitley Castle, Northumberland, in the North Pennine lead fields during the third century. The multitude of sealings, and the likely association with Roman-period lead mining has led to Brough-under-Stainmore being suggested as the base for an official or officials associated with the exploitation of the North Pennine lead fields, or at least the collection and onwards transshipment of the metal as the presence of the, by definition broken, sealings indicates that the packages or loads received were opened at Brough, possibly simply for checking, but more probably in the case of goods for onward transmission to allow a change in means of transport (Richmond, 1936).
- 8.9.3.62 One aspect of the Roman exploitation of the area will have been the advent of large-scale quarrying to supply the stone required for forts and buildings in the associated settlements (Pearson, 2006)¹⁴⁰, as well as stone artefacts such as querns. While Roman-period quarries are known in Britain, such as those on Barcombe Hill near *Vindolanda* (Birley, 2009)¹⁴¹. Approximately 2.5 miles north of Kirkby Thore fort, in the valley

¹³⁶ Northern Archaeological Associates (NAA), 2017a, *Kilns in Geophysical Survey*,

¹³⁷ Richmond, I.A. (1936), 'Roman leaden sealings from Brough-under-Stainmore', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 36

¹³⁸ The seals are in fact an alloy of lead and tin - see Frere, S.S., Roxan, M. and Tomlin, R.S.O. (1990) *The Roman Inscriptions of Britain. Volume II, Fascicule 1. The Military Dipolmata; Metal ingots; Tesserae, Dies; Labels; and Lead Sealings*. Gloucester: Alan Sutton

¹³⁹ At least 187 lead sealings are known from Brough, but 'many were melted down for scrap' - Bidwell, P. and Hodgson, N. (2009) *The Roman Army in Northern England*. South Shields: The Arbeia Society

¹⁴⁰ Pearson, A. (2006) *The Work of Giants. Stone and Quarrying in Roman Britain*. Stroud: Tempus

¹⁴¹ Birley, R. (2009) *Vindolanda. A Roman Fort on Hadrian's Wall*. Stroud: Amberley

of the Crowdundle Beck, a Roman-period military quarry is attested by inscriptions of *Legio XX Valeria Victrix* and *Legio II Augusta* recorded in the seventeenth and eighteenth centuries (Collingwood and Wright, 1995)¹⁴². Given the extent of Roman-period stone use many more must have existed, both in the study area and elsewhere, the evidence for which has been lost as a result of later exploitation of the same stone sources¹⁴³.

- 8.9.3.63 Despite the understandable attention that the third-century Brougham military cemetery (Cool, 2004) has received and our knowledge of the primarily Flavian/Trajanic and presumably military cremation cemetery at Brough-under-Stainmore (Jones, 1977), we are woefully short of Roman-period burial evidence from the region (Smith et al, 2018)¹⁴⁴. In addition to the burial evidence there are a number of tombstones from the major sites: Greta Bridge (4), Brough-under-Stainmore (1), Kirkby Thore (2) (Collingwood and Wright, 1995), with 22 from Brougham (Collingwood and Wright, 1995). That said, at no site in the A66 Route Corridor do we have burials spanning the whole of the Roman period, nor do we have any clear evidence of burials of the non-military elements of the population. At Brougham, Lot 1 trial trench 92 revealed features, thought to represent ten further burials, including at least three cremations, most of which were left unexcavated, although evidence of a possible funeral pyre location and decorative bone plaques from wooden boxes or funeral couches, similar to those found in 1966-7 (Greep, 2004)¹⁴⁵, were recovered (Wessex Archaeology, 2022b).
- 8.9.3.64 As a rule environmental evidence from the A66 Route Corridor is limited as might be expected given that many of the interventions were undertaken decades ago. In more recent work to the west of Stainmore:
- The extra-mural settlement at Brougham has produced charred grain and plant remains, albeit in small quantities (Zant and Clappterton, 2010)
 - Kirkby Thore has demonstrated good pollen survival from a well and evidence of mixed agricultural activity from other Roman-period deposits (LUAU, 2001)¹⁴⁶ (Gaskell, 2007).
- 8.9.3.65 While these discoveries demonstrate potential it is necessary to note that work in the Frenchfields area at Brougham (Martin and Reeves, 2001) and at Temple Sowerby (OAN, 2007)¹⁴⁷, while producing

¹⁴² Collingwood, R.G. and Wright, R.P. (1995) *The Roman Inscriptions of Britain, Volume I, Inscriptions on Stone* (with Addenda and Corrigenda by R.S.O. Tomlin). Stroud: Alan Sutton, *RIB* Nos 998-1000

¹⁴³ See for example the suggestion for a possible Roman-period origin for Quarry/Sand Pit 06-0144 (Appendix 8.8: Gazetteer)

¹⁴⁴ Smith, A., Allen, M., Brindle, T., Fulford, M., Lodwick, L. and Rohnbogner, A. (2018) *Life and Death in the Countryside of Roman Britain. New Visions of the Roman Countryside Volume 3*. Britannia Monograph 31. London: Society for the Promotion of Roman Studies, figures 6.13-6.15

¹⁴⁵ Greep, S. (2004) 'Bone and Antler Veneer', in Cool, H.E.M. (2004) *The Roman Cemetery at Brougham, Cumbria. Excavations 1966-67*. Britannia Monograph 21. London: Society for the Promotion of Roman Studies

¹⁴⁶ LUAU (2001) *Land at OS 8866, Kirkby Thore, Cumbria Archaeological Excavation*. Unpublished Client Report no. 2000-2001/(069)/AUA 8079

¹⁴⁷ OAN (2007) *A66 Temple Sowerby Bypass and improvements at Winderwath. Phase 2 Archaeological Works; Post-Excavation Assessment Report*. Oxford Archaeology North Report 2007/724. Unpublished Client Report

occasional charcoal and other environmental material, have generally been considered inadequate for additional analysis following assessment.

8.9.3.66 The 2001 work on Stainmore incorporated extensive palynological, macrobotanical and soils work in combination with radiocarbon dating where appropriate (Vyner, 2001). While overall the results were limited, particularly for later periods, they did suggest the potential for co-ordinated multi-strand programmes of work in areas where other data, such as ceramics and 'small finds', are limited.

8.9.3.67 To the east of Stainmore the Stanwick Environs project (Haselgrove, 2016)¹⁴⁸, work at Greta Bridge (Casey and Hoffman, 1998) and the Scotch Corner to Greta Bridge A66 road scheme (Zant and Howard-Davis, 2013), all demonstrate much higher environmental potential than the sites mentioned further west. This may be in part a product of the scale of the work and perhaps, as is probably the case at Greta Bridge (Casey and Hoffman, 1998) where charcoal from *in situ* charred structural timbers and a possible furniture fragment survived, the result of local conditions.

Early Medieval

8.9.3.68 The period immediately following on from the Roman is a difficult area both with respect to history - written sources are few and understanding 'tainted' by associations with 'King Arthur' and an imagined past created around him (Collins, 2012)¹⁴⁹, and also archaeology, as the period can be invisible in terms of dated, or datable sites and material culture.

8.9.3.69 The A66 Route Corridor and its environs features in discussion of the period, but often only tangentially. To the east around AD 600 Catterick is probably associated with key events on the front line of Native British resistance to the Anglian invaders as recounted in the early epic poem *Y Gododdin* (Jackson, 1969)¹⁵⁰. Such conflicts must also have impacted on the Tees Valley east of Stainmore and to the west the British Kingdom of Rheged (Williams, 1951)¹⁵¹, which could have extended into the former County of Westmorland. That said, the evidence relating to Rheged, at least south of the Solway, is limited and it may be that otherwise unknown polities occupied the area at this time (McCarthy, 2002)¹⁵² (McCarthy, 2011)¹⁵³ Clarkson, 2014)¹⁵⁴. There is little

¹⁴⁸ Haselgrove, C. (ed.) (2016) *Cartimandua's Capital? The Late Iron Age royal site at Stanwick, North Yorkshire, fieldwork and analysis 1981-2011*. Council for British Archaeology Research Report 175. York: Council for British Archaeology

¹⁴⁹ For a considered view of the 'problematic' Arthur see Collins, R. (2012) *Hadrian's Wall and the End of Empire*. London: Routledge

¹⁵⁰ Jackson, K.H. (1969) *The Gododdin. The Oldest Scottish Poem*. Edinburgh: Edinburgh University Press; Wilson, P.R., Cardwell, P., Cramp, R.J., Evans, J., Thompson, A., Taylor-Wilson, R. and Wachter, J.S. (1996) 'Early Anglo-Saxon Catterick and Catraeth', *Medieval Archaeology* 40,

¹⁵¹ Williams, I. (1951) 'Wales and the North', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 51

¹⁵² McCarthy, M. (2002) 'Rheged: An Early Historic Kingdom near the Solway', *Proceedings of the Society of Antiquaries of Scotland*, 132

¹⁵³ McCarthy, M. (2011) 'The Kingdom of Rheged: A Landscape Perspective'. *Northern History* 48

¹⁵⁴ Clarkson, T. (2014) *Strathclyde and the Anglo-Saxons in the Viking Age*, Edinburgh: Birlinn,

confirmed evidence pre-dating the appearance of Anglian cultural traits in the form of, to the east of Stainmore sixth-century *Grubenhäuser* and burials, for example Catterick¹⁵⁵ and to the west probably seventh- to eighth-century *Grubenhäuser* at Fremington, near Brougham (03-0081) (Oliver et al, 1996)¹⁵⁶. The presence of *Grubenhäuser* could either reflect Anglian penetration of the area, or a mixing of cultural traits.

- 8.9.3.70 Three sherds of unstratified early medieval pottery, resembling the seventh/eighth-century material from Fremington were recovered from pipeline works closer to Brougham (Zant and Clapperton, 2010) and a further possible *Grubenhäuser* has been recorded from the air¹⁵⁷.
- 8.9.3.71 To the east of Stainmore there was 'no evidence that the nucleated Romano-British [and earlier] settlement at [East] Mellwaters saw occupation extending into the post-Roman period' (Vyner, 2001)¹⁵⁸. Indeed, what is suggested as a possible 'successor' Early Medieval settlement was located at Valley Farm over 5km to the west, with climatic improvement cited as a possible reason for the shift (Vyner, 2001). If that suggestion is correct with regard to climatic conditions, the presence of Early Medieval occupation more widely distributed in the A66 Route Corridor would seem a reasonable expectation.
- 8.9.3.72 The 1989-1991 Stainmore project did record, effectively undated, buildings at Valley Farm that were discussed using eighth-century buildings at Simy Folds, Teesdale and the ninth-century settlement at Gauber High Pasture, Ribbleshead as possible comparators, but without claiming certainty (Robinson, 2001c)¹⁵⁹.
- 8.9.3.73 Elements of possible Early Medieval field systems have been noted from the air between Warcop and Brough-under-Stainmore¹⁶⁰.
- 8.9.3.74 The 2006-7 excavations at the eastern end of the A66 produced virtually no data relating to the early medieval period. The only exception being provided by the ditch of Scots Dyke. The earthwork of the dyke remains visible in the landscape and was long-assumed to be of Early Medieval date, but has been shown by the 2006-7 work to be prehistoric, probably Early-Middle Iron Age, in origin. The associated ditch has been shown to have seen its final phase of filling in the fifth to eleventh centuries (Zant and Howard-Davis, 2013).

¹⁵⁵ Ross, S. and Ross, C. (2021) *Cataractonium Establishment, Consolidation and Retreat*. (Northern Archaeological Associates monograph 6). Barnard Castle

¹⁵⁶ Oliver, T., Howard-Davis, C. and Newman, R.M. 1996 'A post-Roman settlement at Fremington, near Brougham', in J Lambert (ed.), *Transect through Time; The archaeological landscape of the Shell North-Western ethylene pipeline*, Lancaster Imprints 1, Lancaster: Lancaster University Archaeological Unit

¹⁵⁷ See Appendix 8.4: Geoarchaeological Desk Based Assessment, Figure 3 - Site 3_90

¹⁵⁸ Vyner, B. (2001) *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹⁵⁹ Robinson, P, (2001c) 'Buildings at Valley Farm', in B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹⁶⁰ See Appendix 8.4: AP and LiDAR Assessment, Section 4.5.57, Figures 13-15

- 8.9.3.75 Pre-Conquest burials from the possible early Christian site at Ninekirks (Loveluck, 2002)¹⁶¹ suggest that more evidence relating to the period may exist in the A66 Route Corridor, although perhaps generally inaccessible in churchyards and/or under later structures. That said, other funerary evidence in terms of possible Early Medieval burials, described as 'Pagan Anglo-Saxon', inserted into earlier barrows is known from adjacent to the A66 at Warcop (a cremation) and, to the south of the A66 Route Corridor, a cremation is known from Crosby Garrett and inhumations from Kirkby Stephen, Orton and Great Asby (O'Sullivan, 1980)¹⁶². In addition, an Anglo-Scandinavian burial dating to the second half of the ninth century and furnished with a sword, shield boss and knife was found in Ormside churchyard (Cowen, 1933) (Cowen, 1948).
- 8.9.3.76 Ninekirks (03-0005), was the location an early medieval (pre-Norman conquest) monastic site located adjacent to the site of the buried remains of the medieval St Ninian's church (03-0005). There must be the potential for other, similarly early, monastic sites within the A66 Route Corridor.
- 8.9.3.77 The importance of Stainmore as a communications route in the later part of the period, between the Kingdoms of Anglo-Scandinavian York and Hiberno-Norse Dublin, is emphasised by the well-known story of the death of Erik Bloodaxe on Stainmore following his expulsion from York (Jones, 1973)¹⁶³. In the earlier part of the period the situation is less clear as the political arrangements in the North in the immediately post-Roman period appear to display a change from an east-west axis emphasising the importance of the Hadrian's Wall frontier to north-south axis either side of the Pennine massif (Collins, 2012).
- 8.9.3.78 Tenth- to eleventh-century sculpture is known within the A66 Route Corridor, primarily at urban centres such as Penrith and Appleby (Bailey and Cramp, 1988)¹⁶⁴, but there is also the possibly tenth-century Rey Cross (Bailey, 2001)¹⁶⁵. Larger numbers of examples are known in proximity to the wider A66 Route Corridor, for example at Forcett and Stanwick (Lang, 1984)¹⁶⁶. The material mostly consists of fragments of cross shafts and complete or fragmentary hogback grave-markers, dating to the tenth century, but with some ninth-tenth century and eleventh century material. Penrith has produced a single eighth- or ninth-century cross shaft (Bailey and Cramp 1988) and at the eastern

¹⁶¹ Loveluck, C. (2002) 'The Romano-British to Anglo-Saxon transition: Social transformations from the Late Roman to Early Medieval period in Northern England, AD 400-700', in C. Brooks, R. Daniels and A. Harding (eds) *Past, Present and Future: The Archaeology of Northern England*. Durham: Archaeological and Architectural Society of Durham and Northumberland

¹⁶² O'Sullivan, D. (1980) *A reassessment of the Early Christian Archaeology of Cumbria*. Unpublished M.Phil Dissertation, University of Durham

¹⁶³ Jones, G. (1973) *A History of the Vikings*. Oxford: Oxford University Press

¹⁶⁴ Bailey, R.N. and Cramp, R. (1988) *Corpus of Anglo-Saxon Stone Sculpture, Volume II, Cumberland, Westmorland and Lancashire North-of-the-Sands*. Oxford: Oxford University Press

¹⁶⁵ Bailey, R. (2001) 'The Rey Cross - Background', in B. Vyner (2001) *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹⁶⁶ Lang, J. (1984) *Corpus of Anglo-Saxon Stone Sculpture, Volume VI, Northern Yorkshire*. Oxford: Oxford University Press,

end of the A66 Route Corridor Melsonby has material of eighth- and ninth-century date and Gilling West, the centre of a pre-Conquest Wapentake and a sometime Royal estate centre, has ninth-century material. At both sites there is also material of tenth-century date with one piece at Gilling West being tenth-eleventh century (Lang, 1984).

- 8.9.3.79 The religious sculpture is complemented in Cumbria by evidence of stone-built pre-Conquest churches at Appleby in the A66 Route Corridor and at Long Marton to the north of the A66 and Morland and Crosby Garrett to the south (Taylor and Taylor, 1979)¹⁶⁷.
- 8.9.3.80 The Early Medieval period in the area is best-represented in the place-name evidence (Smith, 1928)¹⁶⁸ (Smith, 1967)¹⁶⁹. However, the presence of, for example, Anglo-Scandinavian names which may have been applied to pre-existing settlements, can serve to obscure settlement origins (Gelling, 1978)¹⁷⁰.
- 8.9.3.81 Some items of material culture dating to the Early Medieval period has been discovered within/in proximity to the A66 Route Corridor as casual finds, including: an eighth-century gilt mount from Ninekirks (Bailey, 1977)¹⁷¹ and an eighth- or ninth-century silver and gilt-bronze bowl from Ormside (O'Sullivan, 1993)¹⁷²; The Portable Antiquities Scheme records a variety of material including:
- Fragment of Viking-age 'hacksilver' probably dating from the late 9th or 10th centuries from Melsonby¹⁷³
 - An incomplete copper-alloy skilnet or *patera* from Ravensworth dated to the sixth or seventh century¹⁷⁴
 - Three mid-ninth century Stycas from Kirby Hill¹⁷⁵
 - A copper alloy strap end from Hutton Magna dating to AD 750-1100¹⁷⁶
 - An incomplete enamelled copper alloy strap-end dating to the ninth century from Scargill¹⁷⁷
 - A lead and copper alloy weight probably dating to AD 800-1000 from Crosby Ravensworth¹⁷⁸
 - A cast copper alloy pin dating to the sixth or seventh century from Cliburn¹⁷⁹

¹⁶⁷ Taylor, H.M. and Taylor, J. (1979) *Anglo-Saxon Architecture* volumes 1 and 2. Cambridge: Cambridge University Press

¹⁶⁸ Smith, A.H. (1928) *The Place-Names of the North Riding of Yorkshire*, English Place-Name Society volume 5. Cambridge: Cambridge University Press

¹⁶⁹ Smith, A.H. (1967) *The Place-Names of Westmorland*, English Place-Name Society volumes 42 and 43. Cambridge: Cambridge University Press

¹⁷⁰ Gelling, M. (1978) *Signposts to the Past. Place-Names and the History of England*. London: Dent,

¹⁷¹ Bailey, R.N. (1977) 'A Cup-mount from Brougham, Cumbria', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 77

¹⁷² O'Sullivan, D. (1993) 'Sub-Roman and Anglo-Saxon Finds from Cumbria', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 2nd series 93

¹⁷³ PAS reference: DUR-7563B1

¹⁷⁴ PAS reference: YORYM-C389D9

¹⁷⁵ PAS reference: DUR-623A48

¹⁷⁶ PAS reference: DUR-96E2B4

¹⁷⁷ PAS reference: DUR-F1D3EC

¹⁷⁸ PAS reference: LANCUM-683C84

¹⁷⁹ PAS reference: LANCUM-AFDA7A

- A possibly fifth-century horn sword pommel, reworked in the seventh century with the addition of gold panels of filigree and garnet settings from the Eden Valley (Loveluck, 2002).

8.9.3.82 Given the duration of the period, which is in excess of 600 years, the quantities of casual finds are noticeably small. This could reflect a number of things, including:

- A generally low level of use of inorganic materials in the period, if wooden, leather, basketwork objects were in use they would require unusual burial conditions to survive. Bone objects, depending on the burial environment, might survive more readily
- The relatively high value of all types of metalwork, not only those made of precious metals, could have led to extensive reprocessing of metal objects once they became damaged or redundant
- The relative visibility and interest of precious metals, both to the general public and metal detectorists in comparison with, for example, iron objects
- Ceramics, which can more readily survive into the archaeological record, had not been common in the A66 Route Corridor even in the Roman period away from forts and associated civilian settlements and much of the study area may have been effectively aceramic.

Medieval

8.9.3.83 The Medieval history of the region is inevitably impacted by many of the major political changes that took place during the period including the Norman Conquest of England, along with the impacts associated with the 'Harrying of the North' by William I east of the Pennines in AD 1069-1070. The other key series of events were the Anglo-Scottish wars of the twelfth and thirteenth centuries that eventually gave control of the whole of the A66 Route Corridor to England by the Treaty of York in 1237¹⁸⁰, although this did not lead to a complete end to Anglo-Scottish warfare in the area of the A66 Route Corridor (See paragraph 8.9.3.95).

8.9.3.84 In the context of the present Project several key elements of the Medieval landscape and archaeological/cultural resource, notably the towns, fortified sites (castles), religious houses and, in the main, villages, are by design not directly impacted by the Project. That said they are intimately associated with elements that potentially are including: field systems, farmsteads, routeways and related infrastructure. This association could take a variety of forms including: ownership, direct physical links and/or economic interdependency.

8.9.3.85 The character and diversity of rural settlement within the A66 Route Corridor is, to an extent, reflected in *The Atlas of Rural Settlement in England (Roberts and Wrathmell, 2000)*¹⁸¹, although the approach is necessarily 'broad brush' (Petts and Gerrard, 2006).

¹⁸⁰ Appendix 8.1: Archaeological and Historical Background, Section 8.1.6.5

¹⁸¹ Roberts B.K. and Wrathmell S. (2000) *An Atlas of Rural Settlement in England*. London: English Heritage.

- 8.9.3.86 In that light, perhaps the key element of the medieval landscape is the medieval iteration(s) of the cross-Pennine route, linking as it does/they do the major settlements, very much as in the Roman period. Deviations from that route, some of which could pre-date the Medieval period, will reflect contemporary needs and, in the Medieval period the 'pull' of the major power centres within the A66 Route Corridor - the castles of Bowes, Brough-under-Stainmore, Appleby, Brougham and Penrith, as well as Barnard Castle located on its northern edge.
- 8.9.3.87 Differentiating medieval sites by status, once below the 'major castles' is quite difficult. It is clear a 'second tier' of fortified sites existed, including Ravensworth (09-0002) and Scargill¹⁸² Castles and Mortham Tower (08-0009). The latter site and perhaps Scargill along with Clifton Hall Tower (01-0174), near Penrith (Brennard, 2007)¹⁸³ and Bewley Castle, Crackenthorpe (0405-0504) are perhaps better considered as major 'fortified manor houses' or 'tower houses'. A castle is also claimed at Warcop (06-0128) on the basis of documentary evidence and the existence of the name 'Castle Hill' (Nicolson and Burn, 1777)¹⁸⁴, with the Cumbria HER recording the survival of walling under banks¹⁸⁵.
- 8.9.3.88 What the A66 Route Corridor seems to lack, perhaps surprisingly, in light of its strategic importance and its status as 'disputed land' between England and Scotland in the twelfth and thirteenth centuries, is any significant number of motte and bailey castles. A possible reason for this is that, despite the warfare between England and Scotland, the area did not feature significantly in the 'The Anarchy' or civil war of King Stephen's reign which prompted the construction of many motte and bailey castles (Renn, 1973)¹⁸⁶. At Appleby a motte lies within the later castle (0405-0292) (Renn, 1973), with further examples near Coupland Beck Farmhouse (06-0005) and incorporated into Barnard and Ravensworth Castles (08-0085 and 09-0002).
- 8.9.3.89 Many medieval sites associated with the 'lesser nobility' and gentry may be represented by moated sites (Le Patourel, 1973)¹⁸⁷ and/or manors that in later periods are replaced by, or developed into gentry dwellings¹⁸⁸.
- 8.9.3.90 Egglestone Abbey may be regarded as similar to, at least, the dwellings of the 'lesser nobility' in terms of status and was the only significant rural religious house in the A66 Route Corridor. Egglestone was a house of Premonstratensian 'white canons' and was never wealthy, nor were its buildings particularly extensive (Butler and Given-Wilson, 1979)¹⁸⁹.

¹⁸² National Heritage List for England 1017320

¹⁸³ Brennard, M. (ed.) (2007) *Research and Archaeology in North West England: Volume 2 Research Agenda and Strategy* (Archaeology North West vol 9)

¹⁸⁴ Nicolson, J. and Burn, R., (1777) *History and Antiquities of Cumberland and Westmorland* Vol. 1

¹⁸⁵ See Appendix 8.4: AP and LiDAR Assessment, Section 4_5_34 - Site 6_23

¹⁸⁶ Renn, D. (1973) *Norman Castles in Britain* 3rd edition. London: John Baker

¹⁸⁷ For example Ashes Field, East Layton (National Heritage List for England 1021039). Le Patourel. H.E.J. (1973) *The Moated Sites of Yorkshire*. Society for Medieval Archaeology Monograph Series 5. London: Society for Medieval Archaeology

¹⁸⁸ As happened at Mortham Tower (National Heritage List for England 1160832)

¹⁸⁹ Butler, L. and Given-Wilson, C. (1979) *Medieval Monasteries of Great Britain*. London: Joseph Wilson

- 8.9.3.91 On a smaller scale the nuns of Marrick Priory had a hospital at Old Spital from 1171 up to the dissolution of the monasteries under King Henry VIII (Vyner)¹⁹⁰. West of Stainmore the Knights Templars held what is now Acorn Bank (0405-0505) as the manor of 'Saurby' (hence Temple Sowerby) from 1228 to 1312. After the suppression of the Templars in 1312 the Knights Hospitallers came to hold the manor from 1323 up to the Dissolution¹⁹¹. There is the possibility of a further medieval hospital having been located at Spitals (0405-0103) between Kirkby Thore and Temple Sowerby (OAN, 2007). Geochemical survey¹⁹² has suggested the potential for occupation or activity associated with the possible hospital, or perhaps a later phase of occupation to the south of the Roman and later road line opposite the modern Spitals farm.
- 8.9.3.92 The villages and rural landscape of the area were what, in general, supported the higher status sites described above, although the sometime, and sometimes 'intermittent', 'Royal' status of some castles, such as Bowes, Appleby (also held by the Scots from AD 1136-1157) and Penrith will have further underpinned them. The later ownership of Brough-under-Stainmore and Brougham Castles by the Clifford family and, in the seventeenth century, investment by Lady Anne Clifford (Goodall, 2009)¹⁹³ will have had a similar effect.
- 8.9.3.93 Within the A66 Route Corridor there are a number of deserted, or shrunken, medieval settlements such as those represented by the earthworks at Bowes (07-0069), Langton, Cumbria (Beresford, 1971)¹⁹⁴, Crackenthorpe (0405-0512)¹⁹⁵ or that which was apparently cleared to make way for Rokeby Park (See 8.9.3.108). Well-preserved earthworks of deserted/shrunken villages are often accompanied by equally-well preserved evidence of associated field systems, as at Crackenthorpe¹⁹⁶.
- 8.9.3.94 A particular feature of the medieval landscape was the emergence of deer parks as elements within some higher status or 'lordly' complexes. Examples in the A66 Route Corridor include Whinfell Park¹⁹⁷ (03-0089) and, probably, medieval Rokeby Park (08-0048).
- 8.9.3.95 Tenurial arrangements between the King and the great landowners and down the social hierarchy through the lesser nobility to freeman and tenants will, to an extent, all impact on the landscape, particularly where estates and lesser holdings were not contiguous. In addition, estates and holdings within the area could be the possessions of organisations

¹⁹⁰ Vyner, B. *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

¹⁹¹ OAN (= Oxford Archaeology North) (2007) *A66 Temple Sowerby Bypass and improvements at Winderwath. Phase 2 Archaeological Works; Post-Excavation Assessment Report*. Oxford Archaeology North Report 2007/724 Unpublished Client Report

¹⁹² Appendix 8.7 Geochemical Report, Section 4.2

¹⁹³ For example: Goodall, J.A.A (2009) 'Lady Anne Clifford and the Architectural Pursuit of Nobility', in K. Hearn and L. Hulse (eds) *Lady Anne Clifford: Culture, Patronage and Gender in 17th-century Britain*. Yorkshire Archaeological Society Occasional Paper 7. Leeds: Yorkshire Archaeological Society

¹⁹⁴ Beresford, M. and Hurst, J.G. (1971) *Deserted Medieval Villages*. Guildford and London: Lutterworth Press

¹⁹⁵ See Appendix 8.4: AP and LiDAR Assessment, Figure 9 - Site 4_5_168

¹⁹⁶ See Appendix 8.4: AP and LiDAR Assessment, Section 4.4.20, Figures 9 and 10 - Sites 4_5_127 , 4_5_135, 4_5_138, 4_5_153 and 4_5_154

¹⁹⁷ Appendix 8.1: Archaeological and Historical Background, Section 8.6.9

or individuals from elsewhere, such as Grange Castle, which was held by Jervaulx Abbey in Wensleydale (Le Patourel, 1973). A number of other 'Grange' place-names, including: Newsham Grange and Rokeby Grange to the east of Stainmore and Spital Grange on Stainmore, could hint at other monastic interests in the area, although the name could also apply to a holding owned by a feudal lord or, if of much later origin, a property occupied by a clergyman.

- 8.9.3.96 Despite these longer distance connections, most of the connections between towns, villages and the surrounding landscape will have been relatively local, with field systems and routeways focussed on the local settlement. However, given that upland farming could involve vaccaries and bercaries (cattle and sheep farms) (Brennard, 2007), as well as smaller-scale sheilings (Winchester, 2000)¹⁹⁸, located away from the settlement or the core of the holding, longer routes of local significance must have existed. Despite the apparent importance of transhumance, mixed farming including arable was the norm (Petts and Gerrard, 200[^]), as even for settlement on less-favoured land, given the necessity of securing local supplies of grain for both human and animal consumption.
- 8.9.3.97 That said, the A66 Route Corridor retained its strategic significance as a routeway through the Medieval period and figured large in the Scottish Wars featuring as a favoured cross-country route for invading/raiding Scottish armies. Even after the Treaty of York in 1237, which gave control of the area to England¹⁹⁹, military actions continued. A skirmish at Rey Cross in 1314 was followed by the burning of Appleby and Brough-under-Stainmore (Pickin, 2001a)²⁰⁰ and, in 1323, a Scottish army plundered Egglestone Abbey, which also suffered at the hands of the English army prior to the Battle of Neville's Cross in 1346 (Butler and Given-Wilson, 1979).
- 8.9.3.98 The extent of archaeological work on medieval rural settlements and associated field systems over the length of the A66 Route Corridor is limited, although the buildings excavated at Valley Farm (Robinson, 2001c) could post-date the Norman conquest. Given the lack of current knowledge, work in Upper Teesdale (Coggins, 1986) and the Yorkshire Dales (White and Wilson, 2004)²⁰¹ provides some comparative data for what might be expected.
- 8.9.3.99 The lack of research obscures the origins of villages and smaller settlements – hamlets and isolated farms and, in addition, in places the renewal or repurposing of buildings and/or sites over time further impedes understanding. Old Spital Farm on the site of Marrick Priory's hospital illustrates these issues, as it also served as an inn before becoming a farm. In the medieval period it was probably the site of an outlying parish chapel to Bowes church adjacent to the hospital, despite

¹⁹⁸ Winchester, A.J.L. (2000) *The Harvest of the Hills. Rural life in northern England and the Scottish borders, 1400-1700*. Edinburgh: Edinburgh University Press

¹⁹⁹ Appendix 8.1: archaeological and Historical Background, Section 8.6.5

²⁰⁰ Pickin, J. (2001a) 'Post Roman and Medieval Activity. Background', in B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

²⁰¹ See papers in White, R.F. and Wilson, P.R. (2004) *Archaeology and Historic Landscape of the Yorkshire Dales*. Yorkshire Archaeological Society Occasional Paper 2. Leeds: Yorkshire Archaeological Society

there being no known medieval fabric surviving from either the hospital or chapel (Annis, 2001b)²⁰² (Robinson, 2001d)²⁰³.

- 8.9.3.100 Almost by definition medieval (and later) landscape features potentially impacted by the Project will be elements of the rural landscape, most notably field systems, but also evidence of rural industrial activity. There has been little work on upland agrarian strategies in the A66 Route Corridor, although work elsewhere in the north has demonstrated the potential for such studies (Winchester, 1987)²⁰⁴. Surviving broad curving or 'reverse-S' ridge and furrow²⁰⁵, along with areas of later narrow ridge and furrow²⁰⁶ provides evidence of medieval and later agriculture focussed on the better quality land in the area. However, as noted above in section 8.1.3.108 arable cultivation will of necessity have extended into less-favoured and/or topographically more difficult areas, as perhaps indicated by groups of strip lynchets, for example, in the area south-east of Crackenthorpe²⁰⁷, or on Browson Bank²⁰⁸.
- 8.9.3.101 Rural industries in the medieval period will have included those such as milling that would be focussed on the manorial centres and settlements, and some practices, such as the exploitation of woodland resources will be largely invisible in the archaeological record, but to an extent potentially identifiable through written records. That said, features relating to woodland management have been identified from the air south-west of Carkin Moor Farm at Street Plantation, although they have been assigned to the post-medieval period²⁰⁹.
- 8.9.3.102 The infrastructure of medieval industry, such as wind and watermills, along with associated features, including leats and mill races, could be located some distance from the settlements they served.
- 8.9.3.103 Extractive industries will have been widespread and would often have left clear evidence in the landscape of quarrying or mineral extraction. However, as noted for the Roman period, later working of the same sources will often have destroyed, or obscured, physical evidence of medieval activity. While considerable reuse may have occurred of earlier, particularly Roman-period, stonework in the construction of the great castles, significant amounts of newly-won stone will also have been required. The evidence for such exploitation may be indirect, such as routeways linking areas with evidence of extraction to major medieval sites. However, again exploitation associated with later occupation could

²⁰² Annis, R. (2001b) 'Buildings on Bowes Moor and Stainmore', in B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

²⁰³ Robinson, P. (2001d) 'The hospital at Old Spital', in B. Vyner *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

²⁰⁴ Winchester, A.J.L. (1987) *Landscape and Society in Medieval Cumbria*. Edinburgh: John Donald; (2000) *The Harvest of the Hills. Rural life in northern England and the Scottish borders, 1400-1700*. Edinburgh: Edinburgh University Press

²⁰⁵ As, for example, the c. 10.44ha of ridge and furrow noted between Penrith and Temple Sowerby, or the c. 80ha recorded near Crackenthorpe. See Appendix 8.4: AP and LiDAR Assessment, Sections 4.3.23 and 4.4.20

²⁰⁶ See Appendix 8.4: AP and LiDAR Assessment, Figure 15, Site 6_34

²⁰⁷ See Appendix 8.4: AP and LiDAR Assessment, Figure 10 - Site 4_5_156

²⁰⁸ See Appendix 8.4: AP and LiDAR Assessment, Figure 20 - Site 9_73

²⁰⁹ See Appendix 8.4: AP and LiDAR Assessment, Section 4.8.27, Figure 22 - Site 9_83

potentially obscure medieval evidence. 'Teesdale Marble' from Egglestone Abbey's estates, possibly from the north of the study area, is known to have been extracted in 1432-3 for use in the construction of new *lavatorium* in the cloister of Durham Cathedral Priory (Bond, 2004)²¹⁰.

Post Medieval

- 8.9.3.104 For the main urban settlements and many of the villages in the A66 Route Corridor the post-medieval period, at least up to the time of the Industrial Revolution, that is until approximately 1750, is perhaps best seen as a continuation and development of the medieval situation, rather than a time of rapid change.
- 8.9.3.105 One major change that impacted widely in the rest of England was the Dissolution of the Monasteries under Henry VIII. Its impact in the A66 Route Corridor would have been more muted than in many other regions. The area's only religious house, Egglestone Abbey was dissolved in 1540 and granted to the Strelley family in 1548 who built a mansion on part of the site, which was eventually bought by the Rokeby estate. Gradual decline in status saw the buildings used as labourers' cottages and eventually, in the twentieth century, many were demolished for building materials (Butler and Given-Wilson, 1979).
- 8.9.3.106 The Dissolution would have some other impacts in the area:
- Canons from Egglestone Abbey served churches and chapels away from the Abbey. They had numbered 8 in 1491, (Butler and Given-Wilson, 1979) and the livings would need to be reassigned presumably at the discretion of the new owners
 - On the dissolution of Marrick Priory their hospital at Old Spital became an inn and farm (Robinson, 2001d), while the hospital chapel (now lost) became an outlying parish chapel of Bowes church (Saunders, 1976)^{211 212}
 - Granges that had been in monastic hands would have changed hands coming into secular possession
 - The Hospitallers holding at Acorn Bank, Temple Sowerby passed to the Crown, before being sold to the Dalstons (OAN, 2007)
- 8.9.3.107 Agriculture will have constantly responded to changes in local tenurial circumstances, climate (Lamb, 1967)²¹³ and other factors, but the pace of that change across England may be seen as picking up from around AD 1500 (Overton, 2010)²¹⁴ and in subsequent centuries. This will have resulted from the intellectual impact of the English Enlightenment (Porter, 2001)²¹⁵, and links to developments in science and

²¹⁰ Bond, J. (2004) *Monastic Landscapes*. Stroud: Tempus

²¹¹ Saunders, P.C. (1976) 'The 'Royal Free Chapel' of Bowes', *Yorkshire Archaeological Journal*, 48

²¹² Presumably something similar would have happened at Spitals (0405-0103), if it were the site of another Medieval hospital

²¹³ Lamb, H.H. (1967) 'Britain's Changing Climate', *The Geographical Journal*, 133.4

²¹⁴ Overton, M. (2010), *Agricultural Revolution in England. The Transformation of the Agrarian Economy from 1500-1850*. Cambridge: Cambridge University Press

²¹⁵ Porter, R. (2001) *Enlightenment: Britain and the Creation of the Modern World*. London: Penguin

manufacturing that allowed the adoption of selective breeding (Pawson, 1957)²¹⁶, improved rotations (Wade, 1990)²¹⁷ and mechanised practices (Fussell, 1973)²¹⁸. Transhumance and the use of vaccaries, bercaries and sheilings declined, or came to a complete end (Petts with Gerrard, 2006). While some more substantial upland farms may have replaced sheilings and other seasonal sites, the impact of tenurial changes, enclosure of previously open landscapes and, possibly loss of commons, will all have impacted the landscape and potentially the nature and focus of agriculture in various areas of the A66 Route Corridor differentially (Brennard, 2007). Enclosure maps are fairly rare from the area, but it is clear that in Westmorland enclosure was happening in the 1840s (Market Brough - 1842)²¹⁹ and 1850s (Church Brough - 1854)²²⁰, but was a long drawn out process lasting for over 120 years (Whyte, 2003)²²¹.

8.9.3.108 During the period rural economic/industrial activity developed and changed with time, as demonstrated by Walk Mill (06-0074) on Hayber Gill, c. 0.5km north of Warcop, which, having operated as a woollen textile mill, was a saw mill by 1859. What is unknown is if the textile mill replaced a medieval watermill, perhaps a manorial corn mill.

8.9.3.109 In parallel with the changes in agriculture and industry major social changes were taking place, both in the development of towns and other settlements and also at the higher levels of society. As noted above in section 8.9.3.87, many houses with medieval origins were rebuilt, replaced, extended, or in some cases demolished (Waterson and Meadows, 1990)²²² as architectural tastes changed. Most settlements, of any size, are associated with a gentry house, which often incorporates the descriptor 'Hall' in its name. However, there are considerable differences in the wealth, style and pretension displayed amongst gentry houses, as is demonstrated by a group towards the eastern end of the A66 Route Corridor that includes (from east to west): Sedbury Park (Waterson and Meadows, 1990)²²³, Barningham Park²²⁴,

²¹⁶ For example - Robert Bakewell. See Pawson, H.C. (1957) *Robert Bakewell: Pioneer Livestock Breeder*. London: Crosby Lockwood and Son

²¹⁷ For example - Charles 'Turnip' Townshend. See Wade Martins, S. (1990) *Turnip Townshend. Statesman and Farmer*. Lowestoft: Poppyland Publishing

²¹⁸ For example - Jethro Tull. See Fussell, G.E. (1973) *Jethro Tull: His Influence on Mechanized Agriculture*. Oxford: Osprey Publishing

²¹⁹ Cumbria Archive Service document WDX753

²²⁰ Cumbria Archive Service document WPR 23A 14 11

²²¹ Whyte, I. (2003) 'Wild, Barren and Frightful' - Parliamentary Enclosure in an Upland County: Westmorland 1767-1890. *Rural History* 14.1, 21-38. DOI: 10.1017/S0956793303000025

²²² Many demolitions date to the twentieth century, often resulting from changes wrought by the impacts of the two World Wars - Waterson, E. and Meadows, P. (1990) *Lost Houses of York and the North Riding*. Thornton-le-Clay: Jill Raine

²²³ Late medieval - extended in the eighteenth century and demolished in 1927, present house built 1928.

Waterson, E. and Meadows, P. (1990) *Lost Houses of York and the North Riding*. Thornton-le-Clay: Jill Raine

²²⁴ Late medieval or sixteenth century - extended in 1720, within an eighteenth-century park. National Heritage List for England 1338635

Eastwood Hall (08-0073)²²⁵, Rokeby Park (08-0011)²²⁶. Those pretensions and wealth were not only displayed in the buildings, but also in the designed or 'polite' landscapes associated with them, perhaps most dramatically within that group at Rokeby Park (Worsley, 1987)²²⁷.

- 8.9.3.110 Over time the relationships between major landowners, the settlements associated with their estates and their tenants will have changed. One reflection of this may be the removal/relocation of settlements in proximity to estate centres, others may be a change in the facilities associated with the estate. Crackenthorpe may provide examples, with the one time existence of a mill complex provided by the mill trace and weir²²⁸ located south of Crackenthorpe Hall, and the redundancy or removal of St Giles Chapel (0405-0153) east of Crackenthorpe Hall demonstrating changes in pastoral care and/or social distinctions²²⁹.
- 8.9.3.111 The creation of new 'great houses' continued into the Victorian period, as for example was the case with Augill Castle and its estate, east of Brough-under-Stainmore, which was built in 1841 (Hyde and Pevsner, 2010)²³⁰.
- 8.9.3.112 Throughout the period the nature of society was changing, and as industrialisation developed, despite the A66 Route Corridor remaining an important route, the developing towns and cities to the east and west may be seen as redrawing the economic and population maps of the country.
- 8.9.3.113 As agriculture changed, in towns and villages, or at least those that were not entirely dependant on agriculture, the range and intensity of industries increased. While local 'craft level' production, such as blacksmithing, will have continued to service estates and agricultural communities, while elsewhere extractive industries and the production of manufactured goods expanded.
- 8.9.3.114 As discussed above quarrying will have been undertaken in earlier periods, but the post-medieval to modern period saw a significant expansion of extraction, such as at Ketland Quarry²³¹ and Demesne Quarry, Helbeck (06-0185), Cumbria. Some of this activity can be related to the development of the turnpike, the railways and latterly the A66 Trunk Road, but other needs, such as building materials will have formed part of the demand.
- 8.9.3.115 Through-out the A66 Route Corridor there are numerous examples of small-scale quarrying, many represented on Ordnance Survey maps.

²²⁵ Seventeenth century, with some possible earlier work, extended 1841. National Heritage List for England 1121728

²²⁶ House, park and associated buildings are all early eighteenth century. There was an earlier settlement, presumably including some form of manor/gentry house, now represented by a medieval cross base and a group of tombstones, including a recumbent probably twelfth-century slab, locating the medieval churchyard. National Heritage List for England 1000733

²²⁷ Worsley, G. (1987a) 'Rokeby Park, Yorkshire I' *Country Life*, 181.12 (19th March), (1987b) 'Rokeby Park, Yorkshire II' *Country Life*, 181.13 (26th March); 'Rokeby Park, Yorkshire III' *Country Life*, 181.14 (2nd April)

²²⁸ See Appendix 8.4: AP and LiDAR Assessment, Section 4.4.31, figure 10 - Sites 4_5_149 and 150

²²⁹ See Appendix 8.4: AP and LiDAR Assessment, Section 4.4.30, figure 10 - Sites 4_5_157 and 158

²³⁰ Hyde, M. and Pevsner, N. (2010) *The Buildings of England. Cumbria*. New Haven: Yale University Press

²³¹ See Appendix 8.4: AP and LiDAR Assessment, Figure 12 - Site 6_1

These generally are regarded as post-medieval²³² but, as with most extractive sites, could in some cases have earlier origins.

- 8.9.3.116 In addition to hard stone, coal, lead, ganister, gravel, lime, gypsum, have all been exploited within the A66 Route Corridor (Pickin, 2001b)²³³.
- 8.9.3.117 Alongside changes to the settlement pattern and economic systems was seen greater diversity in religious observance, particularly the increase in non-conformity. The seventeenth century saw the rise of the Religious Society of Friends, or 'Quakers', in part reflecting the impact of George Fox (Vipont, 1975)²³⁴ who was active in Cumbria in the 1650s. While Friends Meeting Houses are absent from the bulk of the A66 Route Corridor, a modern example exists at Penrith, in Meeting House Lane. Appleby, as the County town of Westmorland, was the site of many prosecutions of Quakers including, notably, Francis Howgill (Stephen and Lee, 1891)²³⁵, an early colleague of Fox and one of the so-called 'Valiant Sixty' (Vipont, 1975) early Quaker missionaries.
- 8.9.3.118 Other early non-conformist groups included the Presbyterians, Baptists and Congregationalists, all of which will have contributed to the building stock of the area, but primarily within settlements and therefore with few likely to be directly impacted by the Project.
- 8.9.3.119 The eighteenth century saw the development of Methodism, with the movement splitting into the majority Wesleyan Methodists and other smaller groups, most notably the Primitive Methodists. Like the earlier non-conformists most of the Methodists infrastructure was urban or village based and therefore unlikely to be directly impacted by the Project, although two Primitive Methodist chapels, at North Stainmore, which incorporated a school (Annis, 2001b) and Brough-under-Stainmore were demolished in advance of previous work on the A66.
- 8.9.3.120 In terms of potential vulnerability the Crackenthorpe 'Tin Tabernacle'²³⁶ (0405-0424) is a potential exception. It was a Primitive Methodist chapel, but has been disused since the 1960s, and is located only 10m from the line of the existing A66. 'Tin' buildings were a common response to the need for rapidly deployable buildings of many types, particularly for public or commercial use (Buchanan, 1986)²³⁷, including many churches and chapels (Smith, 2004)²³⁸. Locally a further Primitive Methodist 'tin chapel' survived at Brough Sowerby, just south of the A66 until 1972 when it was replaced in brick.

²³² See, for example, Appendix 8.4: AP and LiDAR Assessment, Section 4.8.31

²³³ Pickin, J. (2001b) 'Industrial Activity', in B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Hartlepool: Tees Archaeology Monograph Series 1

²³⁴ Vipont, E. (1975) *George Fox and the "Valiant Sixty"*. Harmondsworth: Hamish Hamilton Ltd

²³⁵ Stephen L. and Lee, S. (eds) (1891) *Oxford Dictionary of National Biography Volume 1. Harris to Inglethorpe*. London: Smith, Elder and Co

²³⁶ In this context 'tin' means corrugated iron

²³⁷ For example, the Photographic Studio used by William and his son Raymond Hayes, initially in York and subsequently in Hutton-le-Hole, prior to its transfer to the Ryedale Folk Museum - Buchanan, T. (1986) *William Hayes 1871-1940. York Photographic Artist*. Beverley; Hutton Press

²³⁸ Smith, I. (2004) *Tin Tabernacles: Corrugated Iron Mission Halls, Churches & Chapels of Britain*, Swansea: Camrose Media Ltd

- 8.9.3.121 The A66 Route Corridor retained its importance as a cross-Pennine routeway, as demonstrated by the number of Turnpike Roads, and proposed turnpike roads in the area. In addition to the Greta Bridge to Penrith route (00-0002), there was a north-east to south-west axis from Northeast England via Bishop Auckland, Barnard Castle, Bowes, Stainmore, Brough-under-Stainmore to the Tebay Gap, or to Sedbergh and Kirkby Lonsdale and on to the emerging industrial areas of Lancashire.
- 8.9.3.122 The Penrith to Greta Turnpike (00-0002), as shown on an 1824 map, designed to show 'proposed deviations', surveyed by Machell and Watson (Machell and Watson, 1824)²³⁹, appears to have largely followed the line of the Roman road²⁴⁰, as much of that line remains in use today. Substantial realignments were implemented over time, although in the Crackenthorpe/Appleyby area the mapping suggests that the road had possibly already been realigned off the Roman line or, at least, alternative lines had already been established that directly serviced those settlements; the 1824 designs being designed to make changes to those alignments.
- 8.9.3.123 However, ongoing research suggests that at North Stainmore the Roman road lines, both located to the south of The Punchbowl signal tower, had also been given-up well before the nineteenth century²⁴¹, and replaced with the 'existing' 1824 alignment. It seems likely that along the length of the turnpike the extent of 'improvements' varied by location.
- 8.9.3.124 Substantial change came to the transport infrastructure of the area with the construction of the South Durham and Lancashire Union Railway (07-0061) which opened in 1861 and connected Barnard Castle, and therefore the industrial North East, to the railways of the west coast, as well as industrial areas of Lancashire and Furness (Hoole, 1973)²⁴².
- 8.9.3.125 Promoters of an alternative route west from Kirkby Stephen that connected with the west coast rail system at Clifton, south of Penrith, were able to open the Eden Valley Railway (06-0100) in the following year (Western, 1997)²⁴³. This line gave a link, via the Cockermouth, Keswick and Penrith Railway (Western, 2001)²⁴⁴, to the industrial towns of the Solway coast.
- 8.9.3.126 Although both the Stainmore and Eden Valley railways carried passengers, their primary roles were to carry coal and coke west to blast

²³⁹ Machell and Watson (1824) *Plan of the Turnpike Road from Penrith in the County of Cumberland to Greta Bridge in the North Riding of Yorkshire, with proposed deviations* Cumbria Archive Service document C/2/33/9/6

²⁴⁰ Although there was a significant diversion between Slatestones Bridge and Church Brough as recent work has confirmed the suggestion by Margary (1983, 434) that from the area of Banks Gate/Smeltmill Beck the Roman road adopts a line that takes it through/past Augill Castle

²⁴¹ Ratledge, D. (in prep.) 'The Roman Roads of Cumbria - Some Recent Developments, Part 1'; also *pers. comm*

²⁴² Hoole, K. (1973) *The Stainmore Railway*. Clapham: Dalesman

²⁴³ Western, R. (1997) *The Eden Valley Railway*. Witney: The Oakwood Press

²⁴⁴ Western, R. (2001) *The Cockermouth, Keswick and Penrith Railway*. Witney: The Oakwood Press

furnaces that produced iron ore that was, in part, shipped east (Daniels, 2001)²⁴⁵.

8.9.3.127 The impact of the various wars that disturbed England in the sixteenth and seventeenth century on the A66 Route Corridor was limited and perhaps unlikely to produce much direct evidence in areas directly impacted by the Project. Key events:

- During the Rising of the North in 1569 Barnard Castle withstood an 11 day siege by supporters of Mary Queen of Scots (Thornton, 2010)²⁴⁶
- During the First Civil War Brougham Castle surrendered to the Scottish Covenanters without a siege in 1644 (Mullett, 2018)²⁴⁷
- During the Second Civil War Appleby fell to the Royalist-supporting Scottish 'Engager Army' following 4-days siege in 1648

8.9.3.128 Similarly, despite the last serious skirmish between two organised military forces in England taking place in 1745 within the A66 Route Corridor at Clifton, near Penrith (Ferguson, 1889)²⁴⁸, the lack of larger military engagements suggests little potential for 'battlefield archaeology'. That is despite the increased 'visibility' of battlefield assemblages from the sixteenth and seventeenth centuries (Foard and Morris, 2012)²⁴⁹ in comparison with earlier periods.

Twentieth and Twenty-First Centuries

8.9.3.129 The rise of motor transport represents perhaps the most important change impacting on the A66 Route Corridor since 1900. For the period up to the Second World War this topic has been considered in depth for Westmorland (Turnbull, 2021) and that work can serve to inform understanding of the whole of the study area. The impact of the internal combustion engine has impacted on all aspects of life: agriculture²⁵⁰, population mobility, goods transport, service provision and societal interaction.

8.9.3.130 The decline of the railways in the area can, in large part, be ascribed to the success of road transport. Facilities on the Eden Valley Railway were in decline from the early 1950s, with the closure of stations, starting with Musgrave in 1952 and followed by Kirkby Thore in 1953. This process continued through the 1950s and the line closed to passengers in 1962, some freight and military traffic continued until

²⁴⁵ Daniels, R. (2001) 'The Railway through the Stainmore Pass', B. Vyner, *Stainmore. The Archaeology of a North Pennine Pass*. Hartlepool: Tees Archaeology Monograph Series 1

²⁴⁶ Thornton, G. (2010) *The Rising in the North*. Gent: Ergo Press

²⁴⁷ Mullett, M.A. (2018). *A New history of Penrith: book III: Penrith in the Stuart century, 1603–1714*. Carlisle: Bookcase

²⁴⁸ Ferguson, C. (1889) 'The Retreat of the Highlanders through Westmorland in 1745', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 10

²⁴⁹ Foard, G. and Morris, R. (2012) *The Archaeology of English Battlefields. Conflict in the Pre-Industrial Landscape*. Council for British Archaeology Research Report 168. York: Council for British Archaeology

²⁵⁰ For example through the removal of field boundaries to accommodate larger machinery and the amalgamation of holdings and/or changing infrastructure requirements. See, for example: Appendix 8.4: AP and LiDAR Assessment Section 4.4.25 for the amalgamation of fields and Section 4.6.21 for the (undated) loss of buildings

1974 (Western, 1997)²⁵¹. As a through route, the South Durham and Lancashire Union Railway across Stainmore closed to all traffic in 1962, although the Middleton-in-Teesdale branch line from Barnard Castle continued to carry freight until 1965 (Hoole, 1973).

- 8.9.3.131 In the early twentieth century it appears that the A66 in Westmorland was not that heavily used as the County Main Roads Committee's interest in it largely related to 'damage caused by bad weather and steam traction engines'. However, by 1931 the County Surveyor was expressing concern 'over the dramatic increase in the amount of heavy commercial traffic' in, at least, the Brough-under-Stainmore area. This led to the building of the first bypass on the A66 and its designation as a 'trunk road' in 1936 (Turnbull, 2021).
- 8.9.3.132 The trunk road, as well as carrying increased loads of traffic attracted motor related businesses (Turnbull, 2021), as well as other infrastructure, by way of roadside facilities, such as Bongate transport café and Sayer's (24 hour service) Garage and Café (Turnbull, 2021).
- 8.9.3.133 With the rise in motor transport, despite the car largely being a middle class luxury well into the 1950s, tourism in the A66 Route Corridor grew, with the area accessible by train and with coaches from firms such as Robinson's of Appleby (Turnbull, 2021), service buses and taxis providing local transport. With the advent of the family car from the 1960s this growth in tourism continued.
- 8.9.3.134 The availability of personal vehicles and increased leisure time has led to more road traffic, as did the end of rail freight. These factors have shaped the A66 as we see it today with bypasses and significant lengths of dual carriageway already built.
- 8.9.3.135 Social changes, including commuting, have reshaped communities and how villages in particular function. They have also led to the expectation of the general availability of mains services to ever greater parts of the country including previously relatively remote areas such as parts of the A66 Route Corridor.
- 8.9.3.136 The creation of the Warcop Military training area in 1942 represented the introduction of a new landowner, along with new legal considerations and restrictions within a section of the A66 Route Corridor.
- 8.9.3.137 Also, during the Second World War six military camps were built around Barnard Castle, which in effect became a garrison town. Their existence, and the recent identification of Hornby Hall Satellite Landing Ground (or dispersal airfield) (Wessex Archaeology, 2022a)²⁵² points to the possibility of other short-lived and/or conflict-specific sites in the area which, despite their relatively recent date, would be unlikely to feature significantly in historical records.

²⁵¹ Western, R. (1997) *The Eden Valley Railway*. Witney: The Oakwood Press

²⁵² Wessex Archaeology (2022a) *A66 LiDAR and Aerial Photograph Interpretation*, Document ref 240030.01, figure 5 - Site 3_131; Defence of Britain database site reference e21867

8.9.3.138 A number of smaller-scale, military sites or, in some cases, their former locations, are known within the A66 Route Corridor. Examples of extant features include:

- The possible World War Two machine gun emplacement cut into Violet Grange Bronze Age barrow near Scotch Corner²⁵³
- Pillbox at Crackenthorpe (0405-0168)²⁵⁴
- The Type FW3/24 pillbox on northern flank of Black Riggs, overlooking the junction of the Stainmore and Eden Valley railways²⁵⁵
- The site of the former Ordnance Depot at East Stony Keld²⁵⁶, north-west of Bowes village, and
- A loop-holed garden wall at Eamont Bridge²⁵⁷.

8.9.3.139 Removed features include:

- A roadblock on the A66, north-east of Brougham Castle²⁵⁸
- Hornby Hall Satellite Landing Ground²⁵⁹
- A pillbox, north of Temple Sowerby²⁶⁰
- A pillbox, east of Crackenthorpe²⁶¹

8.9.3.140 While industry, other than agriculture, is largely focussed in the towns and large villages there is one significant rural industrial plant in the A66 Route Corridor - the British Gypsum factory near Kirkby Thore. Gypsum has been mined near Kirkby Thore for over 200 years and the present plant is a key industry locally. There are at the present time two mining locations at Long Marton and Newbiggin to the south-east and north-west of the plant respectively. The Kirkby Thore plant has its own siding on the Settle to Carlisle rail line.

Intangible Heritage

8.9.3.141 'Intangible Heritage', as introduced in paragraph 8.9.1.2²⁶², can be a difficult concept. It cannot be touched, but may be as important to individuals, or groups within the community, as any archaeological site or historic building.

8.9.3.142 The strong connection of the Romanichal²⁶³ people to the A66 Route Corridor through the annual Appleby Horse Fair is perhaps the most obvious example of 'intangible Heritage' in the area (Connell, 2015)²⁶⁴.

²⁵³ See Appendix 8.4: AP and LiDAR Assessment, Section 4.9.2, figure 23 - Site 11_17

²⁵⁴ This may be the same site as the 'removed' pillbox 'east of Crackenthorpe' but is described as 'extant'

²⁵⁵ Extended Defence of Britain database site reference S0013284.

²⁵⁶ Extended Defence of Britain database site reference e43401

²⁵⁷ Extended Defence of Britain database site reference S0002904

²⁵⁸ Extended Defence of Britain database site reference S0013329

²⁵⁹ Extended Defence of Britain database site reference e21867

²⁶⁰ Extended Defence of Britain database site reference e50231

²⁶¹ Extended Defence of Britain database site reference e17629. This may be the same site as the 'extant' pillbox 'at Crackenthorpe' but is described as 'removed'

²⁶² See Footnote 1

²⁶³ 'Romani' and Gypsies are overarching terms covering all groups. As well as Romanichal (English Gypsies) the fair attracts English Travellers, Irish Travellers, Scottish Gypsy and Traveller groups and Kalé (Welsh Romanies).

²⁶⁴ Connell, A. (2015) *Appleby Gypsy Horse Fair: Mythology, Origins, Evolution and Evaluation*. Kendal: Cumberland and Westmorland Antiquarian and Archaeological Society, Extra Series 44

As a people the Romanichal have their own culture and are now recognising that capturing information about it is crucial to its survival²⁶⁵.

8.9.3.143 Other forms of Intangible Heritage can include language/dialects and local traditions, and an understanding of personal and local perceptions of, and values placed on, places and things. Beyond that individuals and communities understanding of activities, such as their version of non-conformity, can inform on and provide local context for buildings and places that would escape 'incomers' or external researchers.

8.9.4 Research Agenda (1) - Period-Based²⁶⁶

Preamble

8.9.4.1 Given the current state of knowledge of the archaeological/historical resource in the A66 Route Corridor the research topics/questions identified below can appear in more than one Chronological Period, particularly with respect to Prehistoric periods. Some of these are drawn together in Section 8.9.1.5 which considers 'Theme-Based' research topics. Questions are related to issues identified in the relevant Regional Research Frameworks when appropriate.

Palaeolithic

8.9.4.2 Given the climatically marginal location of the study area in the Late Pleistocene recovery of Palaeolithic artefacts is most likely to be the result of serendipity - through the observation of geoarchaeological test pits/trenches, or as residual material on later sites. However, as may be the case at Milner Wood, West Yorkshire, recognisable Palaeolithic assemblages can derive from 'Mesolithic' sites, indicating the potential for earlier phases of occupation and, as Spikins points out in discussing West Yorkshire any:

'in situ upland Upper Palaeolithic sites may have a high integrity and spatial information relevant to questions of learning, social relationships, use of fires or structures' (Spikins, 2010)

8.9.4.3 If Palaeolithic material is encountered can its geology and/or lithology of artefacts recovered inform understanding of Palaeolithic use of the area? However, the possibility of long distance transport, possibly not even through human agency, of the raw materials from which they were made, or indeed the finished artefacts themselves, could mean that potential contributions to understanding would be at a Regional rather than 'site' or scheme level²⁶⁷.

²⁶⁵ Romani Community Archaeology CIC was founded by Romanichal Archaeologist John Henry Phillips.

²⁶⁶ The topics identified in both Sections 1.4 and 1.5 have informed the development of the Outline Historic Environment Mitigation Strategy (Appendix 8.10: Impact Assessment Table)

²⁶⁷ Although the original question was focussed on other areas of the North-West where Palaeolithic sites are known and finds are more common, any data from the A66 Corridor could contribute to Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH29: What activities were undertaken during the Palaeolithic in the North West of England?

- 8.9.4.4 Can sampling of potential paleoenvironmental deposits from Pleistocene river terraces²⁶⁸ inform understanding of use, or occupation, of locations in the Study Area at this time?.
- 8.9.4.5 Any discoveries of lithics and 'non-stone' artefacts or ecofacts, such as bone, of Palaeolithic date are rare across Northern England. Anything found as part of the work on the A66 Route Corridor will be of at least Regional, if not National importance²⁶⁹.

Mesolithic

- 8.9.4.6 Although within the broader Region sites of both Early and Late Mesolithic date are known, any discoveries of *in situ* Mesolithic material would be regionally and potentially nationally significant. As things stand within the A66 Route Corridor the questions we have little understanding of include:
- The Late Upper Palaeolithic/Mesolithic transition - what evidence can be identified for preferred/reused: a) site locations, and/or b) resource sources?
 - Is it possible to disaggregate Late Upper Palaeolithic and Mesolithic assemblages in tandem with improving chronologies for key in this period? (Petts with Gerrard, 2006)
 - Is it possible to better understand the factors that influence the locations of Mesolithic occupation sites in terms of their relationship to Historic Landscape Characterisation data: character of locations, topography and/or available resources?²⁷⁰
 - What is the impact of climate change on human activity generally into the Holocene?
 - Is there preferential use of landscape elements?²⁷¹
 - Is the aspect (view/relative exposure) of locations possibly significant in determining site location/use?
 - What may influence the locations of Mesolithic production/exploitation (knapping, hunting) sites?
 - Can chronologies be made more precise, possibly through Bayesian modelling of radiocarbon dates? (Hodgson and Brennard, 2007)²⁷²
 - Is it possible to identify sources/catchments of raw materials?²⁷³

²⁶⁸ See Appendix 8.3: Geoarchaeological Desk Based Assessment, Sections 8.2.1-4

²⁶⁹ See Resource assessment: The Palaeolithic and Mesolithic

²⁷⁰ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH25: How can we better understand the distribution of prehistoric archaeology across the landscape?

²⁷¹ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH27: How did people exploit different parts of the wider landscapes when they moved around?

²⁷² Hodgson, J. and Brennard, M. 'The Prehistoric Period', in M. Brennard, (ed.) (2007) *Research and Archaeology in North West England: Volume 2 Research Agenda and Strategy* (Archaeology North West vol 9), 37 and Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH13: Where there are sealed secure groups of microliths, how can we obtain relative radiocarbon date associations? Bayesian modelling of dates will be essential

²⁷³ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Questions PH51: How can detailed material typologies for Mesolithic assemblages improve our understanding? PH52: How, where and when did people access raw materials for lithics and finished products?

- Is there evidence that will inform on the extent of Mesolithic contacts into and across the area?
- Do deposits exist that will inform understanding of Mesolithic environment/palaeoecology?²⁷⁴
- Is it possible to understand the extent of, or seasonality of, Mesolithic exploitation of the area?²⁷⁵
- Is it possible to identify differences, if any, between the Mesolithic east and west of Stainmore?
- Is there data that will contribute to a better understanding of the Mesolithic/Neolithic transition?²⁷⁶
- Is it possible to identify Mesolithic/Neolithic continuity of landscape exploitation and preferred and/or reused site locations as evidenced at Stainton West?

8.9.4.7 Discoveries of residual Mesolithic material would add to the regional corpus and could have research potential in their own right depending on the quantities involved.²⁷⁷

Neolithic

8.9.4.8 Key to furthering understanding of the Neolithic of the A66 Route Corridor is the recognition of chronologically informative data, be that in the form of dated sites of any type, including occupation sites and funerary monuments, or recognisably Neolithic material. That the Neolithic exists in the area is unquestionable, but is it possible to recognise the local form, or forms, of expressions of that presence as a way to advance understanding?

8.9.4.9 There is a seeming absence of Neolithic burial monuments over most of the A66 Route Corridor and this may reflect the reality of settlement patterns in the period or, possibly, a scale of settlement/occupation that precluded the raising of substantial visible monuments and potential disposal of the dead in other ways. Excarnation is accepted as part of the suite of Neolithic funerary practices as is subsequent mobility of elements of the skeletons and disposal of skeletal material in pits (Thomas, 2000)²⁷⁸. Can a 'funerary Neolithic' or 'Neolithics', be identified?

²⁷⁴ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH26: What was the changing nature of the relationships between people and their environment during the prehistoric period? For the North East Young, R. [undated] *Palaeolithic and Mesolithic research agenda* p. - argues that 'more dated, high-resolution, pollen cores should be obtained from contrasting environmental settings' (Research Priority Mvi). The A66 Route Corridor is not listed by him, despite that, should suitable locations be identified the potential to inform understanding of the study area would be high.

²⁷⁵ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH26: What was the changing nature of the relationships between people and their environment during the prehistoric period?

²⁷⁶ Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH14: How can we enhance our understanding of the late Mesolithic to early Neolithic transition? See also Petts and Gerrard, 2006.

²⁷⁷ Could also contribute to Prehistory – North West Regional Research Framework (researchframeworks.org) Prehistory Research Question PH30: What can incidental, residual lithics tell us about Mesolithic activity and settlement locations?

²⁷⁸ For example: Thomas, J. (2000) 'Death, Identity and the Body in Neolithic Britain', *Journal of the Royal Anthropological Institute*, 6.4

- 8.9.4.10 Apparently isolated clusters of Neolithic features, such as paired pits (Edwards, 2009)²⁷⁹ or pit groups (Harding, 2006)²⁸⁰ and the material that they may contain, have considerable potential to inform with respect to movement of materials, lifeways and environment, particularly given the limited data from the study area. Can the recognition of, and aggregation of these data inform understanding?
- 8.9.4.11 The movement of particularly Group VI Cumbrian axes east appears as part of the complex patterns of resource movement and is complimented by the movement of materials or finished objects, such as East Yorkshire flint, into the region (Roskams and Whyman, 2007) (Bradley and Watson, 2021). Contacts with East Yorkshire, or access through intermediaries to East Yorkshire flint represents a continuation of practices established by the Late Mesolithic (Brown, 2021). Evidence for that movement of/access to those materials from both the east and west within the study area could inform discussion of the relative importance of the Stainmore route in those processes in the face of potentially competing alternatives. Bradley and Watson (2021) refer to 'routes leading through the Pennines' and Harding (Harding, 2013) argues for Garsdale and Wensleydale as the quickest way from Langdale to the Thornborough henge complex. Can data from the A66 contribute to these debates?
- 8.9.4.12 Despite significant work by Sheridan and others Neolithic ceramic assemblages from much of the North of England are poorly understood in terms of chronology (Petts, with Gerrard, 2006). Are there opportunities to obtain scientific dates from deposits with associated material culture? If so, this would be invaluable as has been demonstrated in the Milfield Basin (Frodsham, undated)²⁸¹?
- 8.9.4.13 Regionally rock art is remarkably well-represented (Brown and Brown, 2008), but with relatively few examples recorded from A66 Route Corridor. However, discoveries can reasonably be anticipated, either *in situ*, or possibly residual on later sites. However, that there is potential is demonstrated by a community archaeology project at Hawkesley Hill, north of Barnard Castle, which recorded a rock art panel (Robinson, 2016)²⁸². Is this localised dearth of material real?
- 8.9.4.14 Understanding the Neolithic landscape of the A66 Route Corridor would depend on the availability of data from the preceding sections but is probably also dependant on the recognition of sub-units within the study area and differing upland and lowland elements, including potentially differing chronologies (Petts, with Gerrard, 2006) along the route corridor, probably in large part derived from rigorous scientific dating programmes alongside Bayesian modelling, building on work on the

²⁷⁹ See, for example, discussion in Edwards, B. (2009) *Pits and the architecture of deposition narratives of social practice in the Neolithic of North-East of England*. Unpublished PhD, University of Durham.

²⁸⁰ Harding, J. (2006) 'Pit digging, occupation and structured deposition on Rudston Wold, Eastern Yorkshire', *Oxford Journal of Archaeology*, 25.2

²⁸¹ Frodsham (undated) North-East Regional Research Framework. Resource Assessment: Neolithic and Bronze Age (Consultation Draft)

²⁸² Robinson, G. (2016). *Hawkesley Hill Community Project: Carved into the Landscape*. Northern Archaeological Associates.

Milfield Basin (Frodsham, undated). Can localised Neolithics at sub-regional level be identified?

- 8.9.4.15 Both environmental sequences and material suitable for scientific dating will be crucial to any attempts to address the issues identified above.

Chalcolithic (Copper Age)

- 8.9.4.16 Given the limited visibility of the Chalcolithic in the existing archaeological literature relating to North East and North West England it will not be further considered here, beyond putting a marker down that, depending on the results from the Project, it may need to feature in proposals for analysis and publication or archaeological work on the scheme.

Bronze Age

- 8.9.4.17 In terms of both settlements and field systems the recognition of those elements that belong to the Bronze Age, of whatever phase, is crucial. Is it possible to disaggregate them from earlier and/or later elements of the landscape given the extent of existing knowledge? (Petts, with Gerrard, 2006)

- 8.9.4.18 Identification of higher status sites, from whatever part of the period, would enhance discussion of contemporary social structures and the nature of changes between phases of the Bronze and the preceding and succeeding periods. Given the evidence of the PAS finds - can potential social *foci* be identified?

- Can a better understanding of the contrasts between lowland areas, such as the Eden Valley around Penrith, and areas of upland settlement, such as Ravock Moor, through the period inform discussion of land use and agricultural/resource exploitation practice?
- Does the morphology of sites or the nature of associated material suggest evidence of function or social stratification? (Petts, with Gerrard, 2006)
- Do sites offer any evidence relating to developing 'architectural' practices or change through time?
- Is it possible to refine our understanding of Bronze Age burial practices and the distribution of barrows and relate them more closely to attempts to understand settlement patterns and social groupings/hierarchies? (Petts, with Gerrard, 2006)
- Use of ceramics through time - can sub-regional traits and/or chronological variation be identified, possibly through fabric analysis and/or thin-sectioning? (Petts, with Gerrard, 2006)
- Does the distribution of metalwork, including 'founders hoards', provide informed consideration of site function, trade or exchange patterns, sources of materials or early metalworking technology? (Petts, with Gerrard, 2006)
- While the discovery of material culture can be anticipated, as with the preceding periods can that, probably limited, material be supplemented through the discovery and sampling of appropriate

environmental sequences and material suitable for scientific dating?
(Petts, with Gerrard, 2006)

- Do organic remains suggest a wider suite of material and objects than those usually recovered may have been available?
- Can the nature, extent, duration and local chronologies of the Late Bronze Age to Early Iron Age transition be identified/differentiated?

Iron Age

- 8.9.4.19 As with most periods in the A66 Route Corridor the fundamental issues for the Iron Age are the recognition/visibility of sites and their dating.
- 8.9.4.20 Where sites of potential Later Prehistoric date are identified, can a greater chronological understanding be developed that will inform understanding of the transition from the Late Bronze Age to the Early Iron Age? Does the data allow meaningful intra-site phasing. Is there material available that is suitable for scientific dating?
- 8.9.4.21 Recognition of the Middle Iron Age will similarly probably be largely dependant on the ability to utilise/apply scientific dating techniques given the, at best, limited availability of dateable material culture in the region.
- 8.9.4.22 Is there data that will inform the understanding/dating of early phases of sites from the area that produce Roman-period material culture? This is in contrast with sites like Thorpe Thewles in lowland County Cleveland (Heslop, 1987)²⁸³, which was shown by the finds assemblage to have been occupied from the Middle Iron Age into the first century AD. In the A66 Route Corridor can the issues of apparently limited access to ceramics and other durable material culture on the part of inhabitants of many sites be addressed? (Wilson, 1995)²⁸⁴ Is there scope for the adoption of rigorous and extensive scientific dating programmes? That similar difficulties exist in the broader North West is apparent from the 'default' dating of round house settlements to the Romano-British period, despite the fact that many are likely to date to, or at least originate in the Iron Age (Brennard, 2007)²⁸⁵.
- 8.9.4.23 Issues of dating also impact on understanding Iron Age, and other, landscapes. While it may be possible to identify and disaggregate multi-period field systems, absolute as opposed to relative dating is unlikely to come from associated material culture. Can an understanding of the character of possibly changing agricultural use be informed by extensive sampling, which may again provide potentially dateable material?

²⁸³ Heslop, D.H. (1987) *The Excavation of an Iron Age Settlement at Thorpe Thewles Cleveland, 1980-1982*, Council for British Archaeology Research Report 65, London: Council for British Archaeology

²⁸⁴ See Wilson, P. (1995) 'The Yorkshire Moors in the Roman period; developments and prospects', in B. Vyner (ed.) *Moorland Monuments. Studies in the Archaeology of North-East Yorkshire in honour of Raymond Hayes and Don Spratt*. Council for British Archaeology Research Report 101, York: Council for British Archaeology,

²⁸⁵ Brennard, M. (2007) *Research and Archaeology in North West England: Volume 2 Research Agenda and Strategy* (Archaeology North West vol 9)

- 8.9.4.24 Can evidence of the crops grown, or how agricultural and/or natural products were used be obtained, perhaps from carbonised remains or possibly through lipid analysis? If so such new data would be invaluable.
- 8.9.4.25 Given the evidence that exists for peat development in upland areas from the Neolithic, can changing land-use into the Bronze Age and beyond, including the extent of the impact of the 'Brigantian land-take'(Tipping, 2018)²⁸⁶ on the varying landscapes of the A66 Route Corridor inform discussions of nature of settlement, local identities and the economy?
- 8.9.4.26 Iron Age trade networks are poorly understood, while there is an implicit assumption that the A66 Route Corridor was a key routeway, the processes of trade and exchange, particularly of products not available in the area such as salt, are little understood. Salt production is known on the Yorkshire coast at Street House, and assumed in Cheshire, but distribution into the A66 Route Corridor beyond the Stanwick complex²⁸⁷, as might be evidenced by discoveries of briquetage, or in the west by Cheshire Very Coarse Pottery, is at present unknown. Evidence of the possible movement of goods into the study area, even in relatively small quantities, would represent a major step forward. An absence of evidence, while possibly not validating Ross's view of Stainmore as virtually uninhabited (see 8.9.3.45), could provide data that informed consideration of:
- The extent and scale of east-west contacts?
 - The 'reach' and influence of the Stanwick/Scotch Corner elites?
 - The validity, or not, of Ross's proposed sub-regions/Tribal Territories?
 - The nature of society and economies in 'sub-regions' however they might be defined?
- 8.9.4.27 Nationally, and even more so in the North of England, we are woefully ignorant of most aspects of craft production in the Iron Age (Haslegrove et al, 2001)²⁸⁸ (Hasslegrove, 2016) (Fell, 2020). Even at the Stanwick and Scotch Corner complexes, both located close to the high quality copper ore deposits at Middleton Tyas, there was only limited evidence of copper working, even allowing for the recognition of a workshop area and the presence of pellet moulds at Scotch Corner (Hasslegrove, 2016) (Fell, 2020).
- 8.9.4.28 Evidence of iron-working was also sparse at both locations (Hasslegrove, 2016) (Fell, 2020). Can data inform questions regarding:
- The supply of both high status, and more mundane metalwork?
 - The potential for the existence of and/or status of 'itinerant smiths'?

²⁸⁶ Tipping, R. (2018) 'Exploring the Geography of the 'Brigantian' Land-Taking in Central Britain and the Roles of Natives and Romans', in R.D. Martlew (ed.) *Romans and Natives in Central Britain*. Kettlewell: Yorkshire Dales Landscape Research Trust and Leeds: Yorkshire Archaeological and Historical Society

²⁸⁷ Haselgrove, C. (ed.) (2016) *Cartimandua's Capital? The Late Iron Age royal site at Stanwick, North Yorkshire, fieldwork and analysis 1981-2011*. Council for British Archaeology Research Report 175. York: Council for British Archaeology, figure 12.3

²⁸⁸ Haselgrove, C., Armit, I. Champion, T., Creighton, J., Gwilt, A., Hill, J.D., Hunter, F. and Woodward, A. (2001), *Understanding the British Iron Age: An Agenda for Action*, Salisbury: Wessex Archaeology

- The role of trade and exchange throughout the Iron Age at all levels of society?

8.9.4.29 Questions of supply extend to all aspects of the material culture of the period, including ceramics (when/where used), quern stones²⁸⁹, and also objects made of organic materials that do not usually appear in the archaeological record, such as wooden vessels, basketry and cloth, but which may survive given the right burial conditions.

8.9.4.30 Apart from the well-known 'Bog bodies' there are few possible Iron Age burials known from the North West (Brennard, 2006) and with reference to both the Late Bronze Age and the Iron Age in the North East

The recovery of any bone remains will be vital to improving our knowledge of the basic anthropology of the population ...' (Petts, with Gerrard, 2006).

Roman

8.9.4.31 At the most basic level the detailed histories of the various Roman military installations in/in proximity to the A66 Route Corridor are far from clear. Any data that informs understanding of the garrisoning of sites and changes through time would be of immense value. While the Project avoids most fort sites there is the potential for additional direct evidence from the less well understood site at Carkin Moor, the plan of which is already better understood as a result of geophysical survey²⁹⁰ and trial trenching²⁹¹ undertaken as part of the current Project. Tangentially material from settlements associated with forts could suggest the presence of particular types of troops, particularly cavalry or part-mounted units. The apparent administrative importance of Brough-under-Stainmore could generate evidence of specialist activities and/or the presence of soldiers charged with specific duties, such as *beneficiarii*. Can evidence from the A66 Route Corridor add to the existing understanding of Roman-period military dispositions and strategies?

8.9.4.32 Given what is known about settlements associated with Roman forts - they can be extensive and the use of and occupation of areas can change over time (Wilson, 2006)²⁹², apparent negative evidence, or blank areas in survey work, warrant treating with caution. One such area is the field north of Brougham Castle Farm and south of the A66 where geophysical survey

'... failed to locate any anomalies of archaeological, or possible archaeological origin and largely recorded widespread magnetic disturbance.'²⁹³

²⁹⁰ Appendix 8.5: Geophysical Survey Report

²⁹¹ Appendix 8.6: Trenching Report, Lot 3 Report

²⁹² See, for example, discussion of settlement in the vicinity of Malton Roman fort in Wilson, P. (2006) 'A Yorkshire 'Small Town': Roman Malton and Norton Reviewed' *Yorkshire Archaeological Journal* 78

²⁹³ Appendix 8.5: Geophysical Survey Report

- 8.9.4.33 Trial trenching as part of the Lot 2 Programme to the north-west, north and east of Kirkby Thore, produced certain and probably Roman-period cut features, pits as well as gullies and ditches. The trenches to the north-west including some 'distinctly Roman V-shaped ditches'²⁹⁴. The whole suggesting surviving evidence of a Romano-British landscape incorporating enclosures, trackways and field systems²⁹⁵ surrounding the fort and civil settlement. Can the dating and use of this landscape be better understood? Also, while not definitive does the presence of V-shaped ditches suggests the possibility of a temporary camp, or camps located in proximity of the fort site, as known at Brougham?
- 8.9.4.34 Similarly the evidence from Warcop associated with the possible line of Roman road Margary 82, although lacking dating material, strongly suggests a Roman-period focus in the area,. However, other than the small temporary camp (06-0003) which alone is unlikely to have attracted settlement, there is currently no other context for these discoveries. Can they be better understood? Given the distance between the forts at Brough-under-Stainmore and Kirkby Thore could some form of military installation in the Warcop area, perhaps a fortlet, have functioned so as to 'in-fill a gap', as has been suggested for Maiden Castle and fortlets at Elslack and Castleshaw further south in the Pennines? (Symonds, 2018)
- 8.9.4.35 In addition to the fort sites is there evidence of other military installations, perhaps representing elements of the suggested 'signal station' or tower (Richmond, 1951) (Annis, 2001)²⁹⁶ (Symonds, 2018) systems, or possibly comparable with the Maiden Castle fortlet (Collingwood, 1915) (Colingwood, 1927) (Vyner, 2001). The probable Roman-period 'enclosure' at Kempley Bank²⁹⁷ could possibly represent a further temporary camp, particularly as concentrations of camps in proximity to Roman fort sites are a well known phenomena:
- '... many are recorded along the routes of Roman roads and in the vicinity of Roman forts and fortresses.'* (Jones, 2012)²⁹⁸
- 8.9.4.36 Evaluation trenches between Redlands Bank temporary camp (0405-0004) and Crackenthorpe village produced pits and linear features, with some of the latter being interpreted as enclosure ditches adjacent to the Roman road²⁹⁹. Features located in proximity to the camp must be regarded as having high priority for investigation, not least because of the difficulties of dating temporary camps (Jones, 2012), which in general produce little by way of dating material and, all too often, are dated by claimed historical context, rather than associated material culture or absolute dating techniques. Can the character of Roman-

²⁹⁴ Appendix 8.6: Trenching Report, Lot 2 Report

²⁹⁵ Appendix 8.6: Trenching Report, Lot 2 Report

²⁹⁶ Annis, R. (2001a) 'The Stainmore 'signal stations' or tower chain', in B. Vyner (2001) *Stainmore. The Archaeology of a North Pennine Pass*. Tees Archaeology Monograph 1. Hartlepool: Tees Archaeology

²⁹⁷ See Appendix 8.4: AP and LiDAR Assessment, figure 2, Site 1_2_49

²⁹⁸ Jones, R.H. (2012) *Roman Camps in Britain*. Stroud: Amberley

²⁹⁹ Appendix 8.6: Trenching Report, Lot 2 Report

period occupation in the Crackenthorpe area be better understood? Is there some longer-lived focus for the activity identified to date?

- 8.9.4.37 Can we better-understand the origins of the Roman period population(s) of the area? Any Roman-period burials, of whatever date or type would be potentially highly informative, particularly if well-enough preserved to allow the deployment of stable isotope and aDNA analyses and other current techniques.
- 8.9.4.38 The well-known 'Danubian connection' (Bidwell and Hodgson, 2009) at Brougham also raises questions of:
- Ethnicity - how long do Unit connections with areas of origin last? (Brennard, 2007) (Haynes, 2013)³⁰⁰
 - If other military burials are found in the Brougham area was the 'Danubian' cemetery spatially distanced from previous and later areas of military burial and do other cemetery areas display distinctive signatures? (Petts, with Gerrard, 2006)
 - Can similar locational differentiation be seen at other fort sites, or indeed in apparently 'civilian' cemeteries?
 - Recruitment processes - are specialist skills 'topped up' by new drafts from the original 'home area' as has been suggested for Batavian cavalry units? (Haynes, 2013)
 - Unit traditions - do local recruits and others brought into a unit adopt or continue cultural or religious practices introduced from the original 'home areas' of the unit?
 - Is there evidence of the worship of minor 'immigrant gods' as well as the official Roman pantheon and local deities?
 - Is there evidence of further rural shrines (Brennard, 2007), similar to that on Scargill Moor? (Wright and Richmond, 1948)³⁰¹
- 8.9.4.39 In the study area, and more widely, settlements (*vicī*) associated with forts are poorly understood in terms of status, governance, extent, functions and longevity:
- Recent work has suggested that many are in decline by the late third century, is this the case in the A66 Route Corridor?
 - What evidence is there for official involvement in the extra-mural settlements? (Petts, with Gerrard, 2006)
 - What crafts and industries were practiced in the extra-mural settlements?
 - What evidence is there for the civilian settlements being active members of the wider 'military community', perhaps having integral roles in the functioning of military supply system, or at a lesser level perhaps by repairing military equipment?
 - What is the extent of evidence for veterans in the extra-mural settlements in the area?

³⁰⁰ See discussion in Haynes, I. (2013) *Blood of the Provinces. The Roman Auxilia and the Making of provincial Society from Augustus to the Severans*. Oxford: Oxford University Press

³⁰¹ Wright, R.P. and Richmond, I.A. (1948) 'Two Roman shrines to Vinotonus on Scargill Moor, near Bowes'. *Yorkshire Archaeological Journal*, 37

- 8.9.4.40 What evidence is there of the wider economy of the area, such as:
- Local non-agricultural production or extractive industries? (Petts, with Gerrard, 2006)
 - Sources of raw materials, such as where are the stone sources? (Petts, with Gerrard, 2006)
 - Is there evidence of changes in the livestock pool, perhaps indicative of selective breeding?
 - Is there evidence of changes in the crops produced (Petts, with Gerrard, 2006), either through new introductions, or the relative proportions of different plant or animal types?
 - Are there Roman-period waterlogged deposits that may preserve organic materials otherwise absent from the archaeological record? (Brennard, 2007)
 - Is there evidence of the people of the extra-mural settlements benefitting from access to a wider range of goods and food stuffs, possibly on the back of the military supply system?
 - What access do inhabitants of Roman-period rural settlements have to intrusive forms of material culture?
 - Conversely, away from uniforms and weapons can indicators of 'Roman military' and 'civilian' or 'rural' assemblages be recognised? Do these change through time? (Petts, with Gerrard, 2006)
- 8.9.4.41 Can Roman-period rural settlements be identified (Brennard, 2007) as:
- Phases within a multi-period settlement?
 - New creations?
 - Having chronologically distinct morphologies?
 - Field-walked material/casual finds?
 - Types of site associated with field-systems and/or particular areas or types of topographic position in the landscape? (Brennard, 2007)
- 8.9.4.42 Origins of Roman road Margary 82:
- Is it a formalisation of pre-existing routeways?
 - Other than in the Scotch Corner area does it have pre-Roman origins as a 'built road'?
 - To what extent does it represent possibly changing priorities and/or purposes in the Roman period as reflected in links to other long distance roads and settlements?
 - Nature of road infrastructure, the possibility of 'braided routes', particularly in areas of difficult terrain?
 - Impacts on the local landscape and environment?
 - Longevity of the Roman route(s) and their influence (or not) on later settlement location and activity?
 - Does the road attract small-scale roadside settlements such as those seen on the A1 at Low Street and Scurragh House near Catterick? (Ross and Ross, 2021)³⁰²

³⁰² Ross, S. and Ross, C. (2021) *Cataractonium Establishment, Consolidation and Retreat*. (Northern Archaeological Associates monograph 6). Barnard Castle

- Can 'local infrastructure', such as the suggested possible 'laybys', 'rest areas' or 'crawler lanes' seen north of Penrith on Road Margary 7e (Margary, 1973), at Fairhill (Jackson, 2019)³⁰³ be identified?

8.9.4.43 Any or all of the above would be of at least Regional Importance and probably in many cases of National Importance. That said, given the worldwide interest in Roman archaeology and particularly Roman military archaeology, there is the potential for aspects of the Roman-period data to be of interest to a wide range of scholars and non-professional interest groups.

Early Medieval

8.9.4.44 The virtual invisibility of this period in terms of sites represented in the archaeological record means that any data of any type; potential sites, burials, casual finds or environmental material, will be of regional importance (Petts, with Gerrard, 2006), and in some cases potentially of national importance.

8.9.4.45 The low level of material culture recorded, and the apparent lack of lower status/more functional material, suggests that recognition and dating of sites is going to be heavily dependant on scientific dating programmes.

8.9.4.46 Our knowledge of post-Roman/pre-Rheged, and even 'Rheged-period' sites and material culture is virtually non-existent. In Cumbria, other than the possibly reworked horn sword pommel in its suggested original form, all of the casual finds known, as well as those from funerary context date to or after the development of Northumbrian hegemony from the seventh-century. Can the Project expand this corpus, or provide additional, or complimentary data sets?

8.9.4.47 Despite the overall lack of data for the period, the differing chronologies, varying political/regnal histories (such as they are known) and observed differences between what data there is from east and west of Stainmore during the latter part of the period, should sites/data be identified, it may be possible to contribute to questions relating to:

- The nature of ethnic and/or cultural changes through time, with the possibility of Romano-British/native British, Irish, Anglian, Anglo-Scandinavian or Hiberno-Norse strands? (Brennard, 2007)
- 'The End of the Roman North' (Wilmott and Wilson, 2000)³⁰⁴ (Brennard, 2007) and the potential for the sort of societal fragmentation that has been argued for elsewhere in the North (Collins, 2012)?

8.9.4.48 Cumulatively does data from the period contribute to a better understanding of the polities of the broader Region during this period?

³⁰³ Jackson, D. (2019) 'Archaeological investigation of a Roman road at Fairhill, Penrith, Cumbria', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 3rd series

³⁰⁴ Wilmott, T. and Wilson, P.R. (eds) (2000) *The Late Roman Transition in the North: Papers from the Roman Archaeology Conference, Durham 1999*. Oxford: British Archaeological Reports, British Series 299

- 8.9.4.49 Other than *Grubenhäuser*, there are no known morphologically or chronologically diagnostic building types of this period known from the A66 Route Corridor. However, the fact that 'hall-like' or 'framed structures' are known from both 'British' sites, such as post-Roman Birdoswald³⁰⁵, and also Anglo-Saxon sites of varying status (Rahtz, 1981)³⁰⁶, suggests they may be anticipated. For the earlier part of the period this suggestion is reinforced by the fact that rectilinear framed, or post-built structures are recognised as part of the Late Roman and sub-Roman building traditions (Rahtz, 1981). Can such structures be identified?
- 8.9.4.50 Do recognisably Anglo-Scandinavian or Hiberno-Norse cultural traits, such as possibly settlement morphologies akin to Simy Folds, Teesdale (Coggins, 1986)³⁰⁷, hog-back tombstones, or the pair of brooches from Cumwhitton Anglo-Scandinavian cemetery, Cumbria (Paterson, 2014)³⁰⁸, perhaps in concert with place-names, provide an understanding of the depth, extent or duration of differing 'Viking Age' influences?
- 8.9.4.51 If, as aerial survey is suggesting in section 8.9.3.71, elements of Early Medieval field systems can be identified in the landscape. If so, can such data serve to inform, probably in combination with other analyses, questions relating to:
- Developing a better understanding of local agricultural practice in the period?
 - Understanding any changes resulting from the end of Roman rule and for the later period any impacts arising from (in Cumbria) eventual Anglo-Saxon dominance and through-out the area later Anglo-Scandinavian control?
 - Understanding the economy/economies that supported at various times: Royal estates, pre-Conquest churches (and possibly monasteries) and allowed 'conspicuous consumption' through investment in stone crosses and tombstones?

Medieval

- 8.9.4.52 While the defensive and controlling roles of castles and other lordly/gentry residences are much discussed less work has been undertaken on 'their economic impact and how ... they interact[ed] with their hinterland' (Petts, with Gerrard, 2006). The suggested c. 752ha Deer Park (Whinfell Park) south of the A66 near Lightwater Cottages provides a possible example³⁰⁹ which, if confirmed would demonstrate a

³⁰⁵ Wilmott, T. (1997) *Birdoswald. Excavations of a Roman fort on Hadrian's Wall and its successor settlements: 1987-92*. English Heritage Archaeological Report 14. London: English Heritage

³⁰⁶ Rahtz, P.A. (1981) 'Buildings and rural settlement', in D.M. Wilson (ed.) *The Archaeology of Anglo-Saxon England*. Cambridge: Cambridge University Press. Site types utilising framed construction include: Aristocratic and Episcopal sites

³⁰⁷ Coggins, D. (1986) 'Early Settlement in Upper Teesdale', in T.G. Manby and P. Turnbull (eds) *Archaeology in the Pennines*, British Archaeological Reports, British Series 158. Oxford: British Archaeological Reports

³⁰⁸ Paterson, C. (2014) *Shadows in the Sand: Excavation of a Viking-age Cemetery at Cumwhitton*. Lancaster Imprints 22. Lancaster: Oxford Archaeology North

³⁰⁹ Recorded in the Cumbria HER (6803), but not evidenced in the survey work undertaken for this project (See Appendix 8.4, Section 4.3.18)

major impact on the pre-existing, presumably agricultural, landscape in the medieval period that could have continued into the post-medieval period. Can such major impacts on the landscape be dated and, can their economic and social impact be better understood?

- 8.9.4.53 Leading on from that and given the overall lack of understanding of the landscape of the A66 Route Corridor in the medieval period, a fundamental consideration is the establishment of dating frameworks for all landscape elements encountered by the Project including: field-systems, dispersed settlement evidence and rural industries (Brennard, 2007). Can the Project, and other 'linear' development schemes, offer an opportunity to redress a perceived imbalance in the nature of data derived from development archaeology which, it has been suggested have 'had relatively little impact on our understanding of medieval landscapes'³¹⁰(Petts, with Gerrard, 2006)?
- 8.9.4.54 Despite the evidence for the existence of vaccaries, bercaries and shielings 'the chronology of upland transhumance is still not adequately understood'(Petts, with Gerrard, 2006). As originally made this statement was primarily focussed on areas further north but would seem to be equally applicable to the A66 Route Corridor given the limited research undertaken in the area to date. Can the extensive 'landscape scale' of the Project contribute to a better understanding of upland land management and the interdependency of lowland and upland areas?
- 8.9.4.55 Can depopulation/reduction in population of settlements relate to changes in agricultural practice, perhaps in part as a result of events such as the Harrying of the North, or the Black Death? Is there any correlation with data from the Study Area?
- 8.9.4.56 Can the morphology of field-systems inform understanding? Whilst fields/enclosures can be assumed to have been associated with settlement on, or close to the main alignment(s) of the medieval road through the A66 Route Corridor, can the location of fields/enclosures provide evidence of potential functions? These might include:
- Servicing travellers or facilities on the road/extent of infrastructure, or
 - Being primarily related to the subsistence of the local population.
- 8.9.4.57 Alternatively could they relate to local factors such as:
- Land quality, possibly as evidenced by Historic Landscape Characterisation data?
 - Site aspect?
 - Availability of water?
 - agricultural practice, such as winter housing of stock that in summer were pastured on upland vaccaries, bercaries or shielings?
 - Tenurial arrangements?
- 8.9.4.58 Local diversity, based on the above factors or others, could potentially dictate the appearance of the local landscape with, possibly, contrasts between the eastern and western parts of A66 Route Corridor, and also

³¹⁰ Appendix 8.2: Historic Landscape Baseline Report.

perhaps with Stainmore proper (Vyner, 2001). Can data from the Project possibly contribute to the identification of sub-Regional social, settlement and economic profiles?

8.9.4.59 Is it possible to identify possible, or certain areas of medieval industrial activity? This could be through *in situ* evidence, or extrapolated from potentially associated features, such as roads/tracks serving quarries? If so it may provide a better understanding of the economies and functions of medieval settlements in the region (Brennard, 2007), as perhaps at Spitals (See Section 8.9.3.89).

- Can data from the Project improve our understanding of the medieval iron industry, glass making and leather-working industries and the extent/role of water power (Petts, with Gerrard, 2006)?
- Is it possible to recognise evidence of the impact of religious orders in the area, either through evidence relating to Egglestone Abbey's estates and granges or property owned or controlled by other religious orders?
- Is it possible to identify the localised impacts associated with the control of manors by The Templars and/or later The Hospitallers?
- Can we better understand the economic impact/importance of the routeway across Stainmore in the Medieval period?
- Does data from the Project add to the understanding of Medieval road-related infrastructure, such as inns and hospitals?
- What was the extent and importance both politically and socially of the routeway across Stainmore?
- Can dislocation and/or social or economic disruption resulting from the Anglo-Scottish wars be identified?

Post Medieval

8.9.4.60 Are impacts arising from the creation of the great, and smaller gentry houses and estate centres, as well as changes in ownership patterns, visible in the archaeological record through:

- Superimposed, or refocussed enclosure/field systems and access arrangements?
- The creation of emparked areas over-riding other landscape systems? (Brennard, 2007)
- The development of associated farms and industry? (Hyde and Pevsner, 2010)
- An increased alignment with cartographic and documentary sources?
- The suppression/removal of settlement as a result of depopulation, displacement or relocation? (Brennard, 2007)

8.9.4.61 Such data may inform considerations of social and other change (Brennard, 2007).

8.9.4.62 One area of landscape change, the development of landscapes designed specifically to facilitate field sports (Petts, with Gerrard, 2006) is almost wholly not understood, at least below the level of field sports forming an essential element on many estates. Similarly, away from racecourses little is known of the impacts of modern horse management

for leisure activities, such as livery facilities, stabling and pasturage, or stud farms and off-course facilities associated with horse-racing, such as training yards and gallops. Can landscape impacts arising from the creation of sporting and leisure facilities be recognised?

- Can changes in agriculture, whether reflected in the morphology of systems, the crops grown, stock kept or the creation of 'model' or 'home' farms inform considerations of agricultural change/improvement? (Brennard, 2007)
- Does evidence of expansion of, or abandonment of, upland farmsteads offer opportunities to understand the drivers of the changing agricultural economy and the evolution of settlement patterns? (Brennard, 2007)
- Do the changing functions of buildings, or holdings reflect social change or the development/expansion of industries or the transport network?
- Can a better understanding of the 'afterlife' of ecclesiastical properties and holdings be achieved? (Petts, with Gerrard, 2006)
- Do changes in/diversification of religious practice leave visible signatures in the archaeological record that can be tied into historical evidence?
- Can evidence relating to the erection and abandonment of new churches and, perhaps particularly, chapels have the potential to inform considerations of social norms and community development/cohesion and, possibly, decline? (Brennard, 2007)
- Can the developments in industry and extractive industries be related to developments the start of which can be traced back into the Later Medieval period? At what point(s) in time along the A66 Route Corridor do medieval crafts and industries morph into 'industrialised' production (Cranstone, 2001)³¹¹? Can diversity in industrial development be seen based on location, ownership or other factors?
- Given the changing nature of the road system does minor road-related infrastructure dating to the period of the turnpikes and later have the potential to survive and inform understanding? Known examples include the milestones known near West Layton³¹² and Street Plantation³¹³.
- Can similar benefits accrue from understanding developmental sequences for routeways? The potential is suggested by the hollow way that runs from the line of the Roman road to Browson Bank that can confidently be assigned to the post-medieval period as it cuts through narrow ridge and furrow³¹⁴.
- What is the impact of change on redundant railway infrastructure, such as the standing remains of Bowes Railway Station (07-0052)? In

³¹¹ Cranstone, D. (2001) 'From Newby Hall to Navvy Camp: Power, Pots and People in Post-Medieval Archaeology', in T.G. Manby, S. Moorhouse and P. Ottaway (eds) (2003) *The Archaeology of Yorkshire. An Assessment at the beginning of the 21st century*, Yorkshire Archaeological Society Occasional Paper 3. Leeds: Yorkshire Archaeological Society

³¹² See Appendix 8.4: AP and LiDAR Assessment, Figures 21 - Site 9_42

³¹³ See Appendix 8.4: AP and LiDAR Assessment, Figure 22 - Site 9_68

³¹⁴ See Appendix 8.4: AP and LiDAR Assessment, Figure 20 - Site 9_75 (hollow way), Site 9_74 (ridge and furrow)

addition, can the recognition of 'off-line' infrastructure such as sidings equipped for loading, or 'spurs' to off-line locations, such as quarries, and other features, inform understanding of the management of industrial transport? (Petts, with Gerrard, 2006)

- Can the location of minor infrastructure, such as crossing points (manned and unmanned) contribute to an understanding of the integration of the needs of local populations into railway planning/development?
- Can the establishment of dating frameworks for elements of the transport network and/or industrial activities, perhaps particularly, extractive industries, inform relative chronologies - is the expansion of industry a product of, or prerequisite for investment in improved transport infrastructure in the area?
- Can the recognition of evidence of transitory settlements/'navvy camps', in particular those associated with the construction of the railways, inform the level of (dis)engagement of such communities with the local population? (Brennard, 2007)

Twentieth and Twenty-First Century

- 8.9.4.63 While study of the period benefits from the availability of increased documentation, much evidence of change is potentially purely archaeological. In particular evidence of secondary activity, such as rail side loading facilities associated with quarrying or other industry, or the maintenance infrastructure for both railways and earlier iterations of the A66 and associated roads (Petts, with Gerrard, 2006). Can the recording of rural 'brownfield' sites have the potential to provide the 'how' that may explain development and decline and industrial processes and infrastructure and how sites/facilities were used?
- 8.9.4.64 Can the development, or loss, of facilities relating to rail and road transport inform discussion of the nature of changes in employment, urban/village life and the tourist economy? (Petts, with Gerrard, 2006)
- 8.9.4.65 Profound changes that are seen in the agricultural economy in terms of:
- Mechanisation
 - Nature and function of agricultural holdings
 - Diversification
- 8.9.4.66 Can the recognition of changes help explain the development, or decline, to farmsteads and their associated landscapes? (Petts, with Gerrard, 2006)
- 8.9.4.67 Can the 'afterlife' of buildings once they are no longer needed for their primary purpose may inform narratives relating to the development, or decline, of industries and agricultural practices, as well as societal change?
- 8.9.4.68 Such changes could include:
- Conversion of former purely functional buildings, such as barns to domestic and/or tourist accommodation
 - Development of light industry in rural locations

- Loss of local traditional crafts
- Development of elements of the contemporary creative economy
- Developments focussed on the tourist economy³¹⁵.

8.9.4.69 A different 'afterlife' is represented by the Eden Valley Railway (06-0100). As a tourist attraction embedded firmly in the past of the area and to what extent might its future be dependent on an understanding of the redundant/lost historic assets associated with the line?

8.9.4.70 The decline in church and chapel attendance is well-attested and has led to religious buildings, such as the Crackenthorpe 'Tin Tabernacle' (0405-0424) becoming redundant (see section 8.3.118). To what extent does the possibility of it and other buildings with religious associations being affected by the Project potentially have impacts on local communities and social systems?

Intangible Heritage

8.9.4.71 The recognition of what may be considered as 'Intangible Heritage' can, in itself be challenging, although in the A66 Route Corridor the Appleby Horse Fair is widely recognised (See Section 8.9.3.139), even if its social and cultural context to the Romani communities is not fully understood by the wider population. What may be less visible or accessible are associated sites known to the Romani. This may include: traditional camping grounds used by those travelling to and from the Appleby Horse Fair³¹⁶ and related ancillary information. Such knowledge is likely to be lost as legislation and other changes impact on the Romani:

'The places where my family would frequently set up camp are now mostly inaccessible, as the commons, verges and drove roads that used to provide us with space are enclosed'³¹⁷ (Bowers, 2022).

8.9.4.72 The impact from the Project on the Romani/Traveller community is assessed in ES Volume 1 Chapter 13: Population and Human Health and the Equalities Impact Assessment (EQIA). The scale of impact is not one which is expected to result in more than a negligible change to the Intangible Heritage of the community. Mitigation is therefore not proposed.

8.9.4.73 Similarly, how might the loss of non-Conformist places of worship and other social spaces of the recent past, including possibly roadside public houses and cafés, potentially threaten local traditions and even dialect usage that could be lost without record?

8.9.4.74 What is the value placed on localised and temporary road-related locations or events, such as temporary roadside memorials or commemorative events may exist and be significant to groups within the

³¹⁵ Perhaps most obviously in the area of the Project at Centre Parcs Whinfell Forest, or on a lesser scale facilities such as Mainsgill Farm Shop

³¹⁶ Such as Devil's Bridge, near Kirkby Lonsdale and Great Asby village in Cumbria featured in the Channel 4 series '60 Days with the Gypsies' - Episode 2 broadcast 7th February 2022

³¹⁷ Bowers J. (2022) 'The Ground beneath our Feet'. *New Internationalist* 535

population, the locations for which may be removed or impacted by the Scheme?

8.9.5 Research Agenda (2) - Theme-Based³¹⁸

Preamble

8.9.5.1 As noted in Section 8.9.1.3, there are Research issues that cut across period boundaries and recognition of this led to the identification of four 'data-themes':

- Identification of new sites/topics
- Chronology
- Environment
- Artefacts

8.9.5.2 What follows draws out and brigades together potential data sources and questions relevant to those themes.

Identification of new sites/topics

8.9.5.3 This was defined in initial discussions about the scope of this document as 'Identification of new sites'. However, given that at the suggestion of Historic England the remit of this document be extended to cover 'Cultural Heritage', rather than solely the 'Archaeological Resource', it has been widened to include 'topics' to allow consideration of a wider range of subject areas including those relevant to 'Intangible Heritage'³¹⁹.

8.9.5.4 The Surveys and Trial-Trenching³²⁰ undertaken as part of the development of the data necessary to inform the application have identified a range of new sites and areas of potential archaeological interest/importance, including:

- Pleistocene river terrace deposits near Centre Parcs (Scheme 3)³²¹
- Glaciolacustrine deposits in Schemes 1 and 9³²²
- As yet undated Holocene peat deposits in the valley of the Lightwater and a nearby unnamed stream³²³ (Scheme 3) and close to Lowgill Beck (Scheme 6)³²⁴.

8.9.5.5 The fundamental questions with respect to all such new discoveries, particularly for those belonging to the Holocene, relate to chronology and how they do, or do not, relate to pre-existing data sets?

8.9.5.6 The inclusion of 'Intangible Heritage' has opened the way for consideration of the social context and community value of the heritage of the A66 Route Corridor that and what that might mean to the 'lived

³¹⁸ The topics identified in both Sections 1.4 and 1.5 have informed the development of the Outline Historic Environment Mitigation Strategy (Appendix 8.10: Impact Assessment Table)

³¹⁹ Sections 1.3.138-140 and 1.4.70-72

³²⁰ Appendices 8.3: Geoarchaeological desk Based Assessment – Appendix 8.7: Geochemical Survey Report

³²¹ Appendix 8.3: Geoarchaeological desk Based Assessment, Sections 6.3.8 and 8.2

³²² Appendix 8.3: Geoarchaeological desk Based Assessment, Sections 6.2.7, 6.8.1 and Section 8.3

³²³ Appendix 8.3: Geoarchaeological desk Based Assessment, Section 6.3.11

³²⁴ Appendix 8.3: Geoarchaeological desk Based Assessment, Section 6.5.11

experiences' of both the local population and visitors to the area? As already stated amongst the latter a key group will be those associated with the Appleby Horse Fair³²⁵, but others might include what could be much more diffuse groups with a multiplicity of overlapping interests, particularly tourists and outdoors enthusiasts³²⁶.

Chronology

8.9.5.7 A recurring theme through the Period-by-Period consideration above is the limited availability of dating evidence for most periods, even when material culture is present³²⁷. This impacts both at a 'site' level and also with respect to individual landscape features, such as field boundaries suggesting a number of considerations:

- The importance of even small assemblages of material culture
- The potential to inform, even if only in a qualified way, of surface collected and topsoil assemblages
- There is a strong case for deployment of the widest possible range of absolute and scientific dating across the Project, including where appropriate:
 - Carbon-14 (Aitken, 2003)³²⁸, and in particular Accelerator Mass Spectrometry (AMS)
 - Archaeomagnetism (Linford, 2006)³²⁹
 - Thermoluminescence (Duncan, 2021)³³⁰
 - Optically Stimulated Luminescence (Duncan, 2021)
 - pXRF (Hunt and Speakman, 2015)³³¹

8.9.5.8 To understand the chronology of the Project area as a whole, a Project-wide dating framework/strategy that codified the approach to integrating stratigraphic, relative and scientific dating data would have the potential to facilitate inter-site comparison/discussion. Such a strategy might, to an extent, overcome some of the issues posed by the likelihood of sites producing small assemblages and/or providing low numbers of deposits/sample suitable for absolute/scientific dating.

Environment

8.9.5.9 To date, despite substantial sampling programmes undertaken as part of many developer-funded projects, there is remarkably little environmental data from the A66 Route Corridor for any period.

³²⁵ Sections 1.1.6, 1.3.139 and 1.4.70

³²⁶ See, for example, 'Tourism Intelligence'

³²⁷ The Trial Trenching programme in Lot 2 produced nine artefacts regarded as of archaeological significance, as opposed to post-medieval field drains and the like (Appendix 8.6: Trenching Report, Lot 2 Report, Section 4.1.4)

³²⁸ See, for example: Aitken, M.J. (2003). 'Radiocarbon Dating', in L. Ellis (ed.) *Archaeological Method and Theory*. New York: Garland Publishing

³²⁹ See, for example: Linford, P. 2006. *Archaeomagnetic Dating: Guidelines on Producing and Interpreting Archaeomagnetic Dates*. Portsmouth: English Heritage Publishing [no longer current - the Historic England website links to *Archaeomagnetism: Magnetic Moments in the Past*

³³⁰ See, for example: Durcan, J.A. (2021) 'Luminescence Dating', in S. Elias and D. Alderton (eds) *Encyclopaedia of Geology* (2nd edition), Volume 6. Amsterdam: Academic Press

³³¹ See, for example: Hunt, A.M.W and Speakman, R.J. (2015) 'Portable XRF analysis of archaeological sediments and ceramics', *Journal of Archaeological Science*, 53

- 8.9.5.10 While broad understandings of topics such as woodland clearance and upland peat development exist, they are largely informed by data from sites outside the Project area.
- 8.9.5.11 In general the A66 Route Corridor 'under-performs' with respect to most types of data.
- 8.9.5.12 It is possible to say of the North East generally:
'There is pollen evidence for much of the region, though there are regional and chronological weaknesses. ...' and
'... relatively few assemblages of macrofossils date to the earlier prehistoric period. They become more common into the Bronze Age and Iron Age, though the lack of chaff has consequences for the identification of cereal grains by species In the Roman period, although there is reasonable coverage of native and civilian sites, there are few plant remains from military sites, ... Early medieval are dominated by ecclesiastical sites, with little known from secular settlements.... There is a general lack of macrofossil evidence from post-medieval sites. ...' and
'Our understanding of bone assemblages ..., whether animal or human, is hampered by the poor survival of bone in the region's generally acid soils' (Petts, with Gerrard 2006).
- 8.9.5.13 Similar comments are embedded in the Research Agenda for the North West, albeit within the individual period-specific chapters:
- 'Pollen analytical studies concerning upland occupation are equally problematic, ... many upland clearances dated provisionally to the Iron Age/Roman exploitation of such landscapes may actually relate to earlier periods'(Brennard, 2007)
 - For the Roman period: 'there are few rural faunal assemblages' ... 'only very few sites have had analysis undertaken on buried soils' [away from Hadrian's Wall] ... (Brennard, 2007)
 - For the Early Medieval period 'there is currently very little known about land-use, landscape and climate change from the 5th to the 11th centuries (Brennard, 2007)
 - For the Medieval period there 'has been little use made of paleoenvironmental analyses to evaluate developments in land-use and resource exploitation. 'the study of animal bone assemblages, from both urban and rural deposits, is limited, ...'(Brennard, 2007)
 - In the post-medieval period 'there are many unanswered questions relating to the impact of the Little Ice age on settlement patterns'(Brennard, 2007).
- 8.9.5.14 While the issues identified above may have received attention in the broader regions since the publication of the North East and North West Research Frameworks, away from:
- The areas on Stainmore investigated in 1989-1990 (Vyner, 2001)
- 8.9.5.15 and more recent investigations at the eastern end of the A66 Route Corridor of:

- The Scotch Corner to Greta Bridge section (Zant and Howard-Davis, 2013)
- The Stanwick complex and associated sites (Haselgrove, 2016)³³², and
- The settlement at Scotch Corner (Fell, 2020)
- Various of the more recent interventions at Brougham

8.9.5.16 within the Scheme area or the wider A66 Route Corridor, there is little understanding of:

- Local environments around known sites
- The overall potential of the areas of lowland peat deposits, although the peat deposits sampled in Lot 1 were shown to be 'highly degraded' (Wessex Archaeology, 2022b), but the report goes on to state that:

'... it is important to emphasise that preservation conditions may vary significantly across the scheme.' (Wessex Archaeology, 2022b)

- The potential for environmental material from areas where the scheme crosses, or impacts on areas in close proximity to river or stream deposits
- The potential for the survival of human and animal bone generally across the scheme area, although:
 - Cremated human remains (McKinley, 2004)³³³ and animal bone survived in the Brougham cemetery, along with a limited amount of unburnt animal bone (Bond and Worley, 2004)³³⁴. More recent work has produced larger quantities of animal bone (1598 fragments from all periods), but with limited research potential (Zant and Clapperton, 2010). Other sites at Brougham have produced little or none (Martin and Reeves, 2001) (Martin and Reeves, 1999) (Gaskell, 2007)
 - Only nine of the Brough-under-Stainmore cremations produced cremated human, while the *vicus* produced 22 bones and 5 teeth from animals
 - In contrast Greta Bridge *vicus*, which only produced 220 animal bones, their preservation did allow some quantification and discussion (Rackham, 1998)³³⁵
 - The same is true of the 480 identifiable animal bone fragments from Bowes (Richardson, 2009)³³⁶.

³³² Haselgrove, C. (ed.) (2016) *Cartimandua's Capital? The Late Iron Age royal site at Stanwick, North Yorkshire, fieldwork and analysis 1981-2011*. Council for British Archaeology Research Report 175. York: Council for British Archaeology

³³³ McKinley, J.I. (2004) 'The Human Remains and Aspects of Pyre Technology and Cremation Burials', in H.E.M. Cool, *The Roman Cemetery at Brougham, Cumbria. Excavations 1966-67*. Britannia Monograph 21. London: Society for the Promotion of Roman Studies

³³⁴ Bond, J.M. and Worley, F.L. (2004) 'The Animal Bone', in H.E.M. Cool, *The Roman Cemetery at Brougham, Cumbria. Excavations 1966-67*. Britannia Monograph 21. London: Society for the Promotion of Roman Studies

³³⁵ Rackham, J. (1998) 'The Animal Bones', in P.J. Casey and B. Hoffman 'Rescue excavations in the *vicus* of the fort at Greta Bridge, Co. Durham, 1972-4', *Britannia* 29

³³⁶ Richardson, J. (2009) 'Animal Bone', in S.S. Frere and B.R. Hartley 'Excavations at the Roman Fort at Bowes in 1966-67 and 1970', in S.S. Frere and R.L. Fitts *Excavations at Bowes and Lease Rigg Forts*, Yorkshire Archaeological Report 6. Leeds: Yorkshire Archaeological Society

- 8.9.5.17 It would seem that location may well influence the potential for sites in the area to contribute animal bone data, perhaps with greater potential to the east of Stainmore. Indeed, the lack of animal bone noted at several sites at Brougham suggests that survival conditions may be a key issue.
- 8.9.5.18 With respect to bone survival west of Stainmore, it should be noted that the two cemetery sites at Brougham and Brough-under-Stainmore primarily produced cremations.
- 8.9.5.19 Whatever the location any discoveries of assemblages of stratified animal or human bones from any period would be, at least, of Regional importance.

Artefacts

- 8.9.5.20 For much of human history the Project area and the wider A66 Route Corridor artefact assemblages are limited.
- 8.9.5.21 Large assemblages of lithics are uncommon, although the Eden Valley Fieldwalking project has produced two assemblages each consisting of over 700 pieces from close to the confluence of the Rivers Eamont and Eden³³⁷.
- 8.9.5.22 Occasional 'high status' artefacts from both the Neolithic (hand axes) and Bronze Age (bronze weapons, rather than lithics) are known.
- 8.9.5.23 Ceramics, away from the Roman fort sites and associated settlements are rare, even from later periods such as the medieval.
- 8.9.5.24 Sources are generally unknown for most types of material culture, other than Neolithic 'Langdale Axes', East Yorkshire lithics, hard-fired Roman-period ceramics and regionally significant medieval and post-medieval pottery types.
- 8.9.5.25 For most periods there seems to be a 'shortfall' in material culture. This in part may be the relatively limited investigation of the area, soil conditions that are not conducive to artefact survival and, quite possibly, significant usage of organic materials, notably wood, for functional objects that might otherwise be produced in ceramics or metalwork (Wilson, 2002)³³⁸.

8.9.6 Possible approaches to the mitigation of impact on the Cultural Heritage Resource

- 8.9.6.1 Given the issues of chronology and also site and resource recognition outlined above 'recognising the resource' may, at least in the mitigation phase of the project, be the key consideration.

³³⁷ Cumbria HER: 44900 and 45200

³³⁸ See, for example: Wilson, P. (2002) 'Craft and 'Industry' on the North York Moors in the Roman Period'. In P. Wilson and J. Price (eds) *Aspects of Industry in Roman Yorkshire and the North*. Oxford: Oxbow, for a discussion of 'invisible crafts' in an upland area

8.9.6.2 The pre-mitigation surveys and trial trenching that have been undertaken³³⁹ and informed this document have in some areas suggested a lack of archaeological evidence. While this lack may be genuine in the area of the Project it would set the region apart from those to the north and south that have, in varying periods, demonstrated significant human occupation and intervention, with accompanying material culture and environmental data³⁴⁰.

Key Sites:

8.9.6.3 Concentrating resources on those threatened sites that have proved to have not only archaeological features present, but also reasonable levels of preservation, such as Brougham, Kirkby Thore, Crackenthorpe, Warcop, Appleby and Carkin Moor, is perhaps the most certain way to advance understanding. However, in most cases those sites would primarily offer opportunities to enhance our understanding of locations that we already have some knowledge of, which would not be an argument for not excavating the deposits and features that will be impacted.

8.9.6.4 At Brougham, in particular, given the level of existing knowledge, it ought to be possible to add important detail that would inform understanding of one of the key sites within the Order Limits.

8.9.6.5 Kirkby Thore, Crackenthorpe, Warcop, Appleby and Carkin Moor are less well understood, so any additional data will inform understanding.

8.9.6.6 At Carkin Moor there is a high potential that it will be possible to better understand the different, possibly chronologically separated, phases of Roman-period occupation. In addition, the prehistoric elements of the site, represented at least by scheduled settlement evidence and the burnt mound are of undoubted importance.

8.9.6.7 At Kirkby Thore the opportunity to develop an understanding of the wider landscape setting, not only of the Roman-period occupation, but also the medieval village, will be a rare opportunity in the region.

8.9.6.8 The Crackenthorpe area is even less well-understood than Kirkby Thore, but it too has the potential for significant data relating to not only a Roman and later landscape, but also probably a potentially significant prehistoric one with a considerable time depth, even if the Chapel Dub henge is not impacted.

8.9.6.9 West of Appleby and north of Warcop the late prehistoric, or possibly prehistoric/Roman landscapes (See Section 8.9.3.52) are similarly important, given the limited data from the central A66 Route Corridor to date.

Providing a wider understanding

8.9.6.10 Where the archaeological potential of an area impacted by the Project is not well understood, as possibly might be the case where access for

³³⁹ Appendices 8.3: Geoarchaeological Desk Based Assessment -Appendix 8.7: Geochemical Survey Report

³⁴⁰ See Section 8.9.2.7 and footnotes

survey or evaluation trenching was constrained, or where colluvium may potentially mask archaeological deposits; it might be appropriate to consider 'speculative' interventions at what might otherwise be uninvestigated locations.³⁴¹ Potential areas to target could include:

- Changes in geology, particularly where 'islands' of better quality or better-drained land are crossed
- River and stream crossings
- Paleochannels
- Any lowland peat deposits

8.9.6.11 As there is a reasonable 'lead time' for the project and given the success of initiatives such as the Eden Valley Survey (See Section 8.9.3.2), subject to land access arrangements, programmes of fieldwalking may have the potential to identify sites in areas of existing arable³⁴².

8.9.6.12 Similarly, if it were possible to programme topsoil removal ahead of other groundworks there may be the potential for site recognition through rapid 'walk over' surveys of stripped areas.³⁴³

8.9.6.13 Underpinned by a robust curatorially-agreed sampling strategy, the targeted archaeological removal of undated, or possibly long-established and potentially multi-period field boundaries may provide opportunities for the recovery of:

- Artefacts, or more likely
- Environmental and/or dating samples

that might allow the development of a better understanding of field system development and landscape change.

8.9.6.14 If areas are stripped in proximity to any known Bronze Age or later sites outside their known/presumed limits, structured and carefully managed metal-detecting (Wilson, 2015)³⁴⁴ could provide not only datable material, but also possibly wider cultural data and, perhaps most importantly, serve to flag areas for possible investigation³⁴⁵.

8.9.7 Public Engagement

Direct Action

8.9.7.1 This section should be read in conjunction with Sections 1.6.11, 1.6.12 and 1.6.14)

8.9.7.2 During the mitigation stage of the Project opportunities should be sought for appropriate safe public access, as there is a strong public appetite

³⁴¹ Such interventions could result from further prior investigation by augur surveys or other methods as outlined in Appendix 8.10: Impact Assessment Tables, Section 8.3.53.

³⁴² Perhaps using Environmental Designated Funds to encourage engagement of local populations and contribute to 'well-being' outcomes

³⁴³ Possibly organised through local Archaeological groups with professional mentoring/support using Environmental Designated Funds

³⁴⁴ See 'Working together' and associated references in Wilson, P. (2015) 'Metal detectors: friends or foes', in P. Everill and P. Irving (eds) *Rescue Archaeology Foundations for the Future* (2015) Hertford: Rescue

³⁴⁵ Possibly organised through local Detecting clubs with professional archaeological support using Environmental Designated Funds

for seeing archaeology 'in action', as was recently demonstrated during the excavations on the A1(M) Motorway Leeming to Barton excavations:

*'Final thanks must go to the public, who have shown such keen interest in the archaeology throughout the project. A number of open days were held during the excavations, which attracted over 2,000 visitors, while temporary exhibitions were well attended at the Richmondshire Museum, Bowes Museum and Bedale Museum.'*³⁴⁶.

8.9.7.3 While opportunities of community involvement in the onsite archaeological work within the DCO boundary may be prevented, or severely constrained by Health and Safety considerations, it may be possible to develop associated initiatives working with groups such as the Roman Roads Research Association (RRRA)³⁴⁷, the Cumberland and Westmorland Antiquarian and Archaeological Society - Penrith Affiliated Group, Cumbria County History Trust, Museums' Friends groups or other local history and archaeological organisations. The Project could encourage such groups to initiate work on aspects related to specific sites, types of sites, relevant historical records, or associated areas of social or cultural research within the broader A66 Route Corridor, or related to areas within the DCO boundary, even if the actual sites are inaccessible. These initiatives could be open-ended, depending on the interest generated, or lead to the establishment of new local or special interest groups, potentially producing a cultural legacy from the Project.

8.9.7.4 In addition, there is the potential to engage with established or developing programmes of community-based work such as the North Pennines Area of Outstanding Natural Beauty led 'Fellfoot Forward' project (Margary, 1973)³⁴⁸.

Broader Engagement

8.9.7.5 In common with other similar schemes, including the A1(M) Motorway through North Yorkshire a high level of public interest is likely to be generated by The Project. Positive engagement of such interest may be possible approaches such as:

- Implementation of a pro-active media strategy during fieldwork, with regular updates on discoveries to the local and, when appropriate, national and archaeological press
- Public lectures, both to established groups and 'open' events such as 'pop-up' Museums with temporary displays of recent finds aimed at local communities
- Regularly updated online information - website(s), social media and/or blogs during fieldwork and extending into the post-excavation and analysis phases

³⁴⁶ Highways England (2018) *A1 Leeming to Barton Improvement Scheme. Archaeological Discoveries*. Guildford: Highways England

³⁴⁷ RRRA Members have established research interests in the Roman roads of Cumbria - Have engaged with the development of this Research framework with respect to Roman Road M82 from Scotch Corner to Brougham (see Margary, 1973), and the complex of roads focussed on Bowes.

³⁴⁸ Archaeological work within the Fellfoot Forward project is co-ordinated by DigVentures,

- Popular publication(s) aimed at local communities, and also potentially the 'development community'³⁴⁹.

8.9.8 GLOSSARY

Term	Definition
Accelerator Mass Spectrometry	Accelerator Mass Spectrometry (AMS) can be used to determine the concentration of Carbon 14 for dating. Only very small amounts of carbon are required.
aDNA	Ancient DNA (aDNA) can provide information about how people lived in the past and their origins.
Archaeomagnetism	Archaeomagnetic dating uses the magnetic 'signature', or remnant magnetism, that may survive embedded in an undisturbed ancient feature.
Barrow	A burial mound built of earth.
Beneficiarius/Beneficiarii	A Roman soldier or soldiers seconded to special duties.
Brigantes	Pre-Roman people or confederation that controlled northern England at the time of the Roman invasion.
Cairn	A burial mound built of stone, or a pile of stones cleared from a field.
Carbon-14	Carbon-14 is the longest-lived radioactive isotope of carbon, the decay of which allows the dating of archaeological material with an organic component.
Cist	A stone lined grave.
Cohort	Unit of the Roman army. Legions, recruited from Roman citizens, were made up of multiple cohorts, while separate cohorts formed individual units of auxiliary (non-citizen) troops. Auxiliary cohorts could be infantry, or mixed units of infantry and cavalry.
Cursus	A Neolithic ceremonial monument, normally of considerable length, comprising a rectangular enclosure defined by a bank with external ditches.
Excarnation	The practice of exposing corpses for de-fleshing by birds and other natural processes.
Geoarchaeological	Geoarchaeology uses methods developed in the earth sciences to address archaeological questions relating to landscape and site development.
Geochemical	Geochemistry studies the range of chemicals present in the earth to help understand past activities.
Grubenhäuser/Grubenhäuser	Early medieval building/buildings constructed around a pit that would normally have a floor laid over it.
Hegemony	Domination, or control of one people, or groups of people by another.

³⁴⁹ See, for example, Highways England (2018) *A1 Leeming to Barton Improvement Scheme. Archaeological Discoveries*. Guildford: Highways England

Term	Definition
Henge	A henge is a roughly circular or oval-shaped flat area enclosed and delimited by a boundary earthwork - usually a ditch with an external bank. It may incorporate upright timbers or standing stones, although the majority did not.
Hengiform	A small earthwork site similar to a henge in form.
Holocene	Holocene is the name for the most recent interval of Earth history and includes the present day.
Lithology	Lithology is the study and classification of rocks.
Lithics	Archaeological artefacts, such as scrapers and blades, made from stone, usually flint or chert.
Macrobotanical	Refers to plant remains that can be seen with the naked eye.
Optically Stimulated Luminescence	Optically Stimulated Luminescence (OSL) dating is a technique used to determine the age of sediments (archaeological soils) based on when they were last exposed to sunlight.
Paleoenvironmental archaeology	Reconstruction of past environments using archaeological evidence.
Palstave	A Bronze Age axe.
Palynology	Palynology is the study of pollen, spores and other ancient plant remains.
Pleistocene	The Pleistocene is the geological epoch that lasted from about 2,580,000 to 11,700 years ago and is often referred to as the Ice Age.
Procurator	A senior official of the Roman Administration responsible for the financial affairs of a Province such as <i>Britannia</i> .
pXRF	Portable X-ray fluorescence analysers (pXRF) are hand-held instruments that can be used in the field to analyse the components that make up soils and archaeological objects.
Sept	Sub-group or tribe forming part of a pre-Roman people such as the Brigantes.
Wapentake	A pre-Norman conquest subdivision of a shire or county.

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