Yeavering: A Palace in its Landscape

Resource Assessment 2020

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1. Definition of the Study Area

1.1 Geology and Topography

The site of Yeavering is situated on a flat fluvio-glacial sand and gravel river terrace that overlooks the alluvial flood plain of the River Glen (NT 92589 30503), some 1.5 km east of the village of Kirknewton and broadly the same distance west of the farm that carries the same name. Positioned on the northern edge of the Cheviot Hills in the shadow of Yeavering Bell (Fig. 1), the site lies close to the valley mouth of 'Glendale'. The Cheviot Hills are formed by a complex of volcanic rocks (Passmore and van der Schriek 2009, 14) and the alkaline bias of the volcanic parent material has meant these uplands have been exploited differentially throughout prehistory and into the medieval period for varying intensities of woodland, cultivation and grassland. This is documented in the relict remains of past land-use including barrows, field-systems and settlement traces. They have remained a resource from at least the Bronze Age to the 18th century, and palaeoenvironmental data even indicates cereal cultivation of Neolithic date, such as at Din Moss, west of Mindrum (Topping 2004, 332; Oosthuizen 2011; 2012). These uplands were brought into use for arable exploitation in times of need and when climatic conditions were favourable. Many of the upland earthwork pasture features visible today have later medieval origins, although they are situated in a landscape which palaeoenvironmental evidence indicates was being cleared of woodland from at the Neolithic period onwards (Passmore and Stevenson 2004; Passmore and Waddington 2012, 51) (Fig. 2). The River Glen drains the northern flank of the Cheviot Hills and joins the River Till in the Milfield Basin, the largest alluvial basin in North East England (*Ibid*. 11–12). The underlying solid geology is Devonian and Carboniferous and the site and its environs are mantled by superficial deposits of sand and gravels (Fig. 3): part of a fluvio-glacial deltaic fan that spreads out from the mouth of Glendale and extends into the Milfield Basin beyond. The Glen and Till were recorded by Hope-Taylor as wide and shallow, and when unconfined and untended may have rendered much of the surrounding area and the alluvial flood plain as wet and marshy at least in perennially wet seasons (Hope-Taylor 1977, 9–11). The sand and gravels are largely overlain by 'well-drained brown earths' that today support arable cultivation (Passmore and van der Schriek 2009, 14).

Along the river valleys of the Tweed, Till and Glen, aerial photography has revealed intense human activity across the gravel terraces (Gates 2009, 129–171), while the upland grassland of the Cheviots, preserves a wide range of prehistoric to Roman Iron Age monument forms, including settlements, cairns, field systems and enclosures (see Gates 2009, 135). Upland bog and mire deposits and lowland alluvial palaeochannels and floodbasins also survive, that may preserve palaeoenvironmental records documenting past vegetation histories and land use (Passmore and Waddington 2009, 18; 2012, Fig. 2.19).

1.2 Parameters of the Resource Assessment

Yeavering lies amid a richly textured landscape of activity extending from the Mesolithic to the present (Bradley 1987; Frodsham 2005, 13–64; Waddington 2005, 84–97). A priority is to create a study zone that places Yeavering within this unfolding chronological span, enabling consideration of its development in relationship to this wider activity. For the purposes of the Resource Assessment, the study area comprises two zones (Fig. 4): **Zone A**. the immediate environs of the site defined by the full extent of the sand and gravel terrace that spans the E-W Wooler to Kirknewton road (c. 420 hectares) and **Zone B**. the hinterland defined by the watershed of Bowmont Water to the west and Wooler Water to the east, to the south the zone includes Yeavering Bell and the rising slopes of the Cheviots, and to the north it stretches to the River Till just south of Crookham which in the early Post Glacial marked the northern limit of an extensive ice-dammed palaeolake (c 15,000 ha) (Fig. 4). At its greatest extent the study area is defined by the watershed of the Glen-Till confluence on its north, western and southern sides. This provides an optimum study area in which to address relationships between lowland and upland settlement, environmental resources, and the connections of Yeavering to its broader environs. In pursuit of these objectives, this resource assessment seeks to collate multivariate strands of data in order to identify profitable lines of enquiry, as detailed in the accompanying research agenda (Semple *et al*. 2020). This approach draws on previous environs projects, not least *The Traprain Laws Environs Project* (Haselgrove 2009) and the recent Historic England initiative, *Miner-Farmer Landscapes of the North Pennines* (*in preparation*). This resource assessment has also been prepared in the context of two research frameworks that either partially or wholly overlap with Zone B – *The North East Regional Research Framework* (Petts and Gerrard 2006) and the *Northumberland National Park Research Framework* (Young et al. 2004). It has also been assembled in the context of the *Scottish Archaeological Research Framework* and it should be noted that all three are presently in the process of being either revised or augmented (in the latter case by the *South-East Scotland Research Framework*). While perhaps beyond the geographic scope of the study area, coastal and riverine access and communications remain important factors in the Iron Age and early medieval periods.

2. Stakeholders

The Gefrin Trust was formed in 2002 http://gefrintrust.org/. Its primary objective is ensuring the future preservation of the site of Hope-Taylor's palace excavations through sympathetic management, conservation and investigation. The Trustees reflect the expertise of the local community and key regional stakeholders**.** Trustees reflect both local and national interests, with representation from the local Glendale community (Glendale Gateway Trust), Northumberland County Council, Northumberland National Park, Historic England and Durham and Newcastle Universities. The Trust has also invested in a pilot programme of research on the site, including new survey work, reassessment of the Hope-Taylor excavations and exploration of the unpublished archive.

This includes material held both by the Royal Commission on Ancient and Historic Monuments of Scotland (RCAHMS – now Historic Environment Scotland) and the Society of Antiquaries of Newcastle Upon Tyne.

The sand and gravel terrace upon which the site is located is divided along its length by the B6531. To the north, the majority of the site is in the ownership of the Gefrin Trust and falls within the administrative territory of Northumberland County Council. To the south the landowner is the College Valley Estate and the road marks the northern march of the Northumberland National Park. The majority of the terrace is today scheduled as an ancient monument (Monument No. 1006519), and is in the care of the Secretary of State.

3. Datasets

3.1 Historical accounts

The *villa regia* or 'royal residence' known as *Ad Gefrin*, is mentioned by Bede in AD 731 in the *History of the English Church and People* (HE II, 14). He recounts that in AD 627 Paulinus, one of several missionaries sent to the Anglo-Saxons by Pope Gregory, 'accompanied the king and queen to the royal residence at *Ad Gefrin* and remained there 36 days constantly occupied in instructing and baptising.' (HE II, 14). Bede recounts how people gathered from the surrounding countryside and that baptism took place in the River Glen. The site is described as deserted in the time of the kings that followed Edwin, replaced by another palace at *Maelmin* (Milfield). *Adgefrin* or *Gefrin*, is considered by place-name scholars Eilert Ekwell and Kenneth Jackson to derive from a combination of Old Welsh *gavr*, 'goat' and Old Welsh *bryn* or *frynn* 'hill', giving the meaning 'Hill of the Goats' (see Hope-Taylor 1977, 15 for summary).

Later sources are scarce, but the documentary records of the Barony of Wooler (also known as the Muschamp Fee) have been used to argue the case for the fossilisation of early medieval territorial units in 12th-century landholding patterns – specifically two proposed adjacent 'small shires', provisionally designated as 'Yetholmshire' and 'Gefrinshire' (Barrow 1973; O'Brien 2002; 2005b). From this O'Brien has suggested the reconstruction of a former shire, 'of which *Gefrin* was the chief estate' (O'Brien 2002; 2005b, Fig. 64) (Fig. 5). The first mention in the early modern era, is by William Camden (1637, 815) who records the site as *Ad Gefrin.* The same association is picked up in later decades by John Wallis, William Hutchinson and later George Tate (Frodsham 2005, 56–7).

3.2 Historic maps

Historic mapping reveals the relative stability of the landscape surrounding Yeavering in the early modern to modern eras, with many roads and paths following their original course. Managed woodland, field boundaries and rivers all largely retain their form and position as depicted in estate and county maps of the 18th and 19th centuries. Armstrong's 1770 map of Northumberland shows the hills and hillforts, roads and standing stones of the county, while also making note of local events and legends (Fig. 6a). 19th-century mapping of the area offers further precision, e.g. the Greenwoods' 1828 map of Northumberland (Fig. 6b), culminating in the exceptional levels of detail provided in the tithe map and early Ordnance Survey 6-inch and 25-inch mapping (Fig. 7). These provide a resource for retrogressive analysis, allowing the reconstruction of aspects of early modern, medieval and early medieval settlement and land-use.

Table 1. List of cartographic sources relevant to the Yeavering palace site.

Dates of Publication	Cartographic Source
1770	A new and correct map of the county of Northumberland, 1769; By Lieutenant Andrew Armstrong & Sons
1777	A Plan of that part of Milfield belonging to Sir Henry Grey Bart, By David Hastings
1820	Map of the county of Northumberland; By John Fryer and Sons
1828	Map of the county of Northumberland, 1828; By Christopher and John Greenwood
1841	A Plan of Yeavering Township in the Parish of Kirknewton and County of Northumberland (Tithe Map) NB – tithe map coverage extends throughout Zone B.
1866	First edition 6-inch Ordnance Survey: Northumberland XIX (includes Akeld; Coupland; Humbleton; Kirknewton; Selbys Forest; Wooler; Yeavering)
1866	First edition 6-inch Ordnance Survey: Northumberland XIV (includes Coupland; Ewart; Ford; Lanton; Milfield)
1866	First edition 25-inch Ordnance Survey: Northumberland (Old Series) XIX.2 (includes Coupland; Kirknewton; Yeavering)
1866	First edition 25-inch Ordnance Survey: Northumberland (Old Series) XIV.14 (includes Coupland; Kirknewton; Lanton; Yeavering)
1897	Second edition 25-inch Ordnance Survey: Northumberland (Old Series) XIV.14 (includes Coupland; Kirknewton; Lanton; Yeavering)
1897	Second edition 25-inch Ordnance Survey: Northumberland (Old Series) XIX.2 (includes Coupland; Kirknewton; Yeavering)
1897	OS One-Inch to the mile, England and Wales, Revised New Series: Sheet 3 – Ford (Hills)
1899	OS-Six inch England and Wales, 1842-1952 (Second Edition): Northumberland XIX.NW (includes Kirknewton; Yeavering)
1899	OS-Six inch England and Wales, 1842-1952 (Second Edition): Northumberland XIV.SW (includes Crookhouse; Ford; Howtel; Kirknewton; Lanton; Milfield; Westnewton)
1910	Land valuation plan; Held by Northumberland Archives Service

1924	OS 25-Inch England and Wales, 1841-1952: Northumberland (New Series) XV.3 (includes Coupland; Lanton; Milfield)
1924	OS 25-inch England and Wales, 1841-1952: Northumberland (New Series) XV.7 (includes Coupland; Kirknewton; Lanton; Yeavering)
1924	OS Six-Inch England and Wales, 1842-1952 (New Series): Northumberland nXV (includes Crookhouse; Kirknewton; Lanton; Undivided Moor; Westnewton; Yeavering)
1926	OS One-Inch 'Popular Edition', Scotland, 1921-1930: Sheet 81 – Kelso

3.3 Aerial photographic archives

Until the discovery of the palace site through air reconnaissance in 1949, the precise location of Bede's royal residence remained unknown. In a particularly dry summer, the outlines of enclosures and buildings were captured as cropmarks in the field north of the Wooler to Kirknewton road (Knowles and St Joseph 1952, 270–271) (Fig. 8), leading to excavations by Brian Hope-Taylor that established their date and character. Even as Hope-Taylor's full excavations were in press, new air photographs revealed parch marks to the south of the road: 'several minor halls, a square structure….and a….palisaded enclosure…'(Hope-Taylor 1977, 5). Subsequent aerial reconnaissance has revealed these additional features in greater detail (McCord and Jobey 1971; Gates 2005) (Fig. 9).

From 1945 onwards, operating under the auspices of the Cambridge University Committee for Aerial Photography, St Joseph undertook regular flights along the Till-Tweed valleys (Gates 2009, 132). By the 1950s, locally-based flying programmes were also operating (Ibid.) and by the 1960s and 1970s Norman McCord together with George Jobey, were scoping out the Milfield Basin by air and publishing important results (McCord and Jobey 1968; 1971; McCord 1984). More recently, aerial reconnaissance by Tim Gates has resulted in some of the most informative and spectacular images of the archaeology in the area (Gates 2005, 132–133). Milfield, the successor site to Yeavering, appears as an extensive and potentially multi-period settlement. Prehistoric and early medieval features are evident and have been excavated (Gates and O'Brien 1988; Scull and Harding 1990; Passmore and Waddington 2009, 251-9). The extensive cropmark site with halls, enclosures and sunken featured buildings remains largely untested, but excavations at the car park known as Maelmin West produced a post-built building and field or fence boundary, the latter providing a calibrated radiocarbon date of AD 680-890 (Passmore and Waddington 2009, 251-9) (Fig. 10). Likewise at Thirlings, excavated by Roger Miket and Colm O'Brien, aerial photographic evidence has demonstrated the presence of likely sunken featured buildings, while new sites have also been identified e.g. New Bewick (Gates and O'Brien 1988) (Figs. 11 and 12). Taken together, the richness of the aerial photographic archive today, augmented by publicly available data from Google Earth, confirms the presence of intense human activity across the Milfield Basin, the surrounding hill slopes and deep into its upland hinterland spanning several millennia. These comprise a key resource for understanding Yeavering and its context, and if used in conjunction with LiDAR and combined geophysical prospection, less well

understood elements of the site could be interrogated, for example the veracity of the circuit of the Great Enclosure at Yeavering and its terminals as described originally by Hope-Taylor.

Current aerial photographic archives relevant to the site and environs are listed in Appendix A1 and these are housed with or held by:

- *Cambridge University Collection of Aerial Photographs*
- *The McCord Centre, Newcastle University*
- *Historic England Archive*
- *Tim Gates*
- *Google Earth*

3.4 Excavation archives

Excavation at Yeavering began in 1952 prompted by the threat of an expanding sand and gravel quarry to the west of the palace. The excavations continued until 1962, overseen by Brian Hope-Taylor and funded by the Ministry of Public Buildings and Works (see Hope-Taylor 1977, xvii), with the findings published in 1977 (*Ibid*.) (Fig. 13). The published excavations have been rightly lauded for the level of recording and interpretative detail, as well as the range of illustrations by the author himself, but not all aspects of the site were interrogated and the excavation results were never published in full.

A major omission is a detailed discussion of a burial zone comprising an extensive spread of what Hope-Taylor identified as Bronze Age and Iron Age cremations. In Fig. 73 of his report, Hope-Taylor included a schematic plan of these features spanning 'the Secondary Neolithic to the local end of the Roman Iron Age' (Fig. 14). The mis-identified 'Celtic' fields are marked out on the plan alongside the 'widely scattered prehistoric cremation burials, a barrow and a small stone circle'. Hope-Taylor provides a brief overview of Phase 1, but the major focus is placed on the 'post-Roman' developments (1977, 154–158, Fig. 73). A catalogue of cremation burials and associated objects appears in Appendix III with a short discussion of the ceramic by Isla McInnes (Ibid. 335–357). Similarly the earliest phases of the small stone circle and the eastern ring ditch, both prehistoric in date, are discussed, but primarily in relation to how they impacted on and were shaped by subsequent early medieval activity (Ibid., 70–73 and 108–116). As Colm O'Brien has argued (2005a), the complex sequence of the Great Enclosure also remains enigmatic, something acknowledged by Hope-Taylor himself, who intended to return to the site to explore this and other features in more detail (Hope-Taylor 1977, 5).

Even as the report came to press, Hope-Taylor noted that outlying buildings relating to the complex appeared annually in cropmarks in fields to the south of the road (1977, xix, 5). These included a henge-like feature and traces of a double palisade enclosure along with two further hall structures (Fig. 9). The henge was investigated by Anthony Harding,

the excavations revealing postholes and pits associated with metalworking evidence of Anglo-Saxon date (Harding 1981; Tinniswood and Harding 1991, 93–108) (Fig. 15).

Following Hope-Taylor's death in 2001, the Royal Commission on Ancient and Historic Monuments of Scotland (now Historic Environment Scotland) managed to save a considerable proportion of an archive detailing his life's work in archaeology, the majority of which was unpublished (Murray 2005). Today, the archive, excluding the finds, is held by Historic Environment Scotland. In 2007 the finds were returned to their appropriate institutions and finds from Yeavering were transferred into the Trust's ownership. In 2016 these were deposited with the Great North Museum. The archive, and the surviving photographic record in particular, provide an opportunity to reconstruct the excavation sequence for certain areas (in particular Area B of the palace site) and contain information on features that received limited consideration in the report, for example those recovered on the quarry edge in Area D (Fig. 16). Both the paper archive for the Yeavering excavation and Hope-Taylor's private papers demand review if the palace and its landscape is to be revisited.

Excavations at the settlements of Thirlings (O'Brien and Miket 1991), the North and South Henge at Milfield (Harding 1981; Scull and Harding 1990), at Cheviot Quarry (Johnson and Waddington 2008) and Cheviot Quarry (Waddington 2009), all provide complementary data on potentially contemporary sites and activity. All but the on-going excavations at Cheviot Quarry are published, but the archives for these sites could be revisited and reassessed in tandem with the excavations at Yeavering. There is also reason to reconsider the archive of other excavations conducted by Brian Hope-Taylor, not least those at Bamburgh, Doon Hill and Old Yeavering. A small part of the Yeavering assemblage, as presently recovered, is believed to derive instead from the excavations at Old Windsor. As such, both the finds and paper archives for these projects may prove to be both indirectly and directly relevant to the Northumbrian palace.

3.5 Finds

Following excavation, Hope-Taylor secured legal title of ownership to the finds recovered from the site from the landowner, J. Purvis. At the time of his death, the then Royal Commission for the Ancient and Historic Monuments of Scotland secured legal title to these finds from his estate, and what was recovered was removed to Edinburgh. In 2006, unaware of Hope-Taylor's rights, the Gefrin Trust also obtained ownership rights to the material from the site and, in time, the finds recovered by Anthony Harding during his excavations in the 1970's at the eastern end of the whaleback. Although the Trust's claims to Hope-Taylor's material had been pre-empted by his own legal title, the Gefrin Trust were to become legal owners when, in 2007, RCAHMS transferred ownership of all Hope-Taylors material to the Gefrin Trust. This included not only the finds they had recovered from his home at the time of his death, but also some categories of material that had previously become detached from the archive, and handed to specialists to report upon.

Some of the alienated material subsequently found its way into the Museum of Antiquities (e.g. the prehistoric pottery). Some material, such as the gold triens and the animal bone, remains unlocated.

In 2007, The Gefrin Trust published a handlist of the finds including photographs and descriptive details on each item — see http://gefrintrust.org/publications.htm (RCAHMS and The Gefrin Trust 2007). In 2016 the archaeological material from the excavations held by the Trust was deposited with the Great North Museum. 124 entries are listed (Table 2). In addition, a separate donation of finds was made by Hope-Taylor to the Museum of Antiquities at Newcastle including prehistoric pottery and a Bronze-Age urn. The gold washed *triens* was also placed by Hope-Taylor with the Museum of Antiquities. These items, dispersed after the excavations by Hope-Taylor, are not listed in the finds archive or the summary table below. They have not, to date, been located at the Great North Museum. In addition, faunal remains from the excavations assessed by experts at Cambridge University, and charcoal samples considered by Kew Gardens, remain unlocated, but could still reside in the archives of these respective institutions.

Table 2. Catalogue of finds from the Hope-Taylor excavation archive (RCAHMS and The Gefrin Trust 2007).

Type	**Sub-category**	**Catalogue no**	**Total no**
Human remains	Teeth	(1), (8)	c 7
	Bone frag	(9)	1
	Skeletal remains	(49? – skull)	1
Pottery	E Med	(2?), (5), (25?), (20), (43.1.1.), (43.1.2.), (59.2), (90?), (96?), (91), (92), (93?), (105), (102?), (110?)	72+
	British	(42), (37)	12+
	Roman Iron Age	(39), (43.2?)	2
	Prehistoric	(17), (30), (38?), (31?), (32), (89), (104?), (112?)	7+
	Import	(9)	1
	Unknown	(19), (33), (64), (85), (86), (87), (83), (84.1), (88), (94?), (100), (113?), (109.2)	21+
	Modern	(103)	1
Clay frags		(10)	1
Building mat	Daub	(3), (4), (19), (31), (45), (46), (47), (48), (59.1), (109.2)	23+
Charcoal		(11), (12), (13), (7), (15), (23), (28), (40), (44), (69), (114), (111), (112)	30+
Flint		(6), (33), (56), (51.1.), (57b), (60), (62), (81)	15+

Iron	Nail	(14), (22), (27), (63), (71), (72), (77), (78), (74), (106), (107), (108), (109.6), (115), (116), (117?), (118), (126), (120), (121)	21+
	Object (key, knife etc)	(28), (41), (43.3), (53), (55), (76), (98-buckle), (109.1 – buckle)	8
	Fitting	(18), (52), (57a), (66), (67), (68), (70), (75), (79), (84.2.2), (127?)	14+
	Unknown	(58), (62), (73), (79), (97), (99), (109.4), (125), (119), (128), (129), (122), (123), (124)	12+
Cu Alloy	With Fe	(36)	1
	Without	(54)	1
	Pin	(101)	1
Coins		(43.1.1 – missing), (43.1.2 – missing)	3
Animal bone		(16)	1
Bone unknown		(29), (19), (32), (33), (69)	5+
Bone cremated		(113), (112)	fragments
Glass	Fragment	(24), (82.1)	2
	Bead	(82.2), (82.3)	2
Loom weights		(21), (51.1), (65), (80)	5+
Slag		(35)	1
Stone	Worked	(61)	1
	Worked – Emed	(84.2.4 – whetstone)	1

The 1976 excavations by Anthony Harding produced a range of prehistoric and early medieval finds. Prehistoric finds are catalogued and listed in full in Harding 1981. Finds associated with early medieval activity are also catalogued and published in full (Tinniswood and Harding 1991) (Table 3).

Table 3. Catalogue of early medieval finds from the 1976 excavations (after Tinniswood and Harding 1991).

Type	**Sub-category**	**Context no**	**Total no items**
Iron	Nails and unknown	37a, 38C, 103 (176–2), 110 (76–1)	4
Cu Alloy	Stud/rivet, head of pin	109 (76–101)	1
Crucible	Body sherds	5A, 7A, 17A, 18B, 21A, 38A, 53B, 66A, 67, 77A, 107A	13
Fired clay	Fragments	14B(2), 17D(4), 53C (c. 6), 78(2), 80, 98B	multiple
Loomweight	Fragment	5B(2), 81 (76–102), 82 (76–103)	1

Burnt stone	Chips	2A, 8C, 10C, 17C, 18C, 25C, 33C, 43 (76–100)	multiple
Bone	Fragments, calcined animal bone	F20, 22, 24, 100–101, 103, 105, 108, 111, 113–6, 118–9, 122–3, 128, 131 and 162	c. 816
Fuel ash, cremation slag	pieces	F100–101, 103, 108, 111, 113–16, 118–19, 122–3, 128, 131 and 162	multiple

Excavations at other early medieval sites in the study area also offer comparative opportunities. The archive from Thirlings, including notebooks, plans, photographs and finds, along with excavation archives and finds from Milfield North and South and the Cheviot Quarry excavations are all housed in the Great North Museum. Reconsideration of the grave assemblages from the Milfield North and Milfield South excavations is possible, alongside new analysis of the copper alloy dress fittings and glass.

3.6 National Mapping Programme

The National Mapping Programme (NMP), developed by English Heritage in 1992 to identify, map, and record archaeological features from aerial photography (Bewley 2001; 2003), has detailed most of the Yeavering study area, including cropmark and earthwork evidence of Neolithic through to modern date. Table 4 shows the total number of NMP sites in the study area, according to chronological periods assigned by Historic England. The dataset reveals a large number of prehistoric and Roman Iron Age sites in the study area, in comparison to sites of medieval and post-medieval date, yet the frequency of early medieval sites identified stands in contrast to the number identified from the region as a whole. These sites require further 'ground truthing' by means of site visits, walkover survey, fieldwalking and small-scale evaluation using trial trenching, to establish their date and form with more certainty.

Table 4. NMP sites in the study area by period classification.

NMP Time Period	Zone A	Zone B	Total
Neolithic	18	55	73
Neolithic/Bronze Age	0	2	2
Bronze Age	124	73	197
Iron Age	180	409	589
Iron Age/Roman	384	486	870
Prehistoric	138	155	293
Prehistoric/Roman	0	79	79
Roman Iron Age	3	0	3
Early Medieval	202	125	327
Medieval	0	1	1
Medieval/Post-Medieval	671	389	1060
Post-Medieval	18	65	83

Uncertain	496	986	1482
No Period	226	1201	1427
Total	**2460**	**4026**	**6486**

3.7 Historic Environment Record

The Northumberland Historic Environment Record (HER) lists 220 sites of archaeological interest in the immediate environs of Yeavering (**Zone A**) and 1,663 sites in the broader landscape (**Zone B**). In addition, 46 archaeological events (excavation, survey, etc) are recorded within Zone A and 152 archaeological events are recorded in Zone B. Finally, no Portable Antiquities Scheme findspots are recorded within Zone A, while 81 are recorded in the wider area, clustered around Wooler, Etal and Barmoor Castle. These sites originate from the Mesolithic onwards, and are summarised in Table 5. The largest proportion is accounted for by events of post-medieval, modern or uncertain date. Early medieval sites represent one of the smallest recorded categories, yet the HER data demonstrates a higher proportion of early medieval sites in the study area than the county as a whole, suggesting the relative importance and/or increased archaeological visibility of early medieval settlements in Glendale and the Milfield Basin, especially so on the lowland sands and gravels.

Table 5. Sites listed in the Northumberland HER (August 2018), divided into those that fall within the immediate site environs and those recorded for the broader study region (Fig. 17).

HER Time Period	**(Zone A)**	**(Zone B)**	**Total**
Mesolithic	2	15	**17**
Neolithic	19	55	**74**
Bronze Age	22	113	**135**
Iron Age	17	94	**111**
Prehistoric	8	110	**118**
Roman Iron Age	15	125	**140**
Early Medieval	14	16	**30**
Medieval	26	157	**183**
Post-Medieval	62	505	**567**
Modern	5	57	**62**
Uncertain	58	328	**387**
Total	**248**	**1575**	**1824**

3.8 Place-name evidence

The Place-names of Northumberland and County Durham, published in 1920, comprises the first extensive survey of place-names in the county. The format of the survey, as applied by Allen Mawer, set the template for the early volumes produced by the English Place-name Society. This pioneering work isl inevitably wanting in light of subsequent

development in toponomastics, such as the absence of any consideration of field names. Nevertheless, this volume has yet to be superseded, but Emeritus Professor Diana Whaley of Newcastle University is presently preparing a dictionary of Northumberland place-names for the English Place-name Society. There has also been a relative dearth of secondary scholarship on the place-name corpus of Northumberland. Påhlsson has considered the origin of the name Rothbury (1976), while a number of p-celtic place- and field-names have been identified in the region by Bethany Fox (2007). A distribution map of these names was later produced by Alaric Hall. It can be accessed via <http://www.heroicage.org/issues/10/placenames/frames.htm>. In addition, hill names in Northumberland and County Durham were recently interrogated in a PhD thesis by T.J. Nurminen (2012). A small number of popular works have also been produced, including Stan Beckensall's review of Northumberland field names (cf. Watson 1995; Poulton-Smith 2014; Beckensall 2016).

4. New Techniques and Datasets

4.1 Geomorphology

Considerable geomorphological work has already been undertaken in the Milfield/Till-Tweed Valley (Passmore *et al* 2002; Passmore and Waddington 2009; 2012). This has involved investigation of evidence spanning the Quaternary history, not least the latest Holocene epoch (Ibid.) and has prioritised the valley floor environment where concentrations of prehistoric and early historic activity are known. The Till-Tweed study area substantially overlaps with the eastern side of Zone A of the present Resource Assessment and Resource Agenda. It is also circumscribed in its entirety by the Zone B hinterland set out in the same documentation. Geoarchaeological mapping has also been extended to the surrounding valley sites and hilltops (Passmore and Waddington 2009, 11). The results show that considerable expanses of the alluvial valley floors of the lower Tweed and Till host sedimentary sequences that date back to the earliest Holocene (approximately 9700 BC), but narrow stretches preserve only young alluvial sequences that usually post-date the Iron Age (Ibid., 74). Mapping of the landform elements of the Holocene epoch helps identify those areas where early environmental sequences may be accessible today (Fig. 17). These studies adopted a 'landform element' approach that allows predictions to be made of what type of archaeology and of what age can be anticipated on different discrete landforms within the landscape. This assists in targeting any campaigns of prospection and evaluation for the discovery and investigation of the landscape.

4.2 Geophysical survey

Geophysical prospection, especially magnetometry, is generally held to give poor results on glacial sands and gravels derived from volcanic rocks. Fluxgate Gradiometry, undertaken by Emma Rouse and Nick Warley-Cummings, MA students of Durham University, in 2005 and Caesium Gradiometry, trialled on the palace site in 2006 by Phil Howard produced mixed results with poor differentiation between the subsurface archaeology and surrounding geology (Fig. 18). This apparently confirmed the insusceptibility of the local geology to magnetic prospection. Resistivity, however, trialled in 2007–8 by Sarah Semple (Durham University) and Alex Turner (Newcastle University) produced, by contrast, very good results, and identified new features, although the moisture content of the gravels impeded successful survey at certain times of year (Fig. 19). More recently magnetometry at Milfield has also produced mixed, but informative results (pers. comm. P. Gleeson).

Early medieval activity (as well as Neolithic), has emerged largely on the gravel terraces as cropmarks or as a result of large-scale open area excavation e.g. Cheviot Quarry, and Thirlings. It is possible that some of the features visible on the gravels could be Iron Age and Roman Iron Age, although, these relatively large scale excavations have not produced such evidence. Large-scale and combined geoprospection using resistivity, magnetometry and Ground Penetrating Radar along the glacial gravels of the Glen-Till confluence could reveal a wealth of multi-period sites.

4.3 LiDAR and Remote Sensing

Light detection and ranging (LiDAR) (also known as airborne laser scanning), has revolutionised remote sensing and spatial analyses of archaeological landscapes, producing survey data that both enables the creation of highly detailed topographic models and can also 'see' through vegetation cover (Jones 2010; Opitz and Cowley, 2013, 1). The digital elevation models (DEMs) produced by a LiDAR survey reveal slight topographic changes in elevation that may be indicative of archaeological features (Opitz 2013, 14–15). The recent release of archived LiDAR data from the Environment Agency has led to an increased use of this resource by archaeologists. It is an invaluable data set for analysing Yeavering and the associated landscape. The Environment Agency has concentrated its survey efforts on rivers, coasts and flood prone areas, and as such the LiDAR data for the Yeavering study area is concentrated along the Rivers Glen and Till, leaving some gaps in coverage. Nevertheless the LiDAR coverage in the study area encompasses much of the known archaeological resource, and has great potential for revealing additional sites.

Although visualised LiDAR DEMs do not show any of the known early medieval features on the landform at Yeavering (Fig. 20), they pull into sharp relief archaeological features

in the surrounding landscape, such as the areas of water meadow north of the landform along the River Glen and the extensive earthwork on the Cheviot uplands to the south of the site. The topographical models produced can also be used for advanced spatial analyses, from characterising the slope and aspect of the immediate landscape through to interrogating intervisibility, both of and between archaeological sites across the landscape. Other analyses allow for the modelling of hydrology and movement in the landscape.

Darren Oliver, a Durham University undergraduate, has recently conducted a systematic aerial photography programme using a low altitude unmanned aerial vehicle (UAV), or drone. Oliver performed a UAV survey once a month in 2015-16. This work produced a highly detailed topographic model of the site using photogrammetry and assessed whether photography using a 5-band, multispectral camera could identify new features. A new ring ditch was identified (Fig. 21).

Future LiDAR and UAV surveys have great potential in the study area and initial work has had positive results (Fig. 22). Collaboration with Al Oswald, Stewart Ainsworth and Tim Gates in 2015–16 facilitated assessment of features surviving as low earthworks, concentrated within an area of about 2.5 square kilometres south and east of Yeavering Bell (Ainsworth et al 2016). Traditional field observation was used to interpret features recorded wholly or partially by the LiDAR data, including a presumed Bronze Age fieldscape with dispersed roundhouses and an overlying scatter of typical late Iron Age and/or Roman Iron Age small, enclosed settlements with their own associated paddocks, trackways and outfields. Three of these settlements suggested potential for continued use into the early medieval period, by way of overlying rectangular stone-walled structures. While many such examples may be of later medieval date, they comprise a poorly-dated feature type and could conceivably have earlier origins. (Ainsworth *et al* 2016) (Fig. 23).

4.4 Geographic Information Systems

The use of Geographic information systems (GIS) is widespread in archaeology. Hope-Taylor's excavation plans have already been inputted into GIS within a bespoke spatial database created by Durham University and the Gefrin Trust. The plans of the excavations, taken from the Yeavering volume, were geo-rectified based on the results of the geophysical surveys, aerial photographs and Ordinance Survey mapping. Shapefiles were digitised for the various features and phases of settlement according to Hope-Taylor's discussion on the settlement history and these represent the most accurate representations of the site produced so far (Buchanan 2014).

In addition to the features identified by Hope-Taylor, archaeological features identified during the geophysical, LiDAR, and aerial drone surveys have also been digitised and

incorporated. These data fall into two broad types: raster (broad coverage data) and vector (discrete data).

Raster Data

- 1 m resolution LiDAR digital surface model (with vegetation and buildings) and digital elevation model (bare-earth model) of portions of the study area
- 5 m resolution terrain digital surface model of the site, environs, and wider study area.
- Ordnance Survey background mapping at a variety of scales
- Geophysical survey results of the site
- Aerial photography and imagery of the site
- Historical maps (including OS maps, glebe terriers, estate/tithe maps, etc)

Vector Data

- Complete digitisation of Hope-Taylor's excavations based on site plans, aerial photos, and geophysical survey results
- Shapefiles of features discerned from aerial photos, geophysical survey, and LiDAR survey
- HER database of sites and monuments for the entirety of Zone B
- National Mapping Programme (NMP) datasets of cropmark sites recorded by Historic England for most of Zone B
- Historic Landscape Characterisation polygons for the entirety of the Zone B
- Underlying geology including bedrock, drift geology, soils and agricultural land classification for the entirety of Zone B

At present the Durham University-based GIS database incorporates Zone B and the known early medieval sites of Milfield, Thirlings and Cheviot Quarry, alongside other locations and finds of early medieval date. By incorporating varying strands of data, this GIS offers the possibility of understanding the landscape of the Milfield Basin as a whole, both upland and lowland, for instance by modelling routes, intervisibility and access to resources (Semple *et al.* 2017).

4.5 Materials Analysis

The finds from the Hope-Taylor excavations are limited, and not all can be located. The largest proportion of surviving material comprises ceramics of prehistoric and British/-Anglo-Saxon date. These were assessed by Alan Vince who identified a small proportion of 'British' pottery, dated to before the Anglian phases of activity (RCAHMS and The Gefrin Trust 2007). This collection, although small, offers the chance of investigating non-Roman ceramic traditions in the North East and relationships between Roman Iron Age and early

medieval ceramic manufacture. The elemental content of ceramics can now be explored using an Energy Dispersive X-ray Fluorescence Spectrometer (EDXRF) while X-Ray diffraction can assist in understanding manufacturing and firing techniques. Inductively Coupled Plasma Atomic Emission and Mass Spectrometry (ICP-AES and -MS) is also possible and can be used to inform on the source of materials used in ceramic production.

Comparative finds collections also survive (e.g. Thirlings, Milfield North and South, and Cheviot Quarry) and a significant assemblage has been recovered from Bamburgh. These offer the possibility of complementary analyses on ceramics, metal and glass which would offer greater insight into regional resources and capacity for production. Metal finds logged through the Portable Antiquities Scheme could be included in any programme of comparative materials analysis.

4.6 Human Remains

The Yeavering excavations produced very little human bone, but the presence of teeth offers the possibility of estimating diet and childhood origins using a combination of lead, strontium and oxygen isotopic analyses (Montgomery 2010). The cremated but unidentifiable bone from Harding's excavations of the southern henge also provides possibilities, given that new scientific developments are now facilitating isotopic analyses on cremains (Loeffelmann in progress). This and other possibilities are under scrutiny as part of the Durham University Leverhulme-funded project, *People and Place: The Making of the Kingdom of Northumbria* — http://www.mappingnorthumbria.com/ — which is reappraising burial evidence of AD300–800, and where possible, reassessing skeletal evidence and undertaking new high-resolution dating.

4.7 Dating techniques

The limited survival of human bone, animal bone and organics at Yeavering, and finds in general, presents some challenges in terms of achieving greater resolution in terms of dating. Initial exploration of the photographic archive has revealed images showing *in situ* charcoal and timbers within the sunken-featured structure at Yeavering. Likewise, excavations revealed periodic evidence of destruction by fire and burnt deposits were recorded, including charcoal from graves and the ditch of the Great Enclosure. There are possibilities, in terms of small-scale excavation, for retrieving datable material for the purpose of high-resolution radiocarbon dating, while the crucible fragments and cremated bone from the excavations south of the henge provide additional opportunities including archaeomagnetic dating. In relation to the multi-period archaeology of the study area, OSL and dendrochronology are additional possibilities especially in relation to standing buildings, offering the possibilities of dating brick, mortar and timbers (e.g. Roberts *et al* 1999).

5. Environmental evidence (Appendix A2)

Assessment of environmental evidence relevant to the Till-Tweed valley and Milfield Basin suggests initial woodland clearance and cultivation from the very beginning of the Neolithic c. 4000 cal BC and an intensification of woodland clearance towards the end of the Neolithic and an increase in arable cultivation (Passmore and Stevenson 2004; Passmore and Waddington 2012, 51) (see Appendix A2 – 13.2.1 for a list of coring locations sampled by Passmore and Waddington (2009; 2012). Plant remains of Neolithic date have been retrieved from the excavations at Thirlings, Cheviot Quarry, and Coupland and include emmer wheat and chaff, barley, wild oats, glumes, a variety of fruits together with abundant hazel nut shells (van der Veen 1982a; 1982b; Johnson and Waddington 2009; Passmore and Waddington 2009; 2012). Small-scale clearance seems to have continued into the Bronze Age (Tipping 1996; 2010) with the use of the drier terraces on the valley floor for arable and pastoral activities (Passmore and Waddington 2012, 52). The pre-Roman Iron Age saw an increase in intensification of woodland clearance and the cultivation of oats and rye (Tipping 1996; Young 2004, 166-7; Tipping 2010). Cultivation seems to have extended into the uplands with the lowland landscape dominated by grassland with some broadleaf woodland (Passmore and Waddington 2012, 53). For the Roman Iron Age, the area in the lower reaches of the River Glen has produced evidence for hay meadows, pasture and arable plots (Ibid., 54). Mid- to late first millennium sequences are also preserved sufficiently to suggest that, by the time the early medieval palace site at Yeavering was active, drier parts of the floodplain were experiencing variable land cover, ranging between open woodland, grassland, pastoral activity, arable agriculture and intermittent areas of wetland (Ibid., 55) (a broader list of pollen sequences for Northumberland is also included in Appendix 2 13.2.2 and a list of sites producing plant-macrofossil from Northumberland is included in Appendix 2 13.2.4). Due to the sparse evidential base, assessments of archaeobotanical trends in this part of northern England must yet remain equivocal (Hall and Huntley 2007).

Faunal remains are rare, given the acid nature of the gravels (a faunal list for Northumberland is included in Appendix 2 – 13.2.3). Some faunal remains were recovered from Neolithic pits in the Milfield Basin (Miket 1981), but none are definitively known to be derived from prehistoric features and contexts at Yeavering. By contrast a large number of fragments of animal bone did survive in early medieval contexts at Yeavering and were assessed, revealing that sub- or young cattle dominated the assemblage (Higgs and Jarman 1977). The excavations by Harding to the south of the road also produced calcined animal bone relating to Anglo-Saxon metalworking deposits (Tinniswood and Harding 1991).

6. Palaeolithic and Mesolithic

Palaeolithic finds in Northumberland are rare (Petts and Gerrard 2006, 14). A number of possible Late Palaeolithic flints were recorded during fieldwalking on gravel terraces by the Milfield Basin and Till-Tweed Geoarchaeology Projects (Passmore and Waddington 2009, 78) while further afield, a small number of Late Upper Palaeolithic flints were identified overlying melt-out till at Low Hauxley (Waddington and Bonsall 2016, 39-40). Otherwise the Palaeolithic record is sparse north of the River Tyne. Mesolithic flints are known across the Milfield Basin (Waddington 2009; Passmore and Waddington 2012) as well as from the nearby Northumberland coast at sites such as Nessend Quarry on Lindisfarne (Young 2000), although the well-preserved Mesolithic settlements at Howick and Low Hauxley, also on the Northumberland coast, have been seminal in re-directing understanding of Mesolithic settlement both in the UK and in NW Europe (Waddington 2000; Waddington et al. 2003; Waddington and Bonsall 2016). Rock shelters were also in use during the Mesolithic, with evidence of activity from Dovecrag, Corby's Crag and Goats Crag where zoomorphic rock-art might be contemporary (all Northumberland) (Burgess 1972; Beckensall 1976; Waddington 1999; Van Hoek and Smith 1988). A small but significant number of Mesolithic struck flakes were recorded by Hope-Taylor from the excavations but not illustrated (1977, 194–196), leading to the suggestion that the gravel plateau formed a focus for hunter-gatherer groups. A find of a rod of natural ochre in a secondary context from the outer palisade trench of the Great Enclosure is also noted by Waddington as a potentially important early prehistoric find (Hope-Taylor 1977, 196; Waddington 2005, 90). Fieldwalking in the Milfield Basin has added greatly to knowledge of Mesolithic activity via the Till Tweed project and with broader assessment of sites and finds it suggests the use of free draining fluvioglacial gravel terraces situated just above the flood plain in the Mesolithic for periodic hunter-gatherer activity (Waddington 2005, 87).

7. Neolithic and Bronze Age

The Milfield Basin is well-recognised as an area of intensive activity in the Neolithic (Miket 1976; Topping 1997; Waddington 1999; 2011; Passmore and Waddington 2012). While henges and cairns are frequent monuments along and between the Rivers Glen and Till, rock art sites and finds of flint and stone axes, demonstrate a much broader spread of activity (Passmore and Waddington 2012, Fig. 5.6). Early Neolithic settlement, once a rarity, is now known from Yeavering, Thirlings, Coupland and Woodbridge Farm/ Cheviot Quarry as well as at other locations around the Milfield basin (Waddington 2011; Miket and Edwards 2008; Edwards 2016), with a possible causewayed enclosure identified on the flank of Flodden Hill (Gates & Palmer 2004). At Bolam Lake a new type of Neolithic settlement structure has been discovered which has now been identified at other locations as well (Passmore and Waddington 2012, 153). The settlements at Thirlings, Coupland, Cheviot Quarry have produced a wide range of ceramics and organic

remains with radiocarbon dates ranging from c. 4000 BC to c. 2400 BC (Waddington and Passmore 2012; Miket and Edwards 2008; Edwards 2016; see Chapter 5 for full date lists). Continuity of occupation cannot be proven here, nor indeed at Yeavering which has also produced late Neolithic pottery (Ibid.). In sum the evidence points to the focus of Neolithic activity being the sand and gravel terraces, particularly the fertile soils in proximity to rivers (Passmore and Waddington 2012, 158). Hearth and midden pits provide further evidence of Neolithic activity. Many of those recovered are multi-phase, suggesting locations were revisited. It is unclear if these represent long-term settlement or evidence of gatherings for shorter periods of time, but these features have produced evidence of grain production and processing nearby (Passmore and Waddington 2012, 155-8).

At Yeavering, Harding's excavations revealed two pits outside the east and west entrances of the henge (Harding 1981, 122) and a 'ritual pit' was identified by Hope Taylor on the palace site to the north of building C which contained Grooved Ware sherds, human bone, a polished stone axehead and hazelnut shells (Hope-Taylor 1977, 348–51). One of the pits excavated by Harding contained considerable amounts of Carinated Bowl, and residual finds of the same were recovered in Hope-Taylor's excavations (1977, 345). Carinated Bowls are considered some of the earliest Neolithic ceramic in the region (Passmore and Waddington 2012, 160). Indeed, Yeavering has also produced evidence of Impressed Ware and Grooved Ware too, suggesting continual or sporadic activity in the locality in the third and fourth millennia BC (Ibid, Figs 5.11-5.13; see also Millson 2007; 2013; Waddington et al 2011).

Neolithic round mounds are a feature of the region, although few have been excavated in modern times and long mounds too are suggested: two crop mark sites east of Yeavering henge may represent the ploughed out remains of long mounds or mortuary enclosures (McCord and Jobey 1971, 120, pl XII, no 2). Standing stones and stone circles are also frequent features in the Milfield Basin, but excavation again has been rare. Hope-Taylor interpreted a number of concentric depressions in the Western Ring Ditch area of his palace excavations as the sockets of upright stones (1977, 109). The more substantial Hethpool stone circle, in College Valley, comprises a horseshoe shaped array of stones, some recumbent, with evidence for the one-time presence of a second circle (Topping 1981b). The Hethpool stone circle is thought to be a particularly early example, straddling the Neolithic-Bronze Age transition. Standing stones are often positioned around the limits of settlement areas or mark natural routes (Passmore and Waddington 2012, 176). Rock art too had a prominent place in this landscape (Ibid., Fig. 5.6).

With the advent of beaker pottery, henge monuments appeared in the Milfield Basin, particularly on the sand and gravel terraces. The henges of the Milfield Basin represent a a substantial complex of monuments, and recent aerial reconnaissance at Yeavering may have identified further examples (Semple et al 2017). Excavations to the south of the road at Yeavering confirmed the presence of a henge on the site (Harding 1981). A burial

situated outside the NW entrance is also late Neolithic in date. Other henges on the Milfield Basin include the large, early 'henge-type monument' at Coupland (Passmore and Waddington 2012, 179-80). This is one of several connected monuments that may have formed part of a ceremonial way, though the date, function and extent of this route has yet to be established (Waddington 1999; Passmore and Waddington 2012, 180). Burnt bone, found in association with Carinated Ware at Yeavering in pits near the henge, may be human, suggesting burial activity on the site – something which is also implied by the finds at Milfield (Harding 1981). In the Late Neolithic to Early Bronze Age, the process of monumentalisation continued (Waddington 2005, 93), with the addition of stone circles (Waddington 1999), standing stones and pit alignments (Miket 1981), all of which attest to new investment in ritual activities. Waddington's argument for a processional route connecting the Milfield north henge complex and the southernmost henge at Yeavering (Harding 1981; 2000; Waddington 1999, 159–164), implies those travelling the route would have needed to ford the Glen (Harding 2000; Waddington 1999; Waddington 2005). The Battle Stone close to the henge at Yeavering is probably connected to this complex (Young *et al* 2004, 108). The spread of ceramic findspots suggest that Neolithic activity was focused around the valley floor, but by the Early Bronze Age the arrival of beaker pottery suggests activity spread more widely to the uplands (Passmore and Waddington 2012, 158).

The Bronze Age brought larger numbers of permanently occupied self-contained farmsteads (Young et al 2004, 104). Settlement in the Bronze Age seems to have taken the form of unenclosed groups of round houses, such as at Black Law (Burgess 1980; Young *et al* 2004, 95, 111), many of which have now been identified by intensive aerial photography (Gates 1983). Jobey's excavations at Standrop Rigg to the south of the study zone and Wooler produced querns, attesting to grain cultivation (Jobey 1983; Young *et al* 2004, 112). Bronze Age field systems survive too, signalling 'the first large scale agricultural exploitation of the uplands' (Young *et al* 2004, 112), including in the hinterland of Yeavering Bell (Ainsworth et al 2016). Palaeoenvironmental data indicates that this represents an upsurge in practice, succeeding what appears to have been the erratic uptake of cereal cultivation in the Neolithic (Topping 2008, 332). Upland locations were brought into use for grazing and cultivation (Passmore and Waddington 2012, 196-201).

The Cheviot landscape is marked by cairns or barrows, indicative of Neolithic–Early Bronze Age burial activity (Topping 1997; 2001; Young *et al* 2004, 111). These vary in form, but are usually found together in 'cemeteries', and many are dramatically located (Young *et al* 2004, 115). There are suggestions of a cairn on Yeavering Bell at the eastern summit. Some of these funerary monuments have associations with both Neolithic features and rock art (see Oswald and Pearson 2005 for in-depth discussion). There is a freestanding cup marked boulder on West Hill near at hand to Yeavering but other rock art seems to be confined to the Fell Sandstones. Burial and ritual activity has been revealed at several sites, including Whitton Hill near Milfield (Miket 1985, 137–148),

while recent field survey on the slopes and to the south east of Yeavering Bell has identified cairnfields likely of Bronze Age date (Ainsworth *et al* 2016). Neolithic cremation burials are also now being discovered and dated on the sand and gravel terraces of the valley floor at Cheviot Quarry (Cockburn 2016), while flat cist cemeteries of the Beaker period and Early Bronze Age burials are known from the valley floor. It is probably a combination of such remains that comprise the cremation cemetery Hope-Taylor encountered at Yeavering.

8. Late Bronze Age and Iron Age

The monumental character of the archaeology of the late Neolithic and early Bronze Age in the study area had diminished by the end of the Early Bronze Age, while the unenclosed upland settlements appear to have been abandoned in the late Bronze Age (Young *et al* 2004, 120; see also Topping 2008). The rampart at Yeavering Bell hillfort may, however, be of Late Bronze Age construction, and not contemporary with the occupation evident in the interior (pers. comm. A. Oswald). It has also been proposed that the early outer enclosure of the hillfort at Humbleton hill may be late Bronze Age in date (Oswald 1997). However, there is as yet no evidence that upland defended settlements and hillforts emerged in the Cheviots before the mid-Iron Age. By implication it is thought that, in the Northumberland region at least, the population rose resulting in intensified landuse strategies (Young *et al*. 2004, 41). Larger settlements began to appear, particularly in the Iron Age and could include unenclosed, palisaded or earthwork defended settlements (Oswald *et al* 2006, 2008; Passmore and Waddington 2012, 236–237; Topping 2008; Topping and Pearson 2008). George Jobey devoted many years to developing an understanding of monuments of probable Iron Age date in Northumberland including cross ridge dykes and hillforts (Jobey 1965; 1966) and this has been taken forward in recent years by a wide range of studies, such as Smith's excavations at Dod Law Hillfort (Smith 1983; 1989) and the Breamish Valley Archaeology Project (summarised in Frodsham and Waddington 2004)..

Many of the enclosed settlements that neighbour the hillfort at Yeavering are situated along the fringes of the Cheviot Hills and along the river valleys that penetrate within (Topping 1999; Topping 2008). Yeavering, as a hillfort is larger than these, with an apparently stone-built rampart, quarried from the hill, enclosing around 130 huts (Young *et al* 2004, 120–121; see Oswald and Pearson 2005 for detailed consideration). Often intervisible, these hillforts varied in scale, but relatively few have been excavated; their role and function is usually interpreted as relating to military defences, territorial control and/or increased social stratification (Passmore and Waddington 2012, 250; Oswald et al 2006; 2008). Simply on the basis of size alone, however, some have speculated about the control this larger hillfort may have exerted over the rest (Young *et al* 2004, 122; Oswald 2004). No scientific dating exists for the creation of Yeavering hillfort and it may fit with a broader range of large hill top enclosures found in southern Scotland and

further afield e.g. Gardom's Edge in Derbyshire and Carrock Fell in Cumbria, although the latter has conversely been proposed as a Neolithic structure (Barnatt et al 2017; Oswald in prep; cf Pearson and Topping 2002 for Carrock Fell).

The density of hillforts in this region has been linked to mentions of the Votadini and their territory. However, to some extent this results from the classification of these small hill-top settlements as 'hillforts', many may have simply been variant forms of defended settlement (pers. comm. A. Oswald) or else were merely effecting the appearance of hillfort ramparts at a domestic scale (Topping 2008, 340; pers. comm. D. McOmish). If this extended to the south of the Tweed such an arrangement would echo the later political divisions evident in the accounts of early medieval British kingdoms (Young *et al* 2004, 127). More generally, however, people seem to have lived in unassuming farmsteads (Ibid.). Field surveys have shown just how complex and multi-phased hillforts can be (e.g. Topping 2004; Oswald et al 2006; 2008). Many are accompanied by evidence for terraces and cord rig cultivation, suggesting the cultivation of relatively extensive tracts of land (Topping 1989a). The cinerary urns identified by Hope-Taylor at Yeavering as late Bronze Age/Iron Age are likely to have been early Bronze Age in date (Ferrell 1990, 29–49; see also Millson 2007; 2013; Waddington et al 2011).

Of the additional hilltop enclosures, many were quite small, such as West Hill, St Gregory's Hill and Great Hetha, but there are also larger examples such as Yeavering Bell, immediately to the south of Yeavering and further afield, at Traprain Law in East Lothian (Higham 1993, 10; Passmore and Waddington 2012, 243). The majority of these hillforts were surveyed during the Northumberland National Park Authority's *Discovering our Hillfort Heritage* project, although relatively few have been excavated (Oswald *et al*, 2006, 2008). More recent excavated evidence from Dod Law, Harehaugh and Wether Hill indicates that these enclosed locations had a lifespan spanning the mid to late Iron Age (Smith 1983; 1989; Carlton 2011; Topping 2004; Topping 2008). Field survey would also suggest that many other hillfort palisades appear to have fallen out of use prior to the Roman Iron Age (e.g. St Gregory's Hill, West Hill, Mid Hill, etc., Oswald and Pearson 2005; Oswald and McOmish 2002; Oswald *et al*. 2000; 2006; 2008). Indeed in relation to Yeavering, Pearson has commented that:

> '...there is no field evidence to suggest the hillfort community continued into the Roman period. It has already been mentioned that the survey found none of the stone-built circular huts that are characteristic of late Iron-Age and Roman period sites in the Cheviots. The excavation evidence points to some activity on the hilltop in the Roman Period, but the survey suggests this did not take the form of protracted settlement' (Pearson 1998)

Regardless of precisely when these prehistoric sites were abandoned, some may have retained a value or meaning for the early medieval occupants of the region (Hope-Taylor 1977; Frodsham 2005, Young *et al* 2004; Oswald 2004). Even today these hillforts remain

highly visible fixtures in the landscape, and undoubtedly their presence was known by the early medieval people who constructed and occupied Yeavering.

Additional recent field research has also re-evaluated the evidence for late prehistoric settlement on the Northumberland coastal plain. Rectilinear settlement enclosures have long been recognised as a regional type and were identified by George Jobey as Roman Iron Age in date (1960). These are now considered late Iron Age in date, and their frequency points to the intensive exploitation of the coastal plain (Oswald *et al.* 2006; Hodgson et al. 2013), an assertion supported by the identification of late Iron Age salt production in an enclosure north of Berwick-upon-Tweed and a Roman Iron Age timber enclosure at Pegswood Moor, Morpeth (Proctor 2009; 2016). Recent excavations have shown that in some cases these late Iron Age rectilinear enclosures were the final stages of activity in sequences that originated in the late Bronze Age or early Iron Age. These are matched potentially by the stone-built enclosure settlements in the uplands like Wether Hill (Topping 2004; 2008), which were also attributed to the Roman Iron Age by Jobey but have now been reinterpreted via field survey, albeit not conclusively, as late Iron Age in origin (Oswald *et al.* 2008).

9. Roman Iron Age

The Roman conquest of Britain began in the middle of the 1st century AD, and by the close of the century the Roman general Agricola had conducted campaigns throughout the north, pushing the boundaries of Rome into what is today Scotland (Welfare and Swan 1995). The building of Roman forts along Hadrian's Wall is argued to have resulted in a phase of almost total deforestation (Dumayne 1992; 1993; Dumayne and Barber 1994), though evidence of cord rig underlying parts of the Wall also attests to an environment that had already been cleared for cultivation (Topping 1989a; 1989b). The northern boundary of the Roman Empire fluctuated, shifting between Hadrian's Wall to the south of the Milfield Basin and the Antonine Wall, built in AD 142 and connecting the Forth and Clyde to the north. As such the Milfield Basin was only part of the Roman Empire when Roman forces pushed further north during the Agricolan incursions (AD 79–83), the Antonine Wall occupation (AD 139–160) and during the Severan invasions (AD 208-210) (Passmore and Waddington 2012, 261). This is not to say that there was direct Roman control of the region during these periods, but the presence of Roman soldiers would have undoubtedly affected the native Britons in this region. Significantly, the main Roman road running through this region, the Devil's Causeway, cuts through the Milfield Basin and connects Dere Street near Corbridge to the mouth of the Tweed near Berwick-upon-Tweed.

The relatively small number of permanent Roman forts, especially compared to the Pennine region, suggests that the native populace (the *Votadini*) had a peaceful arrangement with Rome, and that they may have been one of the eleven tribes who

submitted to Claudius in AD 43 (Higham 1986, 148; Passmore and Waddington 2012, 261–262). This is supported by the environmental record for the period, which suggests that there was little disruption in agricultural land-use (Dark 2000). In contrast to that position, Nick Hodgson has proposed that the abandonment of several rectilinear enclosed settlements on the coastal plain of central Northumberland owed to a short-lived frontier zone in the early years of Roman occupation (Hodgson *et al*. 2013). Due to the somewhat limited Roman impact on this region, this period is often referred to as the Roman Iron Age and this can be observed in those sites from this time period which display both prehistoric and Roman Iron Age attributes. The archaeological sites that date to the Roman Iron Age in the Milfield Basin reflect this somewhat transitional period, with the appearance of new types of settlement form and burial practices that are found at and within prehistoric monuments from the Bronze and Iron Ages. For example, many of the Iron Age hillforts in the Cheviot Hills are thought to have been reoccupied during the Roman Iron Age, with new roundhouses and enclosures along the older, collapsed structures and ramparts of prehistoric features (Oswald and McOmish 2002; Oswald *et al.* 2006), though in some cases, as at Wether Hill, Ingram, a short-lived pre-Roman phase of reoccupation was identified instead (Topping 2004; 2008). The *Discovering our Hillfort Heritage* project identified and indicative chronology of Roman Iron Age features in the hillforts based on morphological relationships and differences in architectural shape, form and scale (Oswald *et al* 2006 106–108). Nearby examples include the Roman Iron Age settlements at West Hill hillfort and St Gregory's Hill hillfort, just to the south of Kirknewton (Passmore and Waddington, 2009, 223–242). A number of Roman Iron Age sites in the Cheviot valleys were excavated in the course of the Breamish Valley Archaeology Project (Adams 1993; 1994; 1995; Adams and Carne 1996; Frodsham and Waddington 2004). Final publication of this project will have a significant impact on understandings of chronology in the region in the Roman Iron Age. In addition to the reoccupied hillforts and the Devil's Causeway, a small, enclosed rectilinear settlement at Flodden Hill was recently excavated and dated to the early Roman Iron Age (Nolan and Vaughan 2017).

Although exploration has been limited, it is well understood that 'native' settlements of the Roman Iron Age survive in Northumberland and the Cheviots (Jobey 1960). Scooped settlements were identified by Jobey as a settlement form common to the border region and subsequent fieldwork has placed these in a late Iron Age to Roman context, with some evidence for reuse in the medieval period (Burgess 1984, 167). These have been linked to a type of enclosed stone-built settlement termed the 'Cheviot' type (Ibid., 167–171). Excavations at Hetha Burn confirmed the scooped settlement here as Roman Iron Age in date, but Hetha Burn was reused on a large-scale in the medieval period (Ibid., 167). Excavations here showed several phases of activity datable to the 1st and 2nd centuries AD and raised questions over the distinction between 'Cheviot' and 'Scooped' settlement types (Young *et al* 2004, 180–181). The scooped settlements are notable for their connection with potential upland – lowland routes and have long been suggested to be shielings connected to seasonal upland pasturing.

Al Oswald and Trevor Pearson consider the hillfort on Yeavering Bell to have been long disused by the 4th century AD, but Hope-Taylor was of a different opinion, leading excavations on the eastern part of the summit in 1958 (Miket 2013, 138). Excavations in the 19th century on Yeavering Bell had targeted a hut/house circle and had produced Roman pottery (Tate 1863, 437). Hope-Taylor's subsequent investigations produced additional evidence: two or three sherds of Roman pottery and two *minimi* which imply casual loss or activity at the hillfort in the late 3rd or 4th centuries AD (Hope-Taylor 1977, 267; Miket 2013, 149–150). Hope-Taylor was undecided as to whether the uneven sub-circular enclosure that encompasses the eastern summit on the hillfort, enclosing a prehistoric cairn (Oswald and Pearson 2005, 105; Miket 2013), pre-dated or post-dated the hillfort, but more recently several authors have asserted a post-Roman date (Bradley 1987, 10; Frodsham 1999, 198). The enclosure appears to cut and therefore post-date several house platforms (see above and Pearson 1998; Oswald and Pearson 2005, 109, 116–117), but the stratigraphic relationship is unclear and precise dating for the structure and this phase of activity remains elusive (Oswald and Pearson 2005, 117–118; Miket 2013, 152).

10. Early Medieval

The transition from the Roman Iron Age to the early medieval period remains under-researched in Northumberland (Petts and Turner 2011, 4–7). Rob Collins has recently reappraised the Roman to early medieval transition in the North East (2012), pointing to the survival of British nodal centres like Bamburgh (Ibid., 125). Beyond the 'Wall', both settlement and cemetery evidence is diverse, and highly varied burial practices point to an hybridity in approach to death suggestive of insecurities over identity and land claims (Lucy 2005). Written sources for the early medieval period offer a broad timeline for political development and control in the Milfield region (see above). It is thought that the Roman Iron Age territory of the Votadini had split by the early medieval period into two 'British' kingdoms: Gododdin and Brynaich. Brynaich would have included Yeavering and the Milfield Basin, as well as Bamburgh on the coast. David Rollason has provided a recent overview (2003), arguing like Hope-Taylor for the eventual Anglian control of these old British kingdoms and the emergence of Bernicia from Brynaich under the kingship of Ida around AD547. By AD 600, the enlarged kingdom of what came to be termed 'Northumbria' had emerged under first under Aethelfrith and then enlarged further under Edwin, which resulted from the merging of Deira and Bernicia and the subsequent annexation of Elmet and perhaps other small British polities such as Leodis, Craven and parts of Rheged. Place name evidence for the Milfield region demonstrates a range of Brittonic, Anglian and hybridised names which are argued to support the concept that pre-Bernicia and post-Rome, the region was made up of several small kingdoms that coalesced through a process of acculturation and conquest (Wood 2007; 2011). It is certainly an era marked by unrest, and the rich, yet diverse, archaeology of the Milfield Basin seems to support this.

Despite the evidence for political conflict, environmental evidence offers a contrasting picture of local stability. Forest and tree cover regeneration in the 6th century is evident north of the Wall (Dark 2005) whereas Broad Moss, some 8 km away from Yeavering offers evidence of apparent continuity in arable activity (Davies and Turner 1979, 796; Young *et al* 2004, 45; cf Yeloff et al. 2007). Elsewhere in the Cheviots there is evidence of settlement continuity, for example at Ingram Hill and Huckhoe where rectangular structures as well as post-Roman pottery suggest settlement activity of 5th- and 6th-century date (Hogg 1956; Jobey 1959; Young *et al* 2004, 201). There is also some evidence to suggest the swift replacement or re-appropriation of a post-Roman settlement at Cheviot Quarry.

Yeavering is situated in a landscape well recognised for early medieval settlement remains. Early medieval settlement activity has been located largely by aerial photography (Gates and O'Brien 1988; Gates 2005; Gates 2009), although recent additional discoveries have been made as a result of large-scale open area soil stripping in advance of development (Passmore and Waddington 2009; 2012). Within our study area, settlements of early medieval date include Yeavering and Milfield, Thirlings and Cheviot Quarry.

Yeavering remains the most significant site of the group because of the extensive excavations by Hope-Taylor from 1953–62 and later additional work by Anthony Harding in 1976 (Hope-Taylor 1977; Tinniswood and Harding 1991). Hope-Taylor's excavations revealed, alongside prehistoric monuments that acted as structuring agents for early medieval activity, an extensive early medieval settlement. In Hope-Taylor's sequence, the Great Enclosure was thought to be particularly early, perhaps even 4th century in date (Hope-Taylor 1977, Figs 12 and 77). The plan form described by Hope-Taylor is open to speculation (pers. comm. Tim Gates), as well as its sequential development (see also O'Brien 2005b). The first early medieval activity, whether post-Roman or Anglian, comprised a number of small structures to the east by the Great Enclosure and a surviving Bronze Age barrow (A5-7/A8?), to the west, focused upon an old henge in the western ring-ditch cemetery and a structure lying to the north of the terrace (D6) (Hope-Taylor 1977, Fig 74). The first graves at Yeavering were dug in relation to the western ring-ditch cemetery and were set out in a radial arrangement around a post-setting, situated within what had been a small henge with standing stones (Hope-Taylor 1977, Figs 50 and 51). This complex acquired a square timber surround or enclosure set within the remains of the henge, although the graves spilled slightly beyond it (Blair 1995). Within half a century the settlement developed substantially, and emerged as an elaborate 7th-century palace complex. This comprised a series of substantial halls with an associated enclosure, ancillary buildings and a timber 'theatre' or auditorium presumably connected to assembly practices (Hope-Taylor 1977; see too Barnwell 2005). A second cemetery, linked to the Western Ring Ditch, was expanded and apparently became associated with a potential church structure after the Great Enclosure had gone out of use. Hope-Taylor

drew together a sequence developed from historical sources and dates to suggest that the site was eventually abandoned *c.* AD 685, just as indicated by Bede in favour of the neighbouring site of *Maelmin* (Milfield), reported to have been active in the 8th century. Sam Lucy has noted, however, that the Yeavering burials might easily extend into the 8th century (Lucy 2005).

The earliest settlement evidence, beyond the palace site itself, has been located at Cheviot Quarry, where an array of seven sunken-featured buildings were found, accompanied by another two post-built buildings, a fence-line and various pits and postholes (Johnson and Waddington 2008). Charred wood from one of the postholes of Building 2 yielded a radiocarbon date of 1520 +/-35 BP (ibid.), placing it in the immediate post-Roman period. The nearby excavation at Thirlings has already been mentioned in relation to the rich array of Neolithic finds, but it also produced evidence of an unenclosed settlement comprising some 12 timber hall structures of typical early medieval form (O'Brien and Miket 1991; Young *et al* 2004, 203–204). Dating was provided by radiocarbon dates from surviving timbers and suggests that the settlement remained in use during the 7th century (Young *et al* 2004, 205). Questions remain over the function of some of the buildings and the relationship of Thirlings to Yeavering, although the excavators suggested that, in line with the classic multiple estate model, that Thirlings was a service settlement or farm, creating surplus and render to support sites at the apex of the system (O'Brien and Miket 1991, 89–90). More recently, aerial surveys have revealed indications of sunken featured buildings and other features beyond the original area of excavations (Gates and O'Brien 1988, 4–5).

Aerial photography by St Joseph in the 1940s revealed likely prehistoric and early medieval features near Milfield (Knowles and Joseph 1952; Hope-Taylor 1977, 4, Fig. 7, pls 7, 8 and 9). These cropmarks delimited another massive enclosure, within which a further hall complex set within smaller enclosures was evident (Hope-Taylor 1977, Fig. 7). Today there are 10 hengiform monuments known across the Milfield basin as a result of aerial photography. In addition, the extent of activity at Milfield can be seen now to stretch further north, with numerous markings indicative of sunken featured buildings (O'Brien and Gates 1988; Scull and Harding 1990, Fig. 2). Excavations undertaken at Milfield in 1975, 1977 and 1978 focused on the Milfield North and South henges and produced evidence for both Beaker period and early medieval activity (Scull and Harding 1990, 1–29). At Milfield North, five early medieval graves were excavated, of which several were furnished with finds that included dress fittings, knives and beads suggestive of burial taking place in the 6th/7th centuries AD (Ibid., 9–11). Limited excavations at the Milfield South henge identified some 45 graves, but only 21 were excavated (Ibid., 12). Again, grave goods suggest burial activity in the late 7th century and the possibility that burial continued post- AD 700 (Ibid., 22). Excavations in advance of the development of a car park at Maelmin West also identified a post-built structure and fence/boundary, providing a calibrated radiocarbon date of AD 680-890 (Passmore and Waddington 2009, 251-9). Most recently geophysical prospection on the palace sites has

picked up traces of the complex and evidence for later activity on the site that may indicate relatively modern damage (pers. comm. P. Gleeson).

On the northern edge of the Mifield Basin, near Etal, early metalwork finds and recent geophysical survey suggest the presence of an early Anglian cemetery (pers. comm. R. Collins). Beyond the study area, comparanda include the royal centre at Bamburgh, the large cropmark site of Sprouston, as well as the early medieval monastic site at Lindisfarne. The farmstead at Green Shiel (Young *et al* 2004, 100–118) and timber halls at Shotton (Muncaster et al. 2014) all provide additional evidence of an early medieval heartland, while the discovery by Gates and O'Brien (1988, 4-5) of around 60 potential sunken featured buildings and associated crop marks scattered across the gravels (most notably at New Bewick and Thirlings), suggests a density of 'Anglo-Saxon' activity within the Tweed-Till network, a corpus further enlarged by the Till-Tweed Geoarchaeology Project (Passmore and Waddington 2009, 167-8). Recently, a 7th-century Merovingian gold tremiss was reported by metal-detectorists from Coldstream, a short distance west of Zone B (Blackwell 2018, 286). Questions remain, however, despite a number of excavations, over how these sites operated together or succeeded one another, and how this activity relates to what we know of both the settlement in the Roman Iron Age and 'native' activity by British populations in the post-Roman and pre-Anglian period.

These early medieval settlements are defined by their distinctive rectangular hall-type structures and the presence of sunken featured buildings (Gates and O'Brien 1988). Their distribution echoes that of the Neolithic activity in the Basin, apparently being concentrated on the gravel terraces above the valley floor, adjacent to the water courses flowing below (Passmore and Waddington *et al* 2012, 298–300). This distribution differs from the pattern of survival of Iron Age and Roman Iron Age settlements and monuments, which are visible as earthwork traces in elevated positions on the slopes and crests of the surrounding hills (Gates 2009; Buchanan 2014, 149–151). This distinct difference in distribution could be artificial, reflecting the differential survival of remains on upland pasture, as opposed to the cultivated lowland where ploughing has removed earthworks but conversely provides opportunities to scrutinise crop mark evidence (Gates 2009). Nonetheless in recent years, extensive excavations on the sand and gravel valley floor have not produced Iron Age or Roman Iron Age settlement evidence, but have revealed settlement activity of the Neolithic and middle and late Bronze-Age (see above). This temporal variation in settlement distribution has yet to be adequately explained or characterised. For the time being early medieval settlement in the region remains a lowland phenomenon. While an archaeological resource of early medieval upland settlement has been assumed, it has yet to be identified and characterised.

At Yeavering, activity appears to have ceased in the 8th century, but a putative timber church is present in the final phases of activity at the site (see Hope-Taylor 1977). Milfield was active in the 8th century (HE II, 14), but we know little of its subsequent development or demise. The more distant royal site of Bamburgh was, by contrast, maintained as a

centre of power from post-Roman times to the 11th century and beyond (Kirton and Young 2017), notwithstanding the inception of Viking incursions on the Northumbrian coast from the end of the 8th century. At Yeavering, without more accurate dating, we must assume abandonment in the 8th century if we follow the chronology set out by Bede. There is some environmental evidence to suggest the movement of coastal populations inland around the late 9th century (Steng Moss: Davies and Turner 1979, 794), though no settlement evidence for this has been identified in the Milfield Basin. It is possible that a shift in local settlement took place in the late-Saxon era – though whether Kirknewton reflects a direct successor or else a settlement zone several iterations on remains unclear.

Traces of early church buildings, monastic holdings and sculptured stonework are all important features of this era in Northumberland, although early Christian traces are scarce in the immediate study area. Sculptural evidence in Zone B is limited to a cross-head and part of a shaft or slab, each associated with Wooler and each dated between the mid-10th and mid-11th centuries (Cramp 1984, 232-3), though far more significant assemblages have been recorded in North Northumberland at Lindisfarne and Norham (ibid.). The Lindisfarne Project, to the east, is exploring the contemporary and early monastic foundation at Lindisfarne and its land and holdings (Petts 2013). Concurrently, recent excavations by the Peregrini Lindisfarne Landscape Partnership on the adjoining ridge known as the Heugh have uncovered a rectangular stone-built structure that may have been a chapel connected with the monastery (pers. comm. P. Frodsham).

There remains a real issue with a lack of evidence for activity of the 10th to 11th centuries in north Northumberland, let alone the hinterland of Yeavering. Activity continued at Bamburgh beyond the 11th century and it is possible that activity at Shotton also continued into the 10th century, but more research is needed to elicit information on settlement and land tenure. In addition, evidence for Scandinavian influence in Northumberland is similarly scarce, borne largely in place names and Anglo-Scandinavian sculptural fragments (Cramp 1984; *passim*). At the end of the early medieval period, the region found itself on the frontline of competing territorial claims between the emerging kingdoms of Scotland and England. Indeed, much of the present border was defined following the defeat of the Earl of Northumbria at the battle of Carham in 1018. Despite this delineation, the region remained an area of conflict throughout the later medieval period, as detailed below.

11. Medieval

Domesday Book does not extend to Northumberland, but in the centuries after the Norman conquest we know that Northumberland and the Yeavering study area underwent complex changes in terms of landholding and settlement. Only fragmentary accounts, such as from Charter Rolls, are available for the 12th century and it is only in the 13th century that detailed reckonings of settlement, fees and court proceedings become available, as found for instance in the Pipe Rolls, the *Quo Warranto* inquest and the Lay

Subsidy of 1296. In the early 12th century, the Muschamps were awarded the Barony of Wooler which included the township of Yeavering (Vickers 1922, 306). This township, positioned on the western fringe of the Barony, bordered the adjacent Barony of Roos, administered from Wark-on-Tweed (ibid., 31-2). The Cheviots and hills to the north of the township were known as the 'Forest of Cheviot' and were included in the same award. The wider region was located within England throughout the later medieval period, with the exception of the mid-12th century, when the kingdom of Scotland held the Earldoms of Northumberland, alongside Cumberland and Carlisle. By the late 14th century the unified townships of Akeld, Coupland and Yeavering had been broken up though they remained within the manor of Wooler (Vickers 1922, 241–243).

The agricultural economy of Northumberland in the later medieval period was dominated by cattle and sheep rearing, common pasturing and the use of shielings (Petts and Gerrard 2006, 75). That said, in the Milfield Basin, as elsewhere in lowland Northumberland, numerous ridge and furrow earthworks survive, attesting to later medieval cereal cultivation. These are joined by numerous instances of broad rig on the Cheviots suggestive of upland arable exploitation – agricultural terraces have also been identified around locations such as Ingram (ibid.), the north slope of Yeavering Bell (Ainsworth *et al.* 2016) and West Hill. This bears witness to an increase in upland cereal cultivation and settlement prior to the 14th century, as observed more widely in the region by Piers Dixon (1985). It is likely that many of the droveways recorded in the Cheviots in the post-medieval period were similarly active in the preceding medieval era. The assessment of the lifespan of droving routes and their interaction with multi-period features in the landscape should and is considered a priority in the accompanying research agenda (Semple *et al*. 2020).

Nonetheless this was predominantly a pastoral landscape, dominated by extensive grazing in the Cheviots and the sandstone ridge on which Doddington North Moor is located. Numerous shieling sites have been identified within the Yeavering hinterland (Ramm et al. 1970; Charlton and Day 1979; Ainsworth et al 2016), while documentary sources and place names also attest to their presence (Dixon 1985; Frodsham 2004, 85–86). Within this hinterland (or rather 'Zone B') they are almost exclusively restricted to the north scarp of the Cheviot Hills in the south of Zone B, with a particular concentration found in the College Valley. This is no doubt influenced to an extent by the detailed survey work undertaken by Topping and Gates in the College Valley (e.g. Topping 1981a; 1991; 2000; Gates 2000), though their current absence from upland areas in Zone B, north of Yeavering itself, requires further explanation. Shielings remain difficult to date and no investigation has proceeded beyond measured survey within Zone B, though historical accounts suggest a timespan between the 11th and 16th centuries (Young 2011). Excavation of two shielings on Hadrian's Wall produced dates between the mid-15th and mid-17th centuries (ibid.), while the turf house that comprised the first phase of the later settlement of Alnhamsheles, on Alnham Moor in the southern Cheviots, was associated with pottery dating between 1280 and 1350 (Dixon 2014). Much recent investigation into

shielings has in fact taken place in Scotland and Scandinavia, entailing geoarchaeological analyses (Kupiec 2016) palaeobotany and ethnography (Svensson 2015; 2018). As for the movement and control of pastoral stock itself, most identified folds and droves are assigned post-medieval dates and as such are dealt with in greater detail in the subsequent section of the assessment. Nonetheless several folds and one trackway have been identified in Glendale and the College Valley that have been assigned a later medieval date, while Gates' aerial survey of the College Valley highlighted a number of possible later medieval turbaries (2000). Renewed investigation of both later and post-medieval sites in the hinterland of Yeavering would likely reveal much about later medieval pastoral activities and there is currently an opportunity to tie this work into international currents of research.

Historical accounts highlight the importance of Wooler and Wark-on-Tweed, the *caputs* of the Baronies of Wooler and Roos respectively, to administration and governance in the locality. Each had borough status and held a regular market (Wooler in 1199; Wark-on-Tweed in 1227), making them rare foci of commercial activity in north Northumberland (although Ford was later granted a market in 1340). While Wark-on-Tweed falls outside the ambit of Zone B, any investigation should bear in mind the strong influence that both estate centres would have had on any sort of activity and movement in this landscape. In the immediate vicinity of Yeavering, Kirknewton would have been an important local centre. It is first mentioned, as *Neuton in Glendala*, in the early 12th-century grant, when control of the church at Kirknewton was ceded by Walter Espec to Kirkham Priory. The earliest fabric of this church (and indeed the village) is found in a sculpted panel depicting the Adoration of the Magi and is thought to date to the 12th century (Cramp 1984, 251). In the aforementioned grant, the nearby settlement of Mindrum is also noted. A later 12th-century grant records that tithes from Hethpool, West Newton, Akeld, Yeavering, Coupland and Lanton were to support a vicarage at Kirknewton, giving an early indication of active settlements in Glendale and providing one of the earliest references to Yeavering as a township. Kirknewton was the focus for an extensive parish and the way it drew resources from neighbouring vills is most reminiscent of the ancient mother parishes surveyed by Thomas Pickles in Yorkshire. Pickles has suggested that they reflect the resource base for early medieval minster territories and analogous ecclesiastical constructs (Pickles 2009). In this instance it is clear that Kirknewton was an important ecclesiastical and administrative focus, though the exact manner of this import has yet to be clarified.

Very few archaeological interventions have recorded later medieval settlement evidence in either Zone A or Zone B of the study area. Excavations in Wooler have revealed later medieval burgage plots (Williams 2005). The only other intervention into a current settlement in the hinterland is at Cornhill-on-Tweed, where trial-trenching by Headland Archaeology revealed stone-built walls associated with pottery of 14th- to 15th-century date (Headland Archaeology 2004). However, a wider selection of deserted and shrunken medieval villages are recorded in the area, predominantly driven by Piers Dixon's survey

of these abandoned settlement forms (1985). They are distributed evenly in the lowland and lower scarps of Zone B and in many cases reflect shrunken elements of extant villages. None have been excavated, though several have been mapped from the air by the Milfield Geoarchaeology Project, such as at Fenton, near Doddington. Dixon's excavation of the upland village of *Alnhamsheles* (2014), while to the south-east of Zone B, may offer comparative material for future settlement investigations in the hinterland of Yeavering. In plan it formed a row settlement of five tofts and eight sub-rectangular building foundations, with several ancillary enclosures on the opposite side of Rowhope Burn. Excavations at the site revealed a multi-phased sequence. Settlement evidence commenced with a turf house, in use between 1280 and 1350 and likely only occupied seasonally as a shieling. It was subsequently replaced by two phases of cruck-framed buildings with stone-footings, prior to the settlement going out of use in the mid-16th century. Dixon argues that a seasonally occupied shieling had been reappropriated, with a planned settlement imposed in its place. As such, *Alnhamsheles* could represent a late example of increased upland settlement and cultivation, though more work is needed elsewhere to see if Alnhamsheles regional bedfellows were equally successful at maintaining a population in the face of climatic deterioration at the end of the later medieval period.

As for the deserted medieval village of Yeavering itself, this is now represented by a late 16th-century bastle known as Old Yeavering or King Edwin's Palace (the current hamlet of Yeavering, in the adjacent township of Coupland, was instead formerly known as South Coupland). One of the first mentions of Yeavering, as noted above, is in regard to tithes owed to the church at Kirknewton. It appears again as a 'hamlet' in 1279, when part of it, described as the 'Prendergast quarter' was rated at one messuage and 40 acres of land' (Vickers 1922, 241). The Lay Subsidy of 1296 records six inhabitants and was evidently not a rich township. A husbandland is recorded in 1400 as wasted by the Scots. It appears to have been held by the Barony of Wooler throughout the later medieval period and evidently only had a modest profile. The HER identifies uneven ground behind the present farm at Old Yeavering as potentially indicative of settlement remains, though no further evidence has been identified outside of the bastle itself (HER No 2015).

The material ecclesiastical record for Zone B is relatively sparse in relation to other parts of lowland Northumberland. Only four churches survive boasting later medieval fabric (Branxton, Ford, Kirknewton and Doddington), though all have been subject to major restoration – in the case of the church of St Paul in Branxton, only the original chancel arch survives. In addition to these, a church dedicated to St Helen once stood at Cornhill-on-Tweed. The Church of St Gregory the Great at Kirknewton is the only example located near to the Yeavering palace site itself. This preserves features of the 12th to 16th centuries, one of the earliest of which is a panel depicting the Adoration of the Magi. The church at Kirknewton is also distinctive for its interior, with a transept and chancel characterised by low tunnel vaults, presumably to provide physical protection in a tumultuous landscape (Pevsner 1957, 366-7).

Rather than directly reflecting a destructive environment, the sparse built stock of the area is a consequence of the delivery of pastoral care in extensive border parishes, whereby a central parish church administered its cure via chapels-of-ease in the wider parish (Gilchrist 1999, 228). As such, many of the townships near Yeavering (e.g. Akeld, Hethpool, Lanton) and further afield (e.g. Fenton, Kilham and St Ethelrede's chapel, Yetholm Mains) have either documentary or place-name attestations for chapels. A graveyard north-west of Mindrum is thought to mark the one-time location of a later medieval chapel (Vickers 1922, 15-6). All of these are associated with surviving settlements, though note should be made of extensive cropmark traces near Ford Westfield, which appear to indicate the presence of a chapel and cemetery for an unrecorded deserted village (HER Nos 19653 & 19668). In addition to these chapels, two hospitals are documented in the area, at Kirknewton and Wooler, the former of which appears to have functioned as an almshouse connected to the former mill at Lanton. Monastic influence in this landscape appears chiefly in a brief dispute between the Priories of Kirkham and Durham over control of the parish church of Kirknewton – otherwise it remains a little-understood aspect of the landscape. Finally, sculptural evidence in the locality is found in the form of medieval cross-slabs, recorded at Ford and Kirknewton (Ryder 2003) and also Doddington.

In the earlier part of the later medieval period, defensive works were centralised on the administrative caputs of the local region. A motte and bailey castle was thrown up at Wark-on-Tweed in the early 12th century (Constable 2003), the centre of the Barony of Roos, while in Wooler, the heart of the Muschamp Fee (also known as the Barony of Wooler), a short-lived keep was built atop a probable natural mound, potentially as a successor to the nearby ring motte known as Green Castle (Constable 2003). The castle at Wark was taken twice – by Scottish forces in 1138 and by King John of England in 1216 – prior to Edward I's invasion of Scotland at the end of the 13th century, thus underscoring the presence of border conflict prior to sustained large-scale warfare. Further defensive centres emerged in the reign of Edward I and beyond, not least the castles of Etal and Ford (e.g. Harbottle and Ellison 2000). Barmoor Castle is also thought to possess fabric of this period, though that has yet to be confirmed (Pevsner 1957, 81).

While these emerging fortifications correlate with rising border tensions following Edward I's invasion of Scotland, though are no records of pitched battles in the area, though it is recorded that Wooler and its locality was laid waste by Robert the Bruce subsequent to the English defeat at Bannockburn. The earliest recorded battle is that of *Homildon Hill* in 1402, which took place on the scarp of Humbleton Hill, a short distance east of the Yeavering palace site. In this instance a punitive raid by the Earl of Douglas was defeated by the Percys of Northumberland (Frodsham et al. 2004, 91). A later 1415 incursion by the Scots was recorded at Yeavering (or rather 'Geteryne') itself (Hamilton Wylie 1914, 520), while civil conflict took place between the Lancastrians and the Yorkists at Hedgeley Moor, south of Wooler, in 1464 (ibid.). The most famous battle is that of Flodden Field, between the Kingdoms of England and Scotland, in 1513, on a site located in the northern reach of Zone B.

On a broad scale, these battles reflect a general upsurge of violence in the landscape that prompted a scale change in defensive fortifications. Where previously defensive works were associated only with central nodes in the district – such as Wooler, Wark, Ford and Etal – now they began to emerge in each settlement. The ruined tower house in Hethpool, in the College Valley to the south-west of the Yeavering palace site, is thought to date to the late 14th century (Ramm et al. 1970, 89), with a mid-14th-century date assigned for the ruined tower at Lanton and in turn a late 14th-century date given to a vicar's peel tower near Ford Castle (HER Nos 2006; 1813). Further towers are documented from Branxton, Howtel and Kirknewton while Fenton Tower, first recorded in the early 15th century, was considered a fortification on a par with Ford and Etal castles (HER No 2133).

The numerous defensive positions recorded in Glendale and the Milfield Basin reflect a dangerous border environment engendered not only by frequent war with Scotland, but also by numerous lower-scale cross-border cattle raids and reprisals conducted by clans and communities known as the Border Reivers. Intermittent raiding is recorded in the area from the early 14th to mid-15th century. In 1312 the vicar of Wooler was granted time away from his cure owing to the depredations of previous raids (Vickers 1922; 300) while further raids are recorded at Branxton in 1340, Hethpool in 1342 and Cheviot township in 1399 and 1412. This belligerent atmosphere is underscored by a 1436 licence from the Bishop of Durham to the vicar of Kirknewton, allowing that they could perform their offices in the parish away from the church, owing to the high risk of attack (ibid., 118). In the 16th century even more raids are recorded, though it remains unclear whether this represents an upsurge in violence or differential survival of records. Raids also went in the other direction. Milfield served as a mustering point prior to a raid into Scotland in 1523, and further raids are recorded from Kilham, Wooler and Kirknewton, the last of which, in 1538, ravaged Tynedale rather than the Scottish side of the border. Paul Frodsham highlights the distinct culture of these lawless clans, reflected in Border Ballads and historical reports but otherwise little understood (Frodsham et al. 2004, 98-106). There are also records of border truce meetings, including one held at Kirknewton in 1594 (Vickers 1922, 151). Some work has been undertaken on the nature of communities that lived in the upland environment of the College Valley at this time (Shipley 2010), yet much remains to be said for renewed investigation of abandoned upland settlement and seasonal steadings in order to characterise the archaeology of these distinctive communities on both sides of the border. Border raids continued into the early 17th century, and a distinct form of defended farmhouse, known as the bastle, emerged in the latter half of the 16th century, presumably in response to frequent raids. These are discussed in the next section.

12. Post medieval

By the 15th century Yeavering had passed, along with other townships of the Wooler Barony, to the Greys of Chillingham with whom it remained until 1733. It was one of several townships in this area held by the Greys. From 1733 it passed by sale between a number of absentee owners ending up in the hands of Thomas Knight Culley by the early 20th century (Vickers 1922, 241-243). These owners let the township to tenant farmers.

The earliest evidence for the tenancy of Yeavering is a Grey rental covering the period 1725 to 1729. This shows that the entire township was let as a single farm (ZBU/B/5/1/5). 19th-century leases show that this situation pertained in 1812 and 1858 (documents in the possession of Roger Miket).

Agriculture is an important industry in the area and has been through much of the post-medieval period. The area to the north of Yeavering, in both zones A and B, is a significant proportion of a the Tweedside sub-region of Northumberland which is sheltered and has fertile soils which made it especially amenable to improved agriculture from the middle of the 18th century (Butlin 1973, 109; Bailey and Culley 1813, 4; Grey 1841, 156). Prior to the 18th-century agriculture in the area is poorly understood. It is usually assumed to have been retarded by raiding in the 16th century while border tenures prevented rent increases and so discouraged investment by large estates (Wrathmell 1980). Some evidence for this period survives in the form of ridge and furrow, some of which is present in Yeavering Township itself. This evidence is especially valuable as later intensive agriculture in the area has destroyed much ridge and furrow and so that which remains is rare. Surveys of ridge and furrow should be conducted to determine whether sufficient survives in the area to be used to examine pre-18th-century agriculture.

The 1603 Union of the Crowns of Scotland and England brought stability and at the same time permitted border tenures to be abolished (Wrathmell 1980). During this period coal mining on the Durham coalfield expanded, increasing demand for agricultural produce in the region (Hodgson 1979, Brassley 1985, 172-4). These factors allowed the agricultural advantages of the Tweedside area to be realised. The area was found to be particularly suitable for the turnip rotations of the classic agricultural revolution and, consequently, attracted tenants interested in agricultural improvement, such as John and George Grey of Milfield and the Culley brothers of Fenton (Orde 2006, O'Donnell 2015, 106). The area continued to be the site of advanced agricultural practice into the 19th century and was subject to significant investment by aristocratic landlords such as the Greys of Howick (O'Donnell 2015, 126-7). Much enclosure, of both common and open fields occurred during the second half of the 18th century by a range of means including Act of Parliament (O'Donnell 2015, 21-8). Yeavering Township had been sold by the Greys prior to the period of major investment in their estates to owners with smaller financial resources. It also failed to attract improving tenants, probably because the township contains mostly upland waste. Aside from the few closes next to the River Glen Yeavering remains unenclosed to the present. The northern part of zone A and much of zone B however, are firmly within the Tweedside region of agricultural improvement. There are rich archaeological resources for the examination of the Agricultural Revolution period.

The most obvious are farmsteads of which several are included in the HER (e.g. 1447, 1608, 1907). In some cases post-medieval farmsteads can be found within nucleated settlements but during the period they were increasingly moved to isolated sites. Most of those listed in the HER are currently occupied, though the possibility of unidentified

deserted farmsteads being present is quite high as such sites are common in the county (O'Donnell 2015, 76-82). One deserted farmstead is within Yeavering Township and would provide an opportunity to examine a post-medieval farmstead archaeologically (HER 1447). Other evidence for improvement may be present in the form of under-draining, improved water courses, field boundary features and artefact scatters resulting from manuring. All are present throughout the study area, but have not been systematically surveyed, though they would form key pieces of evidence in any study of the post-medieval agriculture of the study area.

The southern part of the study area, including Yeavering Bell, is within the Northumberland uplands which is very different to Tweedside. The economy of this region was much more pastoral which is attested to by substantial archaeological evidence. The most common type of monument relating to this economy is the sheep pen or stell. These are distributed throughout the southern part of the study area, and one is present in Yeavering township (HER 2483). In addition to pens there are several shepherds' huts and houses within the study area with a similar distribution to the pens (HER 20453, 20503, 12721). Four of these are listed as 'sheilings' implying transhumance (HER 12746, 12747, 12748, 13107). These cluster in Grey's Forest township in the south west of the study area though this is likely to be a result of more intensive survey having been conducted within the College Valley (Topping 1981c, Gates 2000). The detail of this pastoral economy is not well understood, but clearly Yeavering and its hinterland contain substantial archaeological resources pertaining to it. Allied to this are the post-medieval droveways that entered, crossed and departed the Cheviots, and indeed comprised much of the local communication routes between England and Scotland in this period. While only recorded in the post-medieval period, their inception is less clear, and it would be worthwhile to study their relationship with later medieval, early medieval and even prehistoric sites. The recent *Drover's Project*, undertaken by The Archaeological Practice for Northumberland National Park, has considered some of these routes (Roberts *et al*. 2010).

The Yeavering palace site and Old Yeavering occupy a point almost exactly on the boundary between these two different landscapes, and consequently zones A and B provide a transect across two very different agricultural landscapes. Both landscapes require further detailed research as does the relationship between them.

Although the study area is north of the heavily industrialised part of Northumberland there is a certain amount of industrial archaeology within it. Most of the sites are within the lowlands in the north of the study area, though the distribution does extend down the College Valley. The most extensive industrial remains in the area are of coal mining. In this area the low quality of the coal meant that it was primarily used for lime burning, which is itself an important local industry. No mines occur within zone A (HER 19534 seems to be incorrectly placed), though several sites are present within zone B. The remains listed in the HER range from possibly early bell pits (e.g. HER 1991, 1995, 22870

and 22868) to mid-late 19th-century collieries (such as HER 20787, 1975). Associated with the later sites are engine houses (HER 1983, 24371) and miners' cottages (HER 24373). Detailed historical study of coal mining in the area has shown that it was developed from the late 17th century onwards (Bainbridge 1996). As the royalty owners were often the large estates, such as the Ford Estate, it is likely that this represents a phase of improvement associated with the increased stability of the area following the Union of the Crowns alongside the agricultural improvement discussed above. It is possible that the industrial hamlet at Ford Forge is also the result of aristocratic improvement. This included a wide range of industries including, spade making, textiles and a corn mill (HER 1837).

Brick and tile works are also fairly common. Those listed in the HER date to the 18th and 19th centuries (HER 1942, 19525, 2174, 20468). It is likely that these produced bricks and drainage tiles for the agricultural and industrial improvement programmes carried out by estates in the area. Indeed, that at Ford (HER 1942) was established by the Ford estate. A small amount of textile processing is also represented. The dyeing and fulling facilities at Ford Forge have been mentioned above. In addition to these there was a dyeworks and steam laundry at Wooler (HER 1679, 24055). In addition to these a weaver appears in the Milfield 1841 census (The Genealogist 2018) and a row of 19th-century cottages in the south west of the village with very large windows on their first floor may be weavers cottages.

The remainder of the industrial archaeology relates either to industries which served the local market or those which processed the region's agricultural products. Of the latter category the most common are water corn mills. Two (HER 20459 and 15709) are within zone A. In general the distribution correlates closely with the lowland part of the study area. Two sites, Earle Mill (HER 1591) and Heatherslaw (HER 1881) have associated corn drying kilns and the latter retains some of its machinery. A 19th-century brewery at Wooler represents a different form of agricultural product processing, though it is not clear if any above ground remains survive (HER 1700). Four saw pits are also listed in the HER, all of which were recorded from the first edition Ordnance Survey map. It is possible that these represent a response to the planting of trees by large estates on difficult pieces of enclosed upland which was common in the area from the early 19th century (O'Donnell 2015). If so, these also represent the industrial processing of essentially agricultural products.

Other industries represented in the archaeological record probably served the local community. These include four 19th-century smithies; Humbleton, Kilham, Kirknewton and Ford (HER 20502, 14741, 14811, 1926). That at Kirknewton appears to be fairly well preserved. Quarries, which are common in the study area also probably served the local community. That at Ford (HER 13773) is well preserved and dates to the 19th and 20th centuries. Others (e.g. HER 1993 and 13246) are undateable unless they appear on early

edition Ordnance Survey maps. It is likely that earlier quarries are present however, and indeed enclosure awards often specified a quarry site.

Like industry and agriculture, the settlement pattern follows fairly closely the divide between the two different landscape areas. In the lowlands to the north small nucleated settlements predominate many of which have origins long before the post-medieval period (see above), but which formed, and indeed form, the backbone of settlement in the area during the modern era. Some of these are closed villages and were developed as model villages by their owners. The two clearest examples of this in the study area are Ford and Milfield. Such villages are a distinctive feature of the north Northumberland landscape in general as it is dominated by aristocratic landowners. Between these villages there are isolated farmsteads most of which were built after enclosure (O'Donnell 2015, Dixon 1985). In some cases the formation of these isolated farmsteads and their associated workers cottages led to the desertion of nucleated villages (O'Donnell 2015, Dixon 1985; further south, West Whelpington experienced a similar process and has been subject to extensive archaeological examination Evans et al. 1988). Several of the deserted settlements which resulted from this process are known within the study area, including Old Yeavering itself and Langeton immediately to the north of it (HER 2015, 14813, 2017). Consequently, the post-medieval period is one of significant change in the regional settlement pattern. In the upland area to the south settlement is more restricted and consists of isolated farmsteads in the river valleys.

Although primarily rural the area does contain two market towns at Wooler and Cornhill-on-Tweed. These seem to have served the rural communities as centres for marketing produce and for obtaining goods and services. Standing buildings in them attest to the services they provided; each has a 19th-century livestock auction mart (HER 20721, 1686) as well as a range of 19th-century pubs, shops and public buildings (e.g. HER 1624, 1621, 1627). Consequently, zone B presents an opportunity for examining the local settlement system as a unit.

Mansions and country houses form another important settlement type. Some like Ford and Coupland Castles (HER 2018) developed from medieval settlements and were the seats of aristocratic families through the 18th and 19th centuries. Others are primarily creations of the 18th or 19th century, such as Ewart Park (HER 2173) and Etal Manor (HER 1854) and Fenton Park (HER 2172). These sites mostly include many associated structures and landscaped grounds. Others were built during the second half of the 19th and early 20th century by Tyneside industrialists. This category includes Flodden Lodge built 1865 (HER 1889), Hethpool House built 1919 (HER 655), Westnewton House (HER 14814) and Pallinsburn which includes some 18th-century fabric but is largely a 1912 rebuild (HER 745). This category is interesting and probably represents a Romantic reaction to the history and topography of the area as well as the potential for elite recreation such as hunting and fishing. In some cases reuse of medieval and post-medieval monuments in these houses as at Westnewton where there is a tower in the

grounds and Pallinsburn makes the association with the history of the area explicit as does the use of revivalist styles such as Arts and Crafts and neo-Jacobean. High-status elite sites are poorly understood nationally and have been identified as a priority for research in the region in the revised Regional Research Framework for the 20th century (http://www.nerrf.net/project-documents.html – accessed 20/09/2018).

Transport is an important consideration in this area as the hills to the south and west mean that it is not as easily accessible as points on the coastal plain. This is especially significant for the marketing of the area's agricultural and industrial produce. On the other hand, the apparently isolated and rural nature of the area combined with its actual accessibility by railway was probably a draw for the late 19th- and early 20th-century mansion builders discussed above.

Road transport is significant throughout the post-medieval period, but the evidence is poorly understood and partial. The current A697 which runs north-west to south-east through Cornhill and Wooler is the largest road in the study area. Its significance is marked by a good set of 19th-century milestones which may indicate attempts at road improvement in the 19th century (e.g. HER 770, 776, 777, 1598). Another set of 19th-century milestones follows the B3635 which links the study area to the A1. Two railways were built in the study area in the 19th century; the Kelso branch of the Newcastle and Berwick Railway in 1849 and the Alnwick to Coldstream branch of the North Eastern Railway in 1887. Both of these railways closed in the mid-1960s during national cuts to the rail network. These greatly facilitated the marketing of agricultural produce as attested by the auction marts at Coldstream (HER 792) and Wooler (HER 1686) of which the latter survives, though in both cases it is likely that the settlements had functioned as marketing centres prior to the railway. Some of the railway infrastructure survives in the form of stations at Wooler, Akeld and Kirknewton, though that at Coldstream has been demolished. Other infrastructure such as signal boxes at Bendor Crossing and Kirknewton Station (HER 1586 and 2119), workers cottages at Langham bridge (HER 912) and a set of crossing keepers' cottages on the Alnwick to Coldstream NER branch (HER 2121, 1666, 1667, 791, 911, 2118).

Conflict is another major theme in the post-medieval archaeology of the study area especially during the 16th century. We have seen that instability during the 16th century impacted the economy of the area. There is some archaeological evidence for this. The Portable Antiquities Scheme lists eight finds of shot or musket balls in the area. These cluster tightly with other PAS finds and so probably represent the activities of particular detectorists or particular rallies. The HER includes another similar findspot in the south of the study area (HER 1596). In addition to these, a dagger and other post-medieval artefacts were found near North Coldside during the 19th century (HER 859), though the nature of these finds is difficult to assess on the available evidence. There is also indirect evidence for conflict in the form of bastles and tower houses of which there are nine in the study area (e.g. HER 1492, 1499, 1529, 2137, 860, 1557), as well as larger castles at

Ford and Etal. The accession of James I to the English throne ended the period of instability and some of the fortified sites such as Etal Castle and Fenton Tower were abandoned at this time. The only military sites representing the period between the 17th and 20th centuries are a set of 19th-century militia butts (1643).

Military remains become common again in the 20th century. Little relating to the First World War survives in the study area though there was an airfield from 1917 at Milfield (HER 26262). The vast majority of defence sites in the study area relate to the Second World War. Most of these are the defences of Wooler which was a nodal point between two stop lines and a brigade HQ (Foot 2006, 593-598). The surviving parts of these defences consist mostly of pillboxes and a reasonably well preserved. In addition to Wooler RAF Milfield, within area A, was a significant Second World War military site. This was used for training pilots in ground attack and developing the weapons and tactics for ground attack during the late Second World War. Ground attack has become a major part of air warfare so, as a major centre for training at a key point in the development of this type of warfare RAF Milfield is potentially very significant. The airfield itself is poorly preserved, though it does form part of complex of sites including camps and bombing ranges some of which are within the study area (HER 26942, 2109, 2110). The association of this group of sites may raise the value of the remains at Milfield despite their poor preservation. Finally, there is a Cold War Royal Observer Corps monitoring post at Milfield, though according to the HER this has been destroyed (HER 14629, 14631). This is regrettable as it had been reported as being in good condition and is a type of site which has not been subject to national or regional survey and is probably undergoing significant attrition.

The archaeology of post-medieval religion in the study area is unremarkable. A fairly large number of non-conformist chapels of the 18th and 19th centuries are present in the area. Of these the majority are Presbyterian which is perhaps unsurprising given the proximity to the Scottish border (HER 901, 1696, 1905, 1935, 1617). In addition, there are three Primitive Methodist chapels (HER 2064, 2065 and 1855) of which the latter is in Milfield. There is also one Roman Catholic church in Wooler built in 1856 (HER 1615). The Church of England is of course also well represented. The most interesting post-medieval Church of England site is the Barmoor chapel of the 17th century of which sadly little survives (HER 1955). A number of churches were restored during the 19th-century religious revival (HER 2146, 772). A new church was built in Etal for Lady Fitz Clarence in 1858 showing the importance of the aristocracy as in other aspects of the region's archaeology (HER 1900).

The post-medieval archaeology of the study area is primarily interesting from a landscape point of view. The Tweedside area is a unique part of Northumberland and would benefit from a longue-durée investigation in order to examine the landscape of the 16th century and late medieval period and its relationship to the landscape of industrial and agricultural improvement that developed from the 17th century onwards. This would

also address improvement prior to the 18th century which has been neglected in most research to date (e.g. O'Donnell 2015). The relationship between Tweedside and the adjacent uplands in the south of the study area which have a very different landscape should also be included in any such study.

13. Appendices

13.1 Appendix A1

List of aerial photographs for Yeavering and the study area.

Oblique Photos

PHOTO_ID	VIEW_DIRN	PHOTO_SUBJ	Z00KM_SQUA	NGRE	NGRN	PHOTO_DATE
BG32		Hill fort, Yeavering Bell	NT=36	392800	629300	Sat, 10 Jul 1948
BG33		Hill fort, Yeavering Bell	NT=36	392800	629300	Sat, 10 Jul 1948
BG34		Hill fort, Yeavering Bell	NT=36	392800	629300	Sat, 10 Jul 1948
BG35		Native settlement, 0.33 miles S of Kirknewton	NT=36	391600	629700	Sat, 10 Jul 1948
DN49		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN50		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN51		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN52		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN53		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN54		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN55		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN56		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN57		Cropmarks, buildings and native enclosure, Old Yeavering	NT=36	392600	630500	Sat, 9 Jul 1949
DN58		Cropmarks, Yeavering	NT=36	393800	630100	Sat, 9 Jul 1949
GT 73-80		Old Yeavering (8 photos)	NT=36	392700	630500	16 Jul 1951
MP1	SW	Glen valley, near Kirknewton, looking SW	NT=36	392800	630800	Wed, 22 Jul 1953
MP2		Cropmark, Old Yeavering	NT=36	392600	630500	Wed, 22 Jul 1953
MP3		Cropmark, Old Yeavering	NT=36	392600	630500	Wed, 22 Jul 1953
MP4	NW	Moorland vegetation, near Lanton, looking NW	NT=36	391800	631300	Wed, 22 Jul 1953
MP5	NW	Moorland vegetation, near Lanton, looking NW	NT=36	391800	631300	Wed, 22 Jul 1953
MP6	NW	Moorland vegetation, near Lanton, looking NW	NT=36	391800	631300	Wed, 22 Jul 1953
TU40		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU41		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU42		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU43		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU44		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956

TU45		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU46		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU47		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Tue, 31 Jul 1956
TU51		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU52		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU53		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU54		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956

Oblique Photos

PHOTO_ID	VIEW_DIRN	PHOTO_SUBJ	Z00KM_SQUA	NGRE	NGRN	PHOTO_DATE
TU55		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU56		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU57		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU58		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
TU59		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Thu, 2 Aug 1956
XG32		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Wed, 16 Jul 1958
XG33		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Wed, 16 Jul 1958
XG34		Crop marks, Dark Age site, Old Yeavering	NT=36	392600	630500	Wed, 16 Jul 1958
XG35	E	Hillfort, Yeavering Bell, looking E	NT=36	391500	629300	Wed, 16 Jul 1958
XG36	E	Hillfort, Yeavering Bell, looking E	NT=36	391500	629300	Wed, 16 Jul 1958
XG37		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG38		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG39		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG40		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG41		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG42		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG43		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG44		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG45		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
XG46		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
		Hillfort, Yeavering Bell	NT=36	392800	629300	Wed, 16 Jul 1958
AGG59		Cropmarks, 0.50 mile W of Yeavering	NT=36	392800	630300	Fri, 20 Jul 1962
AGG60		Cropmarks, 0.50 mile W of Yeavering	NT=36	392800	630300	Fri, 20 Jul 1962

AGG61		Cropmarks, Dark Age fort, Yeavering	NT=36	392600	630500	Fri, 20 Jul 1962
AGG62		Cropmarks, Dark Age fort, Yeavering	NT=36	392600	630500	Fri, 20 Jul 1962
AGG63		Cropmarks, SW of Coupland	NT=36	393600	630800	Fri, 20 Jul 1962
AKK14	W	Panorama near Yeavering, looking W	NT=36	393300	630500	Mon, 27 Jul 1964
AKK15		Native settlement, W of Yeavering	NT=36	393200	630500	Mon, 27 Jul 1964
AKK16		Native settlement, W of Yeavering	NT=36	393200	630500	Mon, 27 Jul 1964
APR82		Cropmarks, 1 mile ENE of Kirknewton	NT=36	393100	630600	Thu, 28 Jul 1966
APR83		Cropmarks, 1 mile ENE of Kirknewton	NT=36	393100	630600	Thu, 28 Jul 1966
AVZ 87-90		Dark Age settlement, Old Yeavering (4 photos)	NT=36	392600	630500	27 July 1968
AVZ 92-93		·iYeavering (2 photos)	NT=36	392600	630500	27 July 1968
AZD17		Dark Age Fort, Old Yeavering, 0.75 mile ENE of Kirknew ton	NT=36	392700	630400	Sat, 26 Jul 1969
AZD18		Dark Age Fort, Old Yeavering, 0.75 mile ENE of Kirknew ton	NT=36	392700	630400	Sat, 26 Jul 1969
AZD19		Dark Age Fort, Old Yeavering, 0.75 mile ENE of Kirknew ton	NT=36	392700	630400	Sat, 26 Jul 1969
AZD20		Dark Age Fort, Old Yeavering, 0.75 mile ENE of Kirknew ton	NT=36	392700	630400	Sat, 26 Jul 1969
BJV20		Dark Age settlement, Old Yeavering	NT=36	392600	630500	Wed, 19 Jul 1972
BJV21		Dark Age settlement, Old Yeavering	NT=36	392600	630500	Wed, 19 Jul 1972
BJZ7		Dark Age settlement, Old Yeavering	NT=36	392600	630500	Thu, 20 Jul 1972
BJZ8		Dark Age settlement, Old Yeavering	NT=36	392600	630500	Thu, 20 Jul 1972
BQM 86-88		Dark Age settlement, Old Yeavering (3 photos)	NT=36	392600	630500	20 July 1974
BTN38		Cropmarks, 1.5 miles E of Kirknewton	NT=36	393900	630100	Tue, 1 Jul 1975
BTN38		Cropmarks, 1.5 miles E of Kirknewton	NT=36	393900	630100	Tue, 1 Jul 1975
BTN39		Cropmarks, 1.5 miles E of Kirknewton	NT=36	393+900	630100	Tue, 1 Jul 1975
BTN39		Cropmarks, 1.5 miles E of Kirknewton	NT=36	393900	630100	Tue, 1 Jul 1975
BTN40		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Tue, 1 Jul 1975

Oblique Photos

PHOTO_ID	VIEW_DIRN	PHOTO_SUBJ	Z00KM_SQUA	NGRE	NGRN	PHOTO_DATE
BTN40		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Tue, 1 Jul 1975
BUQ50		Country house, Coupland Castle	NT=36	393500	631200	Sat, 19 Jul 1975
BUQ51		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Sat, 19 Jul 1975
BUQ52		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Sat, 19 Jul 1975
BUQ53		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Sat, 19 Jul 1975
BUQ54		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Sat, 19 Jul 1975
CAB58		Henge Monument under excavation, Old Yeavering	NT=36	392800	630400	Tue, 20 Jul 1976
CAB59		Henge Monument under excavation, Old Yeavering	NT=36	392800	630400	Tue, 20 Jul 1976
CAB60		Cropmarks, 1 mile ENE of Kirknewton	NT=36	393100	630600	Tue, 20 Jul 1976
CAB61		Cropmarks, 1 mile ENE of Kirknewton	NT=36	393100	630600	Tue, 20 Jul 1976
CAB62		Cropmarks, 1.5 miles ENE of Kirknewton	NT=36	393900	630100	Tue, 20 Jul 1976
CAB63		Cropmarks, 1.5 miles ENE of Kirknewton	NT=36	393900	630100	Tue, 20 Jul 1976
CAB64		Cropmarks, 1.5 miles ENE of Kirknewton	NT=36	393900	630100	Tue, 20 Jul 1976
CAT84		Cropmarks, ESE of Yeavering	NT=36	393800	630400	Fri, 30 Jul 1976
CAT85		Cropmarks, ESE of Yeavering	NT=36	393800	630400	Fri, 30 Jul 1976
CCY31		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Tue, 19 Jul 1977
CCY32		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Tue, 19 Jul 1977
CCY33		Dark Age Fort, Old Yeavering	NT=36	392700	630500	Tue, 19 Jul 1977
CKD77		Dark Age Settlement, Old Yeavering	NT=36	392600	630500	Sun, 29 Jul 1979
CKD78		Dark Age Settlement, Old Yeavering	NT=36	392600	630500	Sun, 29 Jul 1979
CLT76		Earthworks, 1.5 miles SE of Kirknewton	NT=36	393700	629200	Thu, 15 May 1980
CLT77		Earthworks, 1.5 miles SE of Kirknewton	NT=36	393700	629200	Thu, 15 May 1980
CLT78		Earthworks, 1.5 miles SE of Kirknewton	NT=36	393700	629200	Thu, 15 May 1980
CLT79		Earthworks, 1.5 miles SE of Kirknewton	NT=36	393700	629200	Thu, 15 May 1980
CLT80		Earthworks, 1.5 miles SE of Kirknewton	NT=36	393700	629200	Thu, 15 May 1980

Additional Oblique Photos held by Cambridge University (CUCAP)

ID	Subject	Eastings	Northings	Longitude	Latitude	Photo Date
B47	Yeavering Bell	392800	629800	-2.115711	55.561829	21/07/1945
B48	Yeavering Bell	392800	629800	-2.115711	55.561829	21/07/1945
B49	Yeavering Bell	392800	629800	-2.115711	55.561829	21/07/1945
B50	Coupland Castle	393500	631200	-2.104646	55.574417	21/07/1945
B51	Yeavering Bell	392800	629300	-2.115698	55.557335	21/07/1945
B52	Yeavering Bell	392800	629300	-2.115698	55.557335	21/07/1945
B53	Yeavering Bell	392800	629300	-2.115698	55.557335	21/07/1945
B54	Yeavering Bell	392800	629300	-2.115698	55.557335	21/07/1945
G1	Hillfort, Yeavering Bell	392800	629300	-2.115698	55.557335	31/07/1945

G2	Hillfort, Yeavering Bell	392800	629300	-2.115698	55.557335	31/07/1945
G3	Coupland Castle	393500	631200	-2.104646	55.574417	31/07/1945
R6	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
R7	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
R8	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
R9	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
R10	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
R11	Coupland Castle	393500	631200	-2.104646	55.574417	02/08/1946
T74	Coupland Castle	393500	631200	-2.104646	55.574417	13/07/1947
T75	Coupland Castle	393500	631200	-2.104646	55.574417	13/07/1947
T76	Coupland Castle	393500	631200	-2.104646	55.574417	13/07/1947
T77	Coupland Castle	393500	631200	-2.104646	55.574417	13/07/1947
DD1	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
DD2	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
DD3	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
DD4	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
DD5	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
DD6	Coupland Castle, NW of Wooler	393500	631200	-2.104646	55.574417	17/06/1948
BG29	Coupland Castle	393500	631200	-2.104646	55.574417	10/07/1948
BG30	Coupland Castle	393500	631200	-2.104646	55.574417	10/07/1948
BG31	Coupland Castle	393500	631200	-2.104646	55.574417	10/07/1948
DN59	Coupland Castle	393500	631200	-2.104646	55.574417	09/07/1949
MO86	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO87	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO88	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO89	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO90	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO91	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO92	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
MO93	Coupland Castle	393500	631200	-2.104646	55.574417	22/07/1953
XG29	Coupland Castle	393500	631200	-2.104646	55.574417	16/07/1958
XG30	Coupland Castle	393500	631200	-2.104646	55.574417	16/07/1958
XG31	Coupland Castle	393500	631200	-2.104646	55.574417	16/07/1958
AKK17	Coupland Castle	393500	631200	-2.104646	55.574417	27/07/1964
AKK18	Cropmarks, linear ditches, 0.75 mile NE of Lanton	393400	631700	-2.106245	55.578907	27/07/1964
AKK19	Cropmarks, linear ditches, 0.75 mile NE of Lanton	393400	631700	-2.106245	55.578907	27/07/1964
ACB76	Coupland Castle	393500	631200	-2.104646	55.574417	19/07/1960
ACB77	Coupland Castle	393500	631200	-2.104646	55.574417	19/07/1960
AVZ91	Cropmarks, Old Yeavering, 0.50 mile ENE of Kirknewton	392100	630500	-2.12683	55.568108	27/07/1968
BDB65	Crop marks, 0.75 mile, SSE of Coupland	394000	630000	-2.09669	55.563641	10/07/1970
BDB66	Crop marks, 0.5 mile, SE of Coupland	394000	630300	-2.096697	55.566338	10/07/1970
BDB67	Dark Age settlement, Old Yeavering, 0.75 mile, ENE of Kirknewton	392600	630500	-2.118901	55.568115	10/07/1970
BDB68	Dark Age settlement, Old Yeavering, 0.75 mile, ENE of Kirknewton	392600	630500	-2.118901	55.568115	10/07/1970

BDB69	Dark Age settlement, Old Yeavering, 0.75 mile, ENE of Kirknewton	392600	630500	-2.118901	55.568115	10/07/1970
BDB70	Dark Age settlement, Old Yeavering, 0.75 mile, ENE of Kirknewton	392600	630500	-2.118901	55.568115	10/07/1970
L20	Hillfort, Yeavering Bell (21 fogged)	392800	629300	-2.115698	55.557335	26/07/1976
L21	Hillfort, Yeavering Bell (21 fogged)	392800	629300	-2.115698	55.557335	26/07/1976
L22	Hillfort, Yeavering Bell (21 fogged)	392800	629300	-2.115698	55.557335	26/07/1976
L23	Hillfort, Yeavering Bell (21 fogged)	392800	629300	-2.115698	55.557335	26/07/1976

Additional Oblique Photos recorded at the Northumberland HER and the McCord Centre

Photo ID	NGR	Easting	Northing	Archive Log	Date Flown	C/B	NMR/SMR no
NT9034S 5466/38	NT900345	390000	634500	N. UNIVERSITY	6/7/89	B	
NT9034Q TMG/5461/68	NT900348	390000	634800	N. UNIVERSITY	22/6/89	B	
NT9034P TMG/5461/68	NT900348	390000	634800	N. UNIVERSITY	24/6/89	B	
NT9034M TMG/5527/31	NT901342	390100	634200	N. UNIVERSITY	24/6/89	B	
NT9034L TMG/5527/30	NT901344	390100	634400	N. UNIVERSITY	24/6/89	B	
NT9034N TMG/5527/89	NT901344	390100	634400	N. UNIVERSITY	24/6/89	B	
NT9034T 5466/39	NT901344	390100	634400	N. UNIVERSITY	6/7/89	B	
NT903K TMG/5527/29	NT902344	390200	634400	N. UNIVERSITY	24/6/89	B	
NT9034A SF/1358/16	NT902347	390200	634700	N. UNIVERSITY	17/8/78	B	1
NT9034C SF/1358/18	NT902348	390200	634800	N. UNIVERSITY	17/8/78	B	1
NT9034C SF/1358/23	NT902348	390200	634800	N. UNIVERSITY	17/8/78	B	1
106G/UK/765/3017	NT9033	390000	633000	NCC	3/9/45	B	
106G/UK/765/3016	NT9033	390000	633000	NCC	3/9/45	B	
NT90340 TMG/5527/33	NT903343	390300	634300	N. UNIVERSITY	24/6/89	B	
NT9034D SF/1366/25	NT903344	390300	634400	N. UNIVERSITY	18/8/78	B	
NT9034E SF/1366/26	NT903344	390300	634400	N. UNIVERSITY	18/8/78	B	
NT9034U 5466/40	NT903346	390300	634600	N. UNIVERSITY	6/7/89	B	
NT9034R 5466/37	NT903347	390300	634700	N. UNIVERSITY	6/7/89	B	1
NT9031A A/29046	NT905313	390500	631300	N. UNIVERSITY	22/7/86	B	51
NT9031B A/29047	NT905313	390500	631300	N. UNIVERSITY	22/7/86	B	51
NT9034F SF/1699/25	NT908346	390800	634600	N. UNIVERSITY	31/7/79	B	52
NT9034G SF/1699/26	NT908346	390800	634600	N. UNIVERSITY	31/7/79	B	52
NT9034H SF/1699/27	NT908346	390800	634600	N. UNIVERSITY	31/7/79	B	52
NT9034I SF/1699/28	NT908346	390800	634600	N. UNIVERSITY	31/7/79	B	52
NT9034J SF/1699/29	NT908346	390800	634600	N. UNIVERSITY	31/7/79	B	52

106G/UK/765/3015	NT9133	391000	633000	NCC	3/9/45	B	
NT9134I 5558/55	NT914347	391400	634700	N. UNIVERSITY	31/7/89	B	
NT9130B 5466/42	NT914308	391400	630800	N. UNIVERSITY	6/7/89	B	
NT9134L TMG/5625/25	NT914347	391400	634700	N. UNIVERSITY	17/7/89	B	53
NT9134J TMG/5625/27	NT914349	391400	634900	N. UNIVERSITY	17/7/89	B	53
NT9134K TMG/5625/26	NT914349	391400	634900	N. UNIVERSITY	17/7/89	B	53
NT9134M TMG/5625/24	NT914349	391400	634900	N. UNIVERSITY	17/7/89	B	53
NT9143N TMG/5625/23	NT914349	391400	634900	N. UNIVERSITY	17/7/89	B	53
NT91340 TMG/5625/22	NT914349	391400	634900	N. UNIVERSITY	17/7/89	B	53
NT9134A A/069571/47	NT914349	391400	634900	N. UNIVERSITY	c. 1970	B	53
NT9134B A/069571/48	NT914349	391400	634900	N. UNIVERSITY	c. 1970	B	53
NT9134C A/069571/49	NT914349	391400	634900	N. UNIVERSITY	c. 1970	B	53
NT9134D A/069656/142	NT914349	391400	634900	N. UNIVERSITY	c. 1970	B	53
NT9134E A/069656/143	NT914349	391400	634900	N. UNIVERSITY	c. 1970	B	53
NT9134H 5558/54	NT915347	391500	634700	N. UNIVERSITY	31/7/89	B	
NT9130A 5466/41	NT918308	391800	630800	N. UNIVERSITY	6/7/89	B	
NT9230D DN55	NT920302	392000	630200	N. UNIVERSITY	C. 1949	B	
NT9232K 5465/68	NT921320	392100	632000	N. UNIVERSITY	6/7/89	B	
NT9230E DN57	NT9230	392000	630000	N. UNIVERSITY	C. 1949	B	
106G/UK/765/3014	NT9233	392000	633000	NCC	3/9/45	B	
NT9232J 5465/67	NT923322	392300	632200	N. UNIVERSITY	6/7/89	B	
106G/UK/765/3013	NT9234	392000	634000	NCC	3/9/45	B	
NT9231A SF/1685/18	NT924315	392400	631500	N. UNIVERSITY	2/8/79	B	
NT9232I 5465/66	NT924321	392400	632100	N. UNIVERSITY	6/7/89	B	31
NT9432T SF/1206/34	NT924323	392400	632300	N. UNIVERSITY	26/7/77	B	42
NT9234B 5465/83	NT924349	392400	634900	N. UNIVERSITY	6/7/89	B	
NT9230AG SF/3040/369	NT925306	392500	630600	N. UNIVERSITY	7/7/86	B	11
NT9230AP TMG/5461/14	NT925306	392500	630600	N. UNIVERSITY	22/6/89	B	11
NT9231B SF/1685/16	NT925314	392500	631400	N. UNIVERSITY	2/8/79	B	
NT9231C SF/1685/17	NT925314	392500	631400	N. UNIVERSITY	2/8/79	B	
NT9231D SF/1685/19	NT925314	392500	631400	N. UNIVERSITY	2/8/79	B	
NT9231H 5465/69	NT925318	392500	631800	N. UNIVERSITY	6/7/89	B	31
NT9234C 5465/84	NT925348	392500	634800	N. UNIVERSITY	6/7/89	B	
NT9230S SF/2019/27	NT926304	392600	630400	N. UNIVERSITY	21/7/81	B	II

NT9230L SF/2017/24A	NT926304	392600	630400	N. UNIVERSITY	27/7/81	B	II
NT9230T SF/2019/28	NT926304	392600	630400	N. UNIVERSITY	30/7/81	B	II
NT9230U SF/2019/29	NT926304	392600	630400	N. UNIVERSITY	30/7/81	B	II
NT9230AI SF/3040/367	NT926304	392600	630400	N. UNIVERSITY	7/7/86	B	40
NT9230AJ SF/3040/366	NT926304	392600	630400	N. UNIVERSITY	7/7/86	B	40
NT9230AL SF/3040/346A	NT926304	392600	630400	N. UNIVERSITY	7/7/86	B	40
NT9230Y DN53	NT926306	392600	630600	N. UNIVERSITY	9/7/49	B	II
NT9231E SF/2058/22	NT926318	392600	631800	N. UNIVERSITY	20/7/82	B	45
NT9231F SF/2058/23	NT926319	392600	631900	N. UNIVERSITY	20/7/82	B	45
NT9233A DD16	NT926339	392600	633900	N. UNIVERSITY	2/7/49	B	5
NT9233B AKK26	NT926339	392600	633900	N. UNIVERSITY	27/7/64	B	5
NT9234A TNG/3885/6	NT926340	392600	634000	N. UNIVERSITY	18/7/88	B	5
NT9234D 3885/7	NT926340	392600	634000	N. UNIVERSITY	18/7/88	B	
NT9230AM SF/3040/363A	NT927303	392700	630300	N. UNIVERSITY	7/7/86	B	40
NT9230N SF/2017/26A	NT927304	392700	630400	N. UNIVERSITY	27/7/81	B	II
NT92300 SF/2017/27A	NT927304	392700	630400	N. UNIVERSITY	27/7/81	B	II
NT9230AA TU43	NT927305	392700	630500	N. UNIVERSITY	2/8/56	B	11
NT9230AB TU58	NT927305	392700	630500	N. UNIVERSITY	2/8/56	B	11
NT9230B SF/1208/1	NT927305	392700	630500	N. UNIVERSITY	26/7/77	B	II
NT9230C SF/1208/2	NT927305	392700	630500	N. UNIVERSITY	26/7/77	B	II
NT9230AO TMG/5461/13	NT927305	392700	630500	N. UNIVERSITY	22/6/89	B	11
NT92302 DN54	NT927306	392700	630600	N. UNIVERSITY	9/7/49	B	11
NT9230A TU40	NT927306	392700	630600	N. UNIVERSITY	2/8/56	B	II
NT9230AK SF/3040/365	NT927306	392700	630600	N. UNIVERSITY	7/7/86	B	11
NT9230X DN50	NT927306	392700	630600	N. UNIVERSITY	9/7/49	B	II
NT9230AM SF/3040/362A	NT927307	392700	630700	N. UNIVERSITY	7/7/86	B	11
NT9230AQ TMG/5461/15	NT927307	392700	630700	N. UNIVERSITY	22/6/89	B	11
NT9232B BJV8	NT927320	392700	632000	N. UNIVERSITY	19/7/72	B	46
NT9232H 3039/396A	NT927320	392700	632000	N. UNIVERSITY	7/7/86	B	46
NT9232L 5465/70	NT927320	392700	632000	N. UNIVERSITY	6/7/89	B	46
NT9232G 3039/396	NT927321	392700	632100	N. UNIVERSITY	7/7/86	B	46
NT9232A GT82	NT927322	392700	632200	N. UNIVERSITY	16/7/51	B	46
NT9232M 5465/73	NT927322	392700	632200	N. UNIVERSITY	6/7/89	B	46
NT9230AE SF/1699/30	NT928304	392800	630400	N. UNIVERSITY	31/7/79	B	40

NT9230AF SF/1685/3	NT928304	392800	630400	N. UNIVERSITY	2/8/79	B	40
NT9230F SF/1974/203	NT928304	392800	630400	N. UNIVERSITY	21/7/81	B	II
NT9230G SF/1974/204	NT928304	392800	630400	N. UNIVERSITY	21/7/81	B	II
NT9230Q SF/2026/33	NT928304	392800	630400	N. UNIVERSITY	21/7/81	B	II
NT9230R SF/2026/34	NT928304	392800	630400	N. UNIVERSITY	21/7/81	B	II
NT9230M SF/2017/25A	NT928304	392800	630400	N. UNIVERSITY	27/7/81	B	II
NT9230P SF/2017/28A	NT928304	392800	630400	N. UNIVERSITY	27/7/81	B	II
NT9230H SF/2011/208	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230H SF/2011/209	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230J SF/2011/210	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230K SF/2011/211	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230V SF/2019/30	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230W SF/2019/31	NT928304	392800	630400	N. UNIVERSITY	30/7/81	B	II
NT9230AC BDB67	NT928305	392800	630500	N. UNIVERSITY	10/7/70	B	11
NT9230AD BDB70	NT928305	392800	630500	N. UNIVERSITY	10/7/70	B	11
NT9231G 303939A	NT928319	392800	631900	N. UNIVERSITY	7/7/86	B	45
NT9232C SF/2234/34	NT928320	392800	632000	N. UNIVERSITY	20/7/82	B	46
NT9232D SF/2234/35	NT928320	392800	632000	N. UNIVERSITY	20/7/82	B	46
NT9232E SF/2234/36	NT928320	392800	632000	N. UNIVERSITY	20/7/82	B	46
NT9232F SF/2234/37	NT928320	392800	632000	N. UNIVERSITY	20/7/82	B	46
NT9332AX SF/3041/877	NT930322	393000	632200	N. UNIVERSITY	16/6/86	B	
NT9332AX SF/3041/875	NT930322	393000	632200	N. UNIVERSITY	16/6/86	B	
NT9332AY SF/3041/875	NT930322	393000	632200	N. UNIVERSITY	16/6/86	B	
NT9330B APR8Z	NT931306	393100	630600	N. UNIVERSITY	28/7/66	B	
NT9330L TMG/5461/12	NT931307	393100	630700	N. UNIVERSITY	22/6/89	B	
NT9331 V 5465/71	NT931319	393100	631900	N. UNIVERSITY	6/7/89	B	30
NT9332CF 5465/72	NT931320	393100	632000	N. UNIVERSITY	6/7/89	B	30
NT9332AB SF/1685/10	NT931322	393100	632200	N. UNIVERSITY	2/8/79	B	30
NT9332AC SF/1685/22	NT931322	393100	632200	N. UNIVERSITY	2/8/79	B	30
NT9332AU SF/3041/879	NT931322	393100	632200	N. UNIVERSITY	16/6/86	B	30
NT9332AV SF/3041/879	NT931322	393100	632200	N. UNIVERSITY	16/6/86	B	30
NT9332BM A/29043	NT931322	393100	632200	N. UNIVERSITY	22/7/86	B	30
NT9322BN A/29044	NT931322	393100	632200	N. UNIVERSITY	22/7/86	B	30
NT9332B0 A/29045	NT931322	393100	632200	N. UNIVERSITY	22/7/86	B	30

NT9332CA 5619/36	NT931322	393100	632200	N. UNIVERSITY	16/7/89	B	30
NT9332CB 5619/37	NT931322	393100	632200	N. UNIVERSITY	16/7/89	B	30
NT9334AX SF/2058/36A	NT931343	393100	634300	N. UNIVERSITY	20/7/82	B	50
NT9331M SF/1685/11	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331N SF/1685/12	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331O SF/1685/13	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331P SF/1685/14	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331Q SF/1685/15	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331A SF/1680/17	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331B SF/1680/19	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331C SF/1680/20	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331D SF/1680/21	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331E SF/1680/22	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331F SF/1680/23	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331G SF/1680/25	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331H SF/1680/26	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331I SF/1680/28	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331I SF/1685/4	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331K SF/1685/5	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9331L SF/1685/9	NT932314	393200	631400	N. UNIVERSITY	2/8/79	B	35
NT9332C JV71	NT932322	393200	632200	N. UNIVERSITY	14/7/52	B	30
NT9332H BJZ4	NT932322	393200	632200	N. UNIVERSITY	20/7/72	B	30
NT9332Z SF/1680/24	NT932322	393200	632200	N. UNIVERSITY	2/8/79	B	30
NT9332AA SF/1680/27	NT932322	393200	632200	N. UNIVERSITY	2/8/79	B	30
NT9332CG TMG/5625/21	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9332CH TMG/5625/19	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9332CI TMG/5625/20	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9332CJ TMG/5625/16	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9332CK TMG/5625/17	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9332CL TMG/5625/18	NT932322	393200	632200	N. UNIVERSITY	17/7/89	B	30
NT9334AI SF/1679/55	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AJ SF/1693/12A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AK SF/1693/13A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	30
NT9334AL SF/1693/14A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AM SF/1693/15A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AN SF/1693/16A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50

NT9334AO SF/1693/17A	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AC SF/1679/49	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AD SF/1679/50	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AE SF/1679/51	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AF SF/1679/52	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AG SF/1679/53	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334AH SF/1679/54	NT932344	393200	634400	N. UNIVERSITY	28/8/79	B	50
NT9334BA SF/2058/39A	NT932344	393200	634400	N. UNIVERSITY	20/7/82	B	50
NT9334BA SF/2058/39A	NT932344	393200	634400	N. UNIVERSITY	20/7/82	B	50
NT9334BB SF/2234/17	NT932344	393200	634400	N. UNIVERSITY	20/7/82	B	50
NT9334BC SF/2234/21	NT932344	393200	634400	N. UNIVERSITY	20/7/82	B	50
NT9334AY SF/2058/37A	NT932345	393200	634500	N. UNIVERSITY	20/7/82	B	50
NT9334V SF/1207/1	NT932346	393200	634600	N. UNIVERSITY	26/7/77	B	50
NT9334W SF/1207/2	NT932346	393200	634600	N. UNIVERSITY	26/7/77	B	50
NT9334X SF/1209/15	NT932346	393200	634600	N. UNIVERSITY	26/7/77	B	50
NT9334Y SF/1209/16	NT932346	393200	634600	N. UNIVERSITY	26/7/77	B	50
NT9334Z SF/1358/3	NT932346	393200	634600	N. UNIVERSITY	17/8/78	B	50
NT9334AA SF/1358/4	NT932346	393200	634600	N. UNIVERSITY	17/8/78	B	50
NT9331U 5465/65	NT933316	393300	631600	N. UNIVERSITY	6/7/89	B	35
NT9332AL A/069571/60	NT933321	393300	632100	N. UNIVERSITY	C. 1970	B	30
NT9332AM A/076367/23	NT933321	393300	632100	N. UNIVERSITY	C. 1971	B	30
NT9332K BQY80	NT933322	393300	632200	N. UNIVERSITY	31/7/74	B	30
NT9332I AZD10	NT933323	393300	632300	N. UNIVERSITY	26/7/67	B	30
NT9332J BJ22	NT933323	393300	632300	N. UNIVERSITY	20/7/72	B	30
NT9334AS SF/2058/32	NT933345	393300	634500	N. UNIVERSITY	20/7/82	B	49
NT9334AT SF/2058/33	NT933345	393300	634500	N. UNIVERSITY	20/7/82	B	49
NT9334AU SF/2058/34	NT933345	393300	634500	N. UNIVERSITY	20/7/82	B	49
NT9334BG SF/2225/148	NT933345	393300	634500	N. UNIVERSITY	1/9/82	B	49
NT9334BH SF/2225/149	NT933345	393300	634500	N. UNIVERSITY	1/9/82	B	49
NT9334U BDB86	NT933346	393300	634600	N. UNIVERSITY	20/7/72	B	49,50
NT9334AV SF/2058/35	NT933346	393300	634600	N. UNIVERSITY	20/7/82	B	49
NT9334AW SF/2058/36	NT933346	393300	634600	N. UNIVERSITY	20/7/82	B	49
106G/UK/765/3011	NT9334	393000	634000	NCC	3/9/45	B	
106G/UK/765/3012	NT9334	393000	634000	NCC	3/9/45	B	
NT9332P SF/1360/21	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9330D SF/1363/1	NT934303	393400	630300	N. UNIVERSITY	17/8/78	B	
NT9330E SF/1363/2	NT934303	393400	630300	N. UNIVERSITY	17/8/78	B	

NT9330F SF/1363/3	NT934303	393400	630300	N. UNIVERSITY	17/8/78	B	
NT9330G SF/1363/4	NT934303	393400	630300	N. UNIVERSITY	17/8/78	B	
NT9330H SF/1363/5	NT934303	393400	630300	N. UNIVERSITY	17/8/78	B	
NT9332L SF/1360/16	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9332M SF/1360/17	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9332N SF/1360/18	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9332O SF/1360/20	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9332Q SF/1360/22	NT934322	393400	632200	N. UNIVERSITY	17/8/78	B	30
NT9332BV TMG/5001/27	NT934322	393400	632200	N. UNIVERSITY	19/6/89	B	30
NT9332BX TMG/5001/29	NT934322	393400	632200	N. UNIVERSITY	19/6/89	B	30
NT9334AZ SF/2058/38A	NT934346	393400	634600	N. UNIVERSITY	20/7/82	B	49
NT9334BD SF/2234/18	NT934346	393400	634600	N. UNIVERSITY	20/7/82	B	49
NT9334BE SF/2234/20	NT934346	393400	634600	N. UNIVERSITY	20/7/82	B	49
NT9334BF SF/2234/22	NT934346	393400	634600	N. UNIVERSITY	20/7/82	B	49
NT9334D A/069484/25	NT934346	393400	634600	N. UNIVERSITY	C. 1970	B	49
NT9334AB A/069484/25	NT934346	393400	634600	N. UNIVERSITY	C. 1970	B	49
NT9334A GT6	NT934349	393400	634900	N. UNIVERSITY	16/7/51	B	13
NT9334B AZD21	NT934349	393400	634900	N. UNIVERSITY	26/7/69	B	13
NT9334K BJV17	NT934349	393400	634900	N. UNIVERSITY	19/7/72	B	13
NT9334L BJY82	NT934349	393400	634900	N. UNIVERSITY	20/7/72	B	13
NT9334M SF/1208/38	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334N SF/1209/11	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT93340 SF/1209/12	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334P SF/1209/13	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334Q SF/1209/14	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334R SF/1209/17	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334S SF/1209/18	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334T SF/1209/19	NT934349	393400	634900	N. UNIVERSITY	26/7/77	B	13
NT9334C BDB85	NT934349	393400	634900	N. UNIVERSITY	C. 1970	B	13
NT9334E A/069484/27	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT9334F A/076690/17	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT9334G A/076690/22	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT9334H A/076690/23	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT933RI A/076690/24	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT9334J A/076690/25	NT934349	393400	634900	N. UNIVERSITY	C. 1971	B	13
NT9332BW TMG/5001/28	NT935322	393500	632200	N. UNIVERSITY	19/6/89	B	47,35
NT9332AD SF/1685/20	NT935326	393500	632600	N. UNIVERSITY	2/8/79	B	48

NT9332AE SF/1685/21	NT935326	393500	632600	N. UNIVERSITY	2/8/79	B	48
NT9332AN SF/1816/45	NT935326	393500	632600	N. UNIVERSITY	23/6/80	B	48
NT9332A AKK24	NT935327	393500	632700	N. UNIVERSITY	27/7/64	B	48
NT9332B BQM90	NT935327	393500	632700	N. UNIVERSITY	20/7/74	B	48
NT9330A AGG63	NT936308	393600	630800	N. UNIVERSITY	20/7/62	B	
NT9332BP TMG/5001/21	NT936322	393600	632200	N. UNIVERSITY	19/6/89	B	47
NT9332AG A/069484/29	NT936326	393600	632600	N. UNIVERSITY	3/8/70	B	48
NT9332AH A/069484	NT936326	393600	632600	N. UNIVERSITY	3/8/70	B	48
NT9332AI A/069571/9	NT936326	393600	632600	N. UNIVERSITY	6/8/70	B	48
NT9332AJ A/069571	NT936326	393600	632600	N. UNIVERSITY	6/8/70	B	48
NT9332AK A/069656/44	NT936326	393600	632600	N. UNIVERSITY	13/8/70	B	48
NT9332AF A/069484/28	NT936326	393600	632600	N. UNIVERSITY	C. 1970	B	48
NT9333K AKK25	NT936338	393600	633800	N. UNIVERSITY	27/7/64	B	43
NT9334BK A/29038	NT936340	393600	634000	N. UNIVERSITY	22/7/86	B	43
NT934BM A/29040	NT936340	393600	634000	N. UNIVERSITY	22/7/86	B	43
NT9334BL A/29039	NT936341	393600	634100	N. UNIVERSITY	22/7/86	B	43
NT9334AQ BQY70	NT936342	393600	634200	N. UNIVERSITY	31/7/74	B	38
NT9331R SF/1816/46	NT937317	393700	631700	N. UNIVERSITY	24/7/80	B	35
NT9331S SF/1816/47	NT937317	393700	631700	N. UNIVERSITY	24/7/80	B	35
NT9332R AKK18	NT937320	393700	632000	N. UNIVERSITY	27/7/64	B	35
NT9332S AKK19	NT937320	393700	632000	N. UNIVERSITY	27/7/64	B	35
NT9332CD 5465/62	NT937320	393700	632000	N. UNIVERSITY	6/7/89	B	35
NT9332W SF/1360/19	NT937322	393700	632200	N. UNIVERSITY	17/8/78	B	47,35
NT9332K SF/1360/23	NT937322	393700	632200	N. UNIVERSITY	17/8/78	B	47,35
NT9332Y SF/1360/24	NT937322	393700	632200	N. UNIVERSITY	17/8/78	B	47,35
NT9332BT TMG/5001/25	NT937322	393700	632200	N. UNIVERSITY	19/6/89	B	47
NT9332T SF/1347/14	NT937322	393700	632200	N. UNIVERSITY	XX/6/78	B	47,35
NT9332U SF/1347/15	NT937322	393700	632200	N. UNIVERSITY	XX/6/78	B	47,35
NT9332V SF/1347/16	NT937322	393700	632200	N. UNIVERSITY	XX/6/78	B	47,35
NT9332AO SF/2058/24	NT937323	393700	632300	N. UNIVERSITY	20/7/82	B	47
NT9332AP SF/2058/25	NT937323	393700	632300	N. UNIVERSITY	20/7/82	B	47
NT9332AQ SF/2058/26	NT937326	393700	632600	N. UNIVERSITY	20/7/82	B	48
NT9332AR SF/2234/27	NT937326	393700	632600	N. UNIVERSITY	20/7/82	B	48
NT9332AS SF/2234/28	NT937326	393700	632600	N. UNIVERSITY	20/7/82	B	48
NT9332AT SF/2234/32	NT937326	393700	632600	N. UNIVERSITY	20/7/82	B	48
NT93328K SF/3040/370	NT937327	393700	632700	N. UNIVERSITY	7/7/86	B	48
NT9333H A/082064/2	NT937338	393700	633800	N. UNIVERSITY	9/5/72	B	43

NT9333G A/082064/1	NT937338	393700	633800	N. UNIVERSITY	9/6/72	B	43
NT9334BJ A/29037	NT937340	393700	634000	N. UNIVERSITY	22/7/86	B	43
NT9334BI A/29036	NT937340	393700	634000	N. UNIVERSITY	22/7/86	B	43
NT9334BN A/29041	NT937340	393700	634000	N. UNIVERSITY	22/7/86	B	43
NT9332BU TMG/5001/26	NT938321	393800	632100	N. UNIVERSITY	19/6/89	B	47
NT9332BQ TMG/5001/22	NT938322	393800	632200	N. UNIVERSITY	19/6/89	B	47
NT9332BR TMG/5001/23	NT938322	393800	632200	N. UNIVERSITY	19/6/89	B	47
NT9332BS TMG/5001/24	NT938322	393800	632200	N. UNIVERSITY	19/6/89	B	47
NT9332BY TMG/5001/30	NT938322	393800	632200	N. UNIVERSITY	19/6/89	B	35,47
NT9332BZ TMG/5001/32	NT938322	393800	632200	N. UNIVERSITY	19/6/89	B	35,47
NT9332BC SF/3040/380	NT938324	393800	632400	N. UNIVERSITY	7/7/86	B	48
NT9332BD SF/3040/378	NT938324	393800	632400	N. UNIVERSITY	7/7/86	B	48
NT9322BJ SF/3040/372	NT938324	393800	632400	N. UNIVERSITY	7/7/86	B	47
NT9332BI SF/3040/374	NT938326	393800	632600	N. UNIVERSITY	7/7/86	B	48
NT9332AZ 3039/405	NT938327	393800	632700	N. UNIVERSITY	7/7/86	B	48
NT9332BF SF/3040/377	NT938327	393800	632700	N. UNIVERSITY	7/7/86	B	48
NT9332BH SF/3040/375	NT938328	393800	632800	N. UNIVERSITY	7/7/86	B	48
NT9333AK 5465/75	NT938335	393800	633500	N. UNIVERSITY	6/7/89	B	37
NT9333I DD11	NT938337	393800	633700	N. UNIVERSITY	2/7/49	B	4
NT9333J DD12	NT938337	393800	633700	N. UNIVERSITY	2/7/49	B	4
NT9333N BDB75	NT938337	393800	633700	N. UNIVERSITY	10/7/70	B	4
NT9333AH BUQ48	NT938337	393800	633700	N. UNIVERSITY	19/7/75	B	4
NT9333N A/068571/52	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT93330 A/068571/53	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333P A/069484/11	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333Q A/069484/12	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333R A/069484/12	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333S A/069484/14	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333T A/069484/17?/18?	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333U A/069484/17?/18?	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333V A/069484/19	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333W A/069484/20	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333X A/069484/21	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333Z A/069484/23	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AA A/069484/24	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AB A/069486/39	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AC A/069486/40	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4

NT933AD A/069486/41	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AE A/069571/54	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AF A/069571/55	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333AG A/069571/56	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333A A/069484/8	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333B A/069484/9	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333C A/069484/10	NT938337	393800	633700	N. UNIVERSITY	C.1970	B	4
NT9333Y A/069484/22	NT938377	393800	637700	N. UNIVERSITY	C.1970	B	4
NT9330C BTN39	NT939301	393900	630100	N. UNIVERSITY	1/7/75	B	32
NT9300K SF/1699/32	NT939301	393900	630100	N. UNIVERSITY	31/7/79	B	32
NT9330I SF/1685/2	NT939301	393900	630100	N. UNIVERSITY	2/8/79	B	32
NT9330J SF/1699/31	NT939301	393900	630100	N. UNIVERSITY	31/7/79	B	32
NT331T TMG/5001/31	NT939317	393900	631700	N. UNIVERSITY	19/6/89	B	
NT9332CC 5465/60	NT939323	393900	632300	N. UNIVERSITY	6/7/89	B	47
NT9332CE 5465/64	NT939324	393900	632400	N. UNIVERSITY	6/7/89	B	47
NT9332BB 3039/402A	NT939325	393900	632500	N. UNIVERSITY	7/7/86	B	48
NT9332BE SF/3040/378A	NT939325	393900	632500	N. UNIVERSITY	7/7/86	B	48
NT9332BA 3039/404	NT939326	393900	632600	N. UNIVERSITY	7/7/86	B	
NT9332BG SF/3040/376	NT939329	393900	632900	N. UNIVERSITY	7/7/86	B	48
NT9333E A/069571/57	NT939335	393900	633500	N. UNIVERSITY	6/8/70	B	37
NT9333F A/069571/71	NT939335	393900	633500	N. UNIVERSITY	6/8/70	B	37
NT9333D A/069484/16	NT939335	393900	633500	N. UNIVERSITY	C.1970	B	37
NT9333AJ 5465/74	NT939337	393900	633700	N. UNIVERSITY	6/7/89	B	4
NT9333AI SF/1974/254	NT939338	393900	633800	N. UNIVERSITY	29/6/81	B	4
NT9333L AZD12	NT939339	393900	633900	N. UNIVERSITY	26/7/69	B	4
NT9334AR BQY72	NT939340	393900	634000	N. UNIVERSITY	31/7/74	B	4,43
NT9334AP BJY88	NT939341	393900	634100	N. UNIVERSITY	20/7/72	B	4,43
NT9430A BDB65	NT940300	394000	630000	N. UNIVERSITY	10/7/70	B	32
NT9430E SF/1680/31	NT940300	394000	630000	N. UNIVERSITY	2/8/79	B	32
NT9430C A/069571/2	NT940302	394000	630200	N. UNIVERSITY	6/8/70	B	
NT9430D A/069656/146	NT940302	394000	630200	N. UNIVERSITY	13/8/70	B	
NT9430B BDB66	NT940303	394000	630300	N. UNIVERSITY	10/7/70	B	
NT9430H 5465/57	NT940303	394000	630300	N. UNIVERSITY	6/7/89	B	
NT9430G 5465/56	NT940305	394000	630500	N. UNIVERSITY	6/7/89	B	
NT9432BD 5465/63	NT940320	394000	632000	N. UNIVERSITY	6/7/89	B	
NT9432BC 5465/61	NT940321	394000	632100	N. UNIVERSITY	6/7/89	B	22
NT94320 BJZ1	NT940325	394000	632500	N. UNIVERSITY	20/7/72	B	42

NT9432P BKC39	NT940325	394000	632500	N. UNIVERSITY	26/7/72	B	42
NT9432AX SF/3040/373	NT940325	394000	632500	N. UNIVERSITY	7/7/86	B	48
NT9432AY 3039/403	NT940326	394000	632600	N. UNIVERSITY	7/7/86	B	48
NT9432Q BQY63	NT940327	394000	632700	N. UNIVERSITY	31/7/74	B	42
NT9432AR SF/2234/29	NT940327	394000	632700	N. UNIVERSITY	20/7/82	B	42
NT9432AS SF/2234/30	NT940327	394000	632700	N. UNIVERSITY	20/7/82	B	42
NT9432AT SF/2234/31	NT940327	394000	632700	N. UNIVERSITY	20/7/82	B	42
NT9432AU SF/2234/33	NT940327	394000	632700	N. UNIVERSITY	20/7/82	B	42
NT9432AW 3039/406	NT940328	394000	632800	N. UNIVERSITY	7/7/86	B	42
NT9432AV 3039/408	NT940329	394000	632900	N. UNIVERSITY	7/7/86	B	42
NT9433B GT66	NT940330	394000	633000	N. UNIVERSITY	16/7/51	B	28
NT9433C ADZ56	NT940330	394000	633000	N. UNIVERSITY	20/7/61	B	28
NT9433D ADZ5	NT940330	394000	633000	N. UNIVERSITY	26/7/69	B	28
NT9433E BDE37	NT940330	394000	633000	N. UNIVERSITY	11/7/70	B	28
NT9433K BJV5	NT940330	394000	633000	N. UNIVERSITY	19/7/72	B	28
NT9433A DD14	NT940330	394000	633000	N. UNIVERSITY	2/7/49	B	28
NT9433EX 3039/409	NT940331	394000	633100	N. UNIVERSITY	7/7/86	B	28
NT9433L SF/1205/5	NT940332	394000	633200	N. UNIVERSITY	6/7/77	B	42
NT9433M SF/1205/6	NT940332	394000	633200	N. UNIVERSITY	6/7/77	B	42
NT9433N SF/1205/7	NT940332	394000	633200	N. UNIVERSITY	6/7/77	B	42
NT9433AX ADZ58	NT940339	394000	633900	N. UNIVERSITY	20/7/61	B	4
NT9433BA AZD13	NT940339	394000	633900	N. UNIVERSITY	26/7/69	B	4
NT9433AZ APR81	NT940339	394000	633900	N. UNIVERSITY	28/7/69	B	4
NT9433I A/082064/3	NT940339	394000	633900	N. UNIVERSITY	9/5/72	B	4
NT9433BS BQY64	NT940339	394000	633900	N. UNIVERSITY	31/7/74	B	4
NT9433BU BQY74	NT940339	394000	633900	N. UNIVERSITY	31/7/74	B	4
NT9433FN 3885/9	NT940339	394000	633900	N. UNIVERSITY	11/9/83	B	4
NT9433FN 3885/9	NT940339	394000	633900	N. UNIVERSITY	18/7/88	B	4
NT9434U AAI65	NT940340	394000	634000	N. UNIVERSITY	17/7/59	B	4
NT9434W AAI70	NT940340	394000	634000	N. UNIVERSITY	17/7/59	B	4
NT9434X ADZ55	NT940340	394000	634000	N. UNIVERSITY	20/7/61	B	4
NT9434Y BJV12	NT940340	394000	634000	N. UNIVERSITY	19/7/72	B	4
NT9434I A/083715/3	NT940340	394000	634000	N. UNIVERSITY	14/8/72	B	4
NT9434J A/083715/4	NT940340	394000	634000	N. UNIVERSITY	14/8/72	B	4
NT943L A/083715/6	NT940340	394000	634000	N. UNIVERSITY	14/8/72	B	4
NT9434AA BQY76	NT940340	394000	634000	N. UNIVERSITY	31/7/74	B	4
NT9434AB BQY78	NT940340	394000	634000	N. UNIVERSITY	31/7/74	B	4

NT9434AC BQY79	NT940340	394000	634000	N. UNIVERSITY	31/7/74	B	4
NT934AD SF/3427/59	NT940340	394000	634000	N. UNIVERSITY	30/7/87	B	4
NT9434V AAI63	NT940341	394000	634100	N. UNIVERSITY	17/7/59	B	4
NT9431J SF/1680/29	NT941319	394100	631900	N. UNIVERSITY	2/8/79	B	33
NT9431K SF/1680/30	NT941319	394100	631900	N. UNIVERSITY	2/8/79	B	33
NT9432AP SF/2018/34A	NT941323	394100	632300	N. UNIVERSITY	30/7/81	B	27
NT9432AQ SF/2018/35A	NT941323	394100	632300	N. UNIVERSITY	30/7/81	B	27
NT9433EY 3039/407	NT941330	394100	633000	N. UNIVERSITY	7/7/86	B	28
NT9433FD SF/3040/371	NT941330	394100	633000	N. UNIVERSITY	7/7/86	B	28
NT9433F A/069484/15	NT941331	394100	633100	N. UNIVERSITY	3/8/70	B	28
NT9433F A/076690/26	NT941331	394100	633100	N. UNIVERSITY	2/8/71	B	28
NT9433H A/076690/27	NT941331	394100	633100	N. UNIVERSITY	2/8/71	B	28
NT9433J A/082064/4	NT941331	394100	633100	N. UNIVERSITY	9/5/72	B	28
NT940330 SF/1214/21	NT941331	394100	633100	N. UNIVERSITY	9/8/77	B	29
NT9433P SF/1214/22	NT941331	394100	633100	N. UNIVERSITY	9/8/77	B	28
NT9433Q SF/1214/23	NT941331	394100	633100	N. UNIVERSITY	9/8/77	B	28
NT9433R SF/1214/29	NT941331	394100	633100	N. UNIVERSITY	9/8/77	B	28
NT9433AM SF/2021/26	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	29
NT9433AN SF/2021/27	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	29
NT9433AO SF/2021/28	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	29
NT9433AP SF/2021/29	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	29
NT9433S SF/1974/185	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433T SF/1974/186	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433U SF/1974/187	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433V SF/1974/188	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433W SF/1974/189	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433X SF/1974/190	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AA SF/2021/14	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AB SF/2012/15	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AC SF/2021/16	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AE SF/2021/18	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AF SF/2021/19	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AG SF/2021/20	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AH SF/2021/21	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433EW 3039/410	NT941331	394100	633100	N. UNIVERSITY	7/7/86	B	28
NT9433AD SF/202117	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AI SF/2021/22	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28

NT9433AJ SF/2021/23	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AK SF/2021/24	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AL SF/2021/25	NT941331	394100	633100	N. UNIVERSITY	21/7/81	B	28
NT9433AU JV63	NT941337	394100	633700	N. UNIVERSITY	14/7/52	B	4
NT9433AQ 157/1	NT941338	394100	633800	N. UNIVERSITY	N.D.	B	4
NT9433AR 157/3	NT941338	394100	633800	N. UNIVERSITY	N.D.	B	4
NT9433AY APR80	NT941339	394100	633900	N. UNIVERSITY	28/7/66	B	4
NT9433BB AZD14	NT941339	394100	633900	N. UNIVERSITY	26/7/69	B	4
NT9433BL BJV10	NT941339	394100	633900	N. UNIVERSITY	19/7/72	B	4
NT9433BM BJV11	NT941339	394100	633900	N. UNIVERSITY	19/7/72	B	4
NT9433BN BJV13	NT941339	394100	633900	N. UNIVERSITY	19/7/72	B	4
NT9433BO BJV15	NT941339	394100	633900	N. UNIVERSITY	19/7/72	B	4
NT9433CZ SF/1974/254A	NT941339	394100	633900	N. UNIVERSITY	2/8/79	B	4
NT9433CZ SF/1974/254A	NT941339	394100	633900	N. UNIVERSITY	2/8/79	B	4
NT9433Z SF/2020/35A	NT941339	394100	633900	N. UNIVERSITY	29/6/81	B	4
NT9433Y SF/2020/34A	NT941339	394100	633900	N. UNIVERSITY	29/7/81	B	4
NT9433DA SF/1974/254A	NT941339	394100	633900	N. UNIVERSITY	29/7/81	B	4
NT9433DB SF/1974/256A	NT941339	394100	633900	N. UNIVERSITY	29/7/81	B	4
NT9433EE SF/2058/50	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EF SF/2058/51	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EG SF/2058/52	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EH SF/2234/3	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EI SF/2234/4	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EJ SF/2234/5	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EK SF/2234/6	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EL SF/2234/8	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EM SF/2234/9	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EN SF/2234/10	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EO SF/2234/12	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EP SF/2240/37	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DU SF/2058/40A	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DV SF/2058/41	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DW SF/2058/42	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DX SF/2058/43	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DY SF/2058/44	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433DZ SF/2058/45	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EA SF/2058/46	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4

NT9433EB SF/2058/47	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433EC SF/2058/48	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433ED SF/2058/49	NT941339	394100	633900	N. UNIVERSITY	20/7/82	B	4
NT9433FG SF/3427/58	NT941339	394100	633900	N. UNIVERSITY	30/7/87	B	4
NT9430F 5465/55	NT942304	394200	630400	N. UNIVERSITY	6/7/89	B	
NT9431A SF/1206/33	NT942319	394200	631900	N. UNIVERSITY	26/7/77	B	33
NT9431B SF/1206/36	NT942319	394200	631900	N. UNIVERSITY	26/7/77	B	33
NT9431C SF/1206/37	NT942319	394200	631900	N. UNIVERSITY	26/7/77	B	33
NT9431D SF/1210/31	NT942319	394200	631900	N. UNIVERSITY	26/7/77	B	33
NT9431M SF/1685/7	NT942319	394200	631900	N. UNIVERSITY	2/8/79	B	33
NT9431N SF/1685/8	NT942319	394200	631900	N. UNIVERSITY	2/8/79	B	33
NT9432AE SF/1974/193	NT942322	394200	632200	N. UNIVERSITY	21/7/81	B	42
NT9432AL SF/2021/10	NT942322	394200	632200	N. UNIVERSITY	21/7/81	B	27
NT9432AM SF/2021/11	NT942322	394200	632200	N. UNIVERSITY	21/7/81	B	27
NT9432AF SF/1974/194	NT942322	394200	632200	N. UNIVERSITY	31/7/81	B	27
NT9432A GT69	NT942323	394200	632300	N. UNIVERSITY	16/7/51	B	27
NT9432B GT70	NT942323	394200	632300	N. UNIVERSITY	16/7/51	B	27
NT9432C JV67	NT942323	394200	632300	N. UNIVERSITY	14/7/52	B	27
NT9432D AKK12	NT942323	394200	632300	N. UNIVERSITY	27/7/64	B	27
NT9432F BDB64	NT942323	394200	632300	N. UNIVERSITY	10/7/70	B	27
NT9432M BJU98	NT942323	394200	632300	N. UNIVERSITY	9/7/72	B	27
NT9432N BKC37	NT942323	394200	632300	N. UNIVERSITY	26/7/72	B	27
NT9432U SF/1206/35	NT942323	394200	632300	N. UNIVERSITY	26/7/77	B	42
NT9432V SF/1206/38	NT942323	394200	632300	N. UNIVERSITY	26/7/77	B	42
NT9432W SF/1210/32	NT942323	394200	632300	N. UNIVERSITY	26/7/77	B	42
NT9432X SF/1210/33	NT942323	394200	632300	N. UNIVERSITY	26/7/77	B	42
NT9432AG SF/2012/101A	NT942323	394200	632300	N. UNIVERSITY	30/7/81	B	27
NT9432AH SF/2012/102A	NT942323	394200	632300	N. UNIVERSITY	30/7/81	B	27
NT9432AI SF/2012/103A	NT942323	394200	632300	N. UNIVERSITY	30/7/81	B	27
NT9432AJ SF/2012/104A	NT942323	394200	632300	N. UNIVERSITY	30/7/81	B	27
NT9432AK SF/2012/105A	NT942323	394200	632300	N. UNIVERSITY	30/7/81	B	27
NT9432BB 5465/59	NT942325	394200	632500	N. UNIVERSITY	6/7/89	B	42
NT9432BA 5465/58	NT942326	394200	632600	N. UNIVERSITY	6/7/89	B	42
NT9433FE SF/3427/56	NT942333	394200	633300	N. UNIVERSITY	30/7/87	B	
NT9433AT BG28	NT942338	394200	633800	N. UNIVERSITY	C. 1948	B	4
NT9433EZ 3039/401A	NT942336	394200	633600	N. UNIVERSITY	7/7/86	B	4
NT9433DJ ACB84	NT942337	394200	633700	N. UNIVERSITY	19/7/60	B	4
NT9433DK ACB8F	NT942337	394200	633700	N. UNIVERSITY	19/7/60	B	4
NT9433DL ACB88	NT942337	394200	633700	N. UNIVERSITY	19/7/60	B	4
NT9433DM ADZ52	NT942337	394200	633700	N. UNIVERSITY	20/7/61	B	4
NT9433DN ADZ59	NT942337	394200	633700	N. UNIVERSITY	20/7/61	B	4
NT9433DO SF/1214/18	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4

NT9433DP SF/1214/19	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4
NT9433DQ SF/1214/20	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4
NT9433DR SF/1214/25	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4
NT9433DS SF/1214/27	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4
NT9433DT SF/1214/28	NT942337	394200	633700	N. UNIVERSITY	9/8/77	B	4
NT9433BD A/076367/25	NT942338	394200	633800	N. UNIVERSITY	12/7/71	B	4
NT9433BG A/076367/28	NT942338	394200	633800	N. UNIVERSITY	12/7/71	B	4
NT9433BG A/076367/29	NT942338	394200	633800	N. UNIVERSITY	12/7/71	B	4
NT9433BH A/079303/1	NT942338	394200	633800	N. UNIVERSITY	16/12/71	B	4
NT9433BK A/082064/1	NT942338	394200	633800	N. UNIVERSITY	9/5/72	B	4
NT9433AS BG27	NT942338	394200	633800	N. UNIVERSITY	C. 1948	B	4
NT9433AV JV64	NT942338	394200	633800	N. UNIVERSITY	C. 1952	B	4
NT9433 AW JV65	NT942338	394200	633800	N. UNIVERSITY	C.1952	B	4
NT9433BI	NT942338	394200	633800	N. UNIVERSITY	N.D.	B	4
NT9433BJ	NT942338	394200	633800	N. UNIVERSITY	N.D.	B	4
NT9433BE A/076367/26	NT942339	394200	633900	N. UNIVERSITY	12/7/71	B	4
NT9433BP BJY85	NT942339	394200	633900	N. UNIVERSITY	20/7/72	B	4
NT9433BQ BJY86	NT942339	394200	633900	N. UNIVERSITY	20/7/72	B	4
NT9433BT BQY68	NT942339	394200	633900	N. UNIVERSITY	31/7/74	B	4
NT9433BV SF/1214/24	NT942339	394200	633900	N. UNIVERSITY	9/8/77	B	4
NT9433BW SF/1214/26	NT942339	394200	633900	N. UNIVERSITY	9/8/77	B	4
NT9433BX SF/1360/1	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433BY SF/1360/2	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433BZ SF/1360/3	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433CA SF/1360/4	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433CB SF/1360/5	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT433CC SF/1360/6	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433CD SF/1360/7	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433CE SF/1360/8	NT942339	394200	633900	N. UNIVERSITY	17/8/78	B	4
NT9433CF SF/1347/3	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CG SF/1347/4	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CH SF/1347/5	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CI SF/1347/6	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CJ SF/1347/19	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CK SF/1347/20	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CL SF/1347/21	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CM SF/1347/22	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CN SF/1347/23	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CO SF/1347/24	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CP SF/1347/25	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CQ SF/1347/26	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CR SF/1347/27	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CS SF/1347/28	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CT SF/1347/29	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4

NT9433CU SF/1347/30	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CV SF/1347/31	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CW SF/1347/32	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433 CX SF/1347/33	NT942339	394200	633900	N. UNIVERSITY	18/8/78	B	4
NT9433CY SF/1680/16	NT942339	394200	633900	N. UNIVERSITY	2/8/79	B	4
NT9433BR BJY92	NT942339	394200	633900	N. UNIVERSITY	20/7/72	B	4
NT9433BC A/076367/24	NT942339	394200	633900	N. UNIVERSITY	12/7/71	B	4
NT9434Z BJY84	NT942340	394200	634000	N. UNIVERSITY	20/7/72	B	4
NT9434AE TMG/3885/8	NT942340	394200	634000	N. UNIVERSITY	18/7/88	B	4
NT9434AF 3885/10	NT942340	394200	634000	N. UNIVERSITY	18/7/88	B	4
NT943K A/083715/5	NT942341	394200	634100	N. UNIVERSITY	14/8/72	B	
NT9432AN SF/2021/12	NT942322	394200	63900	N. UNIVERSITY	21/7/81	B	27
NT9432AO SF/2021/13	NT942322	394200	63900	N. UNIVERSITY	21/7/81	B	27
NT9431L SF/1685/6	NT943318	394300	631800	N. UNIVERSITY	2/8/79	B	
NT9431O TMG/5001/20	NT943319	394300	631900	N. UNIVERSITY	19/6/89	B	
NT9432AC SF/1974/191	NT943322	394300	632200	N. UNIVERSITY	21/7/81	B	42
NT9432AD SF/1974/192	NT943322	394300	632200	N. UNIVERSITY	21/7/81	B	42
NT9432E AKK13	NT943323	394300	632300	N. UNIVERSITY	27/7/64	B	42
NT9432S SF/1206/32	NT943323	394300	632300	N. UNIVERSITY	26/7/77	B	42
NT9432Y SF/1210/34	NT943323	394300	632300	N. UNIVERSITY	26/7/77	B	42
NT94322 SF/1697/4	NT943323	394300	632300	N. UNIVERSITY	2/7/79	B	42
NT94322AA SF/1697/5	NT943323	394300	632300	N. UNIVERSITY	2/7/79	B	42
NT9432AB SF/1697/6	NT943323	394300	632300	N. UNIVERSITY	2/7/79	B	42
NT9432K A/069571/12	NT943324	394300	632400	N. UNIVERSITY	3/8/70	B	42
NT9432G A/069484/31	NT943324	394300	632400	N. UNIVERSITY	3/8/70	B	42
NT9423H A/069571/6	NT943324	394300	632400	N. UNIVERSITY	6/8/70	B	42
NT9432I A/069571/7	NT943324	394300	632400	N. UNIVERSITY	6/8/70	B	42
NT9432J A/069571/8	NT943324	394300	632400	N. UNIVERSITY	6/8/70	B	42
NT9432L A/069571/58	NT943324	394300	632400	N. UNIVERSITY	C. 1970	B	42
NT9432R SF/1206/31	NT943332	394300	633200	N. UNIVERSITY	26/7/77	B	42
NT9433FF SF/3427/57	NT943335	394300	633500	N. UNIVERSITY	30/7/87	B	4
NT9433FL SF/2150/2157	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FM SF/2150/2158	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FH SF/2150/2150	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FI SF/2150/2151	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FJ SF/2150/2152	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FK SF/2150/2156	NT943336	394300	633600	N. UNIVERSITY	11/9/83	B	4
NT9433FO A/29023	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433FP A/29025	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433FQ A/29026	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433FR A/29027	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433FS A/29028	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433FW A/29030	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4

NT9433GA A/29023	NT943337	394300	633700	N. UNIVERSITY	22/7/86	B	4
NT9433DF AAI61	NT943339	394300	633900	N. UNIVERSITY	17/7/59	B	4
NT9434AG 3885/11	NT943340	394300	634000	N. UNIVERSITY	18/7/88	B	4
NT9434C A/069484/6	NT943347	394300	634700	N. UNIVERSITY	C. 1970	B	
NT9434D A/069484/7	NT943347	394300	634700	N. UNIVERSITY	C. 1970	B	
NT9434E A/069486/37	NT943347	394300	634700	N. UNIVERSITY	C. 1970	B	
NT9434F A/069571/42	NT943347	394300	634700	N. UNIVERSITY	C. 1970	B	
NT9434G A/069571/43	NT943347	394300	634700	N. UNIVERSITY	C. 1970	B	
106G/UK/765/3010	NT9434	394000	634000	NCC	3/9/45	B	
NT9433FB 3039/399A	NT944337	394400	633700	N. UNIVERSITY	7/7/86	B	4
NT9433DE AAI60	NT944338	394400	633800	N. UNIVERSITY	17/7/59	B	4
NT9433FA 3039/400A	NT944338	394400	633800	N. UNIVERSITY	7/7/86	B	4
NT9433DG BDB72	NT945338	394500	633800	N. UNIVERSITY	10/7/70	B	4
NT9433DC AAB84	NT945338	394500	633800	N. UNIVERSITY	13/7/59	B	4
NT9433DD AAB85	NT945338	394500	633800	N. UNIVERSITY	13/7/59	B	4
NT9433DH BDB73	NT945338	394500	633800	N. UNIVERSITY	10/7/70	B	4
NT9433DI BJY96	NT945338	394500	633800	N. UNIVERSITY	20/7/72	B	4
NT9433EQ SF/2234/7	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9433ER SF/2234/11	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9433ET SF/2234/14	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9433EU SF/2234/15	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9433EV SF/2234/16	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9433FT A/29034	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433FT A/29034	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433FV A/29032	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433FX A/29033	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433FY A/29033	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433F2 A/29031	NT945338	394500	633800	N. UNIVERSITY	22/7/86	B	4
NT9433ES SF/2234/12	NT945338	394500	633800	N. UNIVERSITY	20/7/82	B	4
NT9434Q SF/1209/20	NT947343	394700	634300	N. UNIVERSITY	26/7/77	B	41
NT9434R SF/1209/22	NT947343	394700	634300	N. UNIVERSITY	26/7/77	B	41
NT9434A BDB83	NT947344	394700	634400	N. UNIVERSITY	10/7/70	B	41
NT9434B BDB84	NT947344	394700	634400	N. UNIVERSITY	10/7/70	B	41
NT9434H BJY95	NT947344	394700	634400	N. UNIVERSITY	20/7/72	B	41
NT9434M ASF/1207/3	NT947344	394700	634400	N. UNIVERSITY	26/7/77	B	41
NT9434M SF/1207/4	NT947344	394700	634400	N. UNIVERSITY	26/7/77	B	41
NT9434P SF/1207/6	NT947344	394700	634400	N. UNIVERSITY	26/7/77	B	41
NT9434S SF/1209/21	NT947344	394700	634400	N. UNIVERSITY	26/7/77	B	41
NT9434T SF/1209/23	NT947344	394700	634400	N. UNIVERSITY	26/7/77	B	4
NT9431E A/069484/32	NT948312	394800	631200	N. UNIVERSITY	3/8/70	B	
NT943AF A/069484/33	NT948312	394800	631200	N. UNIVERSITY	3/8/70	B	
NT9431G A/06484/34	NT948312	394800	631200	N. UNIVERSITY	3/8/70	B	
NT9431H A/069571/3	NT948312	394800	631200	N. UNIVERSITY	3/8/70	B	
NT9431I A/069571/5	NT948312	394800	631200	N. UNIVERSITY	6/8/70	B	
NT94340 SF/1207/5	NT949342	394900	634200	N. UNIVERSITY	26/7/77	B	41

CO010-7815-3				NCC	19/10/00	C	
CO010-7815-9				NCC	19/10/00	C	
CO010-7815-2				NCC	19/10/00	C	
CO010-7816-3				NCC	19/10/00	C	
CO010-7816-8				NCC	19/10/00	C	

Vertical Photos

PHOTO_ID	FILM_TYPE	PHOTO_DATE	PHOTO_SUBJ	COVER_TRAC	PHOTO_SCAL	PHOTO_CLOU	X_COORD	Y_COORD
K17V198	B&W	Sat, 11 Jul 1970	Dark age settlement, Yeaverling	70_109	3000	none	392929	630429
K17V199	B&W	Sat, 11 Jul 1970	Dark age settlement, Yeaverling	70_109	3000	none	392752	630351
RC8BS152*	B&W	Fri, 6 May 1977	Soil survey area, Wooler		9300		394798	631760
RC8CX106*	B&W	Thu, 10 May 1979	Cheviot	79_006	20600	none	393075	628228
RC8CX107*	B&W	Thu, 10 May 1979	Cheviot	79_006	20600	none	391145	628197

Additional Vertical Photos held by Cambridge University (CUCAP)

ID	Subject	View Direction	Cent Dist	Eastings	Northings	Longutude	Latitude	Photo Date
K17V198	Dark age settlement, Yeaverling	246	194	392929	630429	-2.113682	55.567482	11/07/1970
K17V199	Dark age settlement, Yeaverling	246	193219	392752	630351	-2.116487	55.566776	11/07/1970

Additional Vertical Photos recorded at the Northumberland HER

Photo ID	Source and Scale	NGR	Easting	Northing	Archive Log	Date Flown	C/B
106G/UK/765/3011	RAF 1:11000	NT9334	393000	634000	NCC	3/9/45	B
106G/UK/765/3010	RAF 1:11000	NT9434	394000	634000	NCC	3/9/45	B
106G/UK/765/3017	RAF 1:11000	NT9033	390000	633000	NCC	3/9/45	B
106G/UK/765/3016	RAF 1:11000	NT9033	390000	633000	NCC	3/9/45	B
106G/UK/765/3015	RAF 1:11000	NT9133	391000	633000	NCC	3/9/45	B
106G/UK/765/3014	RAF 1:11000	NT9233	392000	633000	NCC	3/9/45	B
106G/UK/765/3013	RAF 1:11000	NT9234	392000	634000	NCC	3/9/45	B
106G/UK/765/3012	RAF 1:11000	NT9334	393000	634000	NCC	3/9/45	B

13.2 Appendix A2 Environmental resources for the Yeavering study area.

13.2.1 Coring locations within the Milfield Basin (undertaken by Passmore and Waddington 2009, 300-50; 2012, 330-41).

on	eference no	ıo
New Bewick/Breamish Valley		
-Weetwood/Breamish and Till Valleys	Bridge [BT1-10] Bridge [BT11-20	
od-Ewart-Doddington/Till Valley	0; MSH MSH1-19, MSH1-20, MSH1-13, MSH1-21, MSH1-14, MSH1-1, MSH1-8, MSH1-22, MSH1-9 (ON MSH-1 TRANSECT); MSH2-1, MSH2-2, MSH2-4, MSH2-6, MSH2-9, MSH2-12, MSH2-13, MSH2-15, MSH2-16, MSH2-17, MSH2-22, MSH2-20, ON TRANSECT MSH2	
en and Wooler Water	, M253-3, M256-1, M258-1	
tal/Till Valley	MIL-23, M171-4, M171-5	
weed Valley/Coldstream	TW10, TW11, CDS1	

13.2.2 Pollen sequences in Northumberland. Information taken from *Northumberland National Park Archaeological Research Framework* (Young et al 2004) and Passmore and Waddington 2009; 2012.

Site Name *=inside Northumberland National Park	National grid reference	References	C14 dates
Muckle Moss	NY799 668	Pearson, 1960	N
Camp Hill Moss	NU 100262	Davies and Turner, 1979	Y
Steng Moss*	NY965913	Davies and Turner, 1979	Y
Broad Moss*	NT963215	Davies and Turner, 1979	Y
Fellend Moss	NY679658	Davies and Turner, 1979	N
Fozy Moss*	NY 771 663	Dumayne and Barber, 1994	Y
Coom Rigg Moss		Chapman, 1964-1965	N
Vindolanda*	NY830714	Manning, et al., 1997	N
Quik Moss	NT910024	Roswell and Turner, 1985	Y
Bloody Moss *	NT910024	Moores and Passmore, 1999	Y
Caudhole Moss*	NZ057985	Moores and Passmore, 1999	Y
Linhope Burn*	NT957172	Topping, 1990-91	N
Wooler Water	NT995273	Clapperton et al., 1971; Tipping, 1992; Harrison and Tipping, 1994	Y
Akeld Steads	NT965306	Borek, 1975	N
Callaly Moor	NU055095	Macklin et al., 1991	Y
Bradford Kaims,	NU1631	Bartley, 1966	N
Bamburgh	NU1631	Bartley, 1966	N
Longlee Moor	NU156195	Bartley,1966	N
Drowning Flow*	NY760975	Moores, 1998	Y
Sells Burn*	NY812733	Moores, 1998	Y
Snabdaugh Farm*	NY787846	Moores, 1998	N
Brownchesters Farm	NY889922	Moores, 1998	Y
Ford Moss	NT971376	Passmore and Waddington 2012	Y

Broad Moss	NT96352155	Passmore and Waddington 2012	Y
Coupland Henge and Droveway	NT94053308	Passmore and Waddington 2009	N
Turvelaws Farm Ring Ditch	NT99256310	Passmore and Waddington 2009	N
Threecorner Wood	NT94103575	Passmore and Waddington 2009	N
Hetton Hill	NU03453335	Passmore and Waddington 2009	N
Flodden Hill Rectilinear Enclosure	NT92003610	Passmore and Waddington 2009	N
Maelmin West	NT940336	Passmore and Waddington 2009	N

13.2.3 Faunal remains from sites in Northumberland by period. Information taken from *Northumberland National Park Archaeological Research Framework* (Young et al 2004, 24-5)

Period	Site name	Grid reference	References
Mesolithic	Low Hauxley	NU 284 018	Bonsall 1984; Stallibrass 1995
Neolithic	Ewart	NT 957 318	Miket 1981
	Newsham	NZ 298 803	Allason-jones 1980
Bronze Age	Low Hauxley	NU 284 018	Bonsall 1984; Stallibrass 1995
Iron Age	Dod Law West	NU 004 317	Smith, 1988-89
	Kennel Hall Knowe	NY 667 898	Rackham, 1977, 1978
	Burradon	NZ 27 73	Hodgson, 1970
Roman Iron Age (Military Sites)	Hadrian's Wall Turrets 18b, 25b, 26a, 35a, 45a, 51b		Woodfield 1965; Chaplin 1965
	Carrawburgh	NY 859 712	Platt 1951a, 1951b; Fraser 1951
	Corbridge	NY 982 648	Hodgson 1967, 1968; Meek and Gray 1911
	Vindolanda	NY 771 663	Hodgson 1970, 1976, 1977; Cowlet 1970; Seaward 1993
	Chesters	NY 912 702	Stokes 1993
Roman Iron Age (Non-Military Sites)	none known		
Early medieval (5th – 11th Centuries AD)	Yeavering (Palace)	NT 925 306	Hope-Taylor 1977; Higgs and Jarman 1977
	Yeavering Henge (Saxon contexts)	NT 929 304	Tinniswood and Harding 1991
	Lindisfarne (village)	NU 125 418	O'Sullivan 1985
	Lindisfarne (Green Shiel)	NU125 438	O'sullivan and Young 1995

	Newcastle (Black Gate)	NZ 250 639	Gidney 1994a
Medieval	Newcastle (Castle Ditch)	NZ 250 639	Rackham and Allison 1981a
	Newcastle (Black Gate)	NZ 250 639	Rackham and Allison 1981b; Gidney 1994a
	Newcastle (Town wall and ditch)	NZ 248 637	Gidney 1987,1989; Dobney and Jaques 1993
	Newcastle (Cloth Market)	NZ 249 641	Rackham 1980
	Newcastle (Quayside: various sites)		Gidney 1989c, 1989d; Nicholson 1989; Rackham 1988; Allison 1987, 1988d; Nicholson 1988; Davis 1991
	Berwick upon Tweed	NT 999 527	Seller 1982
	Prudhoe Castle	NZ 092 634	Davis 1987
	Aydon castle	NZ 001 664	Rackham 1976
	Hexham (Abbey)	NY 935 642	Rackham 1979
	Lindisfarne (village)	NU 125 418	Allison et al. 1985
	Lindisfarne (Jenny Bell's Well, midden)	NU 124 417	Rackham 1985; Stallibrass 1987
Post – Medieval	Newcastle (various sites)		Rackham 1986a, 1987b; Rackham and Allison 1981a; Gidney 1988, 1987, 1989b; Heslop et al. 1994; Gidney 1992b, 1994e; Rackham 1977h; Gidney, 1994d
	Lindisfarne (Jenny Bell's Well)	NU 124 417	Stallibrass, 1987
	Lindisfarne (village)	NU 125 418	

13.2.4 Plant macro-fossils from sites in Northumberland by period. Information taken from *Northumberland National Park Archaeological Research Framework* (Young et al 2004, 22)

Period	Site name	Grid reference	References
Neolithic	Thirlings	NT 956 324	Van der Veen 1982a
	Whitton Hill	NT 933 347	Van der Veen 1982b
	Coupland Henge		Waddington 1997; Passmore and Waddington 2009
	Sandyford Quarry Field	NZ 075817	Waddington and Davies 1998
	Milfield North boundary feature	NT 93353505	Passmore and Waddington 2009
Bronze Age	Whitton Hill, site 2	NT 933 347	Van der Veen 1984
	Hallshill	NY 906 886	Van der Veen 1992
	Turvelaws Farm, ring ditch	NT 99256310	Passmore and Waddington 2009
Iron Age	Murton	NT 965 496	Van der Veen 1985
	Dod Law	NU 004317	Smith 1988; Van der Veen 1992
	Chester House	NU 237317	Holbrook 1988; Van der Veen 1988
	Fawdon Dean	NU 017153	ASUD 2001c

	Plantation Camp, Brough Law	NU 003162	ASUD 2000
Roman (non-military)	Murton	NT 965496	Van der Veen 1985
	Doubstead	NU 007487	Donaldson 1982
	Flodden Hill, rectilinear enclosure (could be late Iron Age)		Passmore and Waddington 2009
Roman (military)	Chesters	NY 912702	Huntley 1992
	Housesteads	NY 789688	
	Peel Gap	NY 753676	Huntley 1989
Early medieval	Maelmin West		Passmore and Waddington 2009
Medieval	Berwick	NT 999527	
	The Hirsel	NT 830407	Huntley 1984
	Lindisfarne, Jenny Bell's Well, midden	NU 124417	Van der Veen 1984
	Newcastle (various locations)		Huntley 1988, 1990a, 1990b, 1992, 1994a, 1994b; Nicholson and Hall 1986
	Prudhoe Castle	NZ 092634	Vaughan 1983
Post-medieval	Loaning Burn	NY 931971	Charlton and Day 1982
	Newcastle (various locations)		Huntley 1988, 1990a, 1990b, 1992, 1994a, 1994b; Nicholson and Hall 1986

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Abbreviations

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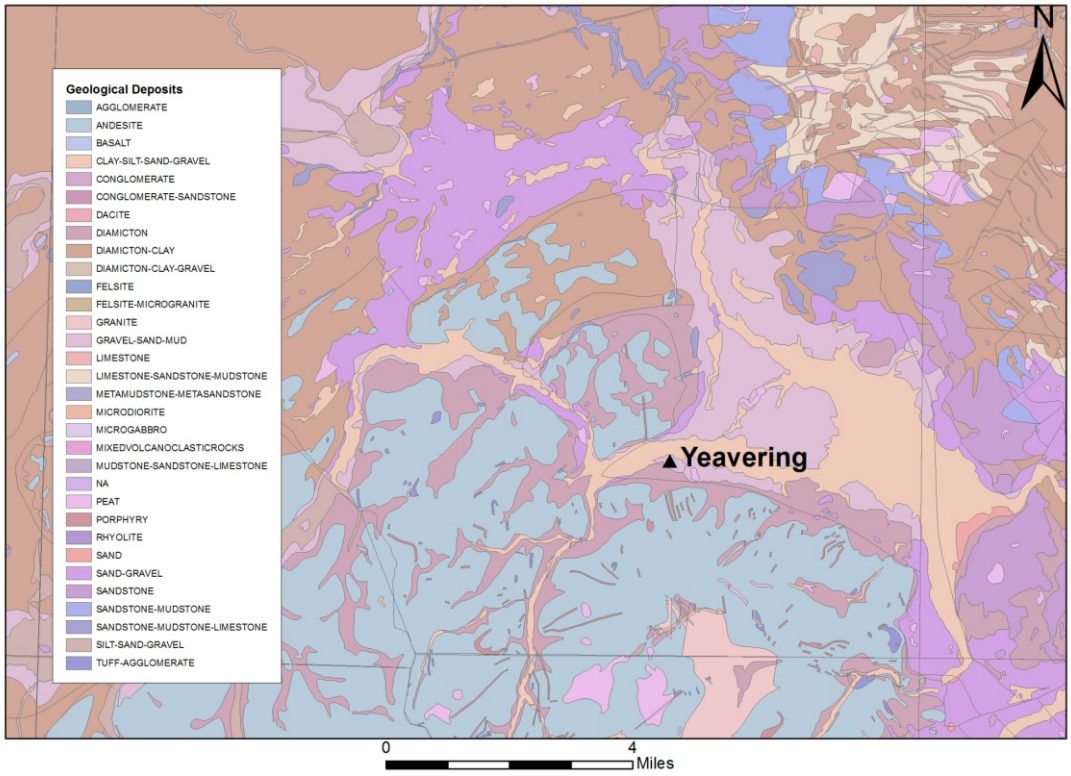
FIGURES

Fig. 1. The hillfort of Yeavering Bell and the Cheviot Hills. In the foreground, standing prominently and overlooking the River Glen is the raised gravel terrace on which the palace complex sits. © Airfotos Ltd.

Fig. 2. The upland pastures of the Cheviots. © The Gefrin Trust.



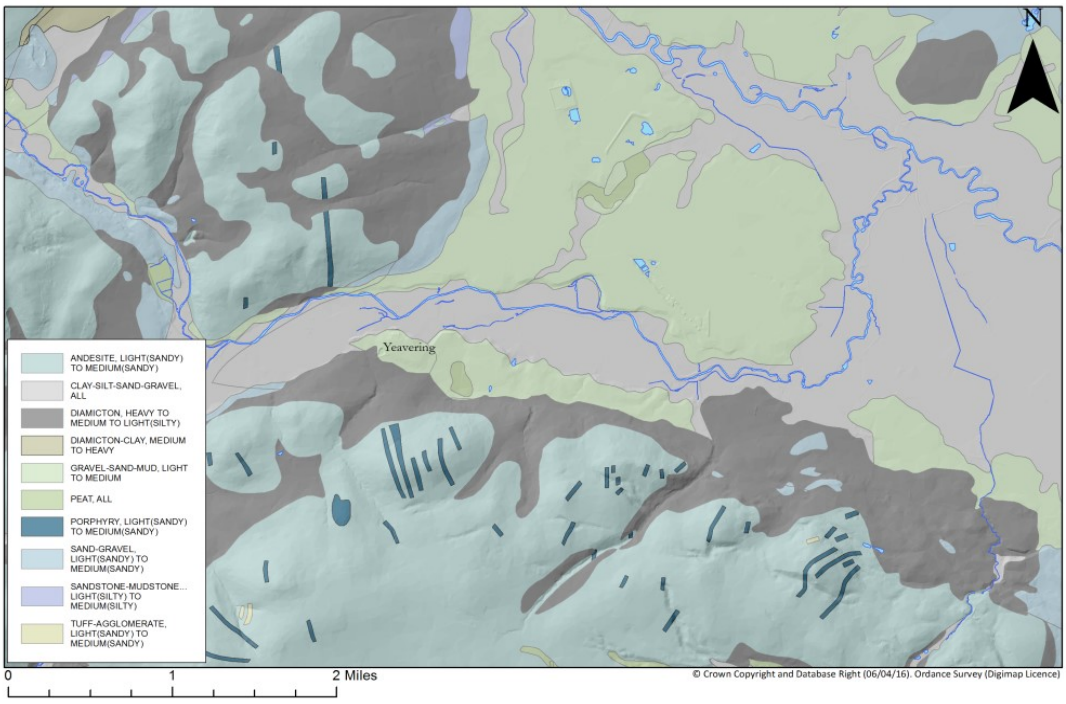


Fig 3a (top) Geology of the Milfield Basin. © The Gefrin Trust; Fig 3b (bottom) The geology of the site and its immediate environs. © The Gefrin Trust.

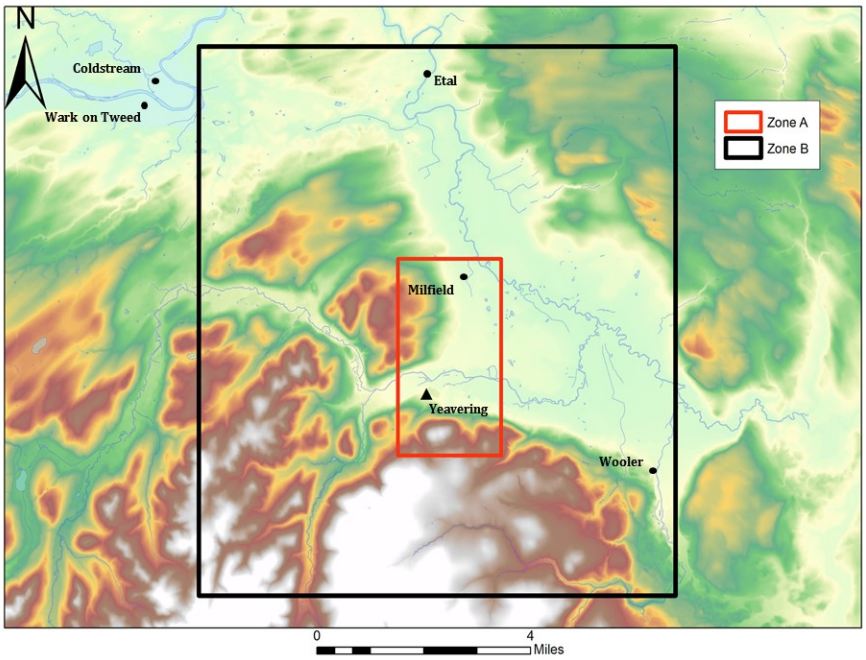


Fig. 4. The Study Region. **Zone A**. Immediate Environs. **Zone B**. The Hinterland. © The Gefrin Trust

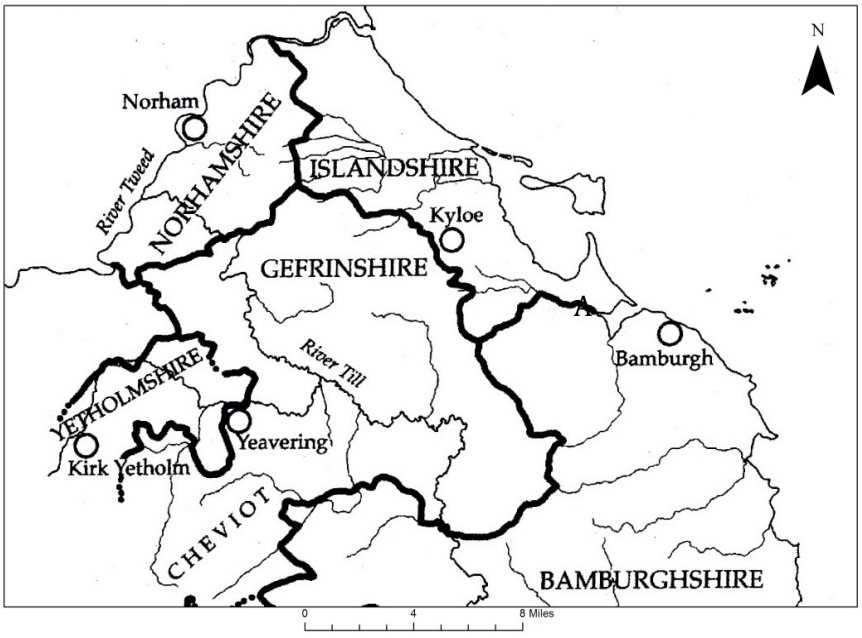
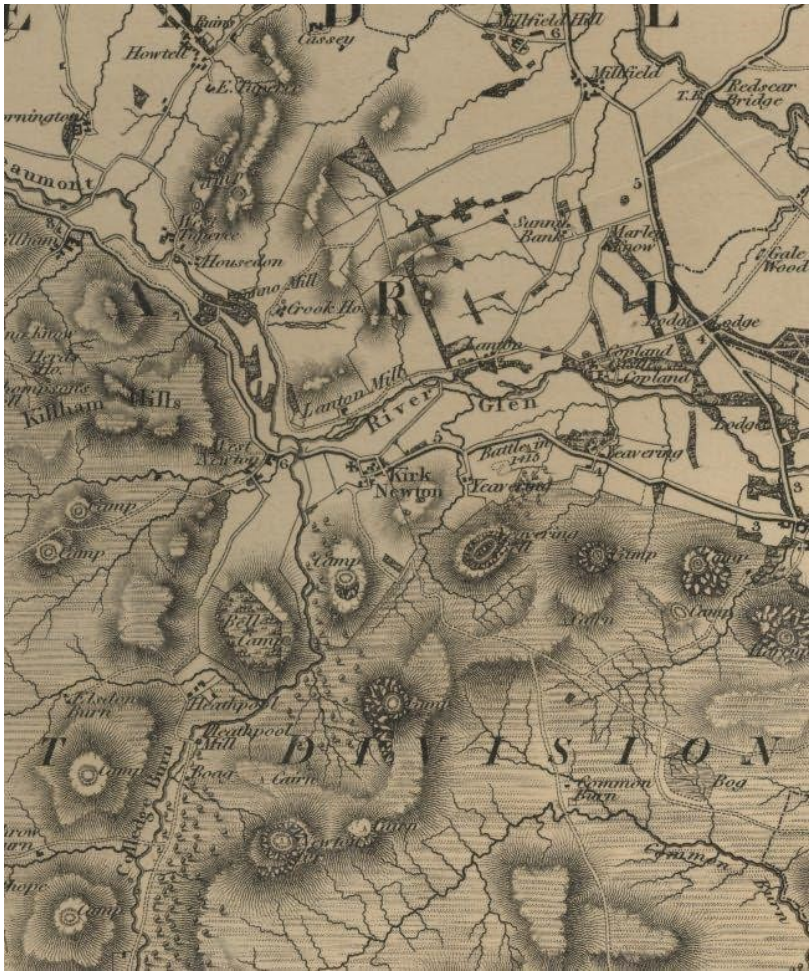


Fig. 5. Colm O'Brien's reconstructed 'Shires', showing the location of Yeavering in Gefrinshire (O'Brien 2005b).

Fig. 6a (above) 1770 A new and correct map of the county of Northumberland, 1769. Lieutenant Andrew Armstrong & Sons; Fig. 6b (below) Map of the County of Northumberland 1828.



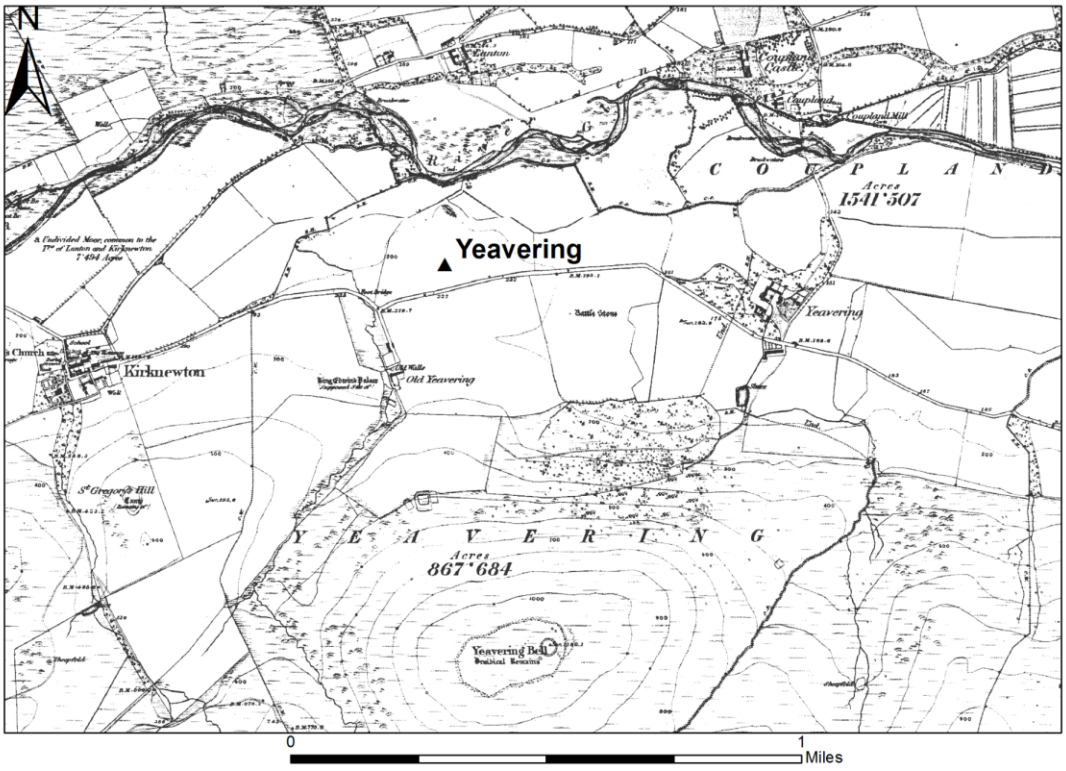


Fig. 7 (above) 1st Edition Ordinance Survey map. This shows the landforms at Yeavering, prior to the construction of the railway; Fig. 8 (below) Early aerial photograph of Yeavering by J.K.S. St. Joseph (Hope-Taylor 1977, pl 3).

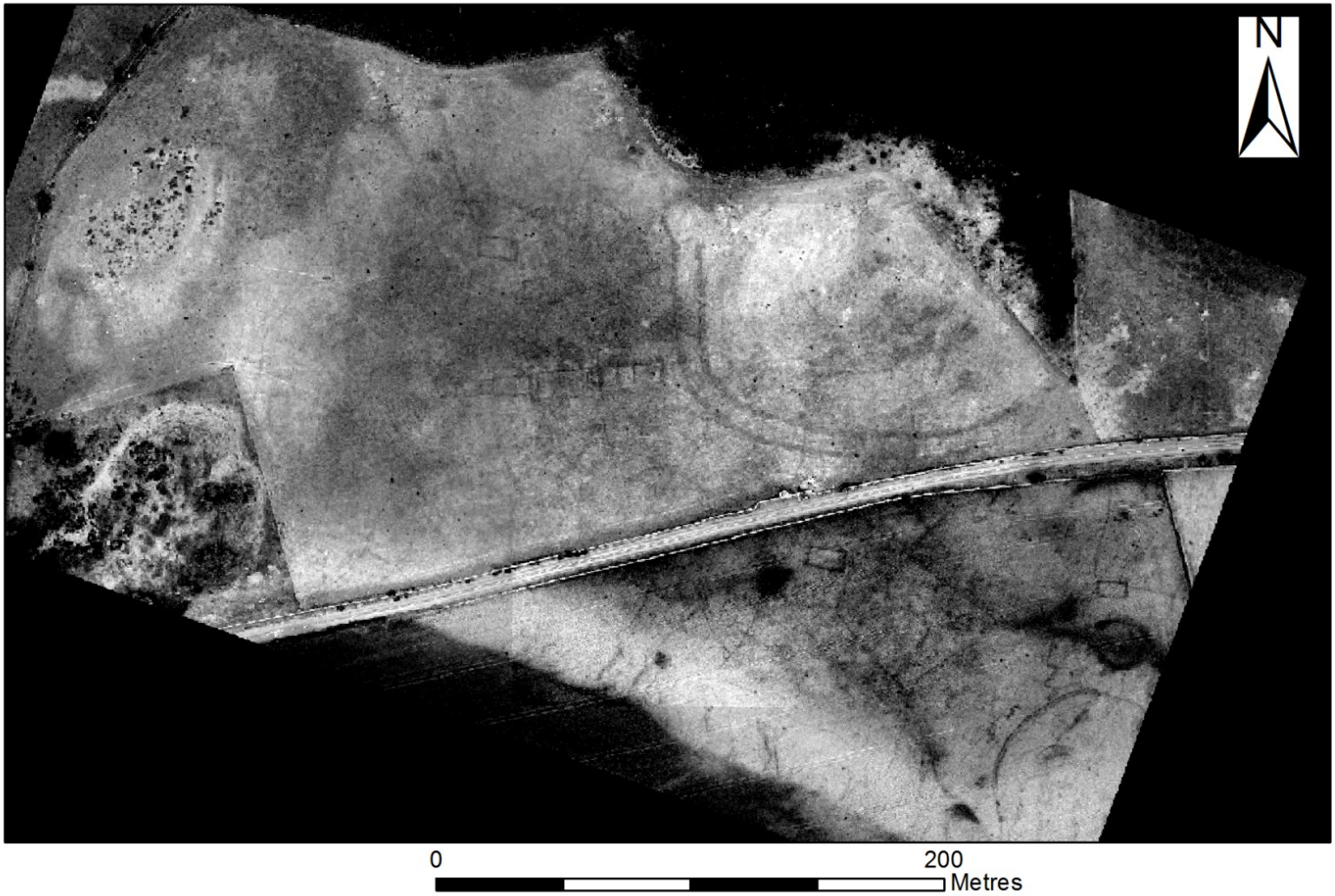


Fig. 9. A more recent aerial photographic image of Yeavering showing the cropmarks to the south of the road.

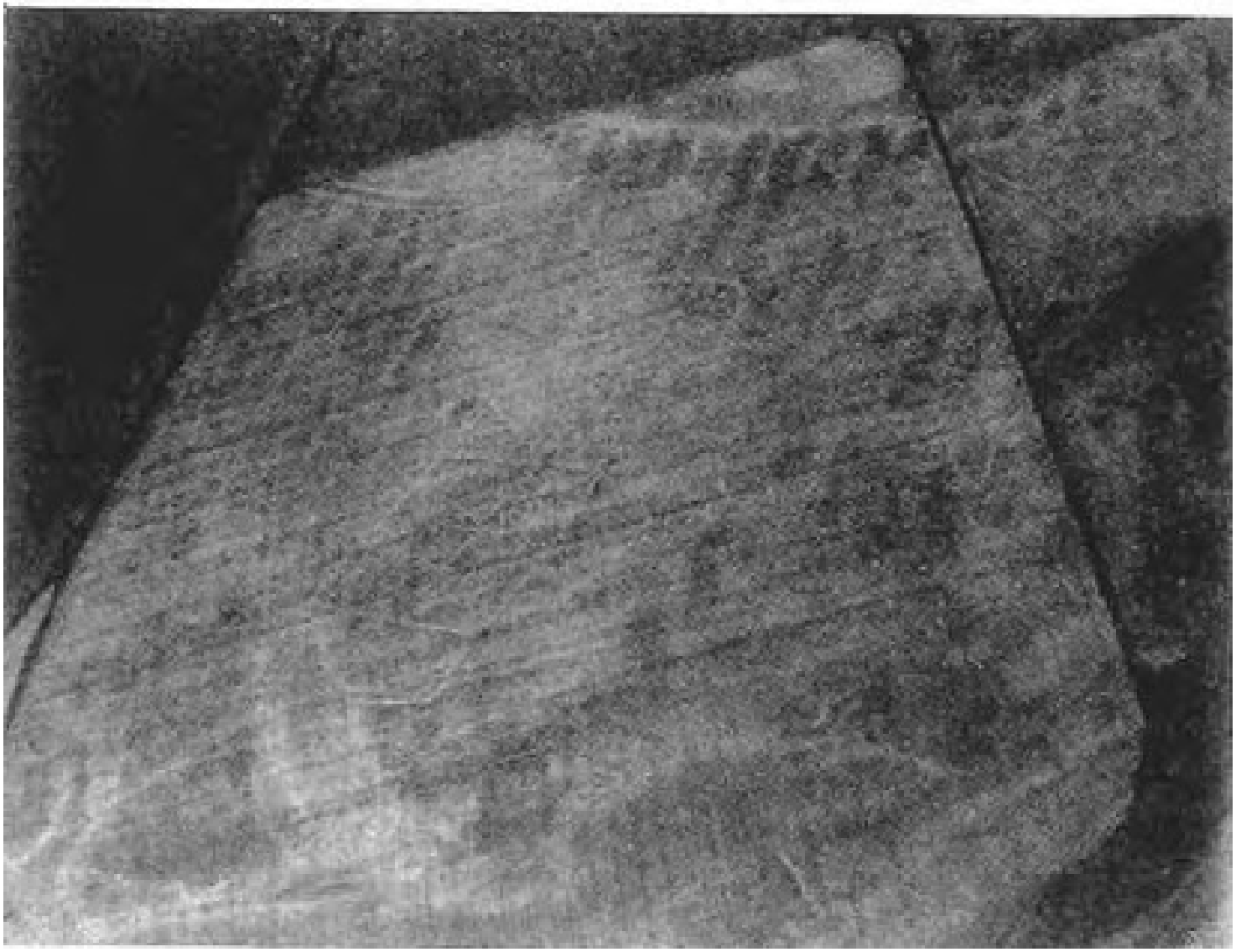


Fig. 10a. Early aerial photograph of Milfield by J.K.S. St. Joseph (Hope Taylor 1977, pl 7).

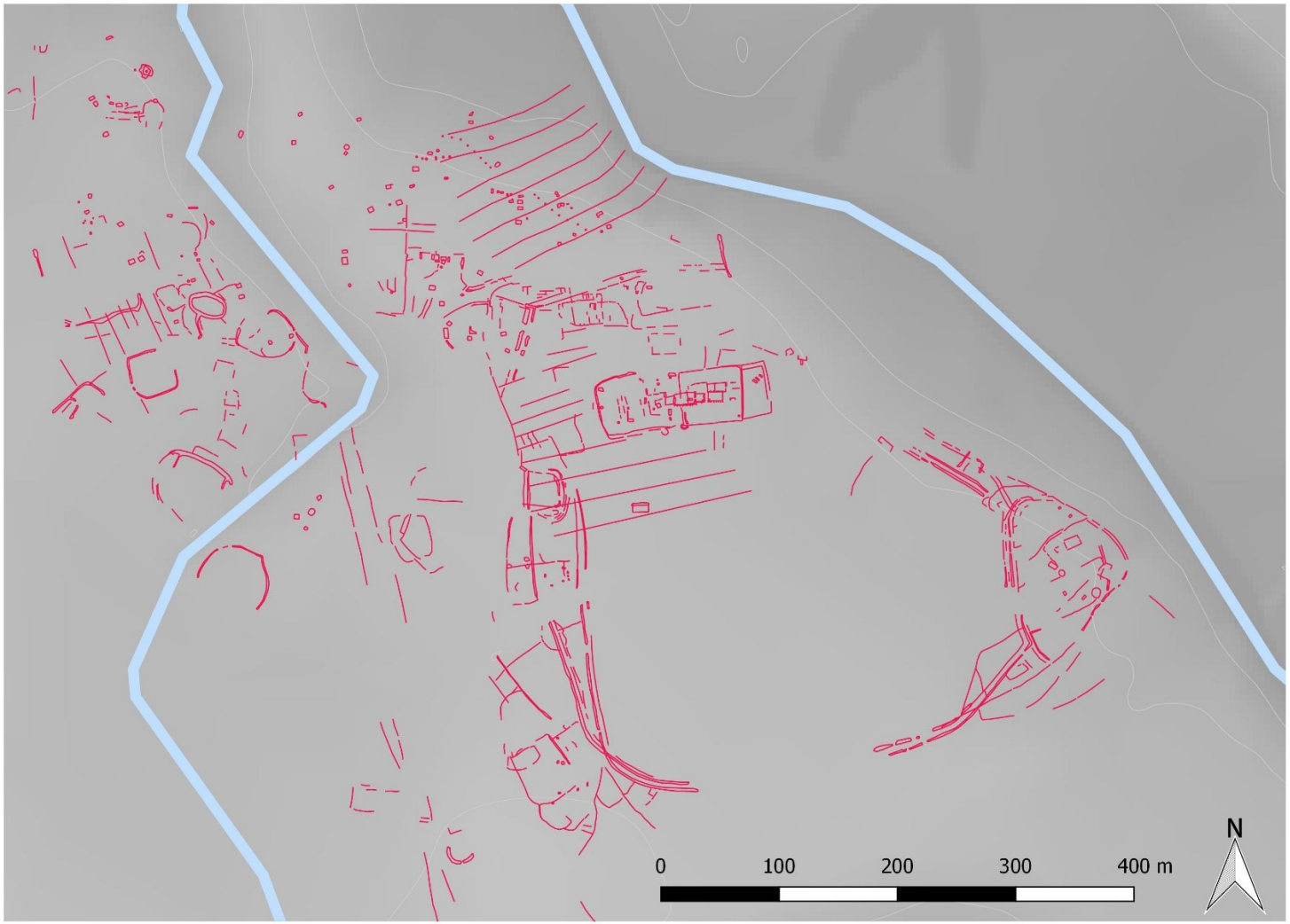


Fig. 10b. Transcription of cropmarks at Milfield © Archaeological Research Services Ltd.

Fig. 11. Aerial photograph showing possible sunken featured buildings at Thirlings.

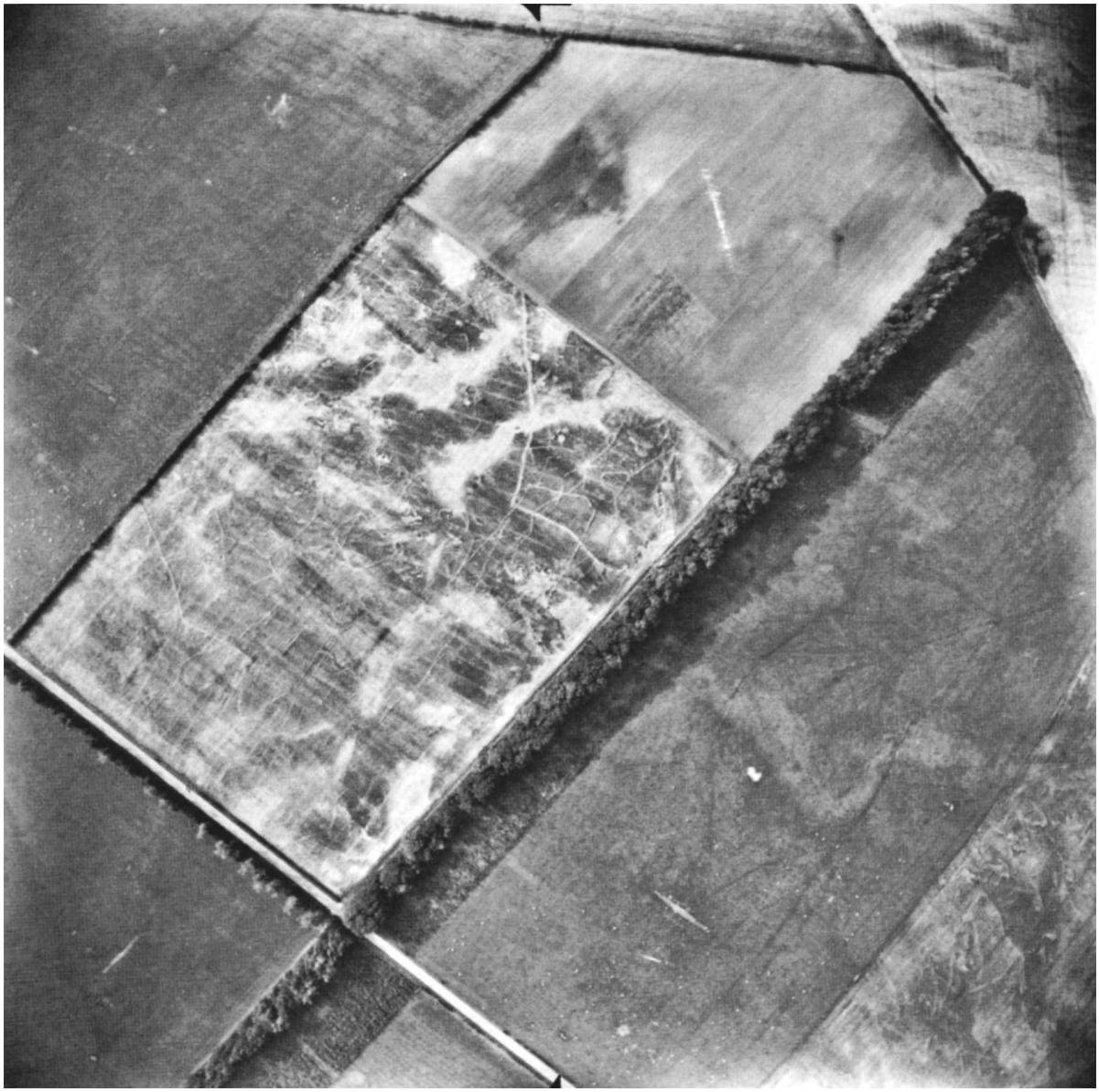


Figure 12. Aerial photographs showing potential sunken featured buildings at New Bewick and plot showing the distribution of similar discoveries along the river tributaries of the Milfield Basin (Gates 2009, fig 4.30).

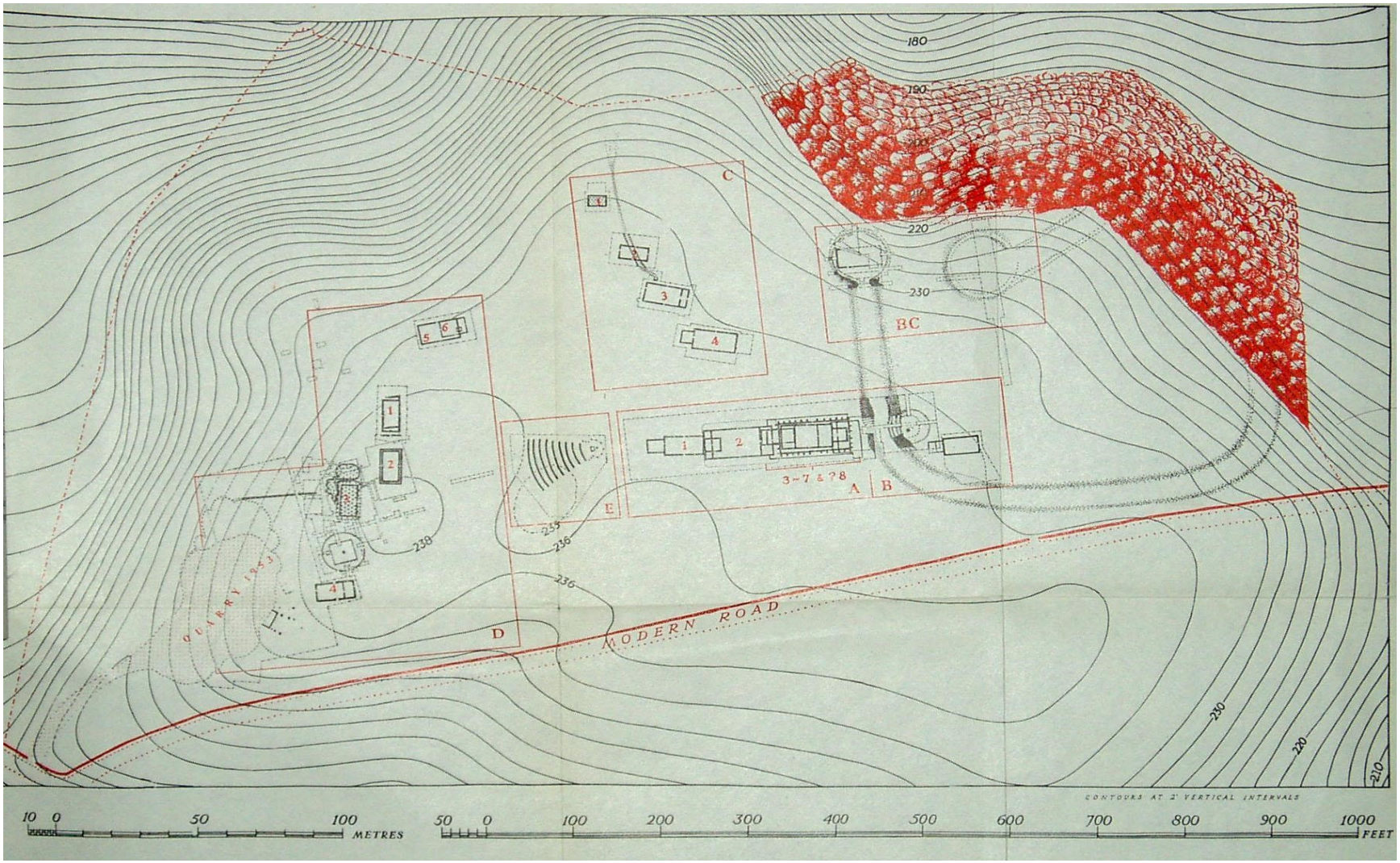


Fig. 13. Plan by Brian Hope Taylor of the areas of excavation opened between 1952 to 1962 and associated features and structures (Hope Taylor 1977, fig 12).

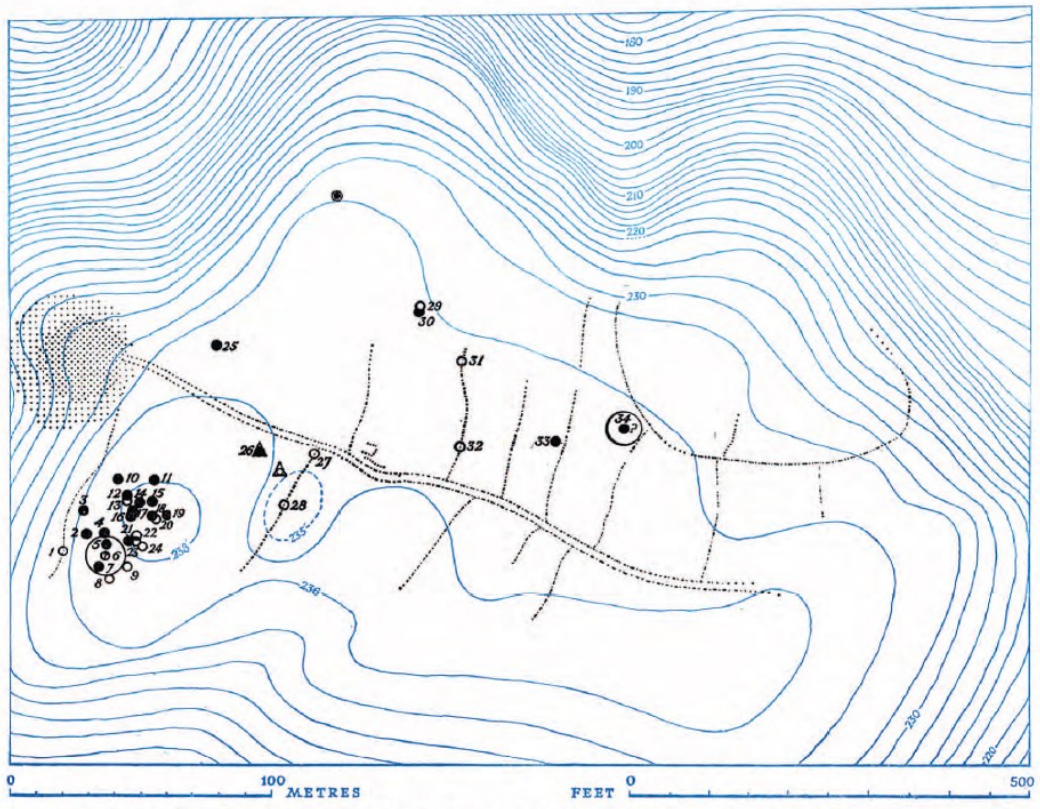


Fig. 14. (above) Plan of features and finds of Neolithic to Roman Iron Age date at Yeavering recovered during Hope Taylor's excavations (1977, fig 73). Fig. 15. (below) The excavated henge with associated features of early medieval date. Reproduced from Tinniswood & Harding 1991, fig 3.

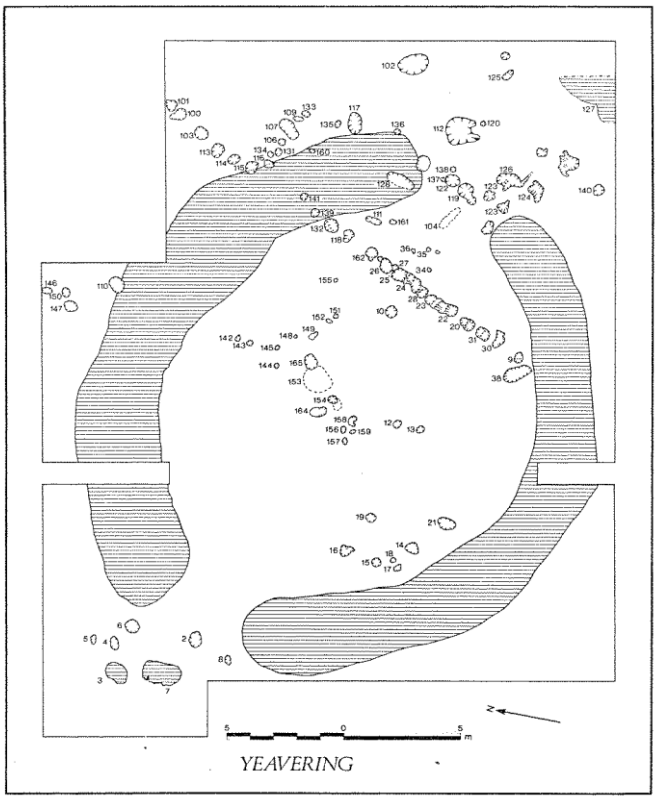


Fig 16. Excavations by Brian Hope Taylor at the edge of the quarry at Yeavering showing a number of enigmatic features.

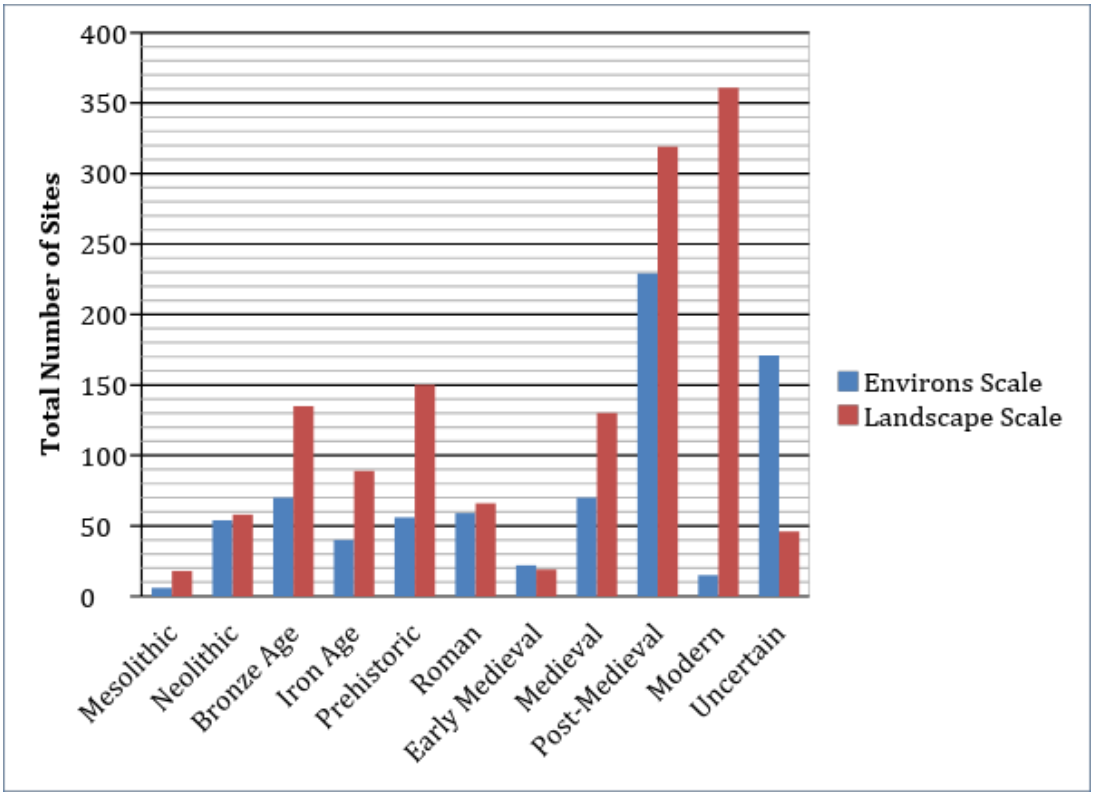


Fig. 17. Sites listed in the Northumberland SMR (October 2015) by immediate site environs and broader study region.

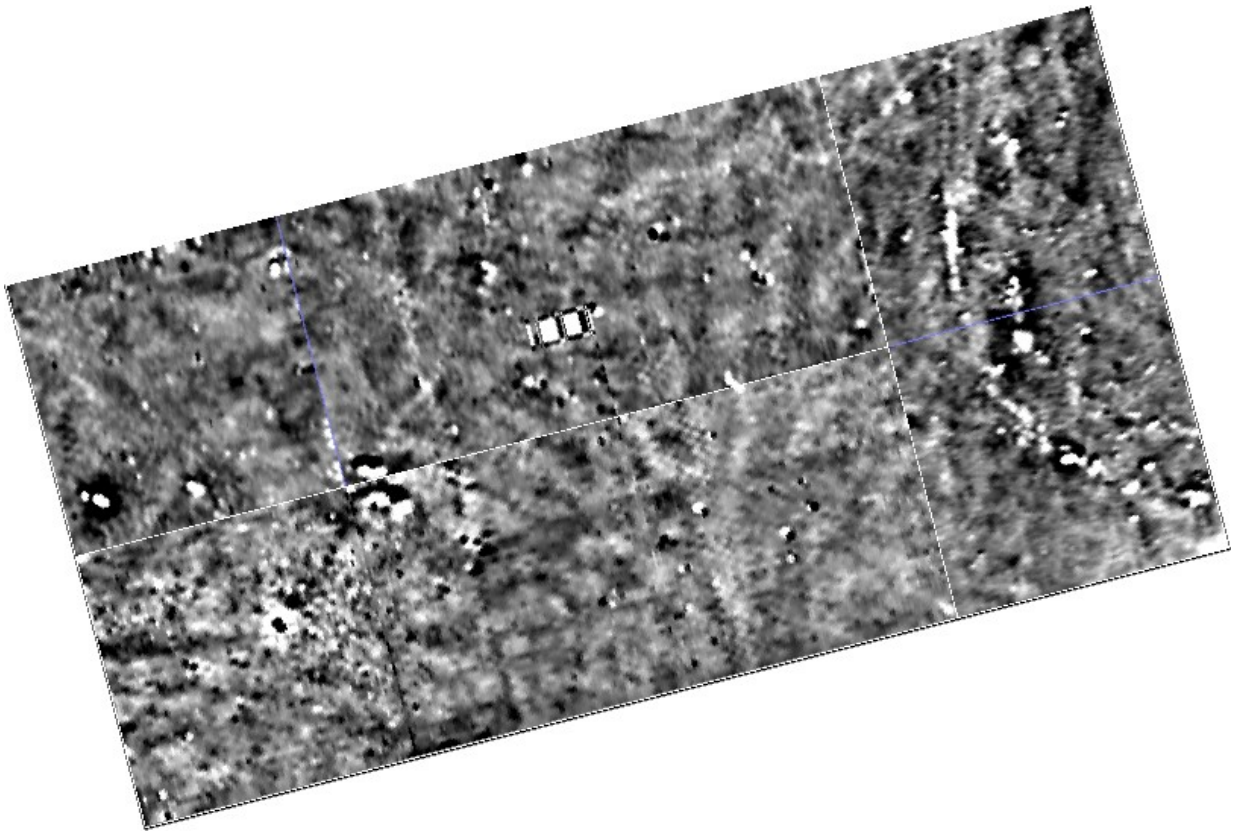


Fig. 18. Fluxgate Gradiometry results. Yeavering 2005. Phil Howard.

Fig. 19. Resistivity survey conducted at Yeavering 2007–9. Features include **A**: smaller earlier double palisade enclosure; **B**: one or more rectilinear features, perhaps buildings, lying within the lip of the palisade enclosure; **C**: Funnel-shaped feature with high resistance rectangular platform set within its splayed ditches; **D**: henge complex excavated by Harding (Tinniswood and Harding 1991); **E**: hall-type structures already recognised on aerial photographs; **F**: faint traces of two large circular features, and a rectangular structure commensurate in size with other excavated halls.

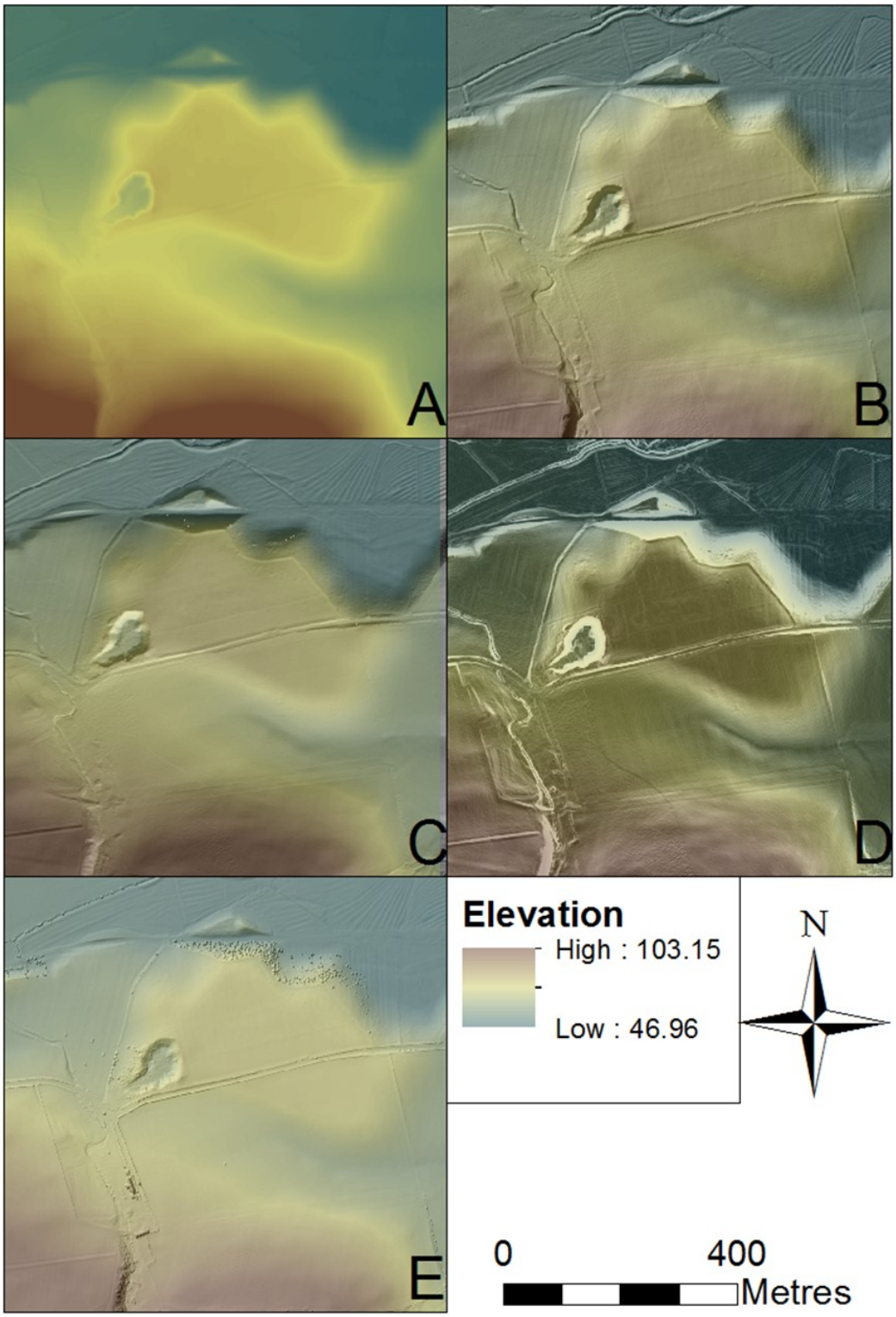


Fig. 20. LiDAR visualisation of the Yeavering landform. © Environment Agency copyright and/or database right 2017. All rights reserved.

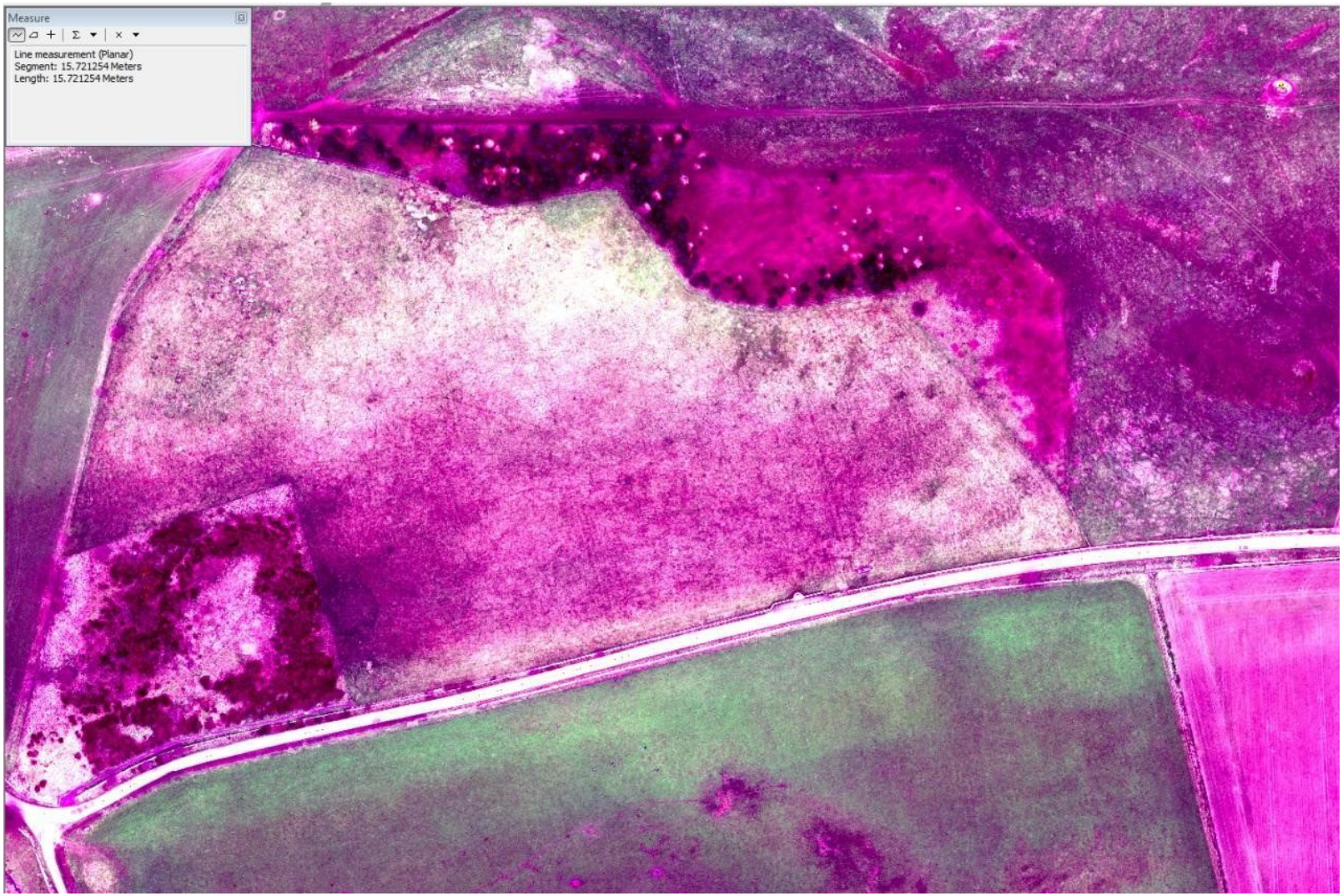


Fig 21. Results of systematic aerial photography programme using a low altitude unmanned aerial vehicle (UAV) or drone by Darren Oliver March 2016. Note circular feature to the immediate east of the quarry boundary.

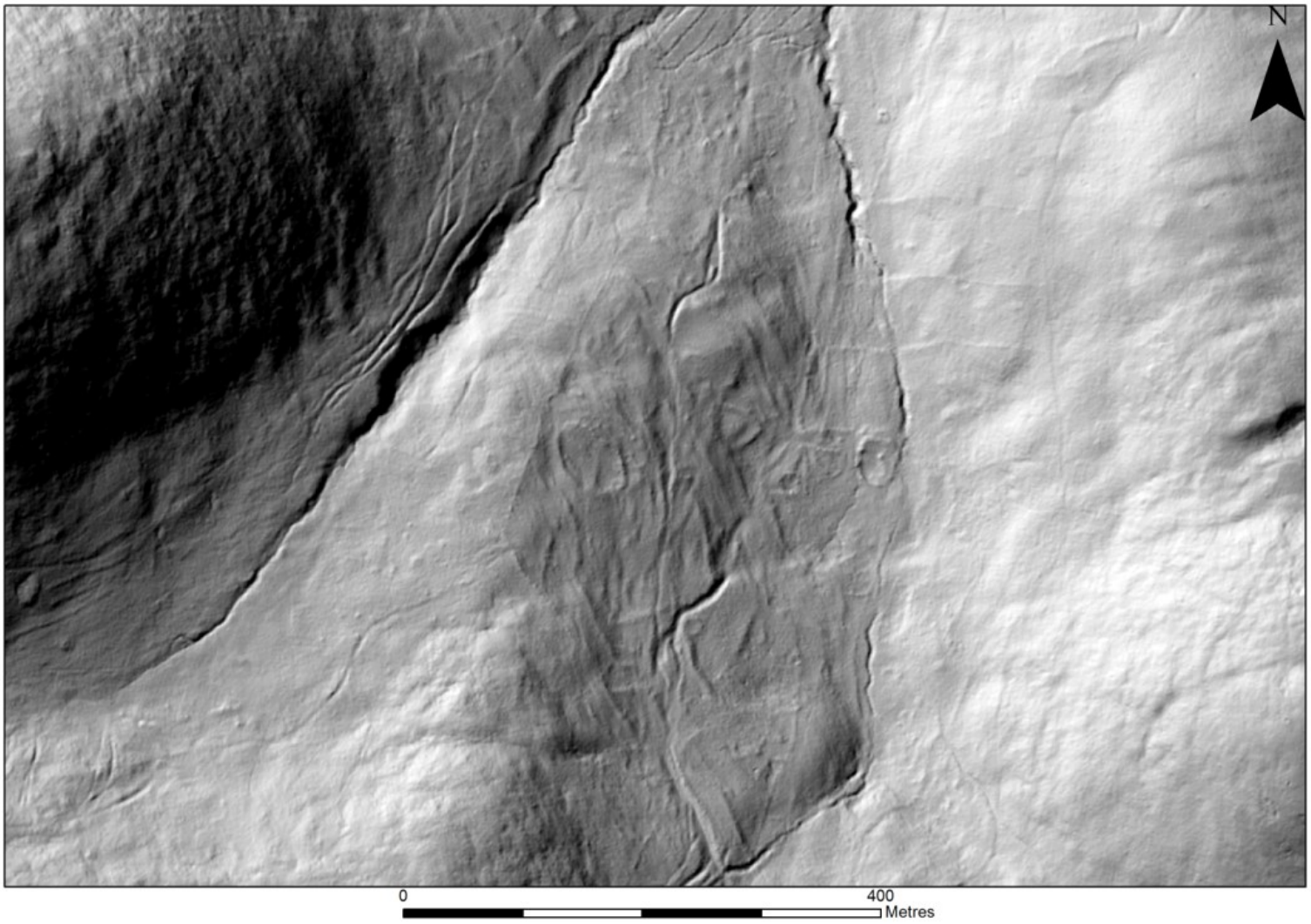


Fig. 22. Still of LiDAR image showing earthworks to the south east of Yeavering Bell including enclosures and cairns.

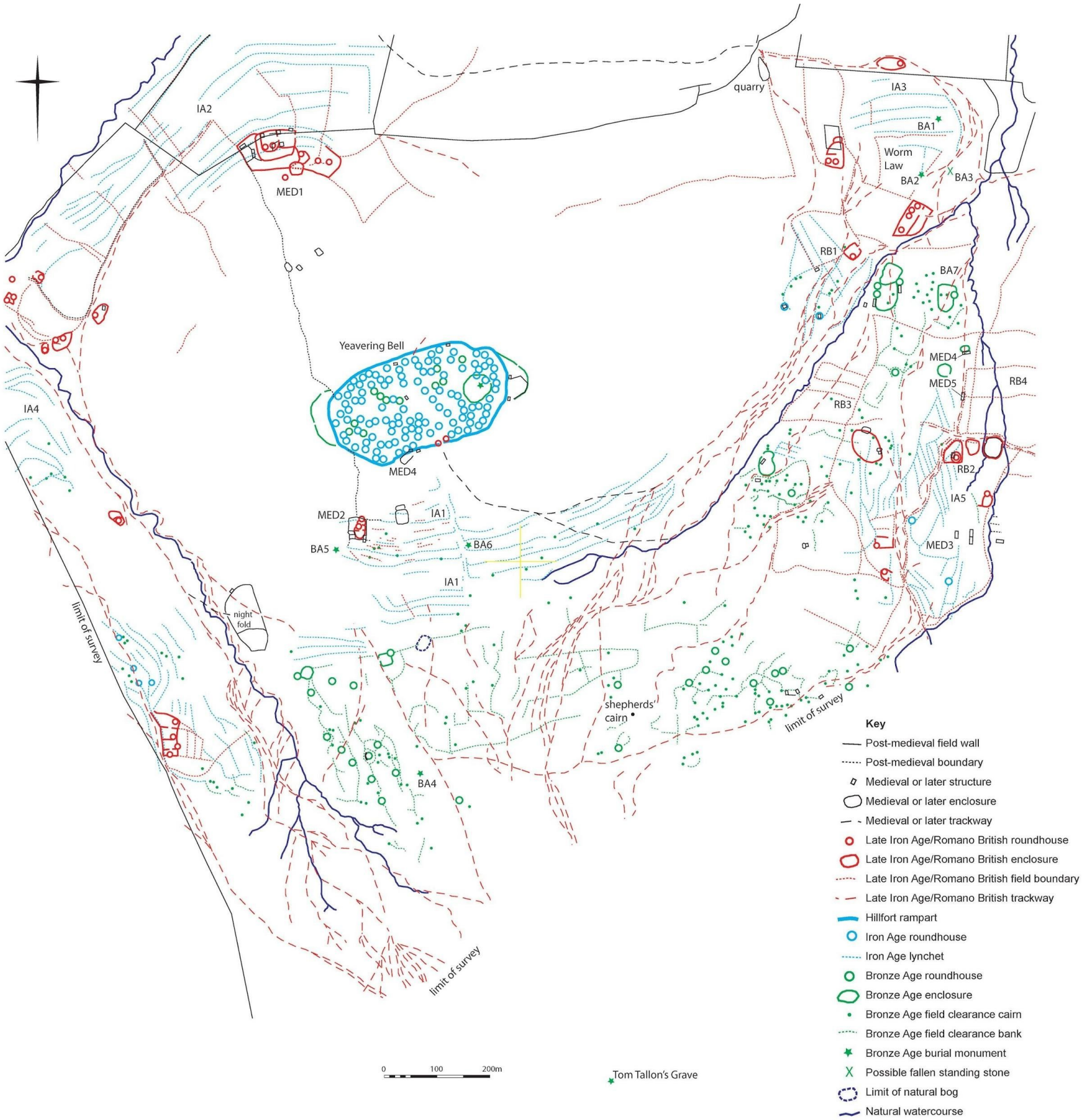


Fig. 23. Transcription of features identified using LiDAR, some of which have been subject to walk over survey. Ainsworth, Gates and Oswald 2016.