

EAST RIDDLESDEN HALL, KEIGHLEY,

WEST YORKSHIRE

Archaeological Survey Report



Oxford Archaeology North

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SUMMARY

The National Trust commissioned Oxford Archaeology North to undertake an historic landscape survey of land associated with East Riddlesden Hall, Keighley at SE 07800 42050, in order to inform the management of the estate lands. It incorporated a documentary study, a walk-over survey of the estate lands to the east of the hall, a building survey of some modern agricultural buildings, a geophysical survey of a field purported to have a Roman road, and a topographic survey of the bank of River Aire to identify the extent of recent erosion. The survey was undertaken between February and April 2008.

The documentary and walk-over surveys established that the land to the east of the hall was for the most part the flood plain of the River Aire and has in the past served as water meadow land. The archaeological resource was relatively thin on the ground, reflecting that it was land of limited value because of its propensity to flood. The earliest activity within the study area was the discovery of residual flint tools found during the 1998 excavations in the vicinity of the 'Starkie Wing', and which are indicative of Neolithic activity on the site or environs. The putative line of a Roman road, believed to be the Manchester to Ilkley road, crossed the River Aire just below the hall and extended through what is now called Maze Field. The interpretation of the road as Roman is reliant upon excavations undertaken in 1982, and the geophysical survey, undertaken as part of the present study, identified a line of probable road or track, of unknown date, extending directly towards the river.

Evidence of early medieval activity within the study area was based upon the discovery of eighth / ninth century cross fragments, which were thought to indicate the importance of East Riddlesden at the time, as well as suggesting that they might have marked the position of a cemetery. Riddlesden was mentioned in the Domesday Book, which further indicates the pre-Conquest origin of the site.

Although, any medieval remains around the hall are difficult to identify with any certainty, the documentary evidence suggests that a hall was likely to have existed on the site. It was recorded in the twelfth century that Simon de Montalt had a manor, a mill and the right of free warren. The present hall may contain medieval elements, and while the 'Starkie Wing' certainly has earlier elements, no evidence of medieval activity was apparent during excavations undertaken in 1998.

Considerable evidence for the hall and the surrounding buildings comes from the postmedieval period. Sixteenth and seventeenth century documentary evidence indicates not only the presence of the hall, but also the use of the surrounding buildings, which included mills, both for corn and fulling. Although their locations are uncertain, one of the mills may have been in the proximity of the hall, and just below the dammed pond (Site **03**). Only one barn is referred in an inventory of the seventeenth century, though two were mentioned by 1739.

The land to east of the house was, from the earliest mapping (tithe), in agricultural use, and its straight field boundaries were probably a result of parliamentary enclosure, and were described on the tithe map as 'Riddlesden pasture'. The only significant non-agricultural feature is the line of a former road (Site 42) which follows a sinuous path extending out from the present Bradford Road, and was possibly the pre-turnpike line of the Bradford Road.

The building survey of the farm buildings identified that they were almost entirely constructed from concrete blocks, and first appear on mid-1970 OS mapping. However,

despite their relatively recent origin, there were up to four phases of construction evident within the complex.

It is recommended that the line of the putative Roman Road (Site **02**) be subject to further investigation by evaluation to establish its existence and to provide mitigation in advance of any future riverine erosion. Any ground disturbance in the general area of the modern agricultural buildings, where there is the potential site of a mill (Site **18/34**), should be subject to archaeological investigation or monitoring, as there is the potential for the subsurface remains of a former mill. Similarly, any ground works on the line of the former road (Site **42**) in the northern part of the study area, should be subject to archaeological monitoring.

Oxford Archaeology North (OA North) would like to thank Mark Newman of The National Trust for commissioning the project and for help during the course of it. We would also like to thank Mike Freeman, the House Steward at East Riddlesden, for his assistance and advice. Thanks are also due to the West Yorkshire Sites and Monuments Record and the National Trust Sites and Monuments Record, and all the staff of the West Yorkshire Archive Service for their assistance with this project.

The desk-based assessment was undertaken by Jeremy Bradley and Vicky Bullock, Chris Ridings undertook the building investigation, Neil Wearing undertook the landscape survey, and Chris Wild and Will Gardner carried out the topographic survey. The geophysical survey was conducted by GSB Prospection Ltd. The project was managed by Jamie Quartermaine, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 The National Trust commissioned Oxford Archaeology North to undertake an historic landscape survey of land associated with East Riddlesden Hall, Keighley (SE 07800 42050; Fig 1). East Riddlesden Hall is owned by The National Trust and encompasses an area of 16ha (0.16sqkm) in extent. The purpose of the work was to record and evaluate archaeological and historical features to inform the management of the estate lands. The aim of the survey was to identify the character and significance of the landscape. A documentary history of the estate landscape, and the house, was required to inform a walk-over survey of the estate. The programme also included a brief Level 1 (English Heritage 2006) survey of the outlying farm buildings, located to the east of the hall. A geophysical survey was undertaken of the area known today as 'Maze Field', in an attempt to clarify a postulated Roman road and a possible small rectangular building. Finally, there was a requirement for a survey of the river bank to identify changes to its line as a result of riverine erosion and deposition subsequent to the last mapping in the 1970s by the Ordnance Survey (1:10,000 c 1972). The desk-based element of the project was undertaken in January 2008, and the individual field surveys were undertaken in February and April 2008.
- 1.1.2 This report sets out the results of the combined survey stages in the form of a short document, outlining the findings, followed by a statement of the archaeological potential and significance of the estate lands, and recommendations for further recording and management of the archaeological resource.

1.2 OBJECTIVES

- 1.2.1 The primary purpose of the project was to inform future management decisions with regard to conservation matters relating to the archaeological and historical resources of The National Trust's East Riddlesden Estate. The historic landscape survey was intended as an exploration of the archaeological and historical resource, and to act as a basic conservation management tool. The aims of this initial project were broadly as follows:
 - to establish sufficient information to identify the location, extent, character, period, condition, fragility and potential of the surviving archaeological features;
 - to provide an accurate Level II or III standard survey (The National Trust Historic Landscape Survey Guidelines) of all identified monuments;
 - to provide a Level 1 building survey of the modern farm structures (English Heritage (2006);
 - to undertake a geophysical survey in the area of the Maze Field to explore the possibility of a Roman road;
 - to provide a basis for the preparation of detailed management prescriptions by The National Trust.

2. METHODOLOGY

2.1 **PROJECT DESIGN**

2.1.1 A project design (*Appendix 2*) was submitted by OA North in response to a brief prepared by The National Trust's archaeologist Mark Newman (*Appendix 1*) for an historic landscape survey of East Riddlesden Hall, Keighley. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 DESK-BASED ASSESSMENT

- 2.2.1 The study area for the desk-based assessment comprised the area of the hall itself and also low-lying agricultural estate land in the bottom of the Aire Valley (The 'Co-Op lands' acquired in 1994 by The National Trust), to the south-east of the hall, which together measures some 0.16km² (Fig 1). The aim of the survey was to provide a background and context for a walk-over survey of the present estate and the hall. Several sources were consulted as part of the assessment, which have provided a good understanding of the developmental history of the study area. There were a number of secondary sources held by Mike Freeman, the house steward at East Riddlesden Hall, which were of considerable value. In addition, a number of archive sources were consulted which included: the West Yorkshire Sites and Monuments Record; the West Yorkshire Archive Service in Leeds; The National Trust Sites and Monuments Record, and the National Monuments Record.
- 2.2.2 *West Yorkshire Sites and Monuments Record*: is based in Wakefield and is maintained by The West Yorkshire Archaeology Advisory Service (WYAAS); it holds information on all known sites and monuments in the area. A record including grid reference and description was obtained for all sites within the study area. Additionally, it holds oblique aerial photographic records, listed building information and a library of published and unpublished documents.
- 2.2.3 *West Yorkshire Archive Service:* the main repository of the West Yorkshire Archives Service in Wakefield was consulted, as was the Sheepscar archives in Leeds. These are part of the West Yorkshire Joint Services and provide documents relating to local and family history.
- 2.2.4 *National Trust Sites and Monuments Record*: is maintained by the archaeology department of The National Trust in Swindon. The study area was provided to NTSMR and the records within the area were supplied in PDF format as full monument reports from The National Trust HBSMR (Historic Buildings and Sites and Monuments Record).
- 2.2.5 *National Monuments Record*: is maintained by English Heritage in Swindon. The study area was provided and records and photographs within the area were supplied as paper copies and full monument and activity reports. Digital copies of relevant aerial photographs of the estate were also obtained.
- 2.2.6 *Leeds and Keighley Libraries*: the local history sections of both libraries were consulted for secondary sources.

- 2.2.7 **Oxford Archaeology North:** OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.
- 2.2.8 *Aerial Photographic Reconnaissance:* air photographs held by the West Yorkshire Sites and Monuments Record (WYSMR), and the National Monuments Record (NMR) were examined to provide enhanced information on the features previously identified, and to potentially identify new features. These were used to compile the gazetteer (*Appendix 3*).
- 2.2.9 *Map Regression:* a map regression was compiled for the study area using cartographic sources compiled from the various sources (Figs 3-11). This spanned the period from 1610 (Speed) to 1953 (Ordnance Survey), but the earlier mapping was very schematic and provided little pertinent information for the East Riddlesden estate.

2.3 **IDENTIFICATION SURVEY**

- 2.3.1 *Identification Survey:* the survey was undertaken as an enhanced OA North Level 1b type survey (OA North 2002), within the study area, as defined in the project design, encompassing 0.16 sqkm (Fig 1). Those sites already identified from the NMR/ NTSMR /WYSMR were checked and recorded at the same level of consistency as other newly discovered monuments. The survey involved four elements: Reconnaissance; Mapping; Description; and Photography.
- 2.3.2 The reconnaissance consisted of close field walking, varying from 10m to 30m line intervals dependent on visibility and safety considerations. The survey aimed to identify, locate and record archaeological sites and features on the ground and all sites noted were recorded. The extent of those areas where there was no access is defined on the mapping. All sites identified from the desk-based assessment were investigated for their present condition.
- 2.3.3 The archaeological sites were mapped using Leica differential GPS equipment which used real-time EGNOS corrections from geo-stationary satellites to achieve an accuracy of +-0.5m (to satisfy the Level 1b survey requirements). The digital survey data was transferred as shape files into a GIS system (ArcGIS 9.2), and was superimposed with the digital Ordnance Survey (OS) data and cross-referenced with other historic environment datasets obtained from the desk-based assessment. The descriptive records were input on site into a database on a Psion palm computer. A photographic record of the sites was maintained in 35mm black and white print format and also digital colour photography, which have been used to accompany the present report.

2.4 TOPOGRAPHIC SURVEY

2.4.1 The detailed survey provided an accurate record of the current riverbank by means of a total station and was accurate to 20mm. The survey control was established by closed traverse using a Leica TC407 total station. The main horizontal control network was co-ordinated to an OS grid by a graphical method. Survey control markers were established over the core survey area to enable the future enhancement of the survey maps. The survey control was located by means of a back pack differential Leica GPS, which is accurate to +- 0.05m.

2.4.2 The present riverbank was surveyed with as much detail as possible, depending upon access and health and safety concerns. The detail survey was created by EDM tacheometry using a total station linked to a pen computer running TheoLT software. The topographic survey recorded all principal surface features and in particular the edges of the river bank, and was undertaken to a high level of accuracy. The results were superimposed over the current OS mapping in a GIS to determine the areas of erosion and deposition which have occurred since the 1990s OS mapping and to calculate the areas of change. A permanent survey marker has been installed at the foot of the hill immediately north of Maze Field, and east of the current Wooden-edged steps. The survey results were then overlaid and compared to the present OS map, allowing the creation of maps indicating areas of both fluvial erosion and alluvial deposition (Fig 13-17).

2.5 **BUILDING RECORDING**

- 2.5.2 The project was to consist of a Level 1 type survey (English Heritage 2006) of the farm buildings to the east of the Hall (Fig 1), comprising a descriptive internal and external record, combined with a detailed photographic record.
- 2.5.3 **Descriptive Record:** written records using OA North *pro forma* record sheets were made of all principal external building elements, as well as any features of historical or architectural significance. Particular attention was also paid to the relationship between parts of the building, especially those that would show their development and any alterations. These records are essentially descriptive, although some interpretation is carried out on site as required.
- 2.5.4 *Site Drawings:* although not a requirement of the Level 1 survey (English Heritage 2006), a basic plan was made of the buildings in order to provide a context for the description; this was drawn up to scale within AutoCAD (Fig 12).
- 2.5.5 **Photographs:** photographs were taken in both black and white and colour print 35mm formats, as well as digital format. The photographic archive consists of both general shots of the buildings, as well as shots of specific architectural details.

2.6 GEOPHYSICAL SURVEY

- 2.6.1 The geophysical survey of Maze Field was undertaken by GSB Prospection Ltd. The survey grid was set out using tapes and tied into the OS grid using a Trimble differential GPS and the results were geo-referenced on the final digital drawings.
- 2.6.2 *Magnetometer Survey:* the magnetometer survey was carried out with a Bartington Grad 601-2 fluxgate Gradiometer. Readings were taken at 0.25m centres along traverses 1m apart, which equates to 3200 sampling points in a full 30m x 30m grid. Data collection required a temporary grid to be established across the survey area using wooden pegs at 30m intervals. The Grad 601-2 has a typical depth of penetration of 0.5m to 1.0m. The collection of data at 0.25m centres provided an appropriate methodology balancing cost and time with resolution.
- 2.6.3 Processing of the data was carried out using specialist software *Geoplot 3*, which can emphasise various aspects contained within the data but which are often not

easily seen in the raw data. Basic processing of the magnetic data involved 'flattening' the background levels with respect to adjacent traverses and adjacent grids. 'Despiking' was also performed to remove the anomalies resulting from small iron objects often found on agricultural land. Once the basic processing had flattened the background it was then possible to carry out further processing, which included low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies.

- Resistance Survey: the resistance meter used was an RM15 coupled with an 2.6.4 MPX15 manufactured by Geoscan Research incorporating a mobile Twin Probe Array. With this array a pair of remote probes were placed at least 15m outside the grid and a pair of mobile probes were used to collect data within the grid. The Twin Probes were separated by 0.5m giving a depth of penetration of between 0.5m and 1m. The instrument used an automatic data logger which permits the data to be recorded as the survey progresses for later downloading to a computer for processing and presentation. Though the values being logged were actually resistances in ohms they were directly proportional to resistivity (ohm-metres) as the same probe configuration was used throughout the survey. Readings were taken at 1m centres along traverses that were 1m apart. This equates to 900 sampling points in a full 30m x 30m grid. Collection of data at 1m centres provided a methodology balancing cost and time with resolution. Data collection required a temporary grid to be established across the survey area using wooden pegs at 30m intervals.
- 2.6.5 *Geoplot 3* was again used for processing of the resistance data, and involved the 'despiking' of high contact resistance readings and the passing of the data though a high pass filter. This had the effect of removing the larger variations in the data which were often associated with geological features. The net effect was aimed at enhancing the archaeological or man-made anomalies contained in the data. The presentation of the data for the survey is a print-out of the raw data as a grey scale plot (Fig 19), together with a grey scale plot of the processed data. Resistance anomalies were identified and plotted onto the 'Abstraction and Interpretation of Anomalies' drawing for the site (Fig 19).

2.7 **PROJECT ARCHIVE**

2.7.1 A full archive has been produced to professional standards, in accordance with current English Heritage guidelines (English Heritage 1991), and is provided in the English Heritage Centre for Archaeology format, both as a printed document and digitally. Digital survey data is provided in a suitable format for incorporation into The National Trust MapInfo Geographical Information System (GIS).

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

3.1.1 East Riddlesden Hall (SE 0788 4206) lies on the north bank of the River Aire, some 1.5km from Keighley in West Yorkshire. The hall lies at the foot of Rombalds Moor which rises to an elevation of 400m OD to the north. The area forms the northern extent of the Southern Pennines character area. Glacial Till occupies the valley bottom of the River Aire, while the long distinctive ridge of Rombald's Moor is formed from Millstone Grit (Countryside Commission 1997, 107). The soil coverage is composed of Cambic Stagnogley soils giving way to Cambic Stagnohumic gley soil on Rombalds Moor (Soil Survey of England and Wales 1983, Sheet 1).

3.2 EAST RIDDLESDEN HALL HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- Prehistoric Period: the site of East Riddlesden Hall, within the Aire Valley, is set 3.2.1 within a significant archaeological landscape that dates from the Neolithic period. Rombald's Moor, the area of moorland to the north of the hall, exhibits the greatest concentration of rock art in the Pennines, comprising elaborately-patterned boulders and outcrops. Only one site has been excavated, at Backstone Beck, and comprises an elongated ovoid enclosure defined by a boulder wall; the excavation produced Grooved Ware and a characteristic Neolithic flint industry. The radiocarbon determinations for the site dated from 2923-2613 cal BC; however, it has not been possible to link the dating of the Backstone Beck site and the surrounding rock art (Manby et al 2003, 100). Several casual finds of stones axes and hammer stones have been found in the Riddlesden area testifying to further Neolithic and Bronze Age activity (NMR NATINV 48178, 48137 and 616501). The discovery of these artefacts, and a greenstone axe (NMR 48222) in the Keighley area, are likely to be indicative of the use of the Aire/Craven gap as a prehistoric route-way across the Pennines as a trade route for Langdale axes (Manby 1965). More particularly, excavations carried out close to the former 'Starkie Wing' revealed the presence of flint tools, of probable Neolithic date (Newman 1999, 59)
- 3.2.2 Little evidence of Iron Age activity has been found in the area, other than two coins, one of which was a gold stater of Verica found in the vicinity of East Riddlesden, *c* 1890; Verica was a client king of the Romans in the first century AD (NMR NATINV-616520).
- 3.2.2 **Roman:** Romano-British activity within the environs of the site was restricted to the presence of the Roman road from Ilkley to Manchester, part of which was revealed in Maze Field (former Cricket Field) below East Riddlesden Hall in 1982, during excavations by Bradford Grammar School (Site **02**). The excavation revealed a steeply-cambered road, *c* 5m wide, bordered by the foundation of a substantial wall (Frere 1983, 295) (SE 07854200). Casual finds and a hoard have also been found within the area; in 1775 a farmer uncovered a copper or brass chest containing hundreds of Roman silver coins in the vicinity of East Riddlesden (Site **20**), but the precise location was not provided. The coins supposedly ranged in date from Julius Caesar to Geta (NMR NATINV-48124) (*c* 55BC to AD 211). Roman coins were also found in Parkwood, Keighley, some years before 1920; however, the present

location of these coins is not known (NMR NATINV-48127). A 2" bronze eagle thought to be Roman, was found in 1917 in a recently ploughed field, near East Riddlesden; the figurine is now in Keighley museum (NMR NATINV-48151).

- 3.2.3 *Early Medieval:* the discovery of Anglo-Saxon cross fragments at East Riddlesden Hall (Wilson and Hurst 1960, 137), dating to the eighth or ninth century has been taken to indicate the administrative importance of Riddlesden at that time. Margaret Faull (1986, 29) has suggested that the cross fragments are more likely to mark the position of a cemetery, at which no church was established.
- 3.2.4 *Late Medieval:* the manor of Riddlesden is recorded in the Domesday Book as a unit of jurisdiction, rather than necessarily as a dwelling, and it was held by a Saxon, Gospatrick, in 1086, although part of it lay in the hands of the king (National Trust 1993, 34; Williams and Martin 2002, 865). In the twelfth century, it is recorded that Simon, son of William de Montalt, granted to the church at Bingley 'the tithes of the mill at Riddlesden, and of the meadows, coppices and bees of his manor there' (Faull and Moorhouse 1981, 458). In 1254 Simon de Montalt was granted free warren in his demesne of Riddlesden (*op cit*, 460), and provided unenclosed hunting rights. The origin of a deer park depicted to the north-west of East Riddlesden Hall on Speed's map of 1610, called Howden Park may ultimately have been part of the East Riddlesden estate but was not necessarily imparked as a result of this grant.
- 3.2.5 In 1402 the Riddlesden estate was divided east and west between the heirs of the de Montalt family, who were the Norman successors to Gospatrick (National Trust 1993, 34). The estate (inferred by Sheeran (1985) as the house) then passed to the Paslews, through Robert Paslew's marriage to Elizabeth Maude (Maude appears to be alternative spelling of de Montalt), in the same year (1402) (Sheeran 1985, 14). There are various references to the Paslew's association with the manor of Riddlesden in the late medieval period (Brigg 1895, 91), but no reference that connects them directly to the present site of the hall. It is not clear where the site of the medieval hall lay, and it has been suggested that it was located on the site of the western wing of East Riddlesden Hall. This latterly was called the Starkie Wing (National Trust 2006, 4), a view which is supported by Sheeran, who suggests that the windows in the surviving north façade are unlike seventeenth century works and may be of medieval origin (Sheeran 1985). Sheeran has suggested that the Hall (Site 12) had a typical late medieval pattern, which probably developed from a timber hall comprising a central hall with cross wings, and a cross-passage (op cit, 14) and is an opinion endorsed by Giles (1986, 206). Its present width suggests that it was aisled and a timber high up in the east wall might conceivably be an old tie- or collar-beam that has been embedded in later masonry (research notes, undated NMR). Despite these assertions, the 1998 excavations did not find any evidence of medieval activity (Newman 1999). The view of the House Steward (M Freeman, pers comm) was that the present hall contains elements of a medieval structure.
- 3.2.6 **Post-Medieval Sixteenth Century:** for the post-medieval period there is considerably better evidence for a house on the site of the present hall. In 1544 Walter Paslew of Riddlesden held one water corn mill, one fulling mill, 103 acres of land, meadows, pastures, and wood in Riddlesden, and a capital dwelling, which was likely to be the precursor of the present hall (YPEC/13/20/1543). The hall or capital messuage is further mentioned in a lease between Walter Paslew and Robert Rishworth in 1571 (WYAS/WPB 9/34). During the later sixteenth century part of

the house was purchased by Robert Rishworth, and the rest was passed to him through his marriage into the Paslew family (National Trust 2005). The short tenure of the Rishworths may have produced the earliest surviving fragment of the surviving parts of the hall complex, that is the ground floor windows of the Starkie Wing (National Trust 1993, 34). Further to this, the hall range in the centre probably dates from the sixteenth century (*op cit*, 4). The various references to the site during the sixteenth century also mention two mills and these are discussed further in *Section 3.4.5*.

- 3.2.7 Seventeenth Century: the will of Robert Rishworth (YPEC/28/7/1602) saw the lower south part of the manor house, or capital messuage, being left to his wife Ellen and the other parts of the house were left to his son John Rishworth. This perhaps indicates that the house had been split into separate dwellings, comprising the lower southern part of the hall (present building) and the upper northern part (former Starkie Wing) (National Trust 1993, 36). Early in the seventeenth century, around 1630-40, the hall was rebuilt with the present fireplace and stone walls. The presumed aisled construction was removed and the building was re-roofed at a later date (research notes, undated NMR). In 1638 the manor and estate was bought by James Murgatroyd, a rich Halifax 'clothier', and by all accounts an avid builder, who built or remodelled three or four houses for himself and his family (*op cit*, 34; National Trust 2006, 24). East Riddlesden was selected for his son John and it is his initials, those of James Murgatroyd, and their respective wives, that appear on a door to the service building.
- 3.2.8 **The Hall Exterior:** the house was completed in 1648, according to the date over the drawing room fireplace (National Trust 1993, 34-36). It would appear, however, from the inventory taken of the possessions of East Riddlesden Hall as owned by John Murgatroyd in 1662, that this remodelling only affected the lower southern half of the house (the present building), whereas the upper northern (medieval) half was left as a separate building, complete with its own kitchen, great chamber and bedrooms (*op cit*, 36).
- To the south is a great double pile block and entrance built by James Murgatroyd in 3.2.9 the 1640s, probably on the site of a former wing. This hall connects with the smaller block to the north, of which only the rear and end walls survive, the rest of the block having been demolished in 1905 (National Trust 2006). Traditionally, this has become known as the Starkie Wing, because Edmund Starkie is thought to have rebuilt an earlier wing here in 1692; however, both the staircase and the hall seem to be additions to an already existing structure. The ground floor windows in the surviving wall of this block are perhaps of medieval origin; some windows have arched heads and others are square-headed mullioned windows, suggesting a sixteenth to seventeenth century date. The windows to the first floor on both sides of the block are in a classically derived style typical of the late seventeenth century. What Starkie would appear to have done, therefore, is remodel and refenestrate the first floor of an already existing block (Sheeran 1985, 18). The Murgatroyd block and passage are thought to have been the rebuilding of a wing at the southern end of the house. The will of Robert Rishworth (Section 3.2.7) stated in 1602 that 'all beneath the hall' was 'the lowere south part of the Manor House'. Judging from the amount of reused timber in the roof of the present block, some of it elaborately moulded, it was a larger timber wing (*ibid*). No evidence of the disposition of rooms contained in the structures at both ends of the hall during the Middle Ages has come to light. The inventory of 1662 before Starkie's remodelling provides some

information of the arrangement of the northern end. On the ground floor were four rooms – two parlours, a kitchen and a buttery. Above this were three chambers, one being designated the Great Chamber and the fact that the ground floor rooms were prefaced by 'old' suggests the arrangement had remained for some time (*ibid*).

- 3.2.10 The main entrance frontage shows the various phases of building at East Riddlesden. The Hall range, in the centre, probably dates from the sixteenth century, although James Murgatroyd had substantially remodelled it in the 1640s. It then underwent further remodelling at the hands of Edmund Starkie in the late seventeenth century. James Murgatroyd's block is of two principal storeys, with a garret, basement and multiple mullioned windows typical of West Yorkshire manor houses of this period. The remodelling included the two-storey porches at the front and the back, which had distinctive rose windows. These were a common feature of contemporary houses of the area, such as Haigh House and Luddenden and New Hall, Elland (*op cit*, 7; National Trust 2006, 4).
- 3.2.11 The Hall Interior: the precise building history of the interior hall is uncertain; however, by the seventeenth century it probably acted as a common room, dividing the Murgatroyd domestic quarters in the east range from those of the Rishworths and Starkies in the west (op cit, 10; Section 3.2.7). The first floor entrance chamber is separated from James Murgatroyd's cross-passage below only by joists and boards. The good ventilation made it an excellent place for storing grain, also suggested by the discovery of grain during repairs to the floor and the 'four meal Arkes' and 'one Wheat Arke' in the 1662 inventory of John Murgatroyd's chattels (*ibid*). Also on the first floor are two 'porch chambers' forming private 'chambers within' and was typical of later seventeenth century baroque houses (National Trust 1993, 11). Also on the first floor, the Kitchen Chamber and the adjacent Stairhead Chamber, are the only two rooms to have been substantially altered since the seventeenth century; the panelling has been rearranged and ceiling timbers betray signs of former room divisions. The Stairhead Chamber has a blocked fireplace suggestive of a different room alignment (*ibid*). The staircase may also have occupied a different position, as the present structure dates from the eighteenth century. The Great Chamber has the most elaborate panelling and fireplace. In 1662 it contained a bed, a 'livery Cubberd' and several 'quichens' and 'Carpetts', which suggests that it was sumptuously furnished and used as a private reception chamber and bedroom (ibid).
- 3.2.12 The Yellow Porch Chamber and the Red Porch Chamber, also on the first floor, had beds, tables, carpets and various pieces of seat furniture listed in the 1662 inventory. This would suggest that they were used as family bedrooms, the distinctive feature of both rooms being their rose windows. This is both an expression of wealth and fashion, looking back to a Gothic form derived from ecclesiastical architecture of the medieval period (National Trust 1993, 16). The identity of the Grey Lady's Chamber in 1662 is uncertain and it is possible the room was used as a service room. It is not clear from the 1662 inventory what name the Buttery Chamber had, although it probably contained a livery cupboard, several chairs and a 'square table with a carpett and a seeing glass'.
- 3.2.13 On the ground floor, the Drawing Room has one of the two surviving decorative plaster ceilings, that closely related to the work of the Wakefield school, which flourished in the latter part of the sixteenth and early seventeenth centuries. The fireplace is inscribed with the date 1648, although the style is slightly archaic for the

period. In 1662, the Dining Room was called 'His Own Parlour' and contained John Murgatroyd's bed, as well as 'one Deske' and 'one Foote chest'. The room was probably his private office, as well as his bedroom, where he kept his papers, valuables and precious foodstuffes in 'one Livery Cupboard'. The panelling was remodelled in the eighteenth century and a window was blocked to incorporate a new fireplace. During the nineteenth century the room had become the family dining parlour (National Trust 1993, 22).

- 3.2.14 John Murgatroyd's kitchen was comfortably furnished with tables, chairs and 'quishens', but lacked utensils which suggests that much of the food storage and preparation took place elsewhere ('Taverne', buttery, 'Milke house') and that this room was used as a family living area. The room is centrally positioned in relation to the staircases and all the other principal chambers of the southern block. There is a range of fully sunken cellars at East Riddlesden under one side of the main block, which were probably used for the storage of drink (Giles 1986).
- 3.2.15 The hall may have grown out of a system of building sometimes referred to as the unit system, which provided for dual residence (Sheeran 1985, 18). The will of Robert Rishworth shows that the house had been partitioned between the lower and upper ends to provide a separate dwelling for his widow. Rishworth bequeathed to his wife the 'lower south part of the Manor House'. Forty years later the Murgatroyd family occupied part of the house and were rebuilding the lower end. The 1662 inventory gives a picture of the house when John Murgatroyd solely occupied it. The Rishworths had made an agreement with the Murgatroyds earlier in the century allowing them to reserve rooms at the house, which suggests that the partition between the lower and upper ends of the house had been maintained.
- 3.2.16 *Starkie Remodelling:* by 1672 the property had in part devolved to Edmund Starkie, grandson of James Murgatroyd, but it was not until 1708 that he took full possession of the freehold (*op cit*, 42; National Trust 2006, 26; WYAS/DBS C21/6). It was evident that the wing that bears his name was not a completely new building (*Section 3.2.8*), but instead a remodelling of the original, possibly medieval fabric of the northern wing, albeit with earlier remodelling by the Rishworths (National Trust 1993, 34; National Trust 2006, 4). Much of the changes were to the first floor, and also entailed refenestration (Sheeran 1985, 18). The work was largely completed by 1692, and is testified by a date stone recording the date, along with Edmund and his wife's name (National Trust 1993, 42).
- 3.2.17 *Eighteenth Nineteenth Centuries*: the fabric of the house appears to have changed little through the eighteenth and nineteenth century. The property became a secondary residence for the Starkies in the eighteenth century until around 1820 when it had slipped to that of a tenanted farm. A succession of tenants occupied East Riddlesden throughout the nineteenth century and the early part of the twentieth century. Little is known of the families other than details in the census records and references in the historical directories; indeed, several appear not to have been directly involved in farming. The Whiteoaks family ran the East Riddlesden limekilns for several generations and the Waddingtons worked in various professions and crafts as diverse as worsted and yarn spinning, stone masonry and the law.
- 3.2.18 The estate at the beginning of this period was described in a document of 1708, cited in Briggs 1895 (WYAS/DB5 C21/6), which details the sale of Riddlesden Hall to Edmund Starkie. The estate comprises at this time:

'A mansion-house commonly called Riddlesden Hall, with the appurtenances to the demesne lands and other lands thereunto belonging.....and two water corn mills or water grist mills called the old mill and the new mill, one standing near the said house, and the other on, or by the river Aire, together with a kiln,...all mines etc. '

3.2.19 A lease between Edmund Starkie and John Wilkinson of East Riddlesden Hall dating from 1739 (East Riddlesden Hall/1739) mentions a:

'Laithe or barne, the West barne or Great Barne, standing in the fold belonging to East Riddlesden Hall, and part of the other laithe or Barne called the East, or little, barne standing in the same fold, to witt from the North end thereof to the first threshing floor, with liberty to use the said floor for the threshing in common with the occupier or tenant of the other part. Also the Great Stable in the other part of the last mentioned Barn with liberty or convenience to be fixed and made for the said John Wilkinson to bring his Hay to the Racks in the said stable, 1 Swine coat or Hogsty on the East side or End of the other Swine coat or Hogsty and two watercorn mills of Edmund Starkie called Riddlesden Mills in Morton, together with etc. etc. And kiln adjoining or standing near to the Old Mill, and closes, part of the demesne lands belonging to the Hall of East Riddlesden'.

- 3.2.20 The lease suggests that many of the buildings mentioned in the seventeenth century were still in use. The kiln mentioned in the document appears to have been attached to a mill, although neither specific usage nor location was mentioned. It is likely, however, that the kiln mentioned above was not one of those depicted on the 1845 Tithe map (WYAS/BD167), as these were well away from any water source. It is possible that the additional building attached to the Bothy (Site 10) was originally the hogsty (Site 07), as it is mentioned in the lease of 1739 as being located to the east of the hall (Mike Freeman *pers comm*). The single-storey cart shed (Site 08), dates from the late eighteenth century and is additional to the mainly seventeenth century buildings of the domestic range adjoining East Riddlesden Hall. The document also states that if by any 'Great Inundation, or rise of Waters the Stone Call or wear belonging to the said New Mill and Standing across the River Ayre, or any part thereof be Broken down or Carried away, He, John Wilkinson sho'd not be liable to Amend or Build anew the same...'
- 3.2.21 The tithe map (1845) provides an illustration of the hall and surrounding outbuildings, showing both the hall and barns, a bothy, the pond and several smaller outbuildings of unknown function. Documentary research indicates that under the stewardship of the Starkie family the layout of the hall buildings changed little during this period. In 1797 the last male Starkie of Riddlesden, Nicholas, died, leaving a widow and daughters and by the nineteenth century the estate had passed to two men of property from Suffolk, and the house then was occupied by a succession of tenant farmers (National Trust 1993, 45).
- 3.2.22 **Twentieth century:** the farm tenants were taken from three main families, the Denbys, the Horners and the Baileys (National Trust 2006, 30) but by the beginning of the twentieth century the house was recorded as being in a poor state with the Starkie wing being in such a parlous condition that it was pulled down in 1905 (National Trust 2006), leaving just the north-east facing facade. Small parts of the estate began to be sold off. The interior fittings of remaining wing of the hall were

sold off in 1913 and there were some speculation that the hall was to be pulled down and reconstructed in America as a facade.

- 3.2.23 The Sale Catalogue of 1921 (BK229/6) of the East Riddlesden Estate gives an indication of the land and property still remaining under estate control in the early twentieth century. The lots include agricultural land, canal wharves and warehouses, cottages and gardens and the hall itself, although there is no mention of mining or mineral rights.
- 3.2.24 Cartographic evidence (WYAS/BD167; OS 1894; 1934) suggests that throughout the nineteenth and into the twentieth century various buildings were demolished leaving the suite of structures that can be seen today.
 - Building 05 (Starkie Wing) demolished in 1905
 - Building 15 demolished before 1919
 - Structure 19 (footbridge) lost before 1919
 - Building 16 demolished after 1953
- 3.2.25 The Riddlesden Estate was gradually sold off during the late nineteenth and early twentieth centuries (National Trust 2006). In 1933 what remained of the East Riddlesden Estate was sold to a builder and subsequently passed to the Brigg brothers who presented it to the National Trust in 1934. The grounds remained a focal point for the local community. There was boating fishing and skating on the pond, parties and meetings in the Bothy and Barn. During the Second World War the Airedale Barn was used for food storage and cricket was, and still is, played on the lower fields (National Trust 1993).

3.3 MAP REGRESSION ANALYSIS

- 3.3.1 East Riddlesden Hall and its environs are well provided with cartographic sources from the early seventeenth century onwards. The earlier maps from John Speed's map of the West Riding published in 1610 to Greenwood's of 1817 are not particularly detailed, but indicate the main communication routes and topography. From the mid-nineteenth century onwards, starting with the 1845 Tithe map and continuing with the OS coverage, the level of detail is much more comprehensive and has enabled the last 150 years of development around the hall to be plotted in some detail.
- 3.3.2 John Speed's map of the West Riding of Yorkshire, 1610 (Fig 3): the map depicts the major geological and topographical features of the landscape such as the rivers and the higher peaks and upland areas, such as Ingleborough and Rombalds Moor, as well as the main settlements, including Morton and Riddlesden. The settlement was depicted by a symbol, but it is of note that the symbol for Riddlesden appears in the location of West Riddlesden Hall, this position being identified by its situation west of the confluence between the rivers Worth and Aire. Although the surviving façade of West Riddlesden Hall dates to 1687 and can be compared with the 1692 remodelling to the so called Starkie Wing (Pevsner 1974, 401), it may like its near neighbour to the east have had older origins. If this symbol can be taken to be denoting the west hall, rather than the east, then it might be supposed that the west hall was, in the eyes of Speed, the more important dwelling at the time. The map also depicts deer parks, the nearest one to Riddlesden being 'Howden Park' to the

west, which may potentially have been the area of free warren granted in 1254 to Simon de Montalt in his demesne of Riddlesden (Faull and Moorhouse 1981, 460).

- 3.3.3 *Jefferys' map of Yorkshire, 1771* (Fig 4): this map reveals much more information compared to that of John Speed's map over a century and half earlier. In particular the geographical information depicted on the map was more precise, with hachured lines used to illustrate topographic relief. The main communication routes were depicted, including the turnpike between Keighley and Riddlesden, and some indication of the size and layout of towns, such as Keighley, was depicted. Smaller places were also depicted, such as Morton Banks to the north-west of the hall, which was the location of several houses built in the late twelfth century on common land (Faull and Moorhouse 1981, 460). East Riddlesden Hall can be seen, which had been appended with the name of the owner Starkie Esq. This map also depicts West Riddlesden Hall, which was also appended with the name of its owner, Mr Leach.
- 3.3.4 *Greenwood's Map of Yorkshire, 1817* (Fig 5): this is very similar to Jefferys' map, although there is slightly more topographic information, such as woodland, and urban centres (such as Keighley), which clearly had expanded. The individual buildings at East Riddlesden Hall were depicted for the first time, with both the Starkie Wing and the present hall being visible, as well as at least one of the barns. The Leeds to Liverpool Canal can be seen to the north of the hall.
- 3.3.5 Tithe Map, 1845 (WYAS/BD167) (Fig 6): the tithe map, although not as detailed as the first edition OS map of 1853, does for the first time illustrate the layout of buildings, including both the surviving part of the present day hall (Site 09) and the Starkie wing (Site 05). The Bothy (Site 10) and the block attached to it are depicted, as are two smaller buildings to the north-east of the Starkie wing and the block attached to the Bothy (Sites 15 and 16 respectively). The two barns are also depicted (Sites 04 and 06), as well as the pond (Site 03).). The entrance to the Hall is shown from the turnpike with a short driveway leading to the pond and the barn. The area to the west of the pond is planted with trees, with a boundary wall beyond. The area to the rear of the still extant Starkie Wing does not appear to be planted, but again is divided by walls. To the east of the house the map shows the ground sloping away. To the south of the hall branching off the River Aire can be seen what has been tentatively identified as the remains of a leat (Site 44). The fields to the east of the hall, bounded by the Aire and the road to the north, have very straight boundaries, indicating that they were probably a product of parliamentary enclosure. The award that accompanies the tithe map names them as Riddlesden pasture, while the field in the 'crook' of the river was known as Eight Acres.
- 3.3.6 **OS, 1853 6" to 1 mile** (Fig 7): the suite of buildings that comprise East Riddlesden Hall on the OS first edition map are identical to those depicted on the 1845 Tithe Map. In the wider area, to the west of the hall on the north bank of the River Aire can be seen Stock Bridge mill, identified as a corn mill on the map (not shown on Fig 7). Coal pits are also marked to the east and west of the hall, but as to whether these pits were connected with the short-lived mining operations that were proposed in the 1850s below the hall was not ascertained (Dickinson and Holding 1965).
- 3.3.7 **OS, 1894 25" to 1 mile** (Fig 8): very little appears to have changed in the intervening 40 years or so since the first edition was published. There was no change to the building layout, other than various walls, forming folds or small enclosures around the barns (Sites **04** and **06**) and in and around the hall. A series of

footpaths are marked on the map to the rear of the Starkie Wing (Site **05**) and round the back of the hall. A footpath also runs along side the pond, which widens into the driveway. Trees have also been planted around the Bothy (Site **10**). A foot bridge was noted to the south of the hall crossing the River Aire. The Stocks Bridge mill, however, does appear to have undergone some change, with the building situated closest to the river having been reduced in size (not shown on Fig 8).

- 3.3.8 OS, 1908 (east sheet) and 1919 (west sheet) 25" to 1 mile (Fig 9): the most obvious change to affect the study area was the demolition of the Starkie Wing (Site 05), which took place in 1905 (National Trust 1993, 45), although the area of the wing was still depicted as an outline. Building 15 had also been demolished by this date. The pond (Site 03) was extended to the north.
- 3.3.9 The various folds divided by walls around the barns remain but the area to the rear of the Starkie Wing was formerly planted with trees, which are no longer shown. The footpath running around the square enclosure to the rear of the demolished building has been removed. It was also clear that the River Aire had undergone some change, with the area immediately south having altered its shape and the footbridge was no longer evident (Site **19**). Some change had also taken place to the Stock Bridge mill buildings, particularly the structure nearest to the river which had been enlarged (not shown on Fig 9). To the north of the mill encroaching development was seen in the form of three terraces.
- 3.3.10 **OS, 1934 25" to 1 mile** (Fig 10): while there was very little change evident to the hall or the surrounding buildings, there was a considerable amount of change within the wider landscape and, in particular, there had been the construction of a number of housing developments. To the east, the area to the north of the main road and beyond the canal had all been developed, mostly with semi-detached houses. To the west, the terraces to the north of the mill had also increased, with development up to the canal (not shown on Fig 10). The mill building adjacent to the river was seen to have been demolished, although the building to the east was still extant. Development, had as yet, not spread south of the main east/west road. Some more changes were also evident to the River Aire, directly below the hall, where an island could be discerned.
- 3.3.11 **OS, 1953 1:10,560** (Fig 11) by 1950 housing development had spread to the south of the Bradford road, with a row of semi-detached dwellings having been erected immediately to the north-east of the Great Barn (Site **06**). What had formerly been the hall croft the field west of the pond, had also been developed with housing. No change was discernible to the hall and its associated buildings, with Building **16** still extant. It was also evident that some of the buildings that formed part of the Stock Bridge Mill were still standing. Significantly, the farm buildings to the east of the hall, and the subject of the present building investigation, were not present and had still to be built.
- 3.3.12 It was not possible during the consultation of the historic maps to identify some of the ancillary buildings mentioned in the various sixteenth, seventeenth and eighteenth century documents. None of the buildings shown on the maps were marked as milkhouses, a work house, ox house, hogstys, turf house, stables or the east gate house and their precise location remains unknown. A hogsty/swine cote (Site **21**) mentioned in a document of 1739 as being on the east side of the hall was identified by Mike Freeman, the House Steward, as lying at the end of an additional block attached to the Bothy (Site **07**). It is not clear whether this is the same

building as that mentioned in the will, or even there is a correlation with nearby building **16**, which was shown on the tithe map.

3.4 OUTBUILDINGS AND ESTATE

- 3.4.1 **The Outbuildings:** from documentary evidence in the sixteenth century it is known that there was a house and two mills, mentioned in both the will of Walter Paslew and in the feet of Fines for 1571 (YPEC/13/20/1543; YAS 1888, 41); any other ancillary buildings were either absent or not recorded. The picture, however, for the seventeenth century was different, as the will of Robert Rishworth (YPEC/28/7/1602) in 1602 recorded a whole range of outbuildings. These included an ox house (Site 22), a turf house (Site 23) probably to store turves cut from the surrounding moors (the right of turbury, or turf cutting for fuel, was recorded in 1592 (WYAS/WYL46/159)), and also two stables and a barn.
- 3.4.2 **The Barns**: the Great Barn has undergone few changes since the seventeenth century and is one of the finest barns in the north of England. It measures 37m long by 12m wide and retains many of its original features. The original threshing floors running between the two sets of great arched portals remain, the beaten earth and cobble floor, some of the stalls and the riven oak roof structure also remain. The recesses in the walls were probably used for resting lanterns. Kingpost trusses are supported on oak posts that rest on stone bases. The barn would have housed cattle over the winter and provided storage for their fodder (National Trust 1993). For many years the barn was referred to as 'The Tithe Barn', there is however no record of the barn ever having been owned by the Church. The Airedale Barn measures 27m long by 12m (Site **04**). The original aisle posts were removed in the Second World War. This barn was substantially altered in the nineteenth century and given a new roof, which was replaced again in 1992 (*ibid*).
- The barn is of some significance, because, while there are now two substantial 3.4.3 historic barns surviving at East Riddlesden (the Great Barn and the Airedale Barn), it is not evident from the will of Robert Rishworth (YPEC/28/7/1602) if there were two barns in 1602. The will mentions a 'laithe' (another name for a barn) and that half of this was left to his wife Ellen and then further down the same document another half of a barn was also given to his son. It is entirely possible that these are two halves of the same barn, and certainly other structures were split within the will, for instance only the lower, southern part of the manor house, was left to Robert's wife Ellen. Alternatively, it is possible that the references to a 'barn' and a 'laithe' indicate that these were two separate buildings. Certainly, it is probable that the Great Barn, the most easterly of the two, had medieval origins; its internal timber frame roof structure and plan form, is paralleled in earlier manorial barns of the fifteenth and sixteenth century in West Yorkshire (NTSMR 31837*0). Furthermore, a noted authority on medieval buildings, Cecil Hewitt, considered the barn to be of thirteenth century origin (National Trust 1993). So it can be asserted with reasonable confidence that this Great Barn was one of those referred to in the will, if not the only one referred to. The 1662 Inventory (WYAS/HAS/B 13/42) reinforces the assertion that there was only one barn at the time, and implies, therefore, that the western barn dated from the later seventeenth century. The inventory (*ibid*) also expands on the various buildings around the hall, referring to three milk houses (Sites 24, 26 and 27), a building described as a work house, two mills, a barn and, interestingly, a building described as the east gate house (Site 25).

3.4.4 **The Bothy:** the battlemented building to the left of the main entrance to the house is known as the Bothy. The building has traces of a plasterwork frieze, perhaps indicating that it had once been intended for a person of more importance than a farm worker or servant. This may indicate that the room was for James Murgatroyd's own use while work on the main block was completed in the seventeenth century. Later the building may have been used for servant's or farm worker's accommodation. The lintels over the doors are characteristic of the crude carving that is a feature of the hall generally. Over the door the initials JMM stand for James and Mary Murgatroyd, and JSM for John and Susan Murgatroyd. Two reliefs depicting King Charles I and Queen Henrietta Maria illustrate the Royalist loyalties of James Murgatroyd. The first floor was reached by external stairs, and was possibly originally servant's or labourer's lodgings. The table below shows the development of the ancillary buildings that have been traced using primary documentary sources.

DATE	SUMMARY
1150	Simon de Montalt gives tithes of the corn mill at Riddlesden to the church at Bingley
1544	Walter Paslew of Riddlesden held one water corn mill , one fulling mill , 103 acres of land, meadows, pastures and wood in Riddlesden and a capital dwelling
1571	Walter Paslew, son of Francis, leases to Robert Rishworth the capital messuage called East Riddlesden two mills in Riddlesden and Morton
1572	Feet of fines: the manor of Riddlesden and forty messuages and twenty cottages with land there and Marley and East Morton
1573	Feet of fines: nature and situation of property, four cottages , two water mills for grain and a fulling mill with lands in Riddlesden, Morton and Keighley
1592	Indenture of Bargin and Sale; Francis Paslew to John Leache and John Midgley; common pasture, common of turbary, suit to the milne of East Riddlesden, with their corn and grain yearly growing upon said premises
1602	Will of Robert Rishworth that Ellen (wife) shall have; buildings, houses, closes being parcel of the demesne lands of Riddlesden that is the lower south part of the manor house . All beneath the hall, the half of the laithe , with half of the oxhouse , and half of the turf house , the lower stable , kilne , one water milne , with dams, watercourses etc. To son John Rishworth, all other parcels of said manor house, the upper part all above the hall floor, the upper stable , half of the barn , with half of all other outhouses
1662	Inventory: Murgatroyd block; tavern (shop), milk house, milk house within court (between Starkie block and pond), work house, mill (on river or stream), new mill, (on river or stream), barn, east gate house, east old milk house, Starkie wing
1708	Edmund Starkie in possession: Deed between John Murgatroyd and son James; to the manor or Lordship of Riddlesden and all that capital messuage, or mansion house , commonly called Riddlesden Hall, with demesne lands and other lands thereunto belonging situate in the parishes of Bingley and Keighley, and two water mills , or grist mills called the old mill and the new mill, one standing near the said house and the other on, or near the river Aire, together with a kiln , and all suit, toll, custom and multure with all mines etc
1739	Lease of Riddlesden mills between Edmund Starkie and John Wilkinson; those rooms or parts of the building called the schoolhouse , wherein John Wilkinson dwelleth, being part of a building belonging to East Riddlesden Hall, with rooms or

DATE	SUMMARY
	granary over the same; Laithe or barn, the Great Barne or West Barne , standing in the fold belonging to East Riddlesden hall and part of the other Laith or barne called the East or little barne , standing in the same foldalso the Great Stable in the other part of the last mentioned barn one swine coat or hogsty, on the east side of the other swine coat or hogstyand two watercorn mills of Edmund Starkie called Riddlesden Millsand a kiln adjoining or standing near to the Old MillDemesne Lands belonging to the Hall of East Riddlesdenthe waste about the New mill, the Gt. Westfield, with the barn standing therein
1760	Since the expiration of the Lease between Edmund and Nicholas (1739) the said Mr Edmund Starkie has taken all slate of the West or Great Barn and slated it anew

Table 1: Primary sources showing the development of the hall and ancillary buildings

- 3.4.5 *Mills*: sixteenth century documentary evidence indicates that there were two mills, one of which was a fulling mill from the will of Walter Paslew and in the feet of Fines for 1571 (YPEC/13/20/1543; YAS 1888, 41). However, by 1592, only one mill was referred to, and it should be noted that this reference was from a sale by a Francis Paslew of a dwelling in East Morton, which included *'suit to the milne of East Riddlesden*', perhaps indicating that this sale only included the sole mill in the area (WYAS/WYL46/159). A surviving mill and kiln, was mentioned in the will of 1602 (YPEC/28/7/1602), and this was evidently joined by a new mill by 1662 (WYAS/HAS/B/13/42); however, neither document indicates what the mills were used for. A kiln mentioned in the 1662 inventory (*ibid*) might be of the corn drying variety, since, as stated above, the fulling mill (mentioned in 1544) was no longer evident.
- 3.4.6 A document of 1708, cited in Briggs 1895 (WYAS/DBS C21/6), details the sale of Riddlesden Hall to Edmund Starkie, which includes: 'two water corn mills or water grist mills called the old mill and the new mill, one standing near the said house, and the other on, or by the river Aire, together with a kiln,...all mines etc. '. By the time of the earliest detailed historical maps (tithe map) no mills were depicted in the area of the house, and there is no clear indication as to its precise location.
- 3.4.7 *Mineral Extraction:* some landowners sought to exploit the industrial or mineral wealth of their estates. A lease of 1634 (WYAS/Deed box 5) between John Rishworth of Riddlesden and John Murgatroyd of Warley, indicates that coal mining was being undertaken within the township of Morton during this period. In the mid-nineteenth century, mining operations were proposed beneath the hall and pond, although it is not clear whether this short-lived operation was connected to the coal pits marked on the 1853 Ordnance Survey map. Keighley Library holds a collection of papers, mainly correspondence, regarding the opening of the Riddlesden Colliery with a large plan (actually the first edition OS map), showing proposed pits around Riddlesden including those below the pond. It was not possible to establish from the correspondence and minutes of meetings whether these were actually opened or merely proposed and abandoned; however, by the end of the nineteenth century galleries had been extended beneath the hall and pond (Dickinson and Holding 1965, 42-46).
- 3.4.8 *Gardens:* in 1895, a description of the hall (Brigg 1895) states that the south wing of the building stands on a grass-grown terrace, about fifty feet above the level of the river, commanding a fine view of the Aire valley down to Bingley. It is stated

that the 'old gardens' remain around the north wing but are of 'no great extent'. It is not known what the gardens looked like before the tithe map of 1845 and the documentary sources list or describe only the buildings on the estate. The pond was and remains the most striking aspect of the garden landscape, and it may also be the oldest surviving part, it is first shown on the c1830 anonymous painting of the hall, and perhaps even dates from the medieval period. It is a major construction, incorporating an earthen dam along its eastern side, and was probably constructed as a functional entity, such as a fish pond or a header reservoir for a mill, rather than as a component of pleasure grounds; however, it did subsequently become and is still a key element of the garden layout.

- 3.4.9 The earliest depiction of gardens is on the anonymous 1830 painting, which shows the principal facade of the hall, the pond in the foreground, with the primary access track extending over the dam to the house. Woods are depicted to the west, and there are lawns in front of the house. The depiction is evidently schematic as the Airedale Barn, Great Barn and cart shed are not shown, but the general layout accords with the tithe mapping that was produced a few years later (1845). The tithe map shows the pond to the east with woodlands around the western side and near to the north-western gable of the Starkie wing. The back of the hall was shown as open apart from a garden wall extending out from the north-west end of the south-west front of the hall, leading to the southern boundary of the garden (Site 14). Although not shown, this area would probably have accommodated formal gardens. A further north-west/south-east aligned stone wall foundation (Site 31) was uncovered during gardening. The wall was seen to extend from the south-east side of the present hall from, following the same alignment as the dividing wall between the buttery and stairhead chamber; it is not shown on any historic maps.
- 3.4.10 By the time of the 1894 first edition 25 inch OS map, the layout of the trees and woodland was similar to that shown on the tithe, although there are also scattered trees shown to the east of the pond and the hall. Paths in a rectangular layout are shown to the south-west of the hall and provide an indication of a formal garden on this side of the hall. A large rectangular stone (Site 13) was discovered during excavations in the northern end of the garden, and this was thought to have been used to retard the root growth of fruit trees in order to promote branch growth and therefore fruit production (*Section 3.5.8*). On this basis a suggestion has been made that this area of the garden was formerly occupied by fruit trees (M Freeman *pers comm*).
- 3.4.11 The subsequent 1919 OS 25 inch map, shows no footpaths in the former area of formal gardens, and the plot to the north-west of the Starkie Wing is no longer shown as wooded; otherwise, the layout is similar to that of the 1894 map.
- 3.4.12 A 1969 aerial photograph (OS/69245-27) shows the area of formal garden to the east of the hall as having an extensive lawn with scattered trees; the lawn extends within the extent of the former Starkie Wing. The garden wall depicted on tithe map (Site 14) extending south-west from the hall, is still seemingly in place on the air photograph, although it is partly obscured by trees. Otherwise, the complex formal layout of the gardens from the 1894 map has been lost; however, there are subtle indicators of elements of the paths which indicate their former lines. In the south-west of this it is rough ground, which contrasts with the lawns to the north-east. It

is evident that the area to the south-west of the hall has been allowed to revert to a lawn dominated, low-maintenance garden.

- 3.4.13 The plot to the north-west of the hall that was shown without trees on the 1894 map, now has an area of low scrubland trees, which contrasts with the much larger trees adjacent. This would appear to indicate that the area was indeed clear felled prior to the 1894 map, but that the woodland has subsequently regenerated. The rest of the area is similar to that shown on the OS mapping, comprising the large pond with lawns to the north-east and south-west of it.
- 3.4.14 Graham Stuart Thomas, the National Trust Garden Advisor, designed the main formal garden in 1972, and beyond the old walls to the west, the orchard garden was developed in the late 1990s. The general layout of the garden reflects the earlier boundaries, and there are common elements with the earlier design. The principal path, now bordered by trees, extends out from the rear entrance of the hall, and there is a herb border edging the plot boundary which follows themes from Culpepper's *Herbal* (1652) and many of the plants reflect the period of the house (National Trust 1993; National Trust 2006). The principal innovation is the establishment of a rectangular formal garden extending out from the north-western gable of the hall and partly occupying the area of the former Starkie Wing. The design includes dwarf hedges and mixed flower borders, along with a sunken rose garden. Looming over the formal garden is the ruined façade of the Starkie Wing. On the entrance front beyond the Starkie Wing is an area that was once a cobbled courtyard (*ibid*).
- 3.4.15 *Communications*: in 1814 a new turnpike road was opened from Keighley to Bradford and later Halifax, which in part followed the course of an earlier route (Site **42**) which had passed through the northern part of tithe field 462 (Fig 6). The entrance to East Riddlesden Hall opened onto the turnpike road to the north-west of the barns and continued across the road and over the Leeds Liverpool Canal.
- 3.4.16 Within the extent of the survey area were a number of documented crossings of the River Aire; the Ordnance Survey first edition 25" map of 1894 (Fig 8) shows a footbridge (Site **19**) crossing the river to the south-east of the Hall; however, the map did not show any paths or tracks on either side of the bridge indicating which route this was on. In 1929 an excavation revealed traces of an abutment or pier on the northern bank of the river Aire approximately half a mile to the east of the Hall (Site **11**). The need for a bridge, at this point, reflected that there was no natural crossing as at Stockbridge. The excavation revealed an abutment or pier on the north bank, a monolithic pier and a wooden trestle (Butterfield and Wood 1929, 192). It was concluded that this may have been the 'Marley or Marloe bridge' which was believed to have connected East Riddlesden Hall with nearby Marley Hall, the bridge lying about mid-way between the two. The bridge was referred to in numerous seventeenth century documents (Sessions of Rolls 1650-1700, cited in Butterfield and Wood 1929, 197).

3.5 ARCHAEOLOGICAL INTERVENTIONS

3.5.1 East Riddlesden Hall has been a focus for sporadic archaeological excavation since 1929. The hall has also had the good fortune of staff who report archaeological findings from various activities, such as gardening, as well as information that has

come to light during watching briefs that The National Trust undertakes, whenever there has been some disturbance to the grounds or the fabric of the house.

- 3.5.2 The 1929 excavations, which were undertaken c 750m south-east of the hall, revealed parts of an abutment or pier for a bridge and various wooden artefacts connected with it. The bridge was thought to represent Marley or Marloe Bridge, known to be in a fairly parlous condition in the seventeenth century (Butterfield and Wood 1940-50, 191, 197-198). The site of the excavations are not on National Trust land.
- 3.5.3 In 1982 an excavation was carried out by Bradford Grammar School in the area of the cricket field below the hall. The excavation revealed a steeply-cambered road, approximately 5m wide, bordered by the foundation of a substantial wall. The road was believed to be part of the Roman Road from Manchester to Ilkley (Frere 1983, 295; Thackray and Weston 1982).
- 3.5.4 In the same year The National Trust observed a spread of stones within a trench for the provision of services, excavated to the north of the former Starkie Wing. The stones, some of which were worked, were thought to be from the demolition debris of the Starkie Wing. A quantity of pottery recovered from the excavation revealed two distinct groups. One from the late nineteenth century and the other of more significance, dating to the late seventeenth century, and probably related to the construction of the Starkie wing (NMR-1217093).
- 3.5.5 Chance discoveries have been made around the house since the late 1950s. Parts of an Anglo-Saxon cross were recovered from the area of the driveway in 1950, while in 1984 during extensive repair works to the hall, a further fragment was revealed (Faull 1986, 29, 36).
- 3.5.6 In 1991, Mark Newman, on behalf of The National Trust, undertook a watching brief during repair work to Airedale Barn (Site **04**). Excavation of large planting holes in 1998 revealed the remains of the south wall of the Starkie Wing, which was built in the 1690s and demolished in 1905 (NMR-1302768). These excavations indicated that the stratigraphy had been substantially truncated, probably as a result of the landscaping for the garden designed by Graham Stuart Thomas in 1972 (Newman 1999; Newman *pers comm*).
- 3.5.7 During 1999 and 2000, archaeological works under the floors of the Dining Room and Drawing Room recovered just under 1600 objects, including toys and sewing equipment, and represented daily life from the previous 400 years of the hall (Keighley News 2001; Newman 2002, 66; Newman 2004; NMR 1355989). Other casual finds included the uncovering of a large rectangular stone (Site 13), which was thought to have been used to retard the root growth of fruit trees in order to promote branch growth and therefore fruit production (Freeman pers comm). Walls have also been located adjacent and to the west of the main entrance and a possible wall footing to the east of the Hall, which was believed to be part of the southern boundary wall (Site 31) (M Freeman *pers comm*).
- 3.5.8 In 2001 an Archaeological Impact Assessment was carried out by Mark Newman ahead of the construction of a playground to the east of the Bothy, the site of which occupied a relatively unobtrusive position on the north-east facing slopes behind the Bothy building. In the winter of 2000/2001 the excavation of a planting trench for a new hedge was watched for any archaeologically significant material or deposits. Nothing but humic soil was observed, except for a small group of pottery sherds.

These were exclusively of nineteenth- or early-twentieth century date and may have been deposited there during domestic rubbish tipping down the steeper slopes immediately to the east (Newman 2001; Newman 2002, 67).

4. WALK-OVER SURVEY RESULTS

4.1 INTRODUCTION

4.1.1 The walk-over survey located twelve additional sites (sites **32-44** inclusive), which were all considered to be of post-medieval or modern date, with the possible exception of the disused trackway (Site **42**), which is not depicted on any of the maps consulted. For the sake of brevity the study area has been divided into the three fields that divide the area: Maze Field, Cricket Ground Fields and Eight Acre Field.

4.2 SURVEY RESULTS

- 4.2.1 *Maze Field area* (Fig 2): located immediately south of the present day hall, the field is now referred to as 'Maze Field' due to the circular, low, grass maze that has been mown into the centre of the field. There is a trackway (Site **32**) at the northern edge of this field, running north-east/south-west, immediately at the break of slope of the hill upon which the hall stands. The track runs for 100m across the field and appears to utilise the edge of an alluvial terrace creating a levelled area between the hill and the rest of the floodplain (Plate 1). It may be an enhanced river terrace edge, created to provide a raised access path for a former cricket ground pavilion (Site **43**), which was depicted on 1970s OS mapping. Maze Field is known to flood during the spring and summer (Mike Freeman pers comm) and any access track would have needed to have had some foundation during periods when the ground was wet. The cricket ground was short lived as a more recent cricket pavilion (Site **30**) was established in the adjacent 'Cricket Ground Field' and a maze was established to replace it in this field.
- 4.2.2 The excavations referred to previously (*Section 3.4.3*) have indicated the presence of Roman road through this field, but there are some uncertainties as to the precise location of the trenches excavated by Bradford Grammar School in 1982 (Haigh 1982). It has been suggested that Site **32** may have been the Roman road; however, the survey did not reveal any features typical of a Roman road, such as an agger or road side ditches; no clearly defined northern bank could be seen indicating the presence of a former agger (Plates 1 and 2). Although the present track leads only to the site of the former cricket pavilion, an aerial photograph from 1969 (OS/69245-27) (Plate 17) shows a continuation down to towards the river. The implication is that it did not only serve the pavilion and may have some greater antiquity.
- 4.2.3 In the south corner of this field is an area of planting not shown on the current mapping (Site **33**), which comprises two embanked raised beds of trees with a trackway clearly defined between them (Fig 2, Plate 3). The absence of any map depiction for this feature prompted its recording; however, it was subsequently discovered that the planting had been put in by the current stewardship during the early 1990s (Mike Freeman pers comm). The remainder of this field yielded no further anthropogenic sites, although a subtle low bank immediately north of Site **33** may indicate one side of a former palaeochannel.
- 4.2.4 *Cricket Ground Field area*: (Fig 2): in the north-west corner of this area, between the modern farm buildings (Site 36) and the current car park is a slight, raised bank (Site 34) to the west of the water course shown on the current map. It is no more

than 0.4m high and runs for 20m along the southern boundary of the current car park. This feature may be of note as the area is postulated as being one of several possible sites for a mill in the vicinity of the hall (Mike Freeman pers comm), and may have been a related feature. The water course (Site 17) originates from the area of the driveway entrance, initially as an open stream and then as a revetted channel before itself descending into a culvert (Site 35) which carries it south, under the current farm track and into the large central field of the study area, where it debouches (Plate 4). The area around the up-stream entrance is shown on the 1969 air photo (OS-69245-27) (Plate 17) as having a number of substantial earthworks on either side of the channel, as such these could be residual elements of a former structure. The water course follows the line of the documented leat (Site 17), and its lower section is unnaturally straight, indicating that it was an artificial channel. The culverted section (Site 35) of the channel is relatively long, and is greater than would be required to take it under a track. As such there is a possibility that the long culvert was to enable the establishment of a larger structure, such as a mill, on top of it, given that there was one believed to have been in the area.

- 4.2.5 Site **37** is a small wooden foot-bridge which crosses the straight section of leat. Running roughly north/south along the line of the water course is a raised trackway known as the 'summer track' (Site **38**, Mike Freeman pers comm), which appears to be part of the current footpath network. It is not depicted on any of the historic maps and would appear to have no great antiquity (Figs 4 and 5).
- 4.2.6 The northern boundary of the site is defined by the retaining wall for the present Bradford Road. Running from this, and round the rear of the current house plots, is a levelled trackway (Site 42), which is cut into the natural declivity of the valley side. It can be positively traced for at least 140m and ranges from three to four metres in width (Fig 2; Plates 5 and 6). It is in places overlain by the modern track for the present cricket ground pavilion (Site 30) and there is an indication of a continuation of the earlier track as a linear terrace to the east of the pavilion, which extends towards a culverted section of water course (outside the walk-over survey area). There is a short stretch of stone that barely protrudes from the bank on the northern edge of the trackway directly below the modern retaining wall. This does not appear to be a natural outcrop of stone, as it is uniform along the exact same line as the trackway. It is thought that this may be a stretch of curb or the remains of a low retaining wall. This may be the earlier route of the current Bradford/Keighley Road, as the pre-Ordnance Survey maps shows the pre-turnpike road curving southwards away from the present road line (Figs 4 and 5).
- 4.2.7 Located on the southern boundary wall of this area is a substantial, modern cinder block-built sheepfold (Site **39**) (Fig 2, Plate 7), which measures 3.5m by 10m and stands five courses high, with a metal gate to its eastern edge. At the eastern edge of the present cricket ground is a field drain (Site **41**) running east/west through the field, evidenced by a low narrow bank, 1.5m wide at most, with a rough stone drain cap at the eastern end.
- 4.2.8 *Eight Acre Field area:* this area has been subject to extensive fluvial deposition and erosion, with the course of the river changing drastically over the last 150 years. This episodic activity has resulted in the loss of the western edge of the northern drystone built boundary wall and created a landscape of extreme riverside erosion gullies and palaeochannels, along with a gently undulating floodplain as a result of alluvial deposition.

4.2.9

- Thirty metres south-west of the sheepfold (Site 39) is a free-standing stub of
- masonry, Site **40** (Fig 2, Plate 8), which had evidently been displaced from its original location. During the map regression no buildings were found to have been previously located in the vicinity, and while this may be an indication of some earlier structure in the vicinity, it could also have been brought here from elsewhere for an unspecified purpose.

5. EROSION SURVEY RESULTS

5.1 SURVEY RESULTS

- 5.1.1 An accurate survey was undertaken of the east bank of the River Aire to determine the extent of change since the OS mapping of the 1990s. The survey has demonstrated the severity of the fluvial action along the east bank of the River Aire, the landscape has been changed dramatically in the recent past, the river having carved a new topography into the soft sandy soils of this stretch of its course. A series of maps have been produced indicating areas of both fluvial erosion and alluvial deposition between the present and the 1990s OS mapping (Figs 13-7).
- 5.1.2 In the most southerly tip of Maze Field the north river bank has been subject to fluvial erosion, the bank at this point becomes heavily wooded and is cut by the leat/channel (Site 17) which flows along the fence line from the culvert (Site 35). This water course formerly ran east along the bank, but has since silted up and the channel is now infilled; instead it flows west cutting deeply into the soft sands of the riverbank and into the Aire. This area of erosion (Fig 14) is represented by a stretch, some 200m long and up to 15m wide, making an area of 875m² that has been lost by comparison with the line of the river bank depicted on the 1990s OS mapping. The infilled channel runs for some 100m in length and marks an area of alluvial deposition of some 716m².
- 5.1.3 Immediately south of this area is a low bank that is parallel to the river bank between 3m and 9m inland, and is 40m long and 2-3m in height. It is defined at its eastern (top) edge by a line of vegetation and would appear to be the maximum inland incursion of water flow, with the exception of episodic flooding (Fig 14).
- 5.1.4 Immediately south of this bank, the wooded area of river bank continues into the 'Cricket Ground Field area', where there have been two major changes to the topography of the river bank. Firstly the river has caused the deposition of a large area, of some 1855m², which has entirely infilled the previous course of the river and pushed the river bank some 55m to the south-west (Fig 15). The area between the former river bank and the current course is a landscape of sand and scrub vegetation which appears to be loosely consolidated and prone to further episodes of erosion and deposition, contributing to a fluctuating river bank.
- 5.1.5 Secondly, the river has gouged its way through the former woodland on the south bank of the river to form a new channel some 20m wide and almost 90m long (Fig 15). This represents a land loss of 1478m² and clearly demonstrates how dramatically the fluvial erosion has changed the landscape of the valley bottom in this area.
- 5.1.6 South of this area, again along the river bank in the 'Eight Acre Field', there is the most dramatic area of land loss in the study area (Fig 16), where an area of 3555m² has been lost since the 1990s OS mapping. During this erosion process the river bank has moved 50m inland in places and has destroyed part of the dry-stone wall that defines the northern extent of the area. Two areas of deposition have been created here as well, totalling 1383m², creating a small island of land off the northern bank of the river (Fig 16). Finally, along the very southern edge of Eight Acre Field are two small areas of erosion and an intermittent band of deposition along the curve of the river bank (Fig 17).

5.2 CONCLUSIONS

5.2.1 In total, some 6111m² of land has been lost to fluvial erosion between the production of the 1990s OS map and the survey of April 2008. This is most serious in the northwest area of Eight Acre Field (Fig 17), where the current wall line meets the river. This represents an incursion in to the field of up to 50m in places and the destruction of around 30m in length of dry stone wall. The light sandy nature of the soil here means that the process of erosion is unlikely to be resisted and the attrition of Eight Acre Field is inevitable without the aid of reinforcements to the river bank.

6. BUILDING INVESTIGATION RESULTS

6.1 **INTRODUCTION**

- 6.1.1 The building investigation focussed on a group of outbuildings comprising several modern structures, which lie approximately 140 yards to the east of East Riddlesden Hall (Fig 1) (Site **36** / NTSMR 32074*0). The farm buildings represent several development phases, with the oldest purported to be no earlier than 1922 (Mike Freeman, Hall Steward, *pers comm*); however, no buildings were shown in this location prior to the 1969 aerial photography. Photocopies of three aerial photographs were obtained from the NMR showing East Riddlesden. The photographs showed that in 1948, none of the farm buildings (Site **36**) subject to the present survey were present (RAF/541/32 RP Frame 3013). However, by 1969 the buildings were for the most part in place, but without the kennels (Building 2) and Barn 1. There was also a lane evident leading down to the cricket field (OS/69245 V Frame 27) (Plate 17). On cartographic and aerial photographic evidence it would appear that the buildings were constructed between the 1950 OS 6" to 1 mile map and the 1969 aerial photograph.
- 6.1.2 The level of survey required only an external investigation of the buildings, but this was not entirely possible, as the west side of the farmstead was used as a storage area for hay bales. Consequently, the west external elevations of several of the buildings were completely obscured, and could not be recorded.
- 6.1.3 For ease of reference, the orientation of the farmstead has been adjusted from a north-north-east/south-south-west alignment to a more serviceable north/south. Additionally, the buildings have been arbitrarily numbered for easy identification.

6.2 THE FARM BUILDINGS

- 6.2.1 **Building 1** (Fig 12): the building is a rectangular barn aligned north to south and constructed from modern cinder block with timber slats in the upper south gable (Plates 9 and 10). Its moderately-pitched roof is laid with corrugated asbestos cement sheeting and is supported by modern steel trusses. A large entrance lies to the north, whilst the interior floor surface is left as bare earth. The building is clearly the most recent addition on the farm, and has indeed only stood for c 18 years (Mike Freeman pers comm).
- 6.2.2 **Building 2** (Fig 12): the structure comprises a small, square extension built on the south elevation of the large central barn (**Building 3**), which has been used as a kennel for the farm's dogs. Similarly to **Building 1**, it is fashioned from cinder blocks with a corrugated asbestos cement sheeting and timber beam roof, whilst the interior is laid to concrete and partitioned with a cinder block wall (Plate 11). Its similarity to **Building 1**, reflects that it was built at the same time as the modern barn (Mike Freeman pers comm).
- 6.2.3 **Building 3** (Fig 12): this is a large barn, lying to the centre of the farmstead, and is aligned east/west. Given its relatively recent age, it was presumably constructed from either brick or cinder block, but a thick cement render masks the original fabric, making this only supposition (Plates 12-13). Certainly, its roof is constructed

from the seemingly ubiquitous corrugated asbestos cement sheeting. It is clearly later than the adjacent **Building** 4, as its north wall is formed by the south elevation of that building. Additionally, its roof overlaps that of **Building** 4, and it also incorporates guttering from the earlier building. On the southern part of the east elevation, are two boarded windows or apertures, whilst a large window, infilled with cinder block, lies to the north of those. There is a large wagon type door, on the west gable, but this was masked by the hay bales, whilst a door on the south elevation only offers access into a small partitioned area in the south-east corner.

- 6.2.4 **Building 4** (Fig 12): this cowshed appears to be one of the earliest, if not *the* earliest of the extant structures examined on site and is again aligned east/west. It is constructed from rendered cinder block or brick, whilst the roof is moderatelypitched and laid with corrugated asbestos cement as elsewhere (Plate 14). However, as was the case with the adjacent **Building 3**, its internal structure could not be ascertained because of render. A fixed window, with vent slots, stands on the east elevation, whilst an entrance of some description must be located on the west elevation behind the hay bales. Additionally, the plastic guttering attached to the south elevation, has been retained and incorporated into the build of **Building 3**.
- 6.2.5 **Building 5** (Fig 12): in keeping with **Buildings 3** and 4, the walls of this cowshed were built from rendered cinder block or brick, with a pitched roof of corrugated asbestos cement (Plate 15). Two small windows/ apertures are located on the north elevation, whilst the south-west corner has a wide entrance. As with **Building 3**, it would appear that it had been built as an extension to **Building 4**, thus its south elevation is formed by the north elevation of that building.
- 6.2.6 **Building 6** (Fig 12): the building consists of a rectangular, red-brick structure at the north extent of the site, which was aligned east/west (Plate 16). The east elevation has been faced with cement render, in keeping with the east elevation of most of the other buildings, whilst the west elevation has a narrower, square extension, also in red brick. The roof is yet again corrugated asbestos cement, which is supported by timber beams and a pair of brick columns that stand in lieu of a south wall. On the west elevation of the extension is a blocked window infilled with brick, whilst a matchboard door to the extension lies on the south elevation. A further entrance into the original build lies on the west elevation to the right of the extension.

6.3 CONCLUSION

6.3.1 The extant farmstead is composed of modern structures, which are both unremarkable and utilitarian, in keeping with their role as functional farm buildings. The investigation revealed at least five phases of development, of which, the earliest appears to be the construction of *Building 4* sometime after the purported date of 1922 (Mike Freeman pers comm). However, this date is more likely to be some twenty years later, as there is no evidence of any farm buildings on the Ordnance Survey until the 1969 air photograph (OS-69245-27) (Plate 17); the previous survey (1950) depicting a plain field where the buildings should be located. A secondary phase oversaw the addition of both *Buildings 3* and 5, whilst a tertiary phase saw the expansion of the farm with the appending of *Building 6* onto the north elevation of *Building 3*. Following this, a smaller brick structure was appended to *Building 6*, and during the last twenty years (subsequent to the 1969 air photo), *Buildings 1* and 2 have both been added. In light of their functional appearance and apparent

modernity, it is clear that the buildings are quite unremarkable structures with only limited architectural or historical merit.
7. GEOPHYSICAL SURVEY RESULTS

7.1 INTRODUCTION

7.1.1 A programme of geophysical survey, using a combined Magnetic and Resistivity approach, was undertaken of Maze Field, which is immediately south of East Riddlesden Hall. It was hoped that geophysical survey might shed further light on a postulated Roman road, and a possible small rectangular building. The results of both the magnetic and resistance surveys are presented below.

7.2 MAGNETIC SURVEY RESULTS

- 7.2.1 The magnetic data (Fig 18) are severely affected by ferrous responses which basically dominate the results, particularly in the northern half of the survey area. This coincides with a slightly raised track that has been postulated as being a Roman road. As such, the magnetic data suggest either that the track has been revetted, or consolidated, with ferrous type material (which could include, for example, fired bricks and tiles) or that there is a pipeline running along the track (perhaps originally leading to the former cricket clubhouse or pavilion, which is known to have existed here (Site 43) (shown on the 1969 air photo (OS-69245-27) (Plate 17), but which was just to the north-west of the study area. The nature of the responses is more suggestive of a pipeline than simply random rubble infill. Whatever the cause of the disturbance, it effectively masks any weaker archaeological type anomalies and makes it impossible to say whether any ditches existed, that might support the postulated Roman road theory. There are, however, no indications of features that might be directly associated with a Roman road.
- 7.2.2 There are numerous strong ferrous anomalies throughout the remainder of the survey area, some with regular linear spacing; these are likely to be associated with former practice pitches and other modern features. None are suggestive of being archaeological in origin.
- 7.2.3 Trends in the data could indicate land drains though it is interesting to note that these are on a differing alignment to the resistance trends (*Section 7.3*).

7.3 ELECTRICAL RESISTANCE SURVEY RESULTS

- 7.3.1 A small sample block was placed across a section of the track / tentative Roman road and over the site of a parch mark that indicated the presence of a possible rectangular building. The results across the track do show an increase in resistance values (Fig 19) but these could simply reflect the hardcore / compacted earth and the slight rise in ground levels. There are no indications of a roadside ditch. As such, the results tend to argue against the existence of a Roman road but the evidence is far from conclusive.
- 7.3.2 The results from the tentative building are, however, slightly more positive, in that high resistance readings (Fig 19), with some rectilinearity in shape, do coincide with the approximate position of the parch marks. There are no clear wall lines visible but the results could indicate rubble foundations (Site 45). Elsewhere in the data other high resistance anomalies (Fig 19) correspond with the tree (and presumably

reflect the root system sapping up moisture) and an unknown source (Fig 19), perhaps a feature associated with the cricket pitch. Trends in the data (Fig 19) could reflect early cultivation, say ridge and furrow ploughing, but a wider area survey would be required to confirm this interpretation.

7.4 CONCLUSIONS

7.4.1 Unfortunately, the geophysical survey has failed to establish whether, or not, a Roman road crosses the northern edge of Maze Field. However, the resistance data do show some indications of a possible building that may equate with parch marks seen on the ground.

8.1 INTRODUCTION

8.1.1 The aim of the archaeological survey conducted at East Riddlesden Hall between January and March 2008 was to identify all surface and documentary traces of the human past on the property, creating a gazetteer of these features. In order to achieve this aim the survey used a multidisciplinary approach involving, not only documentary research and a review of the information held by the House Steward, but a walk-over survey of the study area, a geophysical survey of the Maze field, a topographical survey of the current river bank and key features within the Co-Op land, and a building survey of the standing farm buildings due for demolition. The combined results of these different survey methods has significantly enhanced the archaeological documentation; some 47 sites have been identified within the study area, of which 34 were identified during the current project. The 47 sites comprise 12 existing records that were held either in the NTSMR, the NMR or the WYSMR. Thirteen came to light during the documentary survey, four were identified by cartographic regression, five were identified by Mike Freemen, 12 new sites were identified during the walk-over survey and one was identified during the geophysical survey. Of the total, there were two Grade I listed buildings - Sites 06 and 09, and two were Grade II^{*} listed, - Sites 07 and 10.

Period	No of sites	Sites
Neolithic	1	Flint tools (46)
Bronze Age	0	
Iron Age/ Romano- British	2	Coin Hoard (20) Possible section of Roman Road (02),
Roman	0	
Medieval	4	Cross Fragment (01), Pond (03), Hall (12) Mill (18), (30)
Post-medieval	22	Airedale Barn (04), Starkie Wing (05), The Great Barn (06), Ancillary Block (07), Cart Shed (08), Hall (09), Bothy (10), Bridge (11), Garden Feature (13), Wall (14),
		Building (15), Building (16), Bridge (19), Pig Sty (21),
		Cattle Shed (22), Out-building (23), Out-building (24), Gate House (25), Out-building (26), Out-building (27),
		Stable (28), Stable (29), Coal mine (47)
Modern	9	Planting Beds (33), Culvert (35), Modern Farm Buildings (36), foot bridge (37) Summer Track (38), Sheepfold (39), Masonry Stub (40) Field drain (41), Pavilion (43)
Unassigned	8	Leat (17), Coursed Stone Remains (30), Wall foundation (31), Track (32), Bank (34), Track (42), Leat (44), Possible Building (45)

Table 1: Number	r of sites by period
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8.2 ASSESSMENT OF THE LANDSCAPE

- 8.2.1 While the desk-based study has encompassed the hall and its immediate surroundings, the intention of the present study was to examine the archaeological potential and significance of the wider National Trust East Riddlesden Hall holdings, comprising the land to the east of the hall. This is now predominantly agricultural land that extends down to the River Aire, and is, for the most part, within the flood plain of the river.
- 8.2.2 Prehistory: the East Riddlesden Hall site has a long history, with human activity dating back to the Neolithic, evidence of which can not only be found on the surrounding moors, but a small residual flint assemblage comprising flint tools (Site 46) was recovered during excavations in 1998 on the former Starkie Wing (Newman 1999, 59). Given the significant discoveries of rock art and Neolithic structures from the surrounding moorland, particularly from nearby Backstone Beck, this discovery of such artefacts was not entirely unexpected. However, the potential for prehistoric sites in the area of Riddlesden is perhaps more likely to relate to the use of the Craven / Aire gap as a major communication artery across the Pennines. The finds of stones axes and hammer stones in the Riddlesden area (Section 3.2.1) reflect Neolithic and Bronze Age activity but may represent casual losses in the course of their transportation through the valley. It has long been postulated that there was a significant trading network through this and other corridor routes in the Neolithic, given the finding of very large numbers of polished Group VI axes on the Yorkshire Wolds which all had their origins in the Lake District (Clough and Cummins 1988). Unworked Group VI axes have also been found in the Craven/Aire gap (Manby 1965). East Riddlesden Hall is on the natural communication line, above the floor of the Aire valley, and is a route followed by both the medieval road and the later turnpike; there is, accordingly, considerable potential for prehistoric remains, be they casual finds or more substantive structures, in the vicinity of the hall.
- *Roman:* the evidence of Roman activity at the site is reliant upon a coin hoard and 8.2.3 an excavation of a Roman road. The coin hoard, discovered in 1775, containing hundreds of Roman silver coins (Site 20), was supposedly in the vicinity of East Riddlesden but no precise location was reported. The excavation, undertaken in 1982, was through what was purported to be the Manchester to Ilkley Roman road. on the edge of the former cricket field, and now within Maze Field (SE 0785 4200). There is some uncertainty as to the precise location of the excavation, particularly given that the co-ordinates cited (Frere 1983) put it in the river, but there is the possibility that the original excavation site was washed away by erosive nature of the river. There is a possibility that it is on the line of the modern track that at one stage led to the former cricket pavilion (Site 30), and would indicate a crossing of the river, near the north-western corner of Maze Field. The magnetometer survey confirmed the existence of a road extending to the site of the former pavilion, which was indicated by a large ferrous anomaly, and largely corresponds to the line of the modern track shown on the recent air photographs. The large ferrous anomaly would suggest that either the road coincided with a pipe or it was made up of brick material; either way it would imply a relatively modern structure, which could potentially obscure evidence for an earlier one. The same survey shows a much reduced linear anomaly to the south-west of the pavilion.

- 8.2.4 Interestingly, the resistivity survey shows a very distinct continuation of the track to the south-west of the position of the pavilion, which does not correspond with the line of any documented, modern track. The geophysical surveyors (Section 7.3.1) did not believe that this was a Roman road because of the absence of identifiable road side ditches; however, it is not uncommon for Roman roads that are terraced into slopes to be devoid of road-side ditches (OA North 2007). The line of this road/track extension leads directly towards the river and there is a continuation of this track shown on the 1969 air photo (OS-69245-27) (Plate 17). While it is not possible to confirm, on the present evidence, the existence of a Roman road here, it is possible to tentatively suggest that there was an earlier road or track in this location. Given that the track is shown on the 1969 air photograph it is not possible to infer an early date for the track, although the possibly cannot be excluded. Significantly, although the air photograph shows a track leading down to the river, there is not a corresponding one on the opposite side of the river. The implication is that this track was not serving a crossing at the time of the photograph, although there could potentially have been a crossing in the general vicinity from an earlier date.
- 8.2.5 *Early-Medieval:* parts of ninth or tenth century crosses have been found within the study area, the presence of which indicates that the site may have been important since the early medieval period (Site 01). It has been suggested by Faull (1986, 29) that these fragments are more likely to mark the position of a cemetery, at which no church was established. The presence of such a cross is important in that it indicates early medieval activity and that Riddlesden was an ecclesiastical focus during this time. Riddlesden was mentioned as a manor in the Domesday Book, of which a carucate was held by Eardwulf and the King; as such, this implies a pre-Conquest origin for the settlement.

8.3 LANDSCAPE OF EAST RIDDLESDEN HALL

- 8.3.1 **The Setting and Layout of the Hall:** East Riddlesden Hall is located on a prominent ridge, with a commanding aspect of the river Aire below. Its location may potentially have been linked into lines of historic communication, such as the putative Roman road, but this is at present unconfirmed. The river in the general vicinity of the hall is extremely dynamic, which means that whilst there is not any extant remains of a crossing, any former crossing would also have been extremely vulnerable to any migratory changes in the course of the river. While there is no reliable evidence to indicate that the location was adopted because of historic communications, there is undoubted evidence to suggest that the subsequent post-medieval development of the hall was enhanced by its links to communications, particularly the Leeds Liverpool canal and the turnpiked Keighley Road, and these are discussed further below (*Section 8.3.17*).
- 8.3.2 The layout of the site shows that the hall is located at the southern end of a flat topped spur, and its facade always faced out towards the north-east which was the principal line of access as determined by the level topography in this direction. The footprint of the spur is dominated by the pond and hall, with ancillary buildings set on the limited amounts of level land around it. The implication is that the pond is an early feature, that predates the group of farm buildings in the north-east corner of the site. The oldest of these is the Great Barn (Site **06**), which is at least fifteenth / sixteenth century date and there are suggestions that it could be even earlier (*Section*)

3.4.3). For this sizeable pond to be of medieval date it would indicate that it was an important functional feature, and would reinforce the tentative suggestion that it was a mill pond, and that there was possibly a mill towards the base of the hill. This would support the documentary records that indicate the existence of a mill in the vicinity of the hall (WYAS/DBS C21/6).

- The layout and arrangement of the site is extremely revealing, and has a very 8.3.3 significant emphasis on agricultural functionality. The agricultural buildings are prominently sited in front of the main house rather than being discretely tucked away, including a milk house right in front of the Starkie Wing (Site 15/24) and the Bothy (Site 10) in front of the eastern wing. The location of these outbuildings impinges upon the view from the entrance of the principal facade of the hall. This is reinforced by the 1662 inventory (WYAS/HAS/B:13/42) which cites three milk houses, a building described as a work house, two mills, a barn and a building described as the east gate house all within the environs of the hall; these indicate an extensive agricultural infrastructure. The Great Barn is particularly large, indeed is larger than the extant hall, and as such would have accommodated a large amount of foodstuffs and stock. The agricultural lands necessary to fill such a barn must have been extensive and gives an indication of how important agriculture was to the hall's economy. The importance of the corn mills to the hall's economy is emphasised by the fact that a mill is referred to from the earliest documentary reference to Riddlesden in the twelfth century, when it is recorded that Simon, son of William de Montalt granted to the church at Bingley 'the tithes of the mill at Riddlesden, and of the meadows, coppices and bees of his manor there' (Faull and Moorhouse 1981, 458). Although industry contributed to the wealth of the estate, notably James Murgatroyd's revenues from the Halifax wool industry, this did not unduly distract from the agricultural character of the estate because even during the seventeenth century agricultural buildings were being constructed in front of the house.
- 8.3.4 Although the hall was a large and prestigious building, the associated landscape makes little statement about the wealth and stature of the occupant and contrasts with other comparable prestigious houses. There is no associated parkland, the landscape in front of the house was designed around functionality, the gardens at the rear of the house were relatively small, and, as far as can be determined, were never particularly elaborate, and were not maintained. East Riddlesden Hall is an impressive building whose wealth developed from its control of the local agricultural economy and this is reflected in the design and character of its landscape.
- 8.3.5 *Medieval Origins:* medieval activity appears to have been largely concentrated within the immediate environs of the present hall; documents from the thirteenth century indicate that there was likely to have been a manor house, which in all probability would have occupied the site of the present hall or very nearby (Faull and Moorhouse 1981 460). The documentary evidence has, however, highlighted some of the problems concerning the hall, and what is not clearly understood is the relationship between the present structure and the putative medieval hall. The existence of a medieval hall is referred to when it was passed to the Paslews, through Robert Paslew's marriage to Elizabeth Maude in 1402 (Sheeran 1985, 14). Further, in 1544, a capital messuage was cited as belonging to Walter Paslew (YPEC/13/20/1543). By 1602, the will of Robert Rishworth (YPEC/28/7/1602), makes reference to a lower house and that by this time both wings of the house were

present; this would suggest that if they were not medieval in origin, then they were at least of sixteenth century date. It has been suggested that there were fifteenth or sixteenth century elements extant within both the 'Starkie Wing' and the hall (M Freeman pers comm; Sheeran 1985; Giles 1986), notably the lower windows in the surviving Starkie façade which would appear to be of that date.

- 8.3.6 During this period it would appear that the land to the east of the hall was used mainly for agriculture; however, neither the documentary nor the various surveys undertaken under the aegis of the present project has revealed much information concerning the land-use in the study area. The 1543 will of Walter Paslew mentions wood, pasture and meadow in Riddlesden, but not a specific location (YPEC/13/20/1543).
- 8.3.7 **Development of the Mills:** one possible site of medieval activity relates to the construction of a mill to the east of the hall, which apparently continued into the post-medieval period. There are a number of documented mills associated with East Riddlesden and while one is likely to correspond to the site of Stock Bridge Mill, the location of other fulling and corn mills are for the most part uncertain. One site suggested by Mike Freeman (*pers comm*) as being a potential location for a mill is to the east of the hall, in the area to the west of the modern farm buildings (Site 18 and 34). Such a mill could potentially have been fed by the stream / leat (Site 17) that extends around the northern side of the barn and extends through this area, becoming a canalised water channel that ultimately feeds into the River Aire in the south-western part of the site. On either side of the entrance to the culvert, a pair of linear earthworks are shown on the 1969 air photo (OS-69245-27) (Plate 17), and these may be indications of a former structure.
- Above the putative mill site is the large East Riddlesden pond, which has a large 8.3.8 earthen dam along its eastern side and an outfall extending east approximately towards the suggested site of the mill (Site 18) through an underground culvert. The date of the pond is uncertain, but is first depicted on the c1830 anonymous painting of the hall, and the eastern outfall is first shown on the OS 1894 map. As such, there is the possibility that at some stage the pond may have served as a body of water for milling purposes. However, there is no hard evidence to confirm this beyond the fact that the pond was clearly a deliberately constructed feature and would have provided a good head of water if there had been a mill located at the bottom of the hill. The feeder channel for the pond extended from a point near to the drive entrance to the hall, and is close to where stream/leat - Site 17 extends around the northern side of the barns. As such it is probable that they both used the same water source and that Site 17 channel served as an overflow route. Given that they both originated from the same location, and seemingly converged at the same location in the area of Site 34, the possibility exists that they reflect two alternate water sources for mill or mills in this location.
- 8.3.9 A possible north-west/south-east aligned leat (Site 44) is shown on the 1845 Tithe map within a bend in the river, and did not appear on subsequent editions of the OS and there are no extant indicators of the putative leat within the present landscape. It was depicted as being an outfall extending into the north bank of the River Aire and if confirmed as a leat then it raises the possibility that there was a water-powered mill within this general location.
- 8.3.10 *Post-Medieval:* the early sixteenth century saw the emergence of the yeoman farmer as the feudal system collapsed. This rise was helped by two things, firstly, an

increase in the price of grain and a steady market for wool and, secondly, a fluid market following the Dissolution of the Monasteries (Wade Martins 1995, 62). From at least the Late Medieval onwards agriculture was the predominant activity at Riddlesden Hall, although the monks of Bolton Abbey kept a fishpond in the River Aire at Riddlesden in the medieval period, mentioned in 1320 (cited in Brigg 1895). The estate aimed at self-sufficiency, and the massive barns are evidence of a considerable agricultural enterprise. It was clearly in the best interests of landowners to increase the productivity of their land. As a result, they often took a leading role in enclosures, drainage and reclamation of land (Bettey 1993,102). This practice was undertaken at the East Riddlesden estate as evidenced by the changes to meadows and enclosed fields adjacent to the Aire.

- 8.3.11 The wealth to buy the estate and to transform the previous building into a comfortable seventeenth century manor house came not only from agriculture but also from industry. James Murgatroyd had made his fortune in the Halifax wool industry, but his fortunes declined after the English Civil War and the house and estate passed to Lancashire family, the Starkies, who enjoyed a period of prosperity during the eighteenth century. It was occupied by them until the nineteenth century when it became tenanted (National Trust 2006).
- 8.3.12 Coincident with the increase of wealth and intensity of activity, the documentary evidence for East Riddlesden Hall and the surrounding buildings and barns was also much more plentiful in the post-medieval period, with the chronology and ownership of the present hall and former 'Starkie Wing' being better understood (National Trust 1993 and 2006). The presence and function of the buildings surrounding the hall, if not always their precise location, including the two remarkable barns, has been enhanced by research carried out by the House Steward, Mr M Freeman, which has identified inventories, wills and deeds. The documents indicate that the suite of buildings surrounding the hall were more numerous than at present, and included two mills, one of which was used for fulling, and a kiln, which may have been connected with that activity. Although, it might be tempting to suggest that one of the mills was located close to the modern farm buildings, where masonry and 'humps and bumps' have been noted, these in turn could have been associated with the nearby leat (M Freeman pers comm; Sites 18 / 34).
- 8.3.13 The barns at East Riddlesden warrant closer attention with reference to their dates. The accepted date for their construction was c 1650, as suggested by Lake (1989, fig 45), but documentary evidence suggest that there were already barns on the site by 1602 (YPEC/28/7/1602). Of course, these barns could have been demolished to make way for the present Great Barn, although it has been observed that 'its internal timber frame roof structure and its plan form, is paralleled in earlier manorial barns of the fifteenth and sixteenth century in West Yorkshire', with an example of such a barn situated at Beeston, near Leeds (NTSMR 31837*0).
- 8.3.14 Prior to the mid-nineteenth century there was little available documentation for the usage of the lands to the east of the hall, and the tithe map (1845 (WYAS/BD167)) provides our first reliable indication of this within the survey area. The land was then in agricultural use, and the field boundaries were all extremely straight, suggesting that they reflected a relatively recent adoption, possibly as a result of parliamentary enclosure. The fields in this area are within the flood plain of the river, but at the time of the tithe appointment (WYAS/BD42) they are referred to as 'Riddlesden Pasture' and were probably not water meadows then. The field in the

'crook' of the river was known as Eight Acres and is a conventional name for a recently adopted field. Despite this land being within the wider estate of East Riddlesden Hall, and that it was in the immediate proximity of an important manorial centre, there is no evidence that it had ever been adopted as a park. No parkland features have been revealed through the documentary sources or as a result of the walk-over survey, and certainly by the time of the 1845 map all the land around the hall was under the tithe. The only documented parkland in the surrounding area was Howden Park, which was depicted on the Speed 1610 map and was somewhat removed from East Riddlesden Hall. The lack of any evidence of earlier sites within the fields bounding the River Aire would indicate that it was not used extensively before that period, although it may have served as unenclosed hunting land, given that Simon de Montalt was granted free warren in 1254 (Section 3.2.4). Given the erosive and depositional nature of the river, charted by the Ordnance survey since 1853, it was unlikely to have been used other than hunting or pasture land, and the fields are named as 'Riddlesden Pasture' on the tithe appointment (WYAS/BD42) and are all described as being under 'grass'.

- 8.3.15 The identified archaeological resource within the study area is typically of agricultural function, and even then is not of enormous antiquity the stock bield Site 40 for example was constructed of concrete blocks. The farm buildings (Site 36) were also apparently of very recent construction; while they have a number of distinct construction phases they are seemingly all built of concrete blocks, and they do not appear on the OS mapping before the mid-1970s edition.
- 8.3.16 The only significant non-agricultural features within this area were related to mining activity (Site 47) which was proposed beneath the hall and pond in the midnineteenth century. It was, however, not possible to establish from the correspondence as to whether these were actually opened or merely proposed. By the end of the nineteenth century, however, it would appear that galleries had been extended beneath the hall and pond (Dickinson and Holding 1965, 42-46) from nearby mines outside the survey area (shown on OS first edition map (1853)).
- 8.3.17 *Communications and River*: in 1814 a new turnpike road was opened from Keighley to Bradford and later Halifax, which in part followed the course of an earlier route. The pre-turnpike line of the Bradford Road follows a sinuous path (Site 42) extending out from the present Bradford Road and extends through the northern part of tithe field 462 (Fig 6). The entrance to East Riddlesden Hall opened onto the turnpike road to the north-west of the barns and continued across the road and over the Leeds Liverpool Canal, which had been constructed in 1773 to carry woollen goods from Leeds and Bradford and limestone from Skipton. The canal eventually linked the industrial centres of the West Riding with Liverpool, thus greatly improving links between the raw materials and the markets of the Americas. The supply of lime was a key reason for building the canal, but coal and other goods quickly became more important. The hall was therefore conveniently situated to take advantage of the easy communication routes afforded by both the road and the canal.
- 8.3.18 Natural crossings of the river were extremely difficult given the somewhat dynamic nature of this section of the river, which was highlighted by the erosion survey results. This had aimed to determine the extent of change along the east bank since the OS mapping of the 1990s, and it demonstrated the severity of the fluvial action along the east bank of the River Aire. The landscape has been changed dramatically

in the recent past, the river having carved a new topography into the soft sandy soils of this stretch of its course. In total, some $6111m^2$ of land has been lost to fluvial erosion between the production of the 1990s OS map and the survey of April 2008. This is most serious in the north-west area of Eight Acre Field (Fig 17), where the incursion into the field is up to 50m in places.

8.3.19 Given this migration of the line of the river, it is difficult to maintain fordable crossings and, similarly, any bridged crossings will have had a short life. There were a number of documented bridge crossings of the River Aire; the Ordnance Survey First Edition 25" map of 1894 (Fig 8) shows a footbridge (Site **19**) crossing the river to the south-east of the Hall, but no associated track or path. The river has changed substantially in this area and there were no indications of any bridge features identified by the survey. In 1929 an excavation revealed traces of a bridge abutment or pier on the former northern bank of the river Aire approximately half a mile to the east of the Hall (Site **11**) (Butterfield and Wood 1929, 192). The authors concluded that this may have been the 'Marley or Marloe bridge', referred to in numerous seventeenth century documents (Sessions of Rolls 1650-1700, cited in Butterfield and Wood 1929, 197), which was believed to have connected East Riddlesden Hall with nearby Marley Hall, the bridge lying about mid-way between the two. Again, the bridge crossing is likely to have had a limited operational life as the river has moved a substantial distance from its earlier line (Fig 2).

9. MANAGEMENT RECOMMENDATIONS

9.1 INTRODUCTION

9.1.1 A number of features within the East Riddlesden Hall estate are accorded legal protection under several different Acts, Statutes and Regulations. Brief guidance as to the nature of that protection is summarised in the paragraphs below. Further information, if required, can be obtained from the Territory Archaeologist and/or the Conservation Services Directorate in Swindon (Contact Details, *Section 6.4.9*).

9.2 STATUTORY DESIGNATIONS

- 9.2.1 A small collection of the monuments across the East Riddlesden Hall National Trust estate have, in the past, been deemed of National Importance for their relevant type/period/survival, and have consequently, been defined as Scheduled Monuments. A Scheduled Monument (SM) is an archaeological site designated as being of National Importance and included on a list, or Schedule, maintained by the Secretary of State for Culture, Media and Sport. It is protected by the primary, ancient monuments legislation, The Ancient Monuments and current. Archaeological Areas Act, 1979, as amended by the National Heritage Act, 1983. By law, any proposed works affecting sites on the Schedule require a grant of Scheduled Monument Consent (SMC) by the Secretary of State, their decision usually being based on the advice of the relevant English Heritage Inspector. The sites are statutorily protected, and any future changes in surrounding management practices, the landscape setting of the sites and their overall conditions should be discussed between the territory archaeologist, English Heritage and relevant stakeholders. If in doubt as to whether an on-site activity would be considered to affect a SM under the terms of the act, advice should be sought from National Trust archaeological staff, in the first case from the Territory Archaeologist or failing that from the Archaeological Section in Swindon.
- 9.2.2 *Scheduled Monuments:* there are currently no Scheduled Monuments within the East Riddlesden Hall estate.
- 9.2.3 *Listed Buildings:* under the Town and Country Planning Act 1971, the Secretary of State for the Environment, Local Government and the Regions is required to compile a list of buildings of special Architectural or Historical Interest, for the guidance of Local Planning Authorities in the exercise of their planning functions. There are three grades of listed building, as follows:

Grade I	Buildings of exceptional interest (c 1% of the total)
Grade II*	Important buildings (c 4%)
Grade II	Other buildings of special interest

9.2.4 Listed Building Consent (LBC) is required by anyone who wishes to demolish, extend or alter a listed building (or affect its curtilage) in any significant way that affects its character. Consent must be obtained from the planning department of the local County or District Councils. The settings of the Listed Buildings also enjoy statutory protection, further advice on this can be given by the property Curator.

9.2.5 The estate contains four listed buildings, and future changes to surrounding management practices or the landscape setting adjacent to these structures should bear this status in mind. The Listed Buildings are:

The Great Barn (Site 06) - LB Grade I

The Hall (Site 10) - LB Grade I

Block adjacent to Bothy (Site 07) - LB Grade II*

Bothy (Site 09) - LB Grade II*

9.2.6 **Registered Parks and Gardens and Registered Battlefields:** although this designation does not carry any statutory status, listing on the register means that a park and garden or battlefield is considered to be of sufficient interest to merit a national designation and local authorities are required to consider and protect the area. The National Trust also have a strong role in the conservation and restoration of parks and gardens. Significant alteration to a Registered Park or Garden now requires a grant of consent analogous with that for a Listed Building. There are no such designations within the East Riddlesden Hall Estate.

9.3 NON-STATUTORY PROTECTION AND GENERAL MANAGEMENT PRACTICES

- 9.3.1 **The Treasure Act 1996:** chance discoveries of gold or silver objects which might formerly have been regarded as Treasure Trove, now fall, with a wider group of objects, under the Treasure Act, 1996 (amended 2003). Under the Act, any object which contains more than 10% of gold or silver, and is over 300 years old, is defined as Treasure, as are groups of ten or more coins in any material, as well as any other objects found with an item which is treasure. Finds of treasure have to be reported to the Coroner for the district, and will normally be examined by an archaeologist. The National Trust, while allowing public access to its lands and properties, retains its rights as landowner so far as items of Treasure are concerned.
- 9.3.2 *Sites without Statutory Protection:* work affecting sites unprotected by statute or regulation should be referred, where appropriate, to the Trust's archaeological advisory staff, in the first instance to the Archaeological Advisor for the property. Guidance as to the location of the archaeological resources which fall in this category may be found in this report. Every effort should be made to keep these sites in good order and retain them as features in the landscape, irrespective of their legal status. In addition, archaeological sites listed on the National Trust Sites and Monuments Record should be regularly monitored to check for potential hazards, impacts or erosion. Additional archaeological mitigation or research in the form of survey, excavation or building recording would be required ahead of all activities that are potentially destructive or involve disturbance of archaeologically sensitive areas.
- 9.3.3 *NT Archaeological Policy:* for general background on the archaeological policy exercised by the National Trust please see the Archaeology Subject Paper, most recently revised in November 1988. Additional information on the role of archaeology in the National Trust, together with current policy, guidance, advisory and research papers can also be found on the NT Intranet.
- 9.3.4 *Metal Detection Scheduled Ancient Monuments:* it is an offence for anyone to use a metal-detector on a Scheduled Ancient Monument (whether or not they then

dig for the identified object) without the written consent of the Secretary of State for Culture, Media and Sport, and the granting of a special licence. This prohibition also includes the use of geophysical survey equipment. Enquiries concerning obtaining such consent should be directed to the Territory Archaeologist.

- 9.3.5 A further, more serious, offence is to remove an object found by a metal detector on a Scheduled Monument. This is in addition to the potential for committing an offence under the Theft Act. Damage caused to a monument by removing a "find" may constitute a third offence. All such cases should be reported to the Police, English Heritage, NT archaeological staff and the Area Manager.
- 9.3.6 *Metal Detection Non-Scheduled Sites:* it is the National Trust's policy that metal detectors should not be used without permission on its properties (for further information see the National Trust's Policy Paper on Metal Detecting to be found on the NT Intranet). Digging to recover objects located using a metal detector is a contravention of the Trust's byelaws under section 2(a). Removal of objects without permission is, of course, an act of trespass and theft.
- 9.3.7 Although the final decision regarding granting permission of this sort will reside with the Property Manager, staff and tenants are urged not to grant permission for metal detection except in exceptional circumstances. If such permission is ever granted, it is National Trust policy that a Licence should be drawn up by the Archaeological Advisor to the property, documenting the terms of access. For further information, please contact the Territory Archaeologist, or the National Trust Archaeological Section. The legal ability for property staff to grant permission to remove objects is questionable, as this would represent alienation of National Trust property.

9.4 ARCHAEOLOGICAL IMPLICATIONS OF PROPERTY MANAGEMENT

- 9.4.1 *Building Work:* work of various kinds can reveal evidence for the early history of standing buildings, for example:
 - i) excavations under floors or involving foundations;
 - ii) alterations to the structure or fabric of a building;
 - iii) work resulting in below ground disturbance of the immediate environs of a building where earlier structures or settlement are suspected.
- 9.4.2 Archaeological consultation would be advisable whenever such work is proposed, so that arrangements can be made for any necessary recording. Archaeological advice given at the planning stage of such operations almost invariably leads to much cheaper and less disruptive interventions compared with reactive archaeological investigation undertaken once a discovery is made.
- 9.4.3 *Landscape Works:* all earthmoving operations including temporary works such as contractor's access routes represent a considerable threat to the archaeological resource, particularly to what might be comparatively slight surface traces of past human activity. All such works should be carefully planned, and the advice of NT archaeological staff sought, especially where there are existing indications of archaeological sensitivity.

- 9.4.4 Less obvious are the implications of tree planting or changes to vegetation cover. The impact of changes of root structure on the archaeological resource can be very great. If tree planting needs to be conducted in areas of surface archaeology then this should be planned with the needs of the archaeology in mind, preferably in consultation with NT archaeological staff.
- 9.4.5 As in building work, planned archaeological investigations/mitigation strategies are much more cost-effective and conservation minded than reactive policies.
- 9.4.6 *Agricultural Activity:* the impact of agricultural activity on the archaeological resource will obviously varying very considerably from place to place and time to time. However, the English Heritage 'Monuments at Risk Survey' established that agricultural activity is the single greatest erosion pressure on the archaeological resource (Darvill and Fulton 1998).
- 9.4.7 In general terms, however, it is unlikely that the continuation of well established land use will represent a threat to the existing archaeological resource. Sites which are already under the plough are unlikely to have their value or integrity reduced from a continuation of the same activity, though there may be a need to periodically monitor sites affected in this way.
- 9.4.8 Changes of land use, from pasture to arable or woodland, for example, are likely to have rather greater effects. So too may field improvement, involving drainage, stone clearance or especially deep ploughing. While other factors may weigh in favour of such changes, the impact on the archaeological resource should be taken into consideration, and some further investigation of the site may be needed in mitigation.
- 9.4.9 Relevant Contact Addresses: Archaeological Advisor Archaeological Section Mark Newman Archaeology Department The National Trust Territory Archaeologist, North National Trust York Office Heelis Goddards Great Western Retail Park 27 Tadcaster Road Swindon Dringhouses York, YO2 2QC Tel: 01904 702021 e-mail: mark.newman@nationaltrust.org.uk

English Heritage	Department for Culture,
37 Tanner Row	Media & Sport
York YO1 6WP	2-4 Cockspur Lane

London, SW1Y 5DH

9.5 SPECIFIC MANAGEMENT RECOMMENDATIONS AND FUTURE INVESTIGATION

- 9.5.1 The following management recommendations are proposed for the estate in light of the known archaeological resource identified by the present survey. The recommendations take into account known threats to the archaeological resource, eg riverine erosion and ploughing, and consider the sub-surface potential for these areas. It must be born in mind, however, that the majority of the known archaeological resource survives as upstanding earthwork features, or has been identified through antiquarian investigation, so the resource is biased away from sub-surface archaeological remains.
- 9.5.2 **Documentary Record:** given the importance of the documentary record in understanding the development of the estate, it is recommended that further documentary work be undertaken to build on that already undertaken by Mike Freeman and as part of the present study. This would entail collating and transcribing documents that have previously been identified and examining primary medieval documentation.
- 9.5.3 *Hall and Outbuildings:* there is considerable archaeological potential within the area of the hall and outbuildings, which are currently comparatively little understood. Given the absence of detailed documentation for this area, the physical remains and sub-surface deposits in this locale provide the main extant source for the detailed history of the property. Therefore, ground disturbance, for any purpose, should only be considered highly circumspectly, and then only with appropriate and careful archaeological mitigation in place.
- 9.5.3 There has been little critical analysis of the hall to date, and there is a need to gain a better understanding of its form and development. It is therefore recommended that detailed fabric analysis be undertaken of the building, either as a specific research project, or cumulatively as opportunities permit.
- **Putative Roman Road (Site 02):** the existence of a Roman road extending through 9.5.4 Maze Field has been postulated on the basis of an excavation by the Bradford Grammar school excavations (Haigh 1982), which has not been precisely located, but may in part correspond with the line of the existing track that led to the former cricket pavilion (Site 43). The geophysics has provided some limited supportive evidence for an earlier road on this line, but has not proven the existence of a Roman road. Where the road leads to the north of Maze Field is not known, but potentially would follow the natural topographic line around the hill occupied by the hall. Any ground disturbance around the eastern margins of the hall, and particularly in the area of the modern farm buildings (Site 36), has the potential to impact upon the early road, and would therefore warrant archaeological observation. The topographic erosion survey has demonstrated that there has been considerable changes to the line of the river throughout the extent of the estate. This riverine erosion may have already degraded any remains of the road and crossing, and may continue to do so. It is therefore recommended that a further trench be archaeologically investigated on the predicted line of the road, and in an area which has the potential to be lost to river erosion, so as to confirm the existence and line of the road and to provide a mitigative record of the road in advance of any truncation.
- 9.5.5 *Putative Mill Site (Site 18 and 34):* a canalised channel / leat (Site 17) extends through the survey area and a substantial section of this is culverted. Somewhere

along its length there is likely to have been the former location of a water-driven mill. The existence of such a mill in the area of East Riddlesden Hall is documented (*Section 3.2.10*), but the precise location is not defined. On valid common sense grounds it has been suggested by Mike Freeman that one possible site for such a mill would be to the north-east of the hall, adjacent to the line of the leat, and would put it in the general environs of Site **34**. It is therefore recommended that any ground disturbance in this general area, be subject to archaeological investigation or monitoring, both for the potential of revealing a mill site, but also a potential continuation of the early road (*Section 9.5.2*).

- 9.5.6 *Modern farm buildings (Site 36):* the farm buildings are of very limited archaeological significance, being constructed of concrete block and were apparently constructed after the 1950s. They have been recorded to English Heritage Level 1 standard, and, as such, would provide an adequate mitigative record for such unremarkable structures, in the event that they were to be altered or even removed. While it is not recommended that the superstructures be subject to further recording, if they were to be removed or there was a requirement for ground works in their vicinity, it is strongly recommended that an archaeological evaluation be undertaken prior to any ground disturbance. This recognises that there is the potential for the line of the early road or a mill site in the general vicinity (*Sections 9.5.2* and *9.5.3*).
- 9.5.7 *Pre-Turnpike Road (Site 42):* a section of road, believed to be the pre-turnpike road, extends through the northern part of the study area, and is overlain by the modern access track for the present day cricket field. It is important that any works to the modern track anticipate the existence of the earlier road, and that attempts are made to minimise any disturbance to the earlier structure. If substantial ground works are proposed in this area, then they should be subject to archaeological monitoring.

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APPENDIX 1 PROJECT BRIEF



NT Archaeology Yorkshire and the North-East

Archaeological Project Brief

Project name

Historic Landscape Survey, East Riddlesden Hall

Non-technical summary

This project will undertake an archaeological survey of the whole NT landholding at East Riddlesden Hall, near Keithley, West Yorkshire (NGR SE078420). This will identify all surface and documentary traces of past human activity on the property, creating a gazetteer of these features. Further explanation will be offered through the preparation of an interpretative text, including management recommendations.

In addition three discrete additional activities will be undertaken as part of the work: mapping of the current bank of the Aire; a small area of geophysical survey and recording of some modern farm buildings due for demolition.



Site Description

East Riddlesden Hall (NTSMR 31141) is a fine mainly seventeenth century house in the eastern suburbs of Keighley. In addition to the main hall. The property includes several contemporary imposing farm buildings. This complex is believed to lie on the site of an Early medieval manorial site, in turn in proximity to a Roman crossing of the river Aire with associated approach roads. Predictive modelling would suggest that further Romano-British remains might also lie on the landholding.

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The Hall, gardens and farm buildings were donated to the National Trust in the 1930s. Further additional lands in the valley floor to the east were acquired in the late 1990s. These are a last undeveloped fragment of East Riddlesden's once extensive agricultural estate. The National Trust is presently considering revitalising the use of this area, one of the reasons for undertaking this survey at this stage.

In total survey area, the NT entire landholding, amounts to some 117 hectares

Archaeological and planning background

There is already a certain amount of information about the archaeology of the site available from NT systems. This includes a desk-top study completed in 1997, which consulted the principal regional sources, for the 1930s donation (but not the additional Co-Op land). There have also been a number of watching briefs carried out over the years, which have mainly been written up and archived.

More significantly Mike Freeman, the House Steward, has been researching the property for many years and has accumulated a considerable body of material relating to its history. The present survey should review this material and record its scope; the current work will not, however, address any detailed compilation of this material.

The survey will be conducted to a level II or III standard, as defined in the National Trust's Historic Landscape Survey Guidelines.

As noted above the National Trust is currently considering revitalising the management of the site. This has brought forward the desirability of a full archaeological survey.

Outline of required methodology:

The methodology adopted will confirm to Historic Survey Guidelines published by the NT, available from our Internet site. Key characteristics will include: *Field survey*

Walkover survey of the whole of the agreed study area, with walk lines separated by no more than 15-20m.

Recording of all evidence of past human activity observed, allocating a unique NTSMR number (sequence to be provided by the Project Manager) to each site; writing a description including its dimensions and any relevant management issues; recording it with a minimum of 1 photograph (which may be in digital format); relating field observations to documentary research. Archival research

Consult key repositories for documentary material relating to the study area, especially the SMRs of the NT and the West Yorkshire Archaeology Service, the West Yorkshire Archive service and the library of the Yorkshire Archaeological Society. This research must include study of all pre-1920 mapping, including Tithe Award, early editions of Ordnance Survey coverage and any locally produced material. Evidence of past human activity from these sources will either be reported in the fieldwork site descriptions, or allocated a discrete NTSMR number if no surface trace can be identified. Building Recording

The building recording required as part of this project only concerns relatively modern, unremarkable, structures the work mainly being a means of preintervention recording. As such only a relatively light recording approach need be adopted. This should include a verbal description of the building (including form, dimensions, apparent function, apparent date and building materials) schematic plans and elevations; photographic recording of all elevations, and such interiors as can be accessed safely.

Geophysical survey

The adopted methodology is open to discussion with the Project Manager, but will be conducted in conformity with published English Heritage geophysical survey guidelines.

Outline of managerial parameters:

Whilst on NT land, the contractor will be expected to confirm to NT bye-laws. For the purposes of the Treasure Act, 2003 (and for no other purposes) they will be deemed to be archaeologists in the employ of the National Trust. The Contractor shall have full responsibility for the Health and Safety of their staff engaged in working on this project (at a minimum to the full legally required standard) as well as that NT staff and the general public in as far as they may be affected by the completion of this project.

The National Trust will reserve copyright over any and all materials arising from the completion of this fieldwork, while recognising the right of recognition of the originators.

Access to NT land is granted for the purposes of completing the described fieldwork and for no other purpose. As the majority of the land involved is subject to agricultural tenancy all access must be agreed with NT property staff, who will agree access with the farm tenant.

Monitoring arrangements:

The Contractor and the Project Manager will meet to finalise the specification for works at the outset of the contract. The Project Manager may, with prior agreement of the Contractor, visit the study area while the survey is in progress. The Contractor should plan to produce a draft report which will then be subject to detailed review by the Project Manager, to ensure alignment with NT standards and needs. This may to a greater level of detail than is sometimes experienced in contract archaeological work.

Reporting requirements:

The fieldwork will be described in an archival report at the conclusion of the project. This will conform with NT HLS guidelines and consist of an executive summary, a description of the archaeological/historical resources identified; an Interpretation of these resources; a discussion of key management issues, including area for further research; appendices including a site gazetteer and photo register. The gazetteer may be prepared on a basic Access database to be supplied by the NT if available.

Archive deposition:

At the conclusion of the project, the archive (including all reporting materials and original field materials) will be deposited with the National Trust. It will be stored either in central filing systems, at the York Office, or on the property. Digitised Information will be stored on the NTHBSMR, and made available to the NMR and ADS through centralised processes. A copies of the final report will be deposited with West Yorkshire Archaeological Service and the Yorkshire Archaeological Society.

Health and Safety provision:

Responsibility for the Health and Safety management of the project will reside with the contractor, subject to agreeing practices with the Project Manager. This will extend to all of the activities undertaken by the Contractor's staff, and the safety of the public and NT staff in as far as this is influenced by the actions of the Contractor's staff. A full Risk Assessment for all aspects of the project will be completed and supplied to the NT in advance of work commencing, and will require NT agreement. The Contractor will also be expected to comply with practices outlined in the NT "General guidelines for Countryside and Garden work".

Insurance coverage:

The Contractor will be expected to carry Public Liability Insurance to a value of not less than £2,000,000, and to provide proof of insurance to the Project Manager prior to the commencement of works.

Compliance with guidance/standards:

In the execution of all aspects of the described fieldwork, the Contractor will be expected to comply with the professional standards published by the Institute of Field Archaeologists, and guidelines produced by the National Trust.



NT Archaeology

Yorkshire and the North-East

Archaeological Project Proposal/Outline

Project name

Historic Landscape Survey, East Riddlesden Hall

Background

This project aims to complete a basic historic landscape survey of the whole of the existing National Trust landholding at East Riddlesden Hall, as a basic conservation management tool. Completion of such surveys is a core NT activity, but it being brought forward at this time to inform broader management initiatives underway at the property.

Research Aims and Objectives

The survey will record all surface indications of past human activity and complete a basic documentary research exercise (including consulting with the House Steward who has made a long term study of the site). This work will reported through the compilation of a gazetteer of known sites and features (compatible with the NTSMR database); a map(s) of archaeological features/zones and an interpretative report. This work will confirm with the guidance contained in the NT "Historic Landscape Survey Guidelines".

In addition the archaeological contractor will be asked to undertake some additional activities, viz:

- An EDM survey of the current river bank and key features of the "Co-Op" land area
- A basic VBS survey of the standing farm buildings
- Geophysical survey on the Maze Field area

Business Case

Undertaking of "first time through" historic landscape survey lies at the heart of the Regional Archaeological Strategy [RAS], adopted by the region in 2007. Implementation of the RAS's Action Plan is an objective in the Regional Business Plan.

East Riddlesden's priority for survey is relatively low, but it has been agreed that current strategic planning for the property would benefit from rapid completion of survey, both directly and through reuse of survey products. It has therefore been agreed to fund the survey from a small existing budget for geophysical survey, and additional funds from planning enablement funds.

Methods Statement

Work will be undertaken by archaeological contractors selected through a competitive tendering process. They will adopt working methods as outlined in the NT Historic Landscape survey guidelines, to produce a survey with results commensurate with those indicated in the guidance. Work will also be conducted in compliance with fieldwork and post-excavation standards and guidelines produced by the Institute of Field Archaeologists.

Stages, Products and tasks:

Tendering and selection of Contractors

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and

Interfaces

Knowledge creation

Advancing knowledge of the historic environment through -

Creating a database of archaeological resources on the property Understanding the relationship of those resources to a regional setting

Researching the potential for buried remains in the vicinity of the Roman river crossing of the Aire

Contributing to the management of the historic environment through -Identifying the sensitivities of the archaeological resource

Providing a tool for predicting the impact of development proposals of other land use change

Enhancing prediction of river bank movement

Mitigating for the impact of the removal of structures

Seeking Engagement

The timetables involved probably preclude sophisticated Engagement opportunities in the course of fieldwork. There will be some scope for press coverage, which should be explored. There is more potential in the use of recovered information after the conclusion of fieldwork, subject to fit with the property's wider interpretation aims.

Building Experience

This is a fairly standard piece of work, in which there are limited experience building opportunities. The main potential lies in involving Property Staff in the work, to raise their awareness of, and interest in, archaeology. This opportunity will be explored with the Property Manager, and the Contractor at the detailed planning stage.

Sustainable products

Copies of the survey products will be supplied to / deposited at:

East Riddlesden Property office (3 copies) NT York Office (Territory Archaeologist filing) NT Central Office (Heelis) NMR West Yorkshire Archaeology Service Yorkshire Archaeological Society

KEY ROLES

Project Manager:	Mark Newman, Territory Archaeologist, North
	Property Manager, East Riddlesden Hall (Service provision)
	David Thackray, Head of Archaeology (archaeological standards)
Specialists/Practit	ioners: Contractors TBC
Sta <mark>keholders:</mark>	Property Manager, ERH ERH property staff West Yorkshire Archaeology Service ERH volunteers Local community

Estimated timescale:

Recruit contractor Complete fieldwork Deliver final report December 2007 February 2008 May 2008

APPENDIX 2 PROJECT DESIGN

1. INTRODUCTION

1.1 BACKGROUND

1.1.1 The National Trust has invited Oxford Archaeology North to submit proposals for a historic landscape survey of East Riddlesden Hall, Keighley,. This is intended to record and evaluate the archaeological and historical features within the estate lands of the property, which will inform the management of the estate. The aim of the survey is to identify the landscape character and significance of the landscape. It will examine the archaeological history of the landscape as part of this process and will present the results of the survey. The work will also entail a geophysical survey of the Maze Field area, and a basic building recording of standing farm buildings. East Riddlesden Hall is owned by the National Trust and is 16ha (0.16sqkm) in extent.

1.2 HISTORICAL BACKGROUND

- 1.2.1 East Riddlesden Hall is mainly of seventeenth century date, and includes, not only the hall, but also associated farm buildings. Early remains on the site potentially include an early medieval manorial site and the site is in the proximity of a Roman crossing of the Aire, highlighting the possibility of Roman roads through the estate.
- 1.2.2 The following project design sets out the objectives of the project, provides a method statement demonstrating how these can be met and defines the resource implications of the method statement.

1.3 OXFORD ARCHAEOLOGY NORTH

- 1.3.1 Oxford Archaeology North (OA North), formerly Lancaster University Archaeological Unit, has considerable experience of the archaeological survey of sites and monuments of all periods, having undertaken a great number of small and large projects during the past 20 years. OA North employs a qualified archaeological and landscape surveyor (Jamie Ouartermaine BA DipSurv MIFA) who has over 23 years experience of surveying buildings and landscapes, having worked closely with the Royal Commission on the Historical Monuments of England and the Lake District National Park Authority on numerous projects. OA North has particular experience in the recording and analysis of park landscapes and formal gardens. Garden surveys of most relevance include an extensive archaeological study was undertaken of the formal and nursery gardens of Lyme Park, Cheshire, for the National Trust (LUAU 1996a and 1997), in 1996 a survey and evaluation was undertaken of the walled garden at Bostock Hall, in Cheshire (LUAU 1996b) and in 1999 an evaluation and survey was undertaken of the Astley Hall Gardens (LUAU 2001). OA North has also undertaken a detailed survey of a complex garden at Rectory Wood Gardens Heysham Head again for the National Trust (LUAU 1999), and has undertaken the survey and excavation of a fernery at Eller How gardens in Ambleside, Cumbria, for Channel 4 Television (Lost Gardens Series, broadcast 25/11/99). OA North undertook a major survey of the park and gardens at St Catherines, Windermere, on behalf of the National Trust. OA North has recently undertaken a survey of the historic Lowther Castle gardens as part of proposals to restore the gardens.
- 1.3.2 Archaeological surveys and archaeological studies of parklands include those at Lyme Park, Cheshire, Lowther Park, Cumbria, Lathom Park and Rufford Park, both Lancashire. The Lyme Park programme involved a comprehensive documentary and archaeological survey of all elements of the large (6 sqkm) parkland, looking at the formative processes of the park and its buildings which was intended to provide the basis for the restoration and management of this extremely important site. Lathom Park, was the seat of the Stanley family, and was at one time the most powerful seat in the North-West. OA North is involved in an on-going programme of excavation, survey, documentary study, and fabric survey intended to identify the evidence for the fourteenth century palace and investigate the development of the park. Lowther Park involved a detailed documentary and surface survey of one of the more significant and sizeable

1.3.3 Projects have been undertaken to fulfil the different requirements of various clients and planning authorities, and to very rigorous timetables. OA North is accustomed to undertaking projects to strict timetables, and to fulfil a wide variety of requirements. OA North is one of the bodies endorsed by the IFA (Institute of Field Archaeologists) (No. 17) and has both the expertise and resources to undertake this project to the highest standards

2. OBJECTIVES

2.1 NATIONAL TRUST BRIEF

- 2.2.1 The primary purpose of the project is to inform the future management of the estate. The requirements of the project are set out in the brief prepared by The National Trust and are as follows:
 - **Landscape Study:** to record, identify and understand the character of the remains within the estate, which would include any designed elements of the estate, communication routes and any parkland features. The work will by means of an archival study and an archaeological walk-over survey.
 - **Detailed Topographic Survey:** a survey will be produced of the river bank and features within the Co-Op land.
 - *Geophysical Survey:* to implement a geophysical survey of the Maze Field area.
 - **Building Survey:** to implement a basic building survey of farm buildings within the estate

3. METHODS STATEMENT

3.1 The following work programme is submitted in line with the objectives of the archaeological work summarised above.

3.2 ARCHIVAL STUDY

- 3.2.1 There is a certain amount of historical data already available, including a desk-based study from 1997. The present programme of archival study is therefore intended to augment the existing record, and to inform the management of the estate.
- 3.2.2 **Documentary and cartographic material:** the data generated during the present based study will serve as a guide to the archaeological potential of the estate. This work will address the range of potential sources of information, and will include an appraisal of the West Yorkshire Sites and Monuments Record and the National Trust Sites and Monuments Record, as well as appropriate sections of County histories, early maps, and such primary documentation (tithe and estate plans etc.) as may be available. Particular emphasis will be upon the early cartographic evidence which has the potential to inform the later land-use of the area, and will include the pre-1920 OS mapping. Any photographic material lodged in the West Yorkshire Sites and Monuments Record will also be studied. Published documentary sources will also be examined and assessed. The study will access the West Yorkshire Archive Service and the library of the Yorkshire Archaeological Service. The study will collate and incorporate the results of the earlier deskbased study and will review the historical data held by Mike Freeman, the House Steward, but will not undertake a detailed compilation of this material.
- 3.2.3 *Geology and Topography:* a rapid compilation of geological (both solid and drift), pedological, topographical, and palaeoenvironmental information will be undertaken, using information available from the Ordnance Survey and ADAS. This will not only set any archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field investigation.
- 3.2.5 *Aerial Photography:* a survey of the extant air photographic cover will be undertaken. Aerial photographic collections to be consulted will include obliques and verticals held by the Royal

Commission on the Historical Monuments of England based in Swindon, and also any photographs held by the West Yorkshire Sites and Monuments Record.

3.3 TOPOGRAPHIC SURVEY

- 3.3.1 It is proposed that the estate be surveyed at two levels. The first would be a general GPS identification survey extending across the full extent of the study area (0.16sqkm) and the results would be superimposed onto the 1:2500 base OS map. The second would be a detailed survey of the current river bank and the Co-Op area. The results of both surveys will be combined and superimposed with the historic mapping within a CAD system (AutoCAD map).
- 3.3.2 *Identification Survey:* the survey will examine the full extent of the estate, where access is available, and will be undertaken in three stages: reconnaissance, mapping and description. The survey would be intended to examine and record all designed elements and any archaeological monuments within the landscape and would use differential GPS to map features identified.
- 3.3.3 **Reconnaissance:** the reconnaissance will consist of close field walking, varying from 15m 20m line intervals dependant on visibility (as affected by tree density), terrain and safety considerations. All sites noted will be recorded. The survey will aim to identify, locate and record archaeological sites and features on the ground. Those sites already identified by the archival study will be checked against their entry and this will be enhanced, if appropriate.
- 3.3.4 *GPS Survey:* the areas beyond the river bank/ Co-Op area will be recorded by differential GPS survey and the data will be digitally superimposed with the OS 1:2,500 mapping. This particular hand held GPS can achieve accuracies of +- 0.5m. The method will record the location, extent and in places detail of the identified monuments.
- 3.3.5 **Photography:** in conjunction with the archaeological survey a photographic archive will be generated, which will record significant features as well as aspects of the general landscapes. It will record all principal vistas. This photographic archive will be maintained using black and white 35mm film and also using a digital camera with 6.0mega pixel resolution. The use of a digital camera provides very effective manipulation of photographic images, which can seamlessly be incorporated within reports and also be inserted against the individual entries within the database form. The use of photography in this way considerably enhances the usability of a database and greatly assists the analysis of the landscape.
- 3.3.6 *Site Description and Assessment:* the key to economy of survey is being able to compile a descriptive record for each site in a fast and accurate manner, which can be implemented in all weather conditions. It is proposed that the data be directly input on site into a Psion palm computer. The data will be incorporated into an Access 97 compatible database. The data will be backed up daily onto a portable computer running Access 97. The proposed system has the advantage that it can be input in adverse weather conditions, unlike conventional pro-forma sheets, and saves on the subsequent transcription of the data into the database; however, it is slightly slower to create the entry in the field by comparison with a conventional pro-forma.
- 3.3.7 The input into the system will be guided by a proforma to ensure uniformity and consistency of input. The recording of the archaeological sites will incorporate a written description, including an accurate ten figure National Grid Reference. The description will assess and interpret the monuments and will include the following mandatory fields:
 - NTSMR number
 - Site Name
 - NGR
 - Site Description
 - Monument Type
 - Period
 - Condition
 - Management Recommendation

- 3.3.8 The description will incorporate a provisional interpretation of the function and purpose of a site, where possible, and similarly will provide a provisional interpretation of the site's chronology where possible. The descriptions will be linked in with the historical records for individual features obtained as part of the archive review.
- 3.3.9 **Detailed Survey of the Current River Bank:** the detailed survey will provide for an accurate record of the current river bank and also significant features of the Co-Op area. This will be undertaken by means of a total station and will be accurate to 20mm.
- 3.3.6 **Control:** the survey control will be established by closed traverse using a Leica TC407 total station. The main horizontal control network will be coordinated to an Ordnance Survey grid by a graphical method. Survey control markers will be established over the core survey area to enable the future enhancement of the survey maps. The survey control will be located by means of a back pack differential Leica GPS, which is accurate to +- 0.05m.
- 3.3.7 **Detail:** the detail survey will be generated by EDM tacheometry using a total station linked to a pen computer running TheoLT software. The digital data is transferred onto the pen computer for manipulation and transfer to other digital or hard mediums. The archaeological detail is drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. On completion of the field survey the drawings will be enhanced within a CAD environment. The topographic survey will record all principal surface features and in particular the edges of the river bank; it will be undertaken to a high level of accuracy.
- 3.3.8 The survey will also record all archaeological features adjacent to the river and also within the Co-Op area, and may be recorded by means of the back pack differential GPS, depending upon site conditions, and satellite reception. The new archaeological sites will be described within the CAD system as either polygons, linear features or spot data.

3.4 GEOPHYSICAL SURVEY

- 3.4.1 **Introduction:** the two most commonly used techniques to undertake an effective geophysical survey in the location of archaeological remains are magnetic and electrical resistance. The two techniques are often applied to the same site as the differing means of locating below-ground remains produce complementary results. The choice as to which is most pertinent reflects local conditions and the nature of the archaeological resource. It is proposed to do a short trial between the two techniques at the outset of the survey to determine which is most effective for the local conditions and then continue using the successful technique for the rest of the survey. The disadvantage of the resistivity survey is that it is slower and can not cover the same area as magnetometry within a given time. It is proposed to do a single day of survey, and therefore the use of Resistivity will result in a survey of probably only 0.5ha. It is proposed that the survey be undertaken by Geophysical Surveys of Bradford.
- 3.4.2 *Magnetic Survey:* a magnetic survey is usually the first choice for a geophysical survey owing to its ability to be carried out relatively quickly (due to recent improvements in commercially available instruments), and is therefore more cost effective. The requirements for the survey in this instance is to use a vertical gradiometer with a sensor separation of 1m-1.2m. The aim of the magnetic survey is to detect cut features, such as ditches or cultivation features. However, the main drawback to magnetic surveys is that non-thermoremnant features, such as stone foundations, or those features with magnetic susceptibility levels similar to those of the background (particularly in areas where the parent material of the topsoil has very low magnetic susceptibility levels) will fail to be seen in the magnetic survey results. Therefore, a complementary or more suitable technique, such as an earth resistance survey, should be considered.
- 3.4.3 *Methodology:* a vertical gradiometer will be employed, the Bartington Grad601-2, with a sensor separation of 1.0m. The data are captured in the internal memory and then downloaded to a portable computer for processing. The survey area will be divided into a 20m or 30m grid system dependant on the suitability to the site conditions. Within this grid system, sampling will be at a minimum of 0.25m intervals on a 1.0m traverse separation.
- 3.4.4 *Electrical Resistance Survey:* non-magnetic masonry features cannot be easily identified during a magnetic survey. Therefore, stone structures or platforms may be difficult to interpret without the use of electrical resistance. Cut features that have been subsequently infilled tend to be more moisture retentive and thereby less resistant to the current. These features manifest as low

resistance anomalies. Structural remains or buried megaliths are more resistant to the current flow and are seen as high resistance features.

3.4.5 *Methodology:* a Geoscan Research RM15 resistivity meter will be employed. The standard methodology for an electrical resistance survey is to have the two mobile probes mounted horizontally on a frame at a distance of 0.5m apart. This will produce a depth of penetration of approximately 0.5m-1.0m. The data are captured in the internal memory of the RM15 and then downloaded to a portable computer. The survey area will be divided into the same 20m or 30m grid system also used for the magnetic survey, and which ever size is deemed more suitable to the site conditions. Within this grid system, sampling will be at 1.0m intervals on a 1.0m traverse separation.

3.5 **BUILDING INVESTIGATION**

- 3.5.1 A visual inspection of the ancillary farm buildings will be undertaken to RCHME Level I-type survey standards. This level of survey is a visual record, which will serve to identify the location and age. The emphasis of the assessment will be to generally record and note any significant features.
- 3.5.2 *Written Description:* the written record will include:
 - (i) the precise location of the buildings;
 - (ii) details of listing;
 - (iii) description of the type of buildings, purpose, materials and possible date;
 - (iv) brief historical record.
- 3.5.3 **Photographic Archive:** a photographic archive will be produced utilising a 35mm camera to produce both colour slides and monochrome prints. A high-resolution digital camera (6 mega pixels) will also be employed for general coverage and for use for illustration purposes within the final report. A full photographic index will be produced. The photographic archive will comprise the following:
 - (i) The external appearance of the buildings;
 - (ii) Any external or internal detail, structural or decorative, which is relevant to the design, development and use of the buildings. The internal recording is subject to the provision of safe access.
 - (iii) Any internal detailed views of features of especial architectural interest, fixtures and fittings, or fabric detail relevant to phasing the buildings.
- 3.5.4 *Site Drawings:* it is required that schematic plans be produce for the buildings, where safe access is available. In some instances this many mean that only the external parts of a building will be recorded. A site plan will also be produced to show the location of the building subject to the assessment.
- 3.5.5 Any plans for the existing structures and any pertinent historical plans should be made available to OA North by National Trust prior to the commencement of the site work.

3.6 REPORT AND ARCHIVE

- 3.6.1 *Archive:* the results of the management programme will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Central Archaeological Services format. A synopses (normally the index to the archive and the report) should be placed in the West Yorkshire Sites and Monuments Record. It is normal OA North practice to make a copy of the archive available for deposition with the National Archaeological Record. The archive will include the raw survey digital data in AutoCAD 2004 format.
- 3.6.2 **Report:** the report will present, summarise, and interpret the results of the programme detailed in Stages 3.1-3.5 above, and will include a full index of archaeological features identified in the course of the project. The reports will consist of an acknowledgements statement, lists of contents, summary, introduction summarising the brief and project design and any agreed

departures from them. The report will identify the significance of the archaeological and architectural evidence and will include the following:

- An historical background to the estate, outlining its development.
- Results of the topographic survey, presented in conjunction with survey mapping
- Results of the geophysical survey presented in conjunction with survey mapping
- Results of the building survey presented in conjunction with sketch plans mapping and photographs
- The report will examine the character and extent of the archaeological resource within the estate based upon the documentary sources, and survey evidence.
- 3.6.3 The report will also include a complete bibliography of sources from which the data has been derived, and a list of further sources identified during the programme of work. An appendix gazetteer of sites and designed elements which will be based directly upon the project database (which will be compatible with the NTSMR).
- 3.6.4 The report will incorporate appropriate illustrations, including copies of the site plans, landscape survey mapping, all reduced to an appropriate scale. The site mapping will be based upon the GIS and CAD base. The report will be accompanied by photographs and historic illustrations illustrating the principal elements of the landscape.
- 3.6.5 The report will make recommendations for the management of the identified archaeological resource.
- 3.6.5 *Editing and submission:* the report will be subject to the OA North's stringent editing procedure and then a draft will be submitted to the National Trust for consultation. Following acceptance of the report five eight copies of the report will be submitted to the National Trust, one to the NMR, one to the West Yorkshire Archaeological Service, and one to the Yorkshire Archaeological Service. In addition to the paper copies of the report digital copies of the report and drawings will be submitted. The final drawings will be in AutoCAD Map 2004 format.

4. OTHER MATTERS

4.1 ACCESS

4.1.1 It is assumed that the National Trust will enable access to the full extent of the study area and would liase with all tenants before the start of field work.

4.2 HEALTH AND SAFETY

4.2.1 Full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The OA North Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual. Risk assessments are undertaken as a matter of course for all projects, and will anticipate the potential hazards arising from the project.

4.3 INSURANCE

4.3.1 The insurance in respect of claims for personal injury to or the death of any person under a contract of service with the Unit and arising in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North in respect of personal injury or damage to property by negligence of OA North or any of its employees there applies the insurance cover of £10m for any one occurrence or series of occurrences arising out of one event. The insurance will provide cover for volunteers working under the direct supervision of OA North staff.

4.4 **CONFIDENTIALITY**

4.4.1 The report is designed as a document for the specific use of The National Trust, for the particular purpose as defined in this project design, and should be treated as such. Any requirement to revise or reorder the material for submission or presentation to third parties or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.

4.5 **PROJECT MONITORING**

4.5.1 Any proposed changes to this project design will be agreed with the National Trust. It is anticipated that there will be an initial site meeting at the outset of the project. Any edits to the report by the client should be passed back to OA North within two months following submission of the draft report.

5. WORK TIMETABLE

- 5.1 The phases of work will comprise the following elements. The days quoted are the duration for each individual task
 - *i)* Documentary Study

8 days

- *ii)* Identification Survey
 - 1 days field work 2 days - Office
- iii) Detail Survey
 - 3 days field work 2 days - Office
- iv) Geophysical Survey
 1 days field work
 2 days Office
- w) Building Survey
 1 days field work
 2 days Office
- vi) Report Production 10 days
- vii) Report Editing 10 days
- 6. RESOURCES
- 6.1 **PROJECT TEAM**
- 6.1.1 The survey will be undertaken by Peter Schofield (Project Supervisor), under the close guidance of the project manager, Jamie Quartermaine. The report writing and analysis will primarily be split between Peter and Jamie; Peter will prepare the gazetteer, the survey mapping, and the descriptive results. Jamie and Peter will prepare the narrative account of the landscape development, and the sections setting the site within a wider context.
- 6.1.2 **Project Management:** the project will be under the project management of **Jamie Quartermaine**, **BA Surv Dip MIFA** (OA North Project Manager) to whom all correspondence should be addressed. Jamie is a very experienced landscape surveyor, who has undertaken or managed literally hundreds of surveys throughout Northern England since 1984, and has considerable experience of working on similar projects to that proposed. He has managed a major recording programme of Lyme Park, Cheshire, and also a survey of the Rectory Wood Gardens, Heysham Head, both for the National Trust. He has also undertaken surveys of Lowther Park, Cumbria, Rufford Park, Lancashire and also a structural survey of Rufford Old Hall, he has also managed the recording programme of Lathom Hall and Park, Lancashire. He has been a project manager since 1995 and has managed over 250 very diverse projects since then, which are predominantly survey orientated, but of all periods from Palaeolithic to twentieth century.
- 6.1.3 **Project Director:** the survey will be directed by **Peter Schofield** (OA North project Supervisor) who presently works full time on landscape surveys across the north-west. He has undertaken surveys at Hardknott Forest, Cumbria, Hartley Fold Estate, Cumbria, Ennerdale Valley, West Cumbria, a major programme of landscape survey across six upland areas in North Wales, Little Asby Common for the Friends of the Lake District, and a survey at Lowther Park. With the exception of Jamie Quartermaine, he is our most experienced landscape archaeologist.

APPENDIX 3 GAZETTEER OF SITES

NTSMR = National Trust Sites and Monument Record EHNMR = English heritage National Monument Record WYSMR = West Yorkshire SMR

Site number Site name NGR Site type Period NTSMR No Sources Description	01 Anglo-Saxon Carved Cross Monument, East Riddlesden Hall SE 0792 4217 Cross Early Medieval 31069*0 (MNA143541. WYSMR No 2094) Faull 1986 One, or possibly two, fragments of Anglo-Saxon Cross shaft were found during repairs to the hall driveway in 1959. A carved stone on which is a cross head surrounded by an interlaced wicker-work pattern was found at East Riddlesden Hall and is thought to be Anglo-Saxon in date. There was a possible second find (or possibly a mistaken record) in 1960. The object is on display in East Riddlesden Museum. The cross is dated to eight or ninth century, and has been taken to indicate the administrative importance of Biddlesden at that time
	Riddlesden at that time.

Site number	02
Site name	Section of Roman road 720a, East Riddlesden Hall
NGR	SE 0793 4198
Site type	Roman Road
Period	Romano-British
NTSMR No	31070*0 (MNA143542).
Sources	Frere 1983, Geophysical survey 2008
Description	A section of a Roman road passes through the lower lying part of the property near the river Aire. This was part excavated by Bradford Grammar School in the 1982, which was run by a Mr. Donald Haigh. The excavation revealed a steeply cambered road, <i>c</i> 5m wide, bordered by the foundation of a substantial wall. The geophysical survey, undertaken as part of the present study, identified a line of disturbance along the putative course of the road extending directly towards the river. This was not interpreted as a Roman road by the geophysicists, being interpreted as hardcore of more recent origin or a ferrous pipe; however this feature cannot be ruled out as the line of a probable road, of unknown date, extending towards the river.

Site number Site name NGR Site type	03 Pond, East Riddlesden Hall SE 0790 4215 Pond
Period	Medieval
NTSMR No	31245*0 (MNA143704)
Sources	Faull and Moorhouse 1981 1845 Tithe Map OS 1853
Description	A large almost square pond with rounded corners, which is located north of the main frontage of East Riddlesden Hall. The pond measures some 54m by 58m. Cartographic evidence would indicate that the north-eastern edge of the pond was straightened off, between $c1850-1894$, to produce the more regular shape seen today. The earthen dam on the eastern side of the pond is shown consistently as a straight side since the time of the

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tithe map and certainly since the OS 1st edition map. The date of the pond is unclear, with the earliest evidence being the c1830 anonymous painting of the hall. Nor was any reference to the pond mentioned in any of the various post-medieval documents examined in the course of the project. There has been an outfall depicted at the dams south-eastern end since the OS 1894 map; however, there is now no surface channel evident extending from the outfall, and there is no channel shown on any of the OS maps, indicating that it has been for a considerable period a buried culvert. The outfall extends out from the dam above the suggested location of a mill (Site 34) and there is the possibility that it may have served as a body of water for milling purposes, with the outfall feeding a water wheel. However, there is no hard evidence to confirm this beyond the fact that it was clearly a deliberately constructed feature and would have provided a good head of water if there had been a mill located at the bottom of the hill.

Site number Site name NGR Site type Period NTSMR No Sources Description	 04 Airedale Barn, East Riddlesden Hall SE 0793 4218 Barn Post Medieval 31071*0 (MNA143831) Newman 1991; Walker 1992 A large stone agricultural building on the northern side of East Riddlesden Hall, which underwent restoration in the early 1990s. This was carried out subject to an archaeological watching brief. The site was descheduled on 28th May 1997. Formerly SAM WY312, NMR 90290. The Airedale Barn is listed by the DoE as a seventeenth century stone barn, and is approximately contemporary to the Great Barn (31837) and has certain similarities. The dimensions and plan are similar, the roof span is the same and the Airedale Barn is two bays shorter. However this barn has suffered more extreme alteration, and was particularly so in the nineteenth century when new windows were inserted. Also at that date the flank walls were either raised or rebuilt and queen post trusses were inserted. In 1992 the National Trust re-created a roof structure that was more suitable for a large barn of the seventeenth century. The surviving seventeenth century timbers in the Great Barn provided a model for this work.
	The Airedale Barn is constructed of coursed rubble gritstone with larger gritstone quoins. There is a chamfered plinth on each gable and on the south flank. On the south flank and both gables loophole vents are visible. As on buildings 31837 and 31839, these have chamfered gritstone surrounds with arched lintels and carved spandrels. They are internally splayed. The east gable has a pair of seventeenth century mucking out holes, with chamfered gritstone surrounds. Three seventeenth century doorways remain; one in the east gable and one on either side of the south cart entrance. They have stop chamfer surrounds. That in the east gable has an elliptical arch lintel. One in the porch is a rough copy of this and the other has a pseudo four-centred arch lintel. The south porch is formed by a pair of walls inside the line of the aisle flank wall. This creates two shippons entered through the seventeenth century doorways. There is an oak lintel above the outer face of the porch. The present cart doors are nineteenth century in date with large strap hinges. The oak framing for the doors is re-used. The post is root end upwards. There are several repairs using bolts and brackets and each post has an open mortice. It is probable that these are from the original timbers in the barn.
	There appear to have been two main phases of alteration. One was when the north flank wall was rebuilt; pitching eyes inserted into the gables; a mucking-out hole inserted in the south flank wall; the eaves height raised. This was the stage when the queen post truss roof was erected. A second phase was the insertion of larger windows in the south flank. Each gable has an inserted pitching eye with chamfered gritstone surrounds. Many of the seventeenth century vents on the gables and south flank have either been partially removed or blocked from the inside wall. The inserted south mucking out hole has a gritstone lintel and flagstone sill. There are four large inserted windows in the south flank. These have gritstone lintels and projecting gritstone sills. The north flank wall has no plinth. At its east end there are two seventeenth century mullioned two-light windows with chamfered gritstone surrounds and stooled sills. The mullions have been removed.
Both have nineteenth century or twentieth century wooden hit and miss ventilation shutters. Over these is an inserted nineteenth century pitching eye with gritstone surrounds. A pair of pivots remain for the wooden shutter. Opposite the south flank porch there is another cart entrance door. Outside this has a pair of moulded corbels to carry a canopy. The doors have the same strap hinges as the other cart doors. A lintel to a seventeenth century vent has been built into the cart entrance threshold. At the West end a door has been inserted. During the 1992 refurbishment this doorway has been redesigned to represent a seventeenth century entrance. It has rough stop chamfers and a cambered lintel of sandstone.

The original roof was of flagstone. These are being re-erected on the roof. The seventeenth century roof timbers were replaced by sawn pipe queen post trusses with four sets of sawn purlins. The original roof would have been similar to the Great Barn; the timbers consisting of nave trusses on arcade posts with lower pitched aisles on half trusses. The present design for an aisled barn has had to take account of the heightened aisle roofs. This twentieth century example of a seventeenth century roof structure has stone stylobates carrying oak arcade posts with king post trusses, arcade plates, aisle ties braces and so on.

Site number Site name NGR Site type Period NTSMR No Sources	05 Former 'Starkie' wing, East Riddlesden Hall SE 0790 4206 Country House Post Medieval 30776*0 (MNA143849) Newman 1999; National Trust 1983; Brigg 1895
Description	The remains of a seventeenth century wing of East Riddlesden Hall - built by the Starkie family - which underlie the gardens to the west of the hall.; the north facade of the wing still survives. A watching brief carried out on a service trench in 1982, to the north-east of the former wing, revealed a spread of stone that was thought to be demolition material from its destruction. Pottery recovered during the watching brief appeared to relate to two different groups. One dating to the late seventeenth century, and relating to the construction of the Starkie Wing, and the other from the late nineteenth and early twentieth century, relating to the demolition phase.
	Excavation of large planting holes in 1998 revealed the remains of the south wall of the Starkie Wing. Unfortunately, most of the overlying stratigraphy had been removed prior to the excavation. No finds were recovered to date the wall, although possible Neolithic flints were recovered.
Site number Site name NGR Site type Period NTSMR No Stat Designation NT Building Ref Sources	06 The Great Barn, East Riddlesden Hall SE 0796 4214 Barn Post Medieval 31837*0 - MNA143973 Listed Building - Grade I VBS YORKS 1096 Walker 1992
Description	A very fine manorial aisled barn, the principal building of the group of agricultural structures around East Riddlesden Hall. A local tradition states that the Great Barn is a medieval tithe barn, which was later clad in stone for James Murgatroyd in the mid seventeenth century; however, the Great Barn is an outstanding example of a mid-

seventeenth century aisled manorial barn. Architecturally its design represents the latter

It was built as an aisled barn of eight roof bays, the south two are at an angle to the rest and may be slightly later in date. It consists of three sections divided by two pairs of porches on each flank wall. The barn is constructed of well-dressed and coursed gritstone with gritstone quoins. There is a chamfered plinth around the barn. Each gable has four tiers of loophole vents; vents in the flank walls also provide light. The seventeenth century vents have chamfered gritstone surrounds with arched lintels and carved spandrels. They are internally splayed. This detailing is also present on the Airedale Barn and the Bothy. Each gable has a mucking out hole with a chamfered surround.

The four gabled cart entrances have round arches of gritstone with shaped voussoirs and chamfered soffits. The socket in each jamb probably held a loft timber or former door. The large heck doors are hung on pivoted strap hinges with tulip and spoon-heads. The wooden door frames stand on gritstone padstones. It is possible that these originally carried harr hung doors. Over each door is a king post frame with "V" struts. They are infilled with wattle and daub. This form of framing is found from the fifteenth to nineteenth century. Seventeenth century doorways allow access to the shippons (known as "mistals" in this part of the West Riding). There are two doors in the south gable, one in the west flank and one in each west porch. They have trefoil headed gritstone lintels and chamfered surrounds above the plinth height. Adjacent to each door the plinth is adorned with a swirl motif. These are the same as those on the main hall and the Bothy.

Another doorway has been inserted in the north end of the south- west shippon, from the adjacent porch. Dating from the nineteenth century this has a tiestone surround of gritstone with a shallow chamfer and a gritstone threshold. Shippon fittings remain at the north end, west aisle and south bays of the east aisle. The surviving flooring materials are of nineteenth century date. However, the stall divisions and lofts appear to be earlier. The raised standing platforms are of brick to provide a warmer surface for the cattle. The curbs are of gritstone. Each shippon has a grewp (manure channel) of flagstone and gritstone sets. Those in the aisles have a raised stone walkway along the wall. The stall divisions are of wood with wooden tethering posts. The main timbers are stop chamfered and the rear posts are kneed. The original infilling is of wide planks slotted into the cross timbers. The stalls carry the riven and chamfered loft beams and joints.

Seventeenth century trefoil headed keepholes in the south-east and south-west shippons indicate that the Great barn was originally intended to house livestock. The nave has a cobble floor with flagstone in the porch bays. The gabled roof is of flagstone. It has a shallower pitch to the aisles than the nave. Both the main and porch gables have a cavetto moulded gritstone coping; supported by a skew stone. This detailing is also seen in building 4. The stone finial at the apex remains on the south gable and the gables of the two west entrances.

The roof is carried on seventeenth century riven oak timbers. These are roughly chamfered or stop chamfered. There are seven king post trusses supported by arcade posts. The tiebeams are cambered up in the middle. One tiebeam has been renewed. Two of the trusses have curved principals with struts and a projecting king post head. Each truss has an upward brace from the kingpost to the ridge and there is a pair of arch braces from the arcade posts to the tiebeams. Upward braces are also present between the arcade posts and arcade plate. The joints are tenoned and pegged. The arcade posts are placed root end upwards and have stop chamfers. They stand on gritstone stylobates. These are battened towards the top and have rough herringbone tooling. The aisle roofs are supported by aisle ties and strutted rafters. The rafters do not extend as far as the aisle plate. There is a short aisle tie to each porch wall. Each aisle and the nave have two sets of through purlins. The nave purlins are threaded through an intermediate rafter in the middle of each bay. The nave purlins are scarf jointed. The aisle purlins are lapped at the aisle rafters.

NGR SE	ditional block attached to Bothy, East Riddlesden Hall 0792 4208 building
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Period NTSMR No Stat Designation Sources Description	Post Medieval 31839*0 - MNA144269 Listed Building - Grade II* Walker 1992 A seventeenth century ancillary building, probably of service rather than accommodation function. It is a one storey outbuilding adjoining Site 10 at the north- east corner, and was constructed of snecked rubble gritstone with gritstone quoins. It has trefoil soffit to gritstone lintel and stop chamfered surrounds; two-light mullioned window, stooled sill and lintel; and mullion has been removed. In the north gable is a vent with ogee moulded lintel. The vents in the south gable and east flank have the same chamfer round heads and carved spandrels as on the large barns. It has a flagstone roof, and gritstone ridge and coping stones; these have a cavetto moulding oversailing the verges; and the finials at the gable apexes are missing. There are unprojecting skew stone retaining the coping which indicates an early to mid seventeenth century date.
Site number Site name NGR Site type Period NTSMR No Sources Description	08 Cart shed, East Riddlesden Hall SE 0796 4217 Cart Shed Post Medieval 31840*0 - MNA144270 Walker 1992 A late eighteenth century cart shed, an addition to the mainly seventeenth century buildings of the domestic range adjoining East Riddlesden Hall. It is a single storey cart shed, constructed of coursed rubble gritstone. There are two sections: to the west is a low shed with three pairs of cart doors separated by monolith pillars, with battered, stop chamfered, herringbone dressing; to east is a taller cart shed with an elliptical arch entrance in south flank gritstone voussoirs. Quoins on the south flank, of both parts, are quarry dressed gritstone with chisel drafted margins. The north wall quoins are of gritstone, have diagonal tooling with chisel drafted margins. Both roofs are of flagstone with gritstone ridge. In the north flank wall is a partial straight joint between the two portions. In the far west shed, in the north wall is a blocked opening, and was possibly an insertion.
Site number Site name NGR Site type Period NTSMR No Stat Designation Photo Ref Sources Description	09 East Riddlesden Hall SE 0788 4206 Hall House Post Medieval 31141*0 - MNA145141 Listed Building - Grade I er_landsc_402-4, 413, 435-6 Colum 1986; Brigg 1895; Pevsner 1974; Sheeran 1985; Ambler 1913 The surviving part of a fine seventeenth century house, on the outskirts of Keighley, built largely in the 1640s. The earliest element of the Hall House is probably the hall range which separates the main house from the Starkie wing and probably dates from the sixteenth century, but was remodelled in the 1640s. The house has two storeys, with a garrett and basement. It has a two storey porch, standing forward of the main body of the house, and which is a common feature of contemporary houses of the area.
Site number Site name NGR Site type Period NTSMR No Stat Designation	10 The Bothy, East Riddlesden Hall SE 0792 4207 Bothy Post Medieval 31838*0 - MNA145357 Listed Building - Grade II*

Sources Description	Walker 1992 A two storeyed building of dressed gritstone with crenelated parapet. It has a flagstone gable roof with raised gable walls; finials at corners and square kneelers, and mullioned windows. On the west facade the four original doorways have large decorated lintels and stop chamfered surrounds. Above one door are the initials "J.M.M., J.S.M., 1642". Over this, at eaves height, is the motto "Vive le Roy" and two masks presumed to be Charles I and Queen Henrietta Maria. <i>Interior ground floor:</i> this has two main rooms, a south room shop, and north room possibly for the steward? There is a fireplace with ogee arch in lintel, and the remains of decorative plasterwork with more mask motifs. This room is called the "Veteran's Parlour". The first floor was reached by external stairs, and were possibly originally servants or labourer's lodgings. The plan was altered in the twentieth century.
Site number Site name NGR Site type Period NTSMR Sources Description	 11 Excavation of possible bridge abutment in river bank, Eight Acre field, East Riddlesden Hall SE 0830 4160 Possible bridge abutment located through excavation Post-medieval 32050*0 YAS Archive Ref MS673; Butterfield and Wood 1940-50, 191-99; Excavations in 1929 revealed the remains of a stone abutment and pier and the remains of a wooden trestle on the north bank of the River Aire. The structures appeared to have formed parts of a bridge running north/south. The remains were found some four feet below the ground surface below. The Bradford Antiquary article identified the structures as belonging to Marley or Marloe bridge, which was used, according to the authors to connect East Riddlesden Hall with nearby Marley Hall, the bridge lying about mid way between the two. Marley Hall presumably being the Marley marked on the 1983 OS, 1:25,000 map. References to the bridge were reported in the Sessions Rolls of the seventeenth century according to the authors of the report. It was not recorded when the bridge was destroyed.
Site number Site name NGR Site type Period NTSMR Sources Description	 12 Medieval Hall, East Riddlesden Hall SE 07895 42066 Hall House Medieval/post-medieval 32051*0 Brigg 1895, 91; Sheeran 1985, 14; National Trust 2006, 4; Colum 1986, 206 Documentary evidence exists for a medieval hall from at least the fifteenth century. It has been surmised by Sheeran and others that parts of the present house and the former Starkie Wing incorporate elements of an earlier building.
Site number Site name NGR Site type Period NTSMR Sources Description	 13 Garden feature, East Riddlesden Hall SE 07862 42070 Garden feature Post-medieval 32052*0 M Newman/M Freeman, pers comm A single flagstone, approximately 1.5m by 1.5m, was found during routine garden maintenance, and located to the south-west of the former Starkie Wing. The stones were thought to be used to retard the root growth of fruit trees in order to promote branch growth and therefore fruit production. The feature may date to the seventeenth century or later.

Site number Site name NGR Site type Period NTSMR Sources Description	14 South Garden Wall, East Riddlesden Hall SE 07870 42053 Wall (not extant) Post-medieval 32053*0 M Freeman, pers comm; WYAS/BD167; OS 1894 25" to 1 mile; OS 1934 25" to 1 mile; Photograph c 1900, south front of house (East Riddlesden Hall photograph collection) This is a north-east/south-west aligned garden wall noted on both the 1845 Tithe Map, the OS, 1894 map and two photographs dating to c 1900. The wall extends from the north-west end of the south-west front of the hall to the southern boundary of the garden. Part of the wall was still in existence when the 1934 OS map was surveyed.
Site number Site name NGR Site type Period NTSMR Sources Description	 15 Building (1), between Pond and Starkey Wing, East Riddlesden Hall SE 07892 42100 Building (not extant) Post-medieval 32054*0 WYAS/BD167; OS 1894 25" to 1 mile; OS 1934 25" to 1 mile A rectangular building noted on the 1845 tithe Map and 1894 OS 25" map, but which was no longer extant on the 1934 OS map. The building was aligned north-east/south-west and was located immediately to the north of the former Starkie Wing.
Site number Site name NGR Site type Period NTSMR Sources Description	 16 Building (2), north of additional block of the Bothy, East Riddlesden Hall SE 07936 42100 Building (not extant) Post-medieval 32055*0 WYAS/BD167; OS 1894 25" to 1 mile; OS 1934 25" to 1 mile A small square building located just to the north-east of the additional block (Site 07), which was itself attached to the north-eastern corner of the Bothy. The building was depicted on the Tithe Map of 1845 and OS 1894 25". It was no longer extant when the 1934 OS map was surveyed.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 17 Possible Leat, East Riddlesden Hall SE 07984, 41895 to SE 07980, 42024 and SE 08002, 42071 to SE 07932, 42222 Leat Unassigned 32056*0 Er_landsc_410-1, 417-9 WYAS/BD167; OS 1894 25" to 1 mile; OS 1934 25" to 1 mile; aerial photo OS/69245-27 A possible north-west/south-east aligned leat running north of the barns (Sites 04 and 06) from near the entrance to East Riddlesden drive, which then turns to the south-east before passing through the culvert (Site 35) carrying the watercourse below the farm-track. The leat re-emerges as an open watercourse toward the south-east and extends in the direction of the river. The section of the leat to the north of the culvert is edged with a dry-stone revetment, although the section north of the barns is an open stream. The channel is not shown on the 1845 Tithe map, but was depicted on subsequent editions of the OS maps, while the southern element does not appear on any edition of the OS maps. Significantly the channel that leads into the pond (03) originates from the same location near to the drive entrance, and it is presumed that they both used the same water source, although diverted in different directions. A 1969 aerial photograph shows linear earthworks on either side of this possible leat at the point that it enters culvert 35. The earthworks are potentially the remains of a former structure on the site.

Site number Site name NGR Site type Period NTSMR Sources Description	 18 Old and New Mills, East Riddlesden Hall SE 08013 42079 Mills, first mentioned in documentary references in the twelfth century Medieval/Post-medieval 32057*0 WYAS/WPB 9/34; WYAS/ WYL46/159; YPEC/13/20/1543; YPEC/28/7/1602; WYAS/HAS/B: 13/42; YAS 1888 41; OS 1853 6"; M Freeman, pers comm; Walk-over Survey Mills have been recorded in the locality of the hall since the mid twelfth century. In 1544 two mills were mentioned, one of which was a fulling mill. Two mills were mentioned in 1571 and 1573, one of which was again a fulling mill. Further references in 1592 and 1602 mention only a single corn mill and a kiln. By 1662 mention was again made to two mills, one of which was referred to as the New Mill. In the eighteenth century the mills are referred to as Old and New, with the Old Mill having a kiln. However, in most cases the documents do not refer to specific locations, thus it is not clear which mill is being referred to. In one instance (in 1760) the New Mill is noted as being on the River Aire. Whether this is the Stock Bridge corn mill, as was the depicted on the first edition OS map of 1853 at is not known.
	It has been further suggested (M Freeman pers comm) that the water course (Site 17) and the earth bank (Site 34) formed parts of a leat and that 'humps and bumps' and stone work below the entrance to the farm buildings might be the location of one of the mills. This comprises an area of undulating ground in the vicinity of where the culvert (Site 35) descends below the current farm track. The stonework, comprises a localised area of rough field stones protruding from the turf, was also noted at the entrance to the modern farm buildings. Although there may be an underlying feature in this location the possibility of a mill can not be substantiated from the surface evidence alone.
Site number Site name NGR Site type Period NTSMR Sources Description	 19 River Aire Foot bridge, East Riddlesden Hall SE 07953 41891 Bridge Post-medieval 32058*0 OS 1894 25" to 1 mile; OS 1934 25" to 1 mile; M Freeman pers com A foot bridge, located south-east of the hall and crossing the River Aire. It is shown on the first edition OS map (1894), but was no longer depicted by 1934. Several courses of stonework within the north bank of the River Aire have been recorded in the same position as the bridge by the house steward (M Freeman).
Site number Site name NGR Site type Period NMR No Sources Description	20 Roman coin hoard, East Riddlesden Hall SE 07 42 Roman coin hoard Romano-British NATINV-48124 NMR In 1775 a farmer uncovered a copper or brass chest containing hundreds of Roman silver coins supposedly ranging in date from Julius Caesar to Geta. The location is very imprecise.

Site number	21
Site name	Hog Sty or Swine Cote, East Riddlesden Hall
NGR	SE 07932 42096

Site type Period NTSMR Sources Description	Pig sty Post-medieval 32059*0 WYAS/1739 Two hog stys or swine cotes are mentioned in a document of 1739. No location is mentioned, except that it lay on the east side of the hall or thereabouts. A pig sty was identified by M Freeman (the House Steward) as lying on the end of the additional block attached to the Bothy (Site 07). Whether this was the same site as mentioned in the will is not known.
Site number	22
Site name	Ox House, East Riddlesden Hall
NGR	SE 07 42
Site type	Ox House, mentioned in a will of 1662
Period	Post-medieval
NTSMR	32060*0
Sources	YPEC/28/7/1602
Description	An ox house mentioned in the will of Robert Rishworth (1602). No location is mentioned.
Site number Site name NGR Site type Period NTSMR Sources Description	23 Turf House, East Riddlesden Hall SE 07 42 Out building Post-medieval 32061*0 WYAS/WYL46/159; YPEC/28/7/1602 A turf house mentioned in the will of Robert Rishworth (1602). No location is mentioned. This was probably a building to store turves cut from the surrounding moors. The right of turbury or cutting peat was mentioned in an indenture or bargain of sale in 1592.
Site number	24
Site name	Milk house within court, East Riddlesden Hall
NGR	SE 07898 42099
Site type	Out building
Period	Post-medieval
NTSMR	32062*0
Sources Description	WYAS 29D77; WYAS/HAS/B: 13/42; M Freeman, pers comm A milk house mentioned in a document of 1662. M Freeman identifies the milk house, mentioned in a 1662 document, as being in the court [yard] between the Starkie Wing and the pond. This probably corresponds with Site 15 that is shown on the Tithe map.
Site number	25
Site name	East gate house, East Riddlesden Hall
NGR	SE 07 42
Site type	Gate house
Period	Post-medieval
NTSMR	32063*0
Sources	WYAS/HAS/B: 13/42
Description	An east gate house is referred to in a document of 1662. No location was mentioned.
Site number	26
Site name	Milk house, East Riddlesden Hall
NGR	SE 07 42
Site type	Out building

Period NTSMR Sources Description	Post-medieval 32064*0 WYAS/HAS/B: 13/42 The second of three milk houses is referred to in a document of 1662. No location was mentioned.
Site number Site name NGR Site type Period NTSMR Sources Description	27 East old milk house, East Riddlesden Hall SE 07 42 Out building Post-medieval 32065*0 WYAS/HAS/B: 13/42 The east old milk house was the third such building referred to in a document of 1662. No location was mentioned.
Site number Site name NGR Site type Period NTSMR Sources Description	28 Upper stable, East Riddlesden Hall SE 07 42 Stable Post-medieval 32066*0 YPEC/28/7/1602 An upper stable was mentioned in the will of Robert Rishworth (1602). No location was mentioned.
Site number Site name NGR Site type Period NTSMR Sources Description	29 Lower stable, East Riddlesden Hall SE 07 42 Stable Post-medieval 32067*0 YPEC/28/7/1602 A lower stable mentioned in the will or Robert Rishworth (1602). No location was mentioned.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	30 Pavilion, Cricket Ground Field, East Riddlesden Hall SE 08271 41923 Pavilion Modern 32068*0 Er_landsc_06-7, 09, 11, 415, 455 Walk-over Survey A newly constructed pavilion is set at the northern end of the present cricket ground. It is a simple rectangular structure, with pitched roof, set on a raised platform overlooking the cricket pitch. It has a rendered cinder block construction. A central door leads out via steps to the pitch. The pavilion is shown on the 1969 air photo (OS-69245-27), and interestingly so is the other cricket pavilion on the site of the present day Maze Field, and evidently there was an overlap between the construction of one and the loss of the other.
Site number Site name NGR	31 Wall foundation, south-east side of East Riddlesden Hall SE 07905 42047

Site type Period NTSMR Sources Description	Wall foundation Unassigned 32069*0 M Freeman pers comm; M Freeman photograph A north-west/south-east aligned stone wall foundation uncovered during gardening. The wall was seen to extend from the south-east side of the present hall from and following the same alignment as the dividing wall between the buttery and stairhead chamber.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 32 Track, Maze Field SE 07979 42317 to 07883 42013 Track Modern ? 32070*0 Er_landsc_405-9, Walk-over Survey; OS map 1950; Resistivity Survey February 2008; Aerial Photo OS/69245-27 A track running north-east/south-west can clearly be seen to curve around the base of the hill upon which the hall stands. It seems to be the adaptation of the edge of an alluvial terrace to create a raised track to the site of the former cricket pavilion. It runs for at least 100m and ranges between 2m and 4m in width. At the eastern end it has been metalled recently to support vehicle access. A continuation of the line of the track was identified continuing south-west beyond the location of the pavilion by the geophysics survey and may reflect the line of the track predating that shown on the 1950 OS map. It is also shown on the 1969 aerial photo.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 33 Tree beds, Maze Field SE 07954 41924 Tree beds Modern 32071*0 Er_landsc_91-9 Walk-over Survey, Mike Freeman (pers comm) An area of tree planting with bisecting trackway, found to be a recent planting feature. The trackway is a slightly sunken hollow way, which extends over the slightly raised platform forming the plantation. The raised platform of the plantation is edged by a marked terrace edge and there a few large field stones around its southern edge which may potentially be clearance stones.
Site number Site name NGR Site type Period NTSMR Sources Description	 34 Earth bank, west of the farm buildings SE 08007 42086 Earthwork Unassigned 32072*0 Walk-over Survey, Mike Freeman (pers comm) A slight raised bank to the west of, and extending parallel to, the water course (Site 17) which is shown on the current map. The bank is no more than 0.4m high and runs for 20m along the southern boundary of the current car park. The bank is partly overlain by

20m along the southern boundary of the current car park. The bank is partly overlain by the present field boundary, and it is evidently not of recent origin. The bank is partly overgrown. This feature may be of note as the area is postulated as being one of several possible sites for a mill in the vicinity of the hall (Mike Freeman pers comm).

Site number 35 Site name Culvert, below farm-track

NGR Site type Period NTSMR Photo Ref Sources Description	SE 08003 42071 - 07979 42024 Culvert Modern 32073*0 Er_landsc_410-1 Walk-over Survey A culvert which carries the current water course south, under the current farm track and into the large central field of the study area, where it debouches via a second culvert aperture. The culvert may be of fairly recent origin as it was presumably constructed to carry the leat below the farm track that leads to the modern farm buildings (Site 36), particularly as the southern end of the culvert is constructed from a circular concrete pipe, with a stone constructed surround. Interestingly there are some mature birch trees over the top of the line of the culvert, so while it may not be enormously old it is not particularly modern either.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 36 Modern Farm Buildings east of Riddlesden Hall SE 08036, 42072 Agricultural Buildings Modern 32074*0 Building survey_er_001-045 Walk-over Survey; OS 1950, 25", OS, 1:10,000 c.1970 A group of farm buildings which are not present on the 1950 OS map, and first appeared on the mid 1970s OS map; they are located on former agricultural land to the east of the hall. They are built from concrete blocks and were evidently of recent construction. The structures are both unremarkable and utilitarian, in keeping with their role as functional farm buildings. Three of the structures appeared to be for housing cattle. Despite their recent date, the buildings have up to five phases of construction, of which the earliest appears to be the construction of Building 4.
	Building 1 is a rectangular barn constructed from modern cinder block with timber slats in the upper south gable, and has a pitched roof is laid with corrugated asbestos cement sheeting, supported by modern steel trusses. Mike Freeman (House Steward) records that it has only stood for c 18 years.
	Building 2 comprises a small, square extension built on the south elevation of the large central barn (Building 3), and has been used as a kennel for the farm's dogs. It is fashioned from cinder blocks with a corrugated asbestos cement sheeting and timber beam roof.
	Building 3 is a large barn, lying to the centre of the farmstead. It was presumably constructed from either brick or cinder block, but a thick cement render masks the original fabric. It butts onto Building 4.
	Building 4 is a cowshed which appears to be the earliest structure on the site. It is constructed from rendered cinder block, and the roof is laid with corrugated asbestos cement as elsewhere (Plate 14). A fixed window, with vent slots, stands on the east elevation.
	Building 5 is a cowshed built from rendered cinder block or brick, with a pitched roof of corrugated asbestos cement. Two small windows/ apertures are located on the north elevation, whilst the south-west corner has a wide entrance.
	Building 6 consists of a rectangular, red-brick structure at the north end of the site. The east elevation has been faced with cement render and the west elevation has a narrower, square extension, in red brick. On the west elevation of the extension is a blocked window infilled with brick, whilst a matchboard door to the extension lies on the south elevation.

Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 37 Foot Bridge, south of the farm buildings SE 07983 41944 Bridge Modern 32075*0 Er_landsc_416, 420-1 Walk-over Survey A small two planked wooden foot bridge crossing water course Site 17, and leads towards a stile through the adjacent field boundary. It is 0.6m wide and 2.5m long. It has low foot parapets on either side. It is of no great antiquity.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	38 The Summer Track, on the Maze field SE 08001 41935 Track Modern 32076*0 Er_landsc_416, 422-5 Walk-over Survey A raised, embanked trackway running north / south along the east bank of the current watercourse in the 'Cricket Ground Field. It rises to c 0.3m above the level of the field. It was evidently intended to provide a dry access route through the field during times of flood. It is not shown on any of the historic mapping and is in current use for both vehicles and pedestrians. It is thought to be of no great antiquity.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	39 Sheepfold, Eight Acre Field SE 08203 41782 Sheepfold Modern 32077*0 Er_landsc_04, 432-4 Walk-over Survey Located on the southern boundary wall of this area is Site 39 , a substantial modern (post- war) rectangular, cinder block built sheepfold measuring 3.5m by 10m and standing five courses high. It has a metal gate to its eastern edge. It is seemingly butted onto by the adjacent dry-stone walls, but could, alternatively have been set into an existing wall. It is no longer in use.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	40 Masonry stub, Eight Acre Field SE 08176 41761 Findspot Modern 32078*0 Er_landsc_05 Walk-over Survey A free-standing stub of masonry, located in Eight Acre Field roughly 30m south west of the sheepfold (Site 39). It appears to be out of context, being obviously displaced from its original location. During the map regression no buildings were found to have been previously located in the vicinity, and the only stone built structure nearby is the boundary wall, which is of dry stone build. This stub is mortared and is possibly simply a chunk of wall which has been removed from its original location.

Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 41 Cricket Ground Area, Field Drain SE 08320 41845 Field drain Modern 32079*0 Er_landsc_06, 10, 449-52, 457 Walk-over Survey A substantial field drain running east/west at the eastern edge of the current cricket ground. It is evidenced by a low, narrow bank some 1.5m wide and approximately 35m long, with shallow side ditches on both sides; each ditch is <i>c</i> 1m wide. There is an examination portal at the eastern end crudely capped with a series of rectangular concrete blocks and dressed stones.
Site number Site name NGR Site type Period NTSMR Photo Ref Sources Description	 42 Trackway, south of Bradford Road SE 08212 41987 Trackway Unassigned 32080*0 Er_landsc_429, 437-9, 443-5, 447-8, 455 Walk-over Survey; OS, 1853-1950; WYAS/BD42 At the northern boundary of the site runs the retaining wall for the present Bradford Road. Running from this, and round the rear of the houses south of the Bradford Road, is a levelled, terraced trackway cut into the natural declivity of the valley side. It can be positively traced for at least 140m and ranges from three to four metres in width. There is a short stretch of stone that barely protrudes from the bank on the northern edge of the trackway directly below the modern retaining wall. This does not appear to be a natural outcrop of stone, as it appears to be uniform along the exact same line as the trackway. It is thought that this may be a stretch of curb or the remains of a low retaining wall. It is overlain and in places cut by the modern access road for the new cricket pavilion, but the terraced trackway continues to the east of the pavilion and continues to the east of the study area, and was visible in the field beyond the study area. This may be the earlier route of the current Bradford/Keighley Road, as the pre-Ordnance Survey maps shows the pre-turnpike road curving southwards away from the present road line.
Site number Site name NGR Site type Period NTSMR Sources Description	 43 Cricket pavilion SE 07918 42030 Former Cricket pavilion 1950-1970 32081*0 Undated map (c 1970's); 1969 air photo (OS-69245-27) A cricket pavilion to the north of the former cricket ground, and was shown on an undated map from the mid 1970's and a 1969 air photo. All that survives now is a parch mark, and a subtle earthwork, against the base of the break of slope for the hillock upon which the hall is sited. The parch mark is about 10m long.
Site number Site name NGR Site type Period NTSMR Photo Ref Souwage	44 Possible Leat, East Riddlesden Hall SE 07925 41945 Leat Nineteenth century 32082*0 Er_landsc_400-1 WVAS/PD167: OS 1804 25" to 1 mile: OS 1024 25" to 1 mile

Sources

Description	A possible north-west aligned leat, shown on the 1845 Tithe map. The leat did not appear on subsequent editions of the OS. The feature was depicted as branching off the north bank of the river Aire to the south of the hall. If the feature was a leat, then is would have been part of the channel releasing water back into the river once it had powered any putative mill and any such mill would have had to lie to the west. The lim depicted on the site mapping is a projected line of the putative leat based on the 1844 tithe map. There are no extant indicators of the putative leat within the preser landscape.
	north bank of the river Aire to the south of the hall. If the feature was a leat, then would have been part of the channel releasing water back into the river once it has powered any putative mill and any such mill would have had to lie to the west. The lir depicted on the site mapping is a projected line of the putative leat based on the 184 tithe map. There are no extant indicators of the putative leat within the present

Site number Site name NGR Site type Period NTSMR Sources Description	 45 Possible Rectangular Building within Maze Field SE 07889 42000 Geophysical survey site Unassigned 32083*0 Geophysical survey, February 2008 A possible rectangular building identified as a series of parch marks which were subsequently investigated by resistance geophysics. A high resistance anomaly corresponds in location with the parch marks and has some distinct rectilinearity in shape. Although there were no clear wall lines visible, the results could indicate rubble foundations of a former rectilinear structure.
Site number Site name NGR Site type Period NTSMR Sources Description	46 Flint Tools, Starkie Wing, East Riddlesden Hall SE 07889 42000 Find spot Neolithic 32084*0 Newman 1998-9 Some Neolithic flint tools were found during the 1998 excavations in the vicinity of the 'Starkie Wing and are indicative of Neolithic activity in the environs.
Site number Site name NGR Site type Period NTSMR Sources Description	47 Mining activity, East Riddlesden Hall SE 07890 42138 Coal mine Post-medieval 32085*0 OS 1853; Dickinson and Holding 1965 A series of north-east/south-west aligned coal mine galleries known to extend below the pond and the Airedale Barn at East Riddlesden Hall. The mines were in existence prior to 1850, when there were proposals to both re-open and extend the existing works. The pit-head was located to the north-east of the hall between the present A650 and the canal. The 1853 OS map depicts Morton Banks Colliery some 700m to the north-west, while a coal was shown approximately 300m to the east.

APPENDIX 4 DOCUMENTARY RESEARCH REVIEW

Mike Freeman, the house steward has been researching the property for many years and has accumulated a considerable body of material. The material comprises a variety of postmedieval documents dating between 1544 and 1794. The information abstracted by Mr Freeman were derived from a number of different document types, including wills and probate inventories, sale agreements and deeds. This information as did not always have full references as at the time of collection the information was not intended to be disseminated in any detailed way, other than as a single sheet detailing the history of the Hall. However, the research contains much that is very useful, particularly the sixteenth and seventeenth century inventories that detail the holdings in and around the hall. Thus part of the current work undertaken has been to trace the sources of these abstracts, which has in most cases been successfully completed. A further important factor in the research undertaken by Mr Freeman has been the considerable scope for further work on these documents, which together indicate a great deal of potential for charting the post-medieval history of East-Riddlesden Hall.

As stated above much of the information relating to the hall was post-medieval in date. However, it is worth noting that work on the medieval manor of Morton and Riddlesden (the hamlet rather than the hall) was undertaken when the West Yorkshire Archaeological survey was compiled (Faull and Moorhouse 1981, 460-61). This brief resume of the manor of Morton during the medieval period, touches on the historical personalities associated with the hall - the Paslews and Simon de Montalt - but not the hall itself. The potential for charting the earlier history of the hall up to the sixteenth century, from the documents cited in the entry for Morton would be quite high.

Several of the documents collated by the House Steward are likely to have been recorded in full, such as the 1572 and 1573 entries in the Feet of fines (YAS and Topographical Society 1888, 16, 41). For the wills of Walter Paslew (YPEC/13/20/1543), Robert Rishworth (YPEC/28/7/1602) and the 1662 inventory of John Murgatroyd (WYAS/HAS/B:13/42), it was clear that all three documents contain important information on the buildings that were associated with the hall. The information collated by Mr Freeman from the 1602 and the 1662 documents would appear to be an abstract only, and this was particularly true for the latter, where only a list of buildings was recorded. Nevertheless, both documents contain information useful to recording the chronology of the hall and surrounding building, as well as having the potential for providing a much more detailed picture of the hall during the sixteenth and seventeenth century.

The same can be said for the 1592 indenture of bargain and sale (WYAS/WYL46/159). Although this does not refer to the hall, rather a dwelling and lands in East Morton, it does mention a 'milne' in East Riddlesden, although not an exact location. Potentially, further examination of this document may reveal more information, and would also be the case for the deed between John Murgatroyd and his eldest son James dated 1708 (WYAS/DBS C21/6), where again, more information may be recovered upon further analysis of the document.

Unfortunately, the provenance of the documents that contain the most detail among the researches undertaken by Mr Freeman - the 1739 lease between Edmund Starkie and John Wilkinson and the 1760 document concerning repairs and alteration to the to buildings surrounding the hall - were not located. This was a great shame, given that the 1739 lease

provides detailed information regarding the layout and type of buildings to be found in and around the hall at that date. Similar information was held in the 1760 which relates the re-roofing of the West or Great Barn and the relocation of the Old Mill and Kiln to the new Mill site.

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Plate 6: Site 42 - trackway, with possible retaining wall or curb

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Plate 7: Site 39 - modern sheepfold

Plate 8: Site 40 - stub of masonry

Plate 9: West elevation of the modern barn (*Building 1*)

Plate 10: North elevation of the modern barn (*Building 1*)

Plate 11: South elevation of the modern kennel (*Building 2*)

Plate 12: South entrance to *Building 3*

Plate 13: East elevation of *Building 3*

Plate 14: East elevation of *Buildings 4* and 5

Plate 15: East elevation of *Buildings 3-6* (from left to right)

Plate 16: North elevation of *Building 6*

Plate 17: Aerial Photograph of East Riddlesden Hall 1969 (OS/69245-27)



Figure 1: Site location

906070*2MA*07090







Figure 3: East Riddlesden Hall on Speed's Map, 1610, with the study area superimposed



Figure 4: East Riddlesden Hall on Jeffery's Map, 1771, with the study area superimposed



Figure 5: East Riddlesden Hall on Greenwoods Map, 1817, with the study area superimposed

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Figure 6: East Riddlesden Hall on the 1845 tithe map (WYAS/BD167) with the study area superimposed

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Figure 7: East Riddlesden Hall on the OS First Edition 6 inch map, 1853, with the study area superimposed





Figure 9: East Riddlesden Hall on the OS 1919 25 inch map with the study area superimposed

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Figure 12: Farm buildings at East Riddlesden Hall - Level 1 building survey



Figure 13: Erosion and deposition areas along the River Aire at East Ridlesden Hall









Figure 17: Detail of erosion and deposition in the southern extent of Eight Acre Field area



Figure 18: Magnetic survey results; a) Interpreted, b) Raw data







Plate 1: Site 32 - track running east/west across the northern edge of the Maze Field



Plate 2: Site **32** - track running east/west across the northern edge of the Maze Field looking south-west



Plate 3: Site 33 - areas of planting at the south end of the Maze Field, looking north



Plate 4: Site 35 - culvert looking north



Plate 5: Site 42 - trackway looking south-east



Plate 6: Site 42 - trackway, with possible retaining wall or curb



Plate 7: Site 39 - modern sheepfold



Plate 8: Site 40 - stub of masonry



Plate 9: West elevation of the modern barn (*Building 1*)



Plate 10: North elevation of the modern barn (*Building 1*)



Plate 11: South elevation of the modern kennel (*Building 2*)



Plate 12: South entrance to *Building 3*



Plate 13: East elevation of *Building 3*



Plate 14: East elevation of *Buildings 4* and 5



Plate 15: East elevation of *Buildings 3-6* (from left to right)



Plate 16: North elevation of *Building 6*



Plate 17: Aerial Photograph of East Riddlesden Hall 1969 (OS/69245-27)