

LAND AT JACK HILL, ALLITHWAITE, GRANGE-OVER-SANDS, CUMBRIA

Archaeological Desk-Based Assessment



Client: Applethwaite Ltd

NGR: 338864 476163

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Non-Technical Summary

Prior to the submission of a planning application for a proposed residential development on land at Jack Hill, Allithwaite, Greenlane Archaeology was commissioned to carry out an archaeological desk-based assessment. This examines the known and unknown archaeological resource of the surrounding area and was carried out through the examination of both primary and secondary sources, including the Cumbria Historic Environment Record. A site visit was also carried out in order to make a brief assessment of the site.

The desk-based assessment revealed that the site lies c560m to the south of a Bronze Age cremation cemetery, which was excavated in 2001. A further single Bronze Age cremation was also found in Yew Tree Field some 230m to the west of the site in 1834, further demonstrating the prehistoric presence in the vicinity, which also includes lithic finds from the Palaeolithic, Mesolithic, and Neolithic periods. The mapping evidence shows that the site has been open fields since at least the early 19th century.

The site visit revealed no obvious features of archaeological interest within the proposed development area or constraints to further archaeological work. The site comprises part of a much larger area of improved pasture.

An assessment of the significance and potential of the site with regard both known and unknown archaeological remains concludes that although no archaeological finds or features are known from within the proposed development area, there is clearly, based on the known archaeology of the wider area, the potential for such remains to be present. The nature of the development would mean that any remains that were present would be adversely affected.

Acknowledgements

Greenlane Archaeology would like to thank Applethwaite Ltd for commissioning the project, in particular Colin Hetherington. Additional thanks are due to the staff of Cumbria Archive Centre in Barrow-in-Furness (CAC(B)) for help with accessing their archives and Mark Brennand and Jeremy Parsons at the Historic Environment Service at Cumbria County Council, for enabling access to the Historic Environment Record.

The project was managed and carried out by Dan Elsworth who also wrote the report with assistance from Tom Mace. The illustrations were produced by Tom Mace, and the report was edited by Jo Dawson.

1. Introduction

1.1 Circumstances of the Project

1.1.1 Prior to the submission of a planning application for a proposed residential development on land at Jack Hill, Allithwaite, Grange-over-Sands, Cumbria, (NGR 338864 476163), Greenlane Archaeology was approached by Colin Hetherington of Applethwaite Ltd (hereafter 'the client') to provide an archaeological desk-based assessment for the site. This was based on advice provided to South Lakeland District Council (SLDC) by Jeremy Parsons, Historic Environment Officer at Cumbria County Council. A project design was produced by Greenlane Archaeology and the work was undertaken in November 2014.

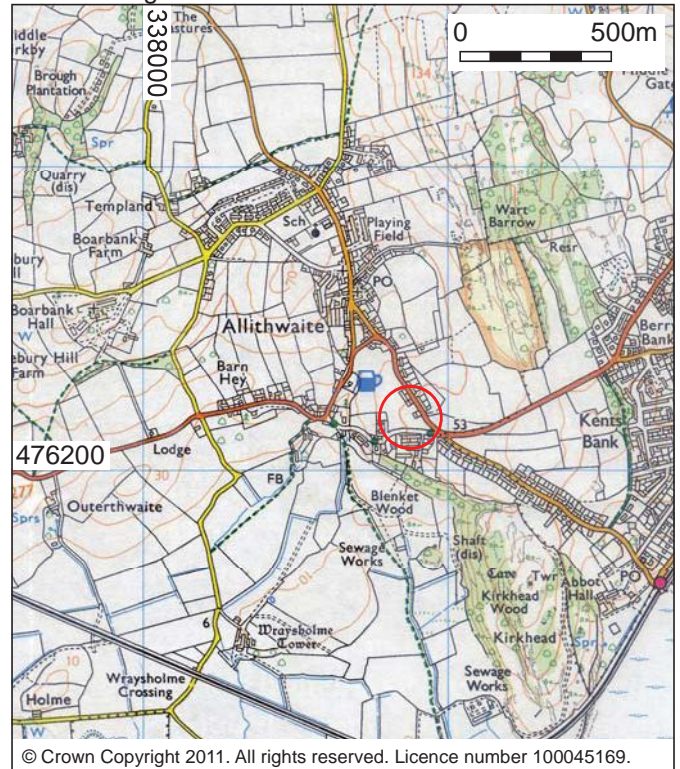
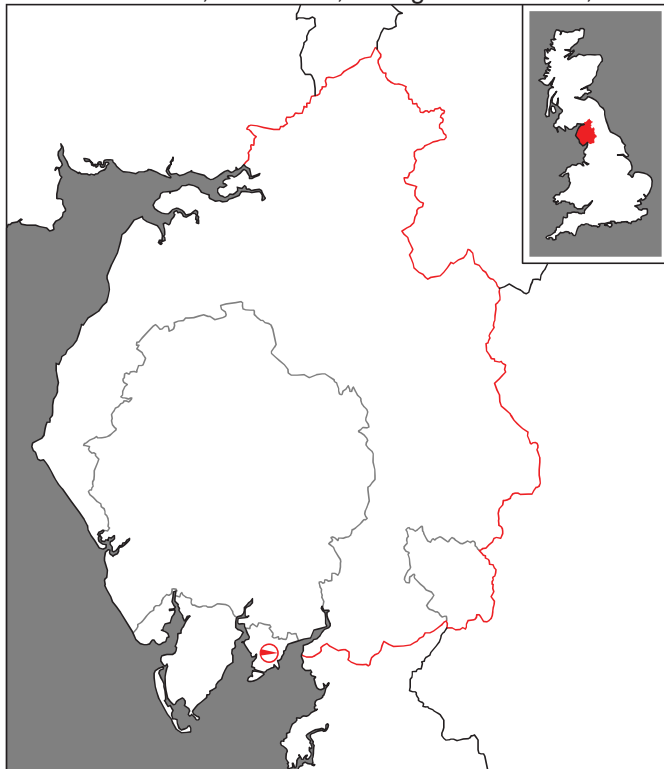
1.1.2 Jack Hill is situated on the south side of Allithwaite, in an area where a number of prehistoric burials have been found. Most significant of these is a group of 13 cremations found during the construction of a housing estate in 2001.

1.2 Location, Geology, and Topography

1.2.1 The village of Allithwaite is located 2.5km to the south-west of Grange-over-Sands, Cumbria, on a peninsula of land between the Levens and Kent estuaries on the northern coast of Morecambe Bay (Ordnance Survey 2011; see Figure 1).

1.2.2 The village is located close to the top of a limestone fell that begins at the coast around 1km to the south, the surrounding fields are largely pasture and in places the underlying limestone bedrock emerges into pavement formations (*ibid*). The site is approximately 50m above sea level.

1.2.3 The solid geology is Lower Carboniferous Limestone which is overlain in places by limestone scree, and boulder clay in the valley bottoms (Countryside Commission 1998, 72).



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Figure 1: Site location

2. Methodology

2.1 Desk-Based Assessment

2.1.1 A desk-based assessment was carried out in accordance with the guidelines of the Institute for Archaeologists (IfA 2008). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the desk-based assessment:

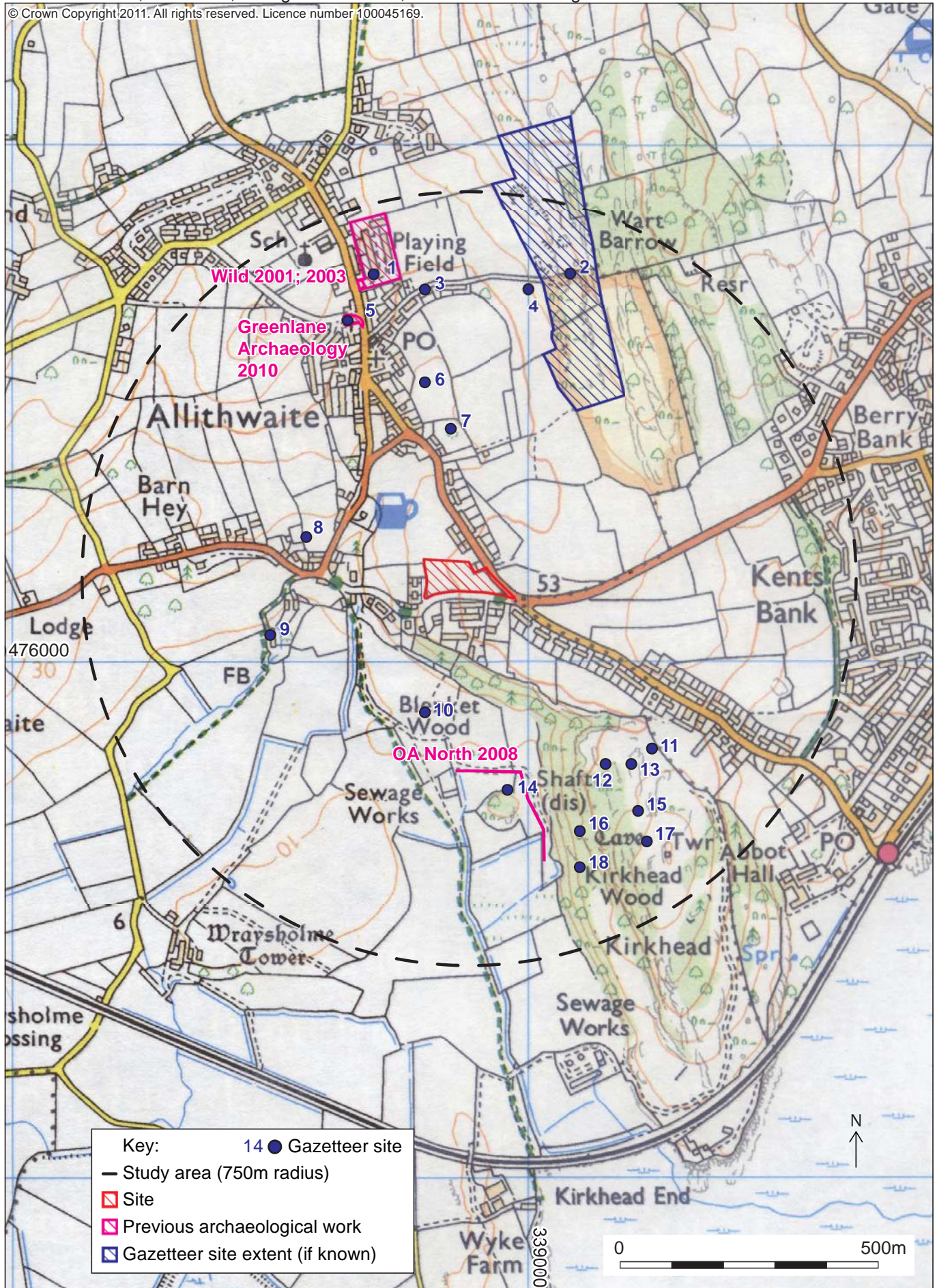
- **Cumbria Historic Environment Record (HER):** this is a list of all the known sites of archaeological interest within the county, which is maintained by Cumbria County Council and is the primary source of information for an investigation of this kind. All of the known sites of archaeological interest within approximately 750m radius of the proposed development were examined; each identified site comes with a grid reference, description and source and any additional information which was referenced was also examined as necessary. In addition, unpublished reports of archaeological investigations in the vicinity of the site were examined;
- **Cumbria Archive Centre, Barrow-in-Furness (CAC(B)):** secondary sources held here were also consulted;
- **Greenlane Archaeology library:** additional secondary sources, used to provide information for the site background, were examined.

2.2 Site Visit

2.2.1 A brief site visit was carried out on 25th November 2014, primarily with the intention of better understanding the development of the site, but also to inform documentary evidence revealed during the desk-based assessment. In addition, the presence of any features, finds, or deposits of possible archaeological interest were noted. Digital photographs of areas of interest were also taken, primarily for use as illustrations in this report.

2.3 Archive

2.3.1 A comprehensive archive of the project has been produced in accordance with the project design, and current IfA and English Heritage guidelines (Brown 2007; English Heritage 1991). The paper and digital archive and a copy of this report will be deposited in the Cumbria Archive Centre in Barrow-in-Furness at a suitable time on completion of the project. A copy of this report will be provided for the client, a digital copy for the client's agent, and a copy will be retained by Greenlane Archaeology. In addition, at a suitable time a digital copy will be provided to the Historic Environment Record at Cumbria County Council, and a record of the project will be made on the OASIS scheme.



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Figure 2: Gazetteer site plan

3. Results

3.1 Introduction

3.1.1 A total of 18 sites of archaeological interest are recorded on the HER within the study area (Figure 2; summarised in Table 1 below). These range in date from Late Upper Palaeolithic to post-medieval in date. Find spots are often not accurately located, so their significance to the study area is uncertain (e.g. **Site 18**). The date of several of the earthworks is uncertain (**Site 3, 6, 7, 13** and **17**) but at least one is thought to relate to quarrying and is therefore thought to be post-medieval in date (**Site 4**), while the rest are potentially prehistoric. Known of these have been investigated in any detail. Of the three limekilns recorded within the area (**Sites 2, 11** and **15**) at least one is no longer standing (**Site 11**) and one of the others has proven difficult to locate (part of **Site 2**). There is also no trace remaining of the former corn mill (**Site 9**), the former village hall (**Site 5**), or probably the former well (**Site 14**). Extremely little information is recorded about the 'steps' or 'earthwork in the wood' reported by a Mrs Aldersley (**Sites 10** and **13** respectively), so their date or possible significance is unknown. Sites included in the gazetteer that relate to periods of the study area's history are individually mentioned in the site history (see *Section 4* below).

Site No.	Type	Period	Site No.	Type	Period
1	cremation burials	Bronze Age	10	steps	post-medieval?
2	limestone quarries and limekilns	post-medieval	11	former limekiln	post-medieval
3	earthworks	uncertain	12	Kents Bank Cave	Late Upper Palaeolithic
4	earthworks	post-medieval?	13	earthworks	uncertain
5	former village hall	post-medieval	14	former well	post-medieval?
6	earthworks	uncertain	15	Kirkhead limekiln	post-medieval
7	earthworks	uncertain	16	Kirkhead Cave	Late Upper Palaeolithic – Romano-British
8	cremation urn	Bronze Age	17	earthworks	uncertain
9	former corn mill	post-medieval	18	findspot	Mesolithic

Table 1: Summary of sites of archaeological interest within the study area

3.2 Desk-Based Assessment

3.2.1 The results of the desk-based assessment have been used to produce two separate elements. Firstly all sites of archaeological interest recorded within the study area were compiled into a gazetteer (*Appendix 1* and shown in Figure 2). The gazetteer is used to assess the general type of historic landscape that makes up the study area, contribute to the compilation of the general history of the site (see *Section 4*) and, more importantly, identify sites that are likely to be affected by the proposed development. The significance of each of these sites and the degree to which they are likely to be affected is considered in *Section 5* and from this recommendations for further work are produced.

3.2.2 The second purpose of the desk-based assessment is to produce a background history of the site. This is intended to cover all periods, in part to provide information that can be used to assess the potential of the site (particularly for the presence of remains that are otherwise not recorded in the study area), but more importantly to present the documented details of any sites that are known (see *Section 4*).

3.3 Map and Image Regression

3.3.1 **Introduction:** although there are early, typically county-wide, maps that include the area, they are generally very small scale and so the first useful maps of the area do not appear until the early 19th century. As a result, it is primarily maps from that date onwards that are discussed below.

3.3.2 **A Plan of the Division of Lower Allithwaite, 1807:** this map corresponds with the enclosure of land carried out across the Cartmel Peninsula in the early 19th century, although unusually it covers areas that were presumably already enclosed at that time. The proposed development area was clearly undeveloped and part of a much larger field at this time, while the village’s road network at that date was essentially the same as it is now (CAC(B) WPR 89 Z3 1807; Plate 1).

3.3.4 **Ordnance Survey 1851:** this is the earliest detailed plan of the site available. The proposed development area is still part of a larger field, but it is evident that the much larger field shown on the previous map has been somewhat subdivided in the meantime (Plate 2).

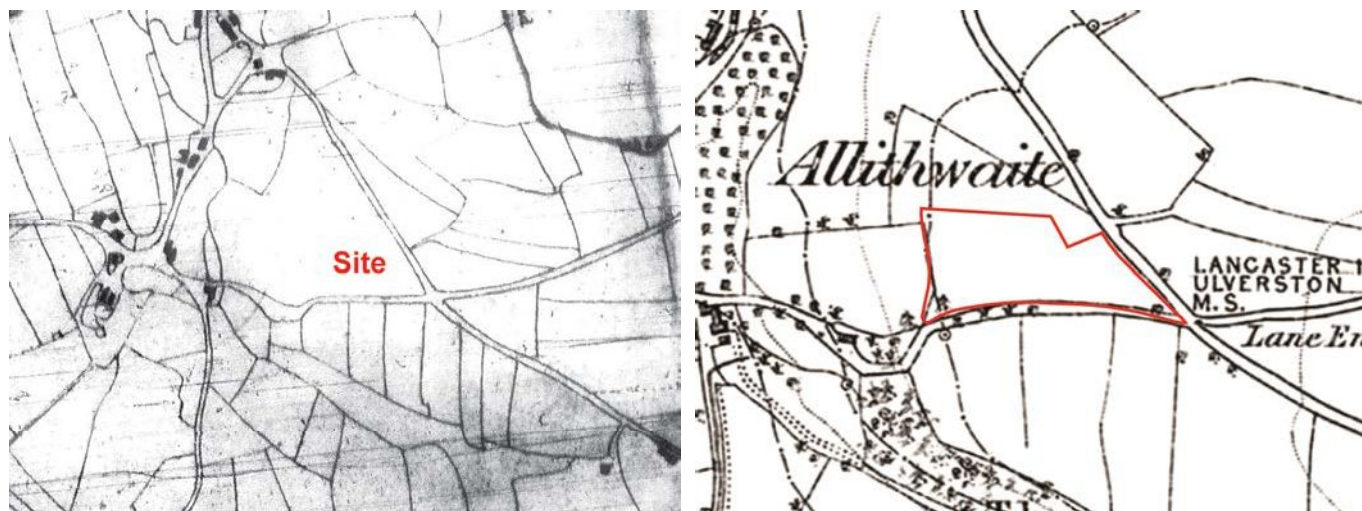


Plate 1 (left): Extract from the enclosure map of 1807

Plate 2 (right): Extract from the Ordnance Survey map, 1851

3.3.3 **Ordnance Survey 1890:** the site is shown as essentially the same open field as it was in 1851 (Plate 3).

3.3.4 **Ordnance Survey 1894:** this map shows the same detail as the 1890 edition (Plate 4; cf. Plate 3). However, this copy is marked with the plots of the c1910 ratings valuation. The site forms part of plot 226, which is listed as ‘House Building and Land’ and recorded as owned by Henry Hobbart and occupied by William Jackson at the time (CAC(B) BT/IR/1/2 1910).

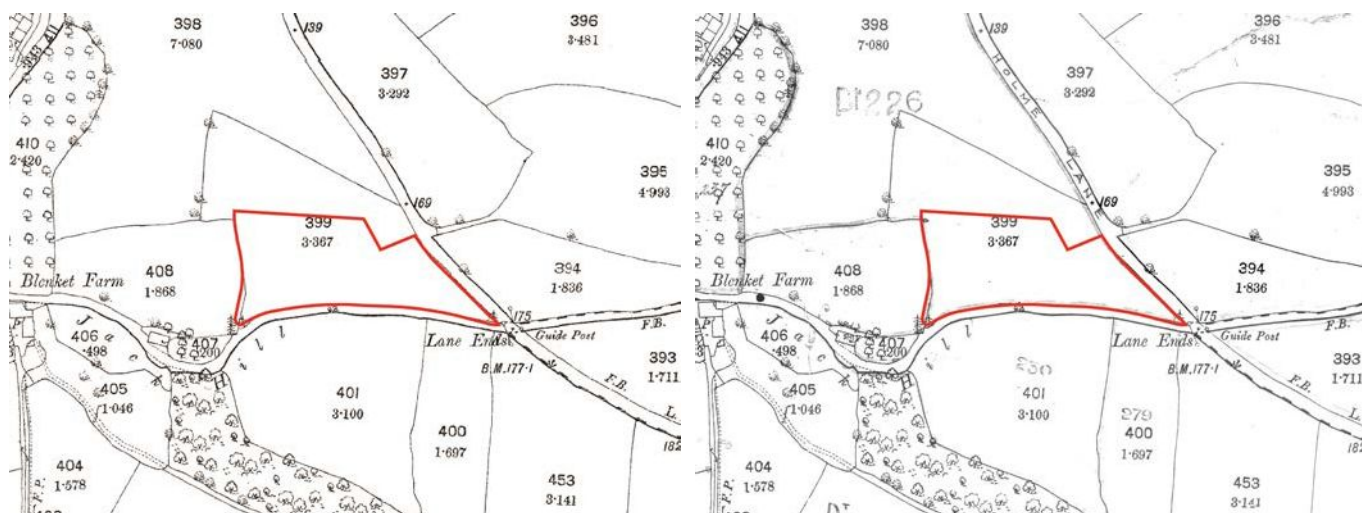


Plate 3 (left): Extract from the Ordnance Survey map, 1890

Plate 4 (right): Extract from the Ordnance Survey map, 1894

3.3.5 **Ordnance Survey 1913:** fields to the south of the area have seen some development but the site is unchanged (Plate 5).

3.3.6 **Ordnance Survey 1933:** the south side of the road has seen further development but the site remains unchanged (Plate 6).

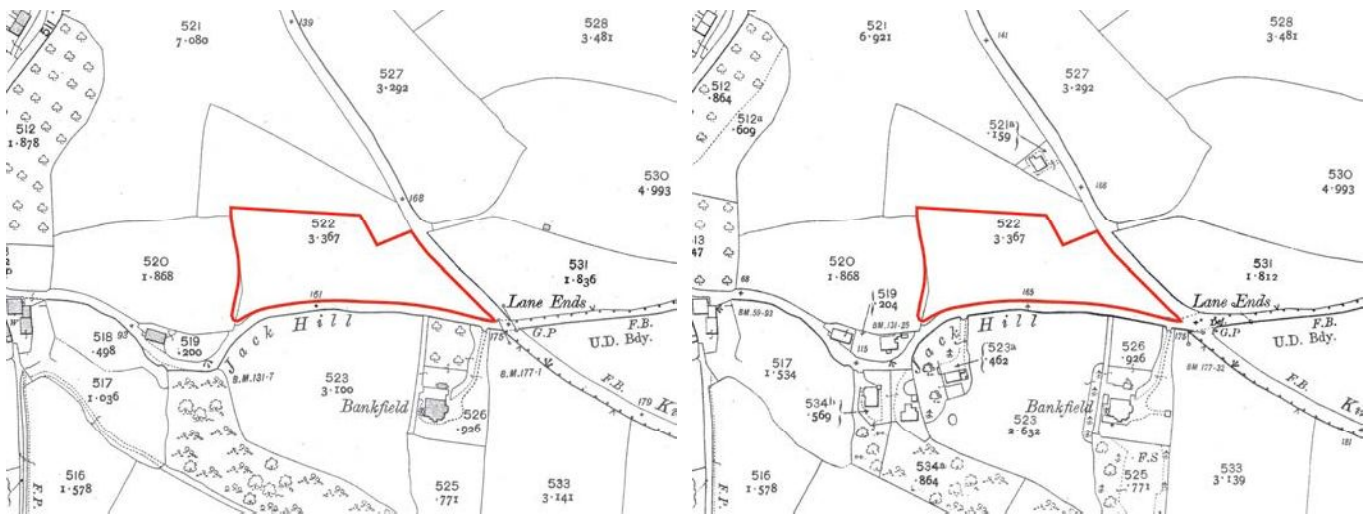


Plate 5 (left): Extract from the Ordnance Survey map, 1913

Plate 6 (right): Extract from the Ordnance Survey map, 1933

3.4 Previous Archaeological Work

3.4.1 A number of previous pieces of archaeological work have been carried out within the study area, although the earlier ones tend to be relatively vaguely located. A number of more recent pieces have also been undertaken and are outlined below:

- antiquarian and later excavations at Kirkhead cave (**Site 16**) have revealed late Neolithic, Bronze Age, and possibly Romano-British activity at the site (see *Appendix 1*);
- excavations at Kents Bank Cave (**Site 12**) from 1992 to 1994 recovered evidence of Late Upper Palaeolithic human occupation of the area, with a human bone later dated 10,380-10,190 BP (Sheppard 1994; Salisbury 1997, 8-9; Smith *et al* 2013);
- a group of of Bronze Age cremation burials (**Site 1**) was uncovered at Church Road by the Lancaster University Archaeology Unit in 2001 during an archaeological evaluation covering a much larger area (see Figure 2; Wild 2001; 2003);
- a desk-based assessment and watching brief were carried out during the construction of a caravan park near Blenkett Wood in 2007 (OA North 2008). No features of archaeological significance were discovered although a post-medieval field boundary was discovered along with peat and colluvial deposits that might be of interest;
- Greenlane Archaeology Ltd conducted a watching brief during groundworks for a residential development on the site of the former 20th century village hall in 2010 (**Site 5**) but no significant archaeological finds or features were observed.

3.5 Geotechnical Investigation

3.5.1 A previous engineering and environmental assessment has been carried out of the site; of particular relevance is the nine test pits excavated across it (CoDa Structures 2014). These show that in general the site is covered by a topsoil 0.3m thick, underlying which is a sandy or gravelly clay (presumably a subsoil) in places typically up to 1m thick, but only 0.5-0.6m thick on the west side. Beneath this deposit is typically firmer clay and then limestone bedrock.

3.6 Site Visit

3.6.1 **Site Arrangement and Character:** the proposed development area comprises part of a much larger field situated in a tight corner between the B5277 to the west and Jack Hill to the south, with an isolated dwelling, 'The Homestead', projecting into the north-east corner of what had originally been an open field (Figure 1). The area is relatively flat although rising slightly to the south, with the ground dropping away relatively sharply along the northern boundary (Plate 7) meaning that the proposed development area is essentially on a plateau, albeit not a level one. The field comprises improved but hummocky pasture, surrounded by clipped hedges with post and wire fences in front to the west (Plate 8), south, and in the south-east corner (Plate 9), while there are fences and walls surrounding and to the north of 'The Homestead' (Plate 10).



Plate 7 (left): View to the north showing the ground dropping away



Plate 8 (right): The hedge on the west of the site



Plate 9 (left): Hedges in the south-east corner



Plate 10 (right): Wall north of 'The Homestead'

3.6.2 **Constraints:** there were no evident constraints to further archaeological investigation of the site and minimal evidence for disturbance, although it is likely to have been ploughed in the past. The only major exception is the presence of the overhead high level cable running across the eastern edge of the site.

4. Site History

4.1 Introduction

4.1.1 In order to place the proposed development site in its historical background and archaeological context a brief discussion of the earlier history of its environs is necessary. Information relating to specific sites recorded during the desk-based assessment (see *Section 3* above) is included where relevant.

4.2 Prehistoric Period (c11,000 BC – 1st century AD)

4.2.1 While there is limited evidence for human activity in the county in the period immediately following the last Ice Age, this is typically found in the southernmost part on the north side of Morecambe Bay. Excavation of a small number of cave sites have found the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Young 2002). The earliest evidence of human occupation in the area was found in Kirkhead Cave (**Site 16**), 1km south of Allithwaite (roughly 360m south-east of the proposed development area), which has late Upper Palaeolithic (c11,000-8,000 BC) remains (Salisbury 1992, 3). Palaeolithic blades have also been found at Lindale Low Cave to the north-east of Kirkhead (*ibid*; Salisbury 1988) and human and animal bones were also recovered from Kents Bank Cave (**Site 12**), of which one of the human bones was more recently dated to the end of the Late Upper Palaeolithic or beginning of the Mesolithic period (Smith *et al* 2013).

4.2.2 The county was clearly more densely inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field walking and eroding from sand dunes along the coast (Cherry and Cherry 2002). Mesolithic flints have apparently been found at Kirkhead Wood (**Site 18**), although the source for this information is uncertain. Coastal areas and river valleys are notably places where such material is frequently found in the wider region (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152; Hodgson and Brennand 2006, 26).

4.2.3 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured at Langdale in the central Lake District (Hodgson and Brennand 2006, 45). Several Neolithic polished stone axes have been found in the vicinity, however, these represent a fairly small part of the assemblage for the county as a whole (Hodgkinson *et al* 2000, 36). Neolithic or possibly early Bronze Age flints were found at Kirkhead Cave (**Site 16**).

4.2.4 During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still. Activity of this date is attested by a number of finds in the area including mid to late Bronze Age finds at Kirkhead Cave (**Site 16**; Salisbury 1997, 3). In 1834 a small urn and cremation was found in Yew Tree Field, Allithwaite (although it was considered to be Roman by earlier antiquarians; Watkin 1883, 215; **Site 8**), approximately 230m to the west of the proposed development area. A Bronze Age cremation cemetery was also discovered in Allithwaite during excavations in 2001 (Wild 2003, 23; **Site 1**) around 560m to the north of the proposed development. This cemetery contained the remains of between 12 and 15 bodies. The burials, four of which were contained in urns, were placed in natural holes in the buried limestone pavement.

4.2.5 It is also likely that settlement sites thought to belong to the Iron Age have their origins in this period, although few have been studied in enough detail to ascertain this with any certainty. Sites of this type are recorded typically as crop marks revealed in aerial photographs but they are typically undated and little understood. One of the type sites for the period, hillforts, is relatively well represented in the local area, although these too are complex structures that were probably used over a considerable period of time; one example within the study area was perhaps at the outcrop known as Castle How (see **Site 14**), although this is only based on place-name evidence (Elsworth 2014). There are several undated enclosures and earthworks in the area, some of which may date from this period (possibly **Sites**

6, 7 or 17). There is also likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period and it is evident that in this part of the country, initially at least, the Roman invasion had a minimal impact on the native population in rural areas (Philpott 2006, 73-74).

4.3 Romano-British to Early Medieval Period (1st century AD – 11th century AD)

4.3.1 There have been occasional finds of Roman coins from the general area (e.g. Shotter 1989, 41; **Site 16**), but evidence has yet to be confirmed of settlement in the area from the period. There has been discussion about the likelihood of Roman military occupation in the Cartmel and Furness Peninsulas for some time (Elsworth 2007), and while there is some evidence it is not entirely convincing. However, the place-name 'Castle Meadow' and an earlier description of remains present in this area thought to represent a Roman fort that was removed in the 19th century (CRO(B) DDHJ 4/2/1/8 1860s-1872) are worthy of further consideration. Recent work in close proximity to these supposed features did reveal a road surface c4m wide containing pottery of potentially early date (Greenlane Archaeology 2011).

4.3.2 The early medieval period is not well represented in the area in terms of physical archaeological remains, which is a common situation throughout the county. The Cartmel Peninsula is recorded in a grant made by King Ecgfrith in the 670s or 680s AD to St Cuthbert, which was seemingly made in collusion with the local British nobility who had clearly survived in the area until at least that period (Edmonds 2013, 20). The local area as a whole has a complex mixture of place-names of Celtic British, Anglian (Old English), and Norse type suggesting that the early medieval period was a time of dynamic and rapid population change (Edmonds 2013). However, physical evidence for settlement of this date is very limited. The place-name 'Allithwaite' is thought to come from a Norse name similar to *Eilifr* and the word 'thwaite', which means clearing (Ekwall 1922, 196).

4.4 Medieval Period (11th century AD – 16th century AD)

4.4.1 The village of Allithwaite is located in the township of Lower Allithwaite which incorporates Cartmel to the north and Humphrey Head point to the south. The township is first mentioned in c1160 as *Hailiuehait*, in the 13th century it was also referred to as *Alefthuayth*, *Alithweit*, *Alythwayt*, *Alyphwait*, the fourteenth century sees the variants *Alingthwayt* and *Alynthwait* (Farrer and Brownbill 1914, 265). The exact origins and the history of the village of Allithwaite itself are less clear although it was evidently linked to Furness Abbey from an early date (Ekwall 1922, 196).

4.5 Post-medieval Period (16th century AD – present)

4.5.1 Agriculture remained the chief industry of the parish during this period, with some fishing for cockles and mussels in Morecambe Bay (Farrer and Brownbill 1914, 256). The parish church at Allithwaite village was constructed in 1865 by the Lancaster architects Paley and Austin (Price 1998, 72).

4.5.2 It is clear from the cartographic evidence that the site remained largely undeveloped throughout the 19th century. Sites of post-medieval date recorded within the study area on the HER include the former village hall (**Site 5**), the former corn mill (**Site 9**), and several extant and former limekiln and quarry sites (**Site 2, 11, 15** and probably **Site 4**). The date of the well (**Site 14**) and the date of some 'steps' (**Site 10**) recorded on the HER is uncertain. They are both assumed to be post-medieval.

5. Discussion

5.1 Introduction

5.1.1 The discussion of the results of the desk-based assessment is in part intended to determine the archaeological significance and potential of any known remains (above or below ground) and the potential for any as yet unidentified remains being present. The system used to judge the significance of the remains identified within the development area, or those thought to have the potential to be present within the development area, is based on the criteria used to define Scheduled Monuments (DoE 1990, Annex 4; *Appendix 2*). Of the 18 known individual sites of archaeological interest identified within the study area, none are situated within close enough proximity to be likely to be affected by any development proposals, although the details of these are, as yet, not determined. However, the proposed development area is situated in an area of known archaeological interest, so there is clearly potential for further remains of archaeological interest to be discovered.

5.2 Significance of Known Resource

5.2.1 No previously recorded sites of archaeological interest lie within the proposed development area.

5.3 Potential for Unknown Archaeological Remains

5.3.1 Details of the archaeological remains present within the study area around the proposed development area are presented in the results of the desk-based assessment (*Section 3*; *Figure 2*; *Appendix 1*). The potential for as yet unidentified archaeological remains to be present, however, is based on the known occurrence of such remains elsewhere in the study area and local environs (see *Section 4*). Where there are no remains known within the study area the potential is based on the known occurrence within the wider local area. The degree of potential is examined by period and the results are presented in Table 2 below; in each case the level of potential is expressed as low (L), medium (M), or high (H):

Period	Present in study area?	Potential
Late Upper Palaeolithic	Yes	L
Mesolithic	Yes	M
Neolithic	Yes	M
Bronze Age	Yes	M
Iron Age	No	L
Roman	Yes	L
Early Medieval	No	L
Medieval	No	L
Post-medieval	Yes	H

Table 2: Degree of potential for unknown archaeological remains by period

5.3.2 In consideration of Table 2 it is worth noting that the possibility of finding Late Upper Palaeolithic remains, although known from the study area, remains low as these are typically only found in caves. By contrast, Mesolithic remains could perhaps be assessed as medium because they are often associated with sites close to watercourses and coastal areas (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152). Mesolithic flint finds are recorded within the study area (**Site 18**), so the potential for more remains of this date to be revealed is therefore considered at least medium.

5.3.3 Sites of prehistoric date are particularly significant within the study area. Bronze Age cremations are recorded at two sites (**Sites 1 and 8**) and evidence of prehistoric occupation has been recovered from two significant cave sites nearby (**Sites 12 and 16**). Post-medieval activity in the wider area is also well attested by the number of limekilns and quarry sites nearby (**Sites 2, 11 and 15**, and possibly **Site 4**), but the Roman and medieval periods are on the whole less well represented.

5.4 Disturbance

5.4.1 While the area surrounding the land at Jack Hill has clearly seen some disturbance as a result of periods of landscaping and building in the 19th and 20th centuries, the proposed development area has evidently seen relatively little disturbance. However, it is likely to have been ploughed in the past, disturbance may have occurred as a result of the construction of 'The Homestead', and the erection of the poles for the overhead cable along the east side of the site will have had some impact.

5.5 Impact

5.5.1 Given the scale of the proposed development and the need to modify existing ground levels, any deposits, features, or structures of archaeological interest that might be present on site would be likely to be adversely affected.

5.6 Conclusion

5.6.1 It is clear from the preceding sections that while there are no known sites of archaeological interest within the proposed development area, there is potential for archaeological remains to be present within the site, especially those of Bronze Age date, although the real likelihood of this is difficult to quantify given the vague nature of some of the available information. Remains belonging to the post glacial period are known from the local area, but these are generally confined to cave sites and unusual elsewhere, while deposits and features of other periods are also possible. The site has seen little previous disturbance although is likely to have been subject to ploughing and the bore hole data shows a reasonable thickness of deposits overlying the bedrock and natural strata within which archaeological deposits could have survived, especially if relating to features cut into the natural clay. It is worth noting that in the case of the 13 cremations found in 2001 these were positioned in natural hollows in buried limestone pavement (Wild 2001; 2003).

6. Bibliography

6.1 Primary and Cartographic Sources

CAC(B) BT/IR/1/2, 1910 *Duties on Land Values, Records of Valuations Made by the Commissioners of Inland Revenue, in Accordance with the Provisions of Part 1 of the Finance (1909/10) Act, 1910. County of Lancaster Division of Lonsdale North. A Valuation Book for the Parish or Place of Allithwaite Lower and Upper Broughton East Cartmel Fell, Grase Staveley, Holker Lower and Upper*

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Appendix 1: Site Gazetteer

Site Number: 1**NGR:** 338700 476750**HER No:** 19756**Sources:** HER; Wild 2001; 2003**Designation:** none

Description: evidence of 13 cremation burials uncovered during trial excavations of a proposed building site at Church Road, Allithwaite. Finds included an intact collared urn with chevron patterns, presumed to be Bronze Age. Following a planning application by Persimmon Homes Ltd for a residential development on land off Church Street, Allithwaite (SD 3870 7665), Cumbria County Archaeology Service recommended that an evaluation of the site was necessary. The evaluation, consisting of a desk-based assessment and excavation of 14 20m by 2m evaluation trenches, was undertaken by the Lancaster University Archaeological Unit in February 2001. Except of Trench 1, excavated close to Church Road, all the trenches were devoid of archaeological features. In the westernmost 5m of Trench 1, traces of Bronze Age cremations in pottery vessels were revealed. In March 2001, LUAU returned to the site to excavate an area of c.20m by 7m encompassing the western end of Trench 1. A total of 10 cremations was discovered, at least six of which were associated with pottery vessels, one intact.

Period: Bronze Age

Site Number: 2**NGR:** 339080 476750**HER No:** 16110**Sources:** HER; Ordnance Survey maps**Designation:** none

Description: site of limestone quarries and limekilns marked as disused on 1910 map. One disused limekiln marked on 1974 map. The first limekiln is a typical medium sized kiln, but in poor condition (SD 3910 7675). It has a round arch and the pot is lined with firebricks, however most of the masonry has fallen away. It dates from pre-1846. The second is in reasonable condition (SD 3910 7665), although the pot is almost filled in and some of the masonry has fallen away. It is a typical medium sized kiln, with a round arch and the pot is lined with small firebricks. There are side walls in the front of the arch. It also dates from pre-1846 (T. Keates pers comm). A site visit in 2011 recorded that the kiln could not be located at SD 3910 7675, or in the wider area of the entrance to the quarry, although there are a couple of mounds covered in vegetation that may have been the site of it. A kiln could not be located at SD 3910 7655, but it seems likely that this is actually the extant kiln at SD 3906 7666. This kiln is in reasonable condition, although some vegetation growth is potentially detrimental to the long term structural viability of the fabric of the kiln. Some pointing work on the front might represent a repair. The charge hole was not full to the top with debris, possibly because its location away from the entrance to the quarry has saved it from being filled with rubbish, as there has been much dumping within the quarry in the past. There should also be limekilns to the north and south of the quarry. To the south there is a potential mound which is overgrown with vegetation. The kiln to the north is the only one marked on the modern Ordnance Survey mapping, although the site was obscured by trees (M. Brennand pers comm).

Period: post-medieval

Site Number: 3**NGR:** 338800 476730**HER No:** 19248**Sources:** HER**Designation:** none

Description: earthworks identified by Peter Rogers comprising a circular banked hollow to the west of the B5277. The eastern section of the bank has been truncated by the construction of the road and boundary wall. Approximate diameter: 10-12m.
Period: uncertain

Site Number: 4
NGR: 339000 476720
HER No: 19250
Sources: HER
Designation: none
Description: earthworks identified by Peter Rogers comprising a sub-circular, banked hollow, roughly 12-15m diameter, lies to the south of Quarry Lane The feature may be associated with quarrying.
Period: post-medieval?

Site Number: 5
NGR: 338650 476660
HER No: 43623
Sources: HER; Greenlane Archaeology Ltd 2010
Designation: none
Description: site of the former 20th century village hall that subsequently became a church. Demolition date unknown. A watching brief was conducted in 2010 during groundworks for a residential development on the site. Only natural deposits were encountered, with no archaeological features present or significant finds pre-dating the 17th century.
Period: post-medieval

Site Number: 6
NGR: 338800 476540
HER No: 19249
Sources: HER
Designation: none
Description: a possible circular enclosure, only visible in certain conditions. Differential growth of pasture grass seems to highlight the feature. It is situated in the field directly north of SMR 19247 (**Site 7**). There may also be crop mark features in the field.
Period: uncertain

Site Number: 7
NGR: 338850 476450
HER No: 19247
Sources: HER
Designation: none
Description: earthworks identified by Peter Rogers comprising a circular banked enclosure or slight earthwork with a low upstanding bank which becomes especially visible when there is slight snow covering. Approximate diameter is 20m. The eastern hedge boundary of the field appears to truncate the eastern arc at the enclosure.
Period: uncertain

Site Number: 8
NGR: 338570 476240
HER No: 2442

Sources: HER; Watkin 1883, 215

Designation: none

Description: a small urn found in Yew Tree Field on the south slope of the hill in 1834. The urn contained a cremation. When the site was visited in March 1990 there was some slight disturbance in the otherwise fairly smooth pasture, in the south-east corner, with a piece of stone protruding. This appeared recent and not significant.

Period: Bronze Age?

Site Number: 9

NGR: 338500 476050

HER No: 16107

Sources: HER; Ordnance Survey 1851

Designation: none

Description: site of Allithwaite corn mill. No trace on 1910 map.

Period: post-medieval

Site Number: 10

NGR: 338800 475900

HER No: 16509

Sources: HER

Designation: none

Description: some 'steps' at the edge of the wood recorded by Mrs Aldersley.

Period: post-medieval?

Site Number: 11

NGR: 339240 475830

HER No: 16109

Sources: HER; Ordnance Survey maps

Designation: none

Description: site of limekiln. No trace on 1910 map. Possibly the same as shown on Ordnance Survey map of 1867 at SD 3917 7868.

Period: post-medieval

Site Number: 12

NGR: 339150 475800

HER No: 5464

Sources: HER; Sheppard 1994; Salisbury 1997, 8-9; Smith *et al* 2013

Designation: none

Description: Kents Bank Cave, Blenkett Wood. Kents Bank Cave is situated half-way up the gully in Blenkett Wood. Excavations took place 1992-1994 and were begun by C Salisbury and student volunteers. To begin with these concentrated to the 'Lower Terrace', the area immediately in front of the cave. Both animal and human bones were apparently encountered. Excavations continued through 1993/94. Partial excavation of the terrace outside the cave in 1993 found two Late Upper Palaeolithic flint blades, 31 fragments of human skull and part of a horse skull. Reanalysis and dating of the bone from earlier excavations that are now held in the Dock Museum has produced early post-glacial dates for elk (13,091-12,745 BP), horse (12,925-12,835 BP), and human (10,380-10,190 BP) occupation of the area.

Period: Late Upper Palaeolithic

Site Number: 13

NGR: 339200 475800

HER No: 16510

Sources: HER

Designation: none

Description: an 'earthwork in the wood' reported by Mrs Aldersley

Period: uncertain

Site Number: 14

NGR: 338960 475750

HER No: 43151

Sources: HER; OA North 2008; Elsworth 2014

Designation: none

Description: Extant structure marked as a well on Ordnance Survey map of 1851 and as an old shaft on 1890 edition. The adjoining hill is named 'Castle How', which suggests it formed a fortified site at some point, perhaps a hillfort, although no further evidence is available to demonstrate whether or not this is the case at present.

Period: post-medieval?

Site Number: 15

NGR: 339213 475709

HER No: 16108

Sources: HER; Ordnance Survey maps

Designation: Listed Grade II

Description: site of limekiln marked as old lime kiln on 1910 map. The kiln is in very good condition and typical of a mid to late 19th century draw kiln. It is square in plan and built into slope.

Period: post-medieval

Site Number: 16

NGR: 339100 475670

HER No: 2415

Sources: HER; Ordnance Survey maps; Abrahams 1977; Baines 1870, 684-5; Ashmead 1970; 1978a; 1978b; Wood *et al* 1969; Ashmead and Wood 1974; Campbell 1977, 286; TLCAS 1887, 330; Evans 1881, 70; Gale *et al* n.d.; Gale and Hunt 1985, 283-304; Salisbury 1986; 1992; 1997, 3-4; Tipping 1986; Turnbull 1991; Gilks 1987; Barber 1894, 24-30; Morris 1868

Designation: Scheduled Ancient Monument (No. 13444)

Description: Kirkhead Cave; the entrance to Kirkhead cave is only 2ft high but the roof rises to 14ft before descending and forming a series of caves in the limestone. Before excavation it measured 40ft long by 25ft wide. The first excavations in 1850 revealed animal and human bone, charcoal, a pottery fragment and a coin of Domitian (AD 84), covered only by a few inches of soil, and within a few inches of the surface an iron axe, a hammer and a knife blade. Continued excavation revealed bone implements, antler of red deer, part of a human skull, and two stone implements. Also rudely baked pottery with holes near the rim, a fluted earthenware bead, three bronze rings, one bronze palstave, one bronze pin, a bone amulet, amber beads, bronze spearhead, a fibula, part of an urn, etc. Excavations 1968-73 located two groups of flints suggesting possible late Neolithic/early Bronze Age occupation. Finds from later excavations appear to be at Lancaster and Barrow Museums. Some of the finds are lost, but indicate burial and temporary shelter during Bronze Age / Romano-British periods. In the summer of 1989 previously illegally excavated layers on the cave floor were covered over at the request of English Heritage in order to protect exposed surfaces. Late Bronze Age pottery was found during excavation in the 1850s and 1860s (Gilks 1987).

Period: Late Upper Palaeolithic - Romano-British

Site Number: 17

NGR: 339230 475650

HER No: 19246

Sources: HER

Designation: none

Description: earthworks identified by Peter Rogers comprising a group of enclosures defined by low turf covered stone banks lying on a level terrace to the immediate west of Kirkhead Tower. Past quarrying activity is evident within the site area. There is a possible entrance gap in the north-west of what seems to be an outer enclosure.

Period: uncertain

Site Number: 18

NGR: 339100 475600

HER No: 3334

Sources: HER

Designation: none

Description: Mesolithic flints recorded here (supposedly found by J Cherry but no further details given).

Period: Mesolithic

Appendix 2: Significance Criteria

After DoE 1990, Annex 4: 'Secretary of State's Criteria for Scheduling Ancient Monuments'

- i) *Period*: all types of monuments that characterise a category or period should be considered for preservation;
- ii) *Rarity*: there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context;
- iii) *Documentation*: the significance of a monument may be enhanced by the existence of record of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records;
- iv) *Group Value*: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group;
- v) *Survival/Condition*: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features;
- vi) *Fragility/Vulnerability*: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings;
- vii) *Diversity*: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute;
- viii) *Potential*: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.