An Archaeological Survey of Chillingham Wild Cattle Park, Northumberland



An occupant of Chillingham Wild Cattle Park

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EXECUTIVE SUMMARY

In April 2007 Archaeological Research Services Ltd (ARS Ltd) were commissioned by Chillingham Wild Cattle Association to undertake an archaeological assessment of the grounds at Chillingham Wild Cattle Park, Northumberland. The fieldwork was undertaken from the 13th – 19th of April 2007 and was carried out as part of a management plan to conserve the historical landscape of the park. The Chillingham Wild Cattle Park lies within a landscape of significant archaeological importance and contains archaeological remains dating from the prehistoric (Iron Age) through to the Post-Medieval period. There is potential for earlier prehistoric remains to exist within the Park as Mesolithic flint tools were found on nearby Hepburn Moor, and Bronze Age occupation, in the form of but circles and cairnfields, are located near Hepburn Crags. No evidence for any pre-Iron Age archaeology was found during the survey. The Iron Age presence within the Park comes from the imposing site of Ros Castle which overlooks the surrounding countryside. This Iron Age hillfort consisted of substantial earthworks which form a defensive perimeter that is still visible under thick undergrowth. On the western lower slopes of Ros Castle a rectilinear ditched enclosure, of presumably Late Iron Age or Romano-British date was found. This site was previously unrecorded. Lying just to the north of the Park is a univallate enclosure clearly visible on the ground and lying on the border near the centre of the Park is an upstanding multivallate enclosure with a simple entrance causeway. Aerial photographic interpretation undertaken as part of the Till-Tweed project was consulted for this study and it identified a large quantity of ridge-andfurrow in and around the study area. Further evidence for post-medieval farming was discovered by this survey. Areas of holloways are located at various points in the Park. Some of these had been identified by the Till-Tweed Project, but new features were discovered below and to the west of Ros Castle. The holloways are often very deep (1.5m) and must have been used over long periods, or have seen considerable short-term movement of people and stock. It is very likely that a number of these holloways, particularly those around Ros Castle, were routeways that began to be formed in the Iron Age. The Chillingham estate was founded around the 13th century and has since had boundaries and internal walls built, reworked and moved. Post-Medieval archaeology includes the deer hemmel, of which part of the courtyard wall seems to form part of an earlier boundary wall, and 20 large sandstone pads of which no direct literature has been found to explain their purpose. Nine sandstone culverts/bridges were surveyed. Two rifle butts dating from the Jacobean period and the establishment of the Chillingham militia rifles, of which both were most likely reused during the World Wars, were found together in the southern half of the Park. A First World War saw mill, established by the Canadian Forestry Corps, survives as a concrete plinth with an excavated part of the hillside to the north.

There are many way to increase the park's potential by creating a fuller understanding of the history of the landscape, and the changing biodiversity of it's fauna and flora through time, which will allow for an integrated and fully informed management approach to be taken to promote the long-term future of the park. It is imperative however, that the primary function of the park is maintained as the habitat of the Wild Cattle and that the ideas are put in place with minimal contact with the Wild Cattle. Actions such as providing a series of walkways around the edges of the park, leading to individual features, along with information boards at strategic locations and the improving the Deer Hemmel as a visitor facility would all assist in making the park more accessible to the public. Understanding the past environmental history of the park, and coupling this with its historic and prehistoric use would mean that the effects of prior strategies of land use, such as agricultural and arable farming, could be directly linked to the environmental impact of such practices. Management decisions on the future of the park could then be made based upon knowledge of how prior human and animal interaction has shaped the landscape and it's vegetational history and so provide explicit information that can be easily used to develop a strategy for managing the park for it's long-term future.

1. INTRODUCTION

1.1. Location and scope of work

1.1.1. In April 2007 Archaeological Research Services Ltd (ARS Ltd) were commissioned by Chillingham Wild Cattle Association to undertake an archaeological assessment of Chillingham Wild Cattle Park, Northumberland (Fig. 1).

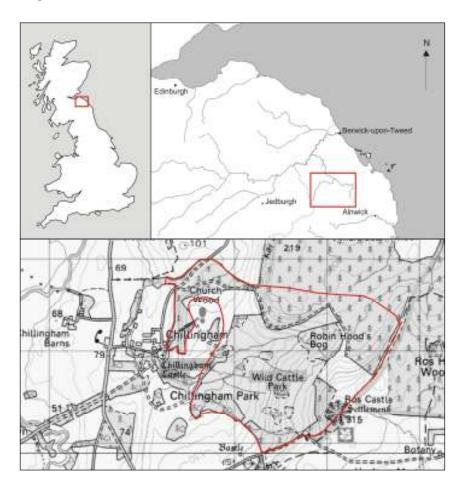


Fig. 1 Site location Ordnance Survey data copyright OS, reproduced by permission, Licence no. 100045420

1.2. Geological, Topographical and Ecological Setting

1.2.1. The Park is centred at NU075256. The solid geology comprises Tournaisian and Visean carboniferous limestone underlying a layer of sandstone. The archaeology of the Park was situated on light brown sandy soil which overlay the sandstone and was predominant throughout the investigation area. The valley floor has been conditioned by glacial activity with glacial erratics apparent, with possible palaeochannels coursing through the lowlands of the Park. The present water source is the Chillingham Burn which runs north-east to south-west for approximately 1800m. Glacial activity has left the Park bordered on three sides

by hills. The Fell Sandstone escarpment which is orientated northeast-southwest runs along the eastern boundary and encompasses the north of the Park. Occasional rock outcrops occur along the Sandstone escarpment. Para-glacial activity continues to shape the landscape, with active slumping present below the summit of Ros Castle.

- 1.2.2. It is situated in a valley bordered on three sides by steep hills. The investigation area ranged in altitude from 88m to 315m aOD, the highest point being Ros Castle with its commanding views of the Till valley. Immediately to the south and east of Ros Castle the escarpment falls steeply away on to Hepburn Moor, a large expanse of low-lying moorland. Ros Castle commands a strategic hilltop location with wide views in all directions. To the north the Scottish lowlands of the Tweed valley can be seen, whilst to the east are views out to the North Sea. To the west the fertile lands of the Milfield plain can be seen framed against the backdrop of the Cheviot Hills, whereas to the south the line of the sandstone escarpment can be traced to the local eminence of Old Bewick with its 'spectacle-shaped' hillfort and earlier prehistoric remains.
- 1.2.3. The Park has a diverse range of ecological habitats, including plantations, ancient broadleaved woodlands, scrub and moorland, marshland, improved park and farmland. It covers an area of approximately 277.5ha. The Allers, which are predominantly alder trees, are of a considerable age and situated in the centre of the Park. They constitute just under 2ha of the holding and are situated within a portion of the wet lowland. The lowland pastures comprise approximately 88ha and are interspersed with open woodland and thickets which constitute approximately 13ha of the Park. There are 22ha of ancient woodland in the Park which are confined to Robin Hood's Bog in the north-east and the northern half of Oak Wood which is situated on a steep slope to the north. The modern plantations, which are dominated by coniferous trees, are planted on approximately 100ha of upland or steep broken ground. The uplands of the Park, where not heavily forested are dominated by dense heather and bracken and cover approximately 18.5ha.

2. METHODOLOGY

2.1. The site was visited on the 13th – 19th of April 2007 by Archaeological Research Services Ltd, when there was no bracken cover and the weather was fine. Prior to undertaking the survey documentary history of the Park was investigated in order to identify any archaeological features of interest. A detailed summary and site plan was made in order to ensure a full and detailed photographic record of the upstanding archaeology.

2.2. Consultation of archive sources

- 2.2.1. A number of archive sources were consulted in order to build up a historical understanding of the Park and its surrounding areas. They were as follows:
 - Berwick-upon-Tweed Records Office, Wallace Green, Berwick-upon-Tweed
 - Sites and Monuments Record (SMR), County Hall, Morpeth, Northumberland

- Northumberland Collections Service, Woodhorn, Queen Elizabeth II Country Park, Ashington, Northumberland
- Tyne and Wear Archive Services, Discovery Museum, Blandford Square, Newcastle upon Tyne
- 2.4.2. The SMR data has been collated and is illustrated in Figure 2. A detailed list can be found below in Table 1.

Table 1. Summary of the Sites and Monuments Record for Chillingham Park and its surrounding areas. Those monuments situated within the park are highlighted in **bold**.

Site Description	HER No.	Easting	Northing	Period
Hepburn Moor flint tools	3645	408002	623999	Mesolithic
Ros Castle cup-marked stone	3442	407996	625069	Prehistoric
Hepburn Moor cup-marked stone	3650	407151	623598	Prehistoric
Hepburn Craggs Camp	3600	407432	624688	Prehistoric
Field system and settlement east of Hepburn	3669	407997	623513	Prehistoric
Wood				
Hepburn Crag Plantation possible cairnfield	3629	407901	624799	Prehistoric
and unenclosed settlement				
Hepburn Craggs unenclosed settlement	3627	407704	624475	Prehistoric
Hepburn Craggs unenclosed settlement	3628	408501	623998	Prehistoric
Hepburn Moor cairn	3625	407891	623825	Bronze Age
Hepburn Wood cist	3656	407351	624249	Bronze Age
Hepburn Bell enclosure	3559	406121	624309	Iron Age
Ros Castle	3391	408113	625332	Iron Age
Moordam enclosure	3392	406770	626307	Iron Age
Chillingham Castle	3389	406149	625812	Medieval
Chapel of St. Mary, Hepburn	3602	407041	624729	Medieval
Chillingham Deserted Medieval village	3426	406001	625998	Medieval
Ros Castle rock carvings	3390	408070	625230	Medieval
		408410	625630	
Church of St. Peter	3425	406214	625963	Medieval
Hepburn Deserted Medieval Village	3603	407100	624800	Medieval
Hepburn Bastle	3601	407086	624883	Medieval
East Lodge, Chillingham	3459	406150	625967	Post-Medieval
West Lodge, Chillingham	3466	405634	625485	Post-Medieval
Stable yard, Chillingham	3467	405984	625996	Post-Medieval
Chillingham Manor House	3420	406142	626018	Post-Medieval
Chillingham Estate House	3460	405931	626078	Post-Medieval
Chillingham Post Office	3464	405651	626046	Post-Medieval
Deersheds in Chillingham Park	3458	406916	625965	Post-Medieval
Hepburn Crag millstone quarry	3673	407502	624599	Post-Medieval
Hepburn Bell Mill	3670	405407	623995	Unknown
Hepburn Moor circular enclosure	3637	408001	624299	Unknown
Chillingham Castle circular enclosure	3421	406090	625831	Unknown
Hepburn Wood oval enclosure	3651	407751	624049	Unknown

2.3. Historic mapping

- 2.3.1. Historic maps were consulted at the archive services listed in section 2.4. Suitable maps were scaled and rotated using AutoCAD software and used in a map regression to illustrate how the Park and its surrounding areas have changed over time. The following maps were included in the regression exercise:
 - OS modern mapping
 - Ordnance Survey third edition map, 6" to 1 mile, 1920
 - Ordnance Survey second edition map, 6" to 1 mile, 1897

- Ordnance Survey first edition map, 6" to 1 mile, 1860
- 1799 map of proposed extension to Chillingham Park (Dodds 1935)
- 2.4.2. The Till-Tweed project's GIS was also utilised and provided a map of known features identified through aerial photographic interpretation undertaken previously by ARS Ltd.

2.4. Walkover Survey

2.4.1. A walkover survey was carried out across the whole park (see Figure 2 for site boundary) in order to identify, locate and record known and unknown features. Transects were walked at intervals of 20m wherever the terrain allowed. Each feature was assigned a unique context number and recorded on *pro forma* record sheets. The details recorded included type of feature, period, form of monument, condition of preservation, identification of potential threats, geology, soil cover, present land use, topographical setting, vistas, relationship to other features, archaeological potential, weather conditions and general visibility. A sketch of each feature was also made on the reverse of each sheet. A 12 figure grid reference for each feature was supplied by a hand-held GPS. Linear features had a number of GPS points taken along their length.

2.5. Photographic Survey

2.5.1. A photographic survey was undertaken in order to create a permanent record of any archaeological features encountered during the survey. The photographic recording was carried out using a Cannon EOS 3000v 35mm camera with silver-based monochrome film (Ilford FP4 of HP5). Appropriate scales of 0.15m, 0.25m and 1m alternating red-and-white ranging poles were used for detailed pictures and close ups, and 2m alternating red-and-white ranging poles were used for larger scale pictures. In addition, a set of high resolution digital images were taken. A full photographic register can be found in Appendix I.

2.6. Aerial photography

2.5.1. A full set of aerial photographs, covering the entire park and its surrounding areas, were studied in order to identify existing features as well as new areas of archaeological potential (http://local.live.com).

Fig 2 SMR map

3. HISTORICAL BACKGROUND

3.1. Prehistoric

The earliest evidence for human activity in the surrounding area was found on Hepburn Moor, approximately 1 km to the south- east of the park, where a collection of Mesolithic stone tools were found (SMR 3645)(Miket and Burgess 1984; 40 and 51). Prehistoric rock art in the form of cup-marked stones were discovered on seven rock outcrops on the lower slopes of Ros Castle, 50m to the east of the present boundary (SMR 3442) with an eighth single cup-marked stone further to the south (SMR 3627). To the east of the Park, approximately 300m from the eastern boundary, three co-joining, well formed burial cairns with protruding kerbstones were discovered with cremation burials, one of which was interred within a cinerary urn (Archaeological Data Service 2007). A group of cairns with kerb stones, which are thought to contain burials, have yet to be investigated at Hepburn Moor, approximately 1 km to the south of the park (SMR 3625). Hut circles thought to date from the Iron Age were discovered with associated cord rig to the east of Hepburn Wood, approximately 1.5km to the south of Ros Castle (SMR 3669). Evidence of farming practices, involving the mass clearance of stones off the lower slopes which were then piled into cairnfields up to 1.2ha in size, were also discovered approximately 200m outside the north-east park boundary (NGR 408900 626100). They were often found in association with fragmentary ditches and banks which appeared to demarcate fields and plots. There are a number of Iron Age enclosures in the area, Ros Castle being the largest, but there are several smaller forts, defensible enclosures and other enclosures, dating to this period. Within the Chillingham Estate grounds but outside the park boundary is a small multivalate enclosure which had been partially destroyed by modern forestry (SMR 3392). A similar enclosure existed approximately 100m to the north of the northern park boundary (NMR 5505). There is evidence for a number of sites existing to the south of the Park around the Hepburn area including fortified and occupation sites, a circular ditched enclosure (NGR 406600 624600), a promontory fort (NGR 407430 624700), and a univallate hillfort (NGR 406120 624310).

3.2. Romano-British

It is known from a wide range of documentary sources that there was Roman activity in nearby areas, however there is little direct evidence for Roman activity in the park. A single banked-and-ditched rectilinear enclosure was found to the south-east of the park and is thought to date either to the Late Iron Age or the Romano-British period (NGR 407288 625256).

3.3. Medieval Period

Many changes were made to the landscape during the Medieval period. Chillingham Castle (SMR 3389) is located to the west, outside of today's park boundary and was originally built in the 12th century as a stronghold. In the 13th century a Medieval manor house was built, and the castle has seen subsequent rebuilds and extensions through to the present day. St Peter's Church (SMR 3425) dates back to the 12th and 13th centuries, and saw alterations in the 16th, 19th and 20th centuries. This is a grade I listed building and is famous for its large tomb of Sir Ralph and Lady Grey. St Peter's Church is situated just outside the park boundary to the south-west. Chillingham and Hepburn are two Medieval villages known from documentary evidence and are thought to date from the 13th

century. A settlement is known at Chillingham (SMR 3426) from the 13th century when eleven taxpayers were recorded. A two-row village is shown to the west of the church on an 18th century map, but it is not stated whether the village was entirely cleared away when the park was emparked in the early 17th century. In the early 19th century the village was re-planned with a single row of estate cottages, but these were removed later that century (Keys to the Past 11th April 2007 www.keystothepast.info). A village is recorded at Hepburn from the 13th century onwards and traces survive as earthworks near Hepburn Cottage. In the 18th century Hepburn Bastle is recorded as standing in a large village, but it is the only building which has survived. It is not known why, or when, the village became deserted but it may be connected with the creation of Chillingham Park (Keys to the Past 11th April 2007 www.keystothepast.info). Hepburn Bastle (SMR 3601) which is located to the south of the park is a two- storey tower of which the foundations date back to the 14th century and is the only standing remains for the Medieval village of Hepburn. Evidence for Medieval activity from within the park exists in the form of ridge-and-furrow. Although there is no evidence of structures, the cultivation of the area suggests that the location was used during the Medieval period. The underlying sandstone in Chillingham was also the focus for Medieval and Post-Medieval quarrying, the surface scars of which are present throughout the site, providing building stone for most boundaries, buildings and structures.

3.4. Post-Medieval

The land was officially emparked in 1753 and saw subsequent changes in the boundaries, as illustrated in the map regression (section 4.7). An expansion of the park (SMR 3429) grounds took place after 1799 and two oblong stones located within the eastern boundary of the park are thought to represent this (NGR 408070 625230 and 408410 625630). In the 19th century the castle gardens were adorned with lawns, terracing, avenues of trees, an Italian Garden, an American garden and an Alpine garden. Ros Castle was reused in this period as a watchtower or beacon, which is now marked out by a stone wall just outside the park boundary. The deer hemmel (SMR 3471), which was built in the early 19th century and is grade II listed, had part of an old boundary wall incorporated into the courtyard of the structure. Situated to the east of the Deer Hemmel was a row of stone pads for which no documentary or cartographic evidence could be found to explain their purpose. Two rifle butts, located in the southern extremities of the park, date from the Jacobean period and the establishment of the Chillingham militia. They have seen subsequent use and rebuilds at least up to, and during, the World Wars.

3.5. Modern

A First World War saw mill, founded by the Canadian Forestry Corps, exists in the park and survives as a concrete plinth and earthwork (SMR 3471).

4. RESULTS

4.1. The survey identified a total of 56 features within the park's boundaries. Out of this total 18 were new discoveries and 37 had previously been identified. The new features are as follows:

• Romano-British 1 (enclosure	rish 1 (enclosure)
-------------------------------	--------------------

• Medieval 1 (one plough headland)

Post-Medieval
 12 (two ridge and furrow plots, nine quarry pits, and a rubbing stone)

• Holloways 4

The total number of features are as follows:

•	Prehistoric	2
•	Romano-British	1
•	Medieval	3
•	Post-Medieval	42
•	WW1	1
•	Holloways	7

All of the features have been located on maps shown in Figures 3 to 5.

Fig. 3 map of prehist arch

fig. 4 map of med arch

fig 5 map of post med arc

4.2. Prehistoric and Romano-British

4.2.1. The table below lists the features of Prehistoric and Romano-British date located within the present park. A ring bank enclosure had previously been recorded in the north-east corner of the park (F056). This may date to the prehistoric period but it is also possible that it was a Post-Medieval stock enclosure. No upstanding earthwork remains were visible during the survey, and the area lies within a conifer plantation. There were also two areas of late prehistoric earthworks lying just outside the present park's boundaries, one lying to the north (no SMR data could be found for this site, therefore the National Monuments Record number has been used: NMR 5505) (Fig. 6) and one lying in an area surrounded by the park to the north, east and west (SMR 3392) (Fig. 7). The SMR describes this enclosure (SMR 3392) as having a simple entrance on the south-east side but no evidence of internal habitation. The feature to the north (NMR 5505) had been damaged by ploughing and lies on a gentle western slope, consisting of a single rampart with a slight outer ditch. The enclosures lie outside of today's park boundaries, however when the enclosures were in use they would have been associated with the land inside the more recent boundaries. A comparison of the prehistoric and Romano-British earthworks is illustrated in Figures 8 and 9.

Table 2. Prehistoric and Romano-British features within the present Park

Feature	Feature	NGR	Dimen-	Period	Form	Condition	Threats	Potential
No	Type		sions					
13	Ros Castle	NU 08113 25334 centre	175m x 95m	Iron Age with potential for earlier Prehistoric archaeology	Upstanding banks and ditches	Well- preserved upstanding earthworks and presumed buried archaeology under thick heather cover. Few signs of erosion.	Root damage to archaeology from heather cover. Slumping caused by slope movement	Geophysics, targeted excavation, interpretation panels
24	Rectangular enclosure	NU 07286 25251 centre	65m x 51m x 0.4m	Romano- British	Earthwork and partially infilled ditch	Well- preserved earthworks overlain by ridge-and- furrow Damage to south side from drainage channel	Stable	Geophysics, targeted excavation, interpretation panels
56	Ring bank	NU 08121 26553 centre	Unknown	Prehistoric	Earthwork	Not surviving as above ground archaeology	Tree roots to buried archaeology.	Unknown but possible buried archaeology



Fig. 6 Late prehistoric enclosure to the north of the park. The line of the Enclosure is indicated by the arrows



Fig. 7 Late prehistoric enclosure. The entrance causeway is indicated by the arrow, scale 2m

Fig 8 compare prehist features

Fig 9 compare ap's

4.2.2. Ros Castle

The summit of Ros Castle (F013) is best known for its Iron Age hillfort but the area may have been utilised well before this period due to its commanding location (Fig. 14). This idea is supported by flint scatters found on Hepburn Moor which is within 400m of, and overlooked by, Ros Castle. Prof. Anthony Harding, who excavated several henge monuments in the Milfield basin, found the entrances aligned with prominent natural features (Harding 1981). At Yeavering Henge the two opposed entrances and a standing stone approximately 100m away from the henge, formed an alignment on the summit of Ros Castle (Harding 2000). Harehaugh Iron Age hillfort had precedence for Neolithic activity below the Iron Age hillfort (Waddington *et. al.* 1998), and therefore the possibility that the summit of Ros Castle was utilised in some way during the Neolithic remains a possibility, particularly given the proximity of cup-and-ring-marked rocks in the surrounding moorland.

Ros Castle is located on the south-east boundary of the Park, the line of which runs northeast-southwest through the centre of the fort. It sits on the summit of a plateau approximately 175m long and 95m wide, and is orientated north-south, with earthworks and upstanding faced stone utilised as defensive works. Within the Park boundary the fort defences are covered by thick heather vegetation although the defensive perimeter was still visible. The area of the fort to the east of the boundary was not as thickly covered by heather and the earthworks were more clearly visible. The defensive circuit of Ros Castle is for the most part a single rampart, comprising a single earth and stone bank, with secondary external ramparts overlooking strategic points, such as entrances. Three entrances were clearly visible with a possible fourth break in the defences, identified by the Till-Tweed Project, which could not be conclusively interpreted as an entrance. A double bank and ditched entrance was located in the south-west side of the fort (Fig. 15). The western side of the entrance incorporated an outcrop of quarried stone which formed a second rampart to the internal circuit. The eastern double rampart seemed to be formed by earthworks alone. The entrance was accessed on the steepest part of the hill by a holloway which led down the slope to the south-west. A second, smaller entrance was located on the north side of the hillfort which was less defined than the entrance to the south-west (Fig. 16). The third entrance was located on the east side outside the park boundary and faced stones and double ramparts were clearly visible on either side. The western defensive earthworks included a number of in-situ, faced sandstone blocks (Fig. 17). The north-west of Ros Castle had a second earthwork bank at its corner, commanding a view over the plateau below. The slope on the north and east sides of the fort are more gentle than that on the west side, but the east side is protected by double ramparts, which are clearly visible and incorporate some of the sandstone outcrops similar to those found in the south-west entrance. Habitation within the enclosure is evidenced by two circular depressions, found on aerial photographs, which may be the remains of two hut circles. A quarry pit is located within the perimeter of Ros Castle's eastern side and could be contemporary to the building of Ros Castle, though it is more likely to be associated with the later building of the boundary wall that runs through the centre of the fort. Ros Castle was later utilised as a Medieval or Post-Medieval border beacon/watch tower (SMR 3391), now marked by a modern square wall, the evidence for which was buried below a modern cairn where large stones were discovered, suggested as forming a plinth for a beacon or watch tower.



Fig. 10 The commanding views from Ros Castle, looking west towards the Cheviot Hills.



Fig. 11 Looking down through the south-east entrance, scales = 2m



Fig. 12 Looking down through north entrance, the edges of which are marked by the 2m ranging rods to the left of the photograph. The right hand rod marks the bank of the defensive perimeter.



Fig. 13 Rectangular faced stone forming part of the defensive works: scale = 2m

4.2.4. Late prehistoric or Romano-British enclosure

A rectangular feature (F024) was identified by aerial photography in the southwest area of the Park. An almost identical feature was found at Ray-Sunnyside (Fig. 18), south of the Cheviots (approximately 60 km to the south of Chillingham) and was identified as a potential Romano-British settlement (Philip Deakin pers. comm.). Rectilinear enclosures are a well-defined monument class in Northumberland, a number of which have been excavated by Jobey (1960; 1964; 1973; 1977; 1978) with more recent work taking place on sites in the Milfield plain (Clive Waddington pers. comm.) and the low Cheviot Hills (ASUD pers. comm.). and some date to the late prehistoric period. On this comparison, Feature 024 has been preliminarily dated to this period, although no surface evidence of settlement structures was found within the enclosure. The enclosure was oriented north-south and measured 65m by 51m with a slight bowing to the western side forming a slight D-shape. Its ditch survived to a depth of 0.4m and the corners were rounded. The southern end of the enclosure had been damaged by a modern drainage channel running east-west. The enclosure is overlain with Post-Medieval ridge-and-furrow which runs in a north-south direction and so the enclosure pre-dates the Post-Medieval period. The enclosure was situated on a moderately graded hill slope 750m west of Ros Castle and commands a wide view over the Breamish Valley towards the Cheviot Hills.

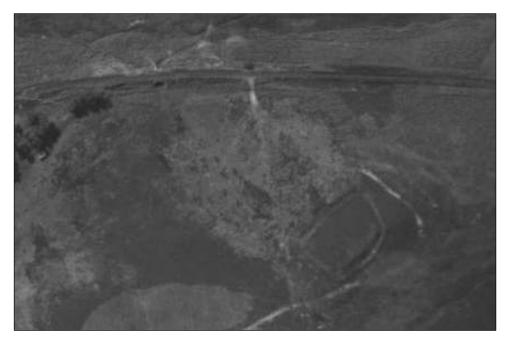


Fig. 14 Aerial Photograph of a Late Iron Age or Romano-British enclosure near Ray-Sunnyside.

4.3. Medieval

4.3.1. The table below lists the features of Medieval date located within the present park. Three features (F044, F046, and F018) were assigned to the Medieval period. There were two areas of ridge and furrow (F044 and F046) in the southwest area of the park, with an associated plough headland (F018). Feature 044

consisted of 0.55ha of slightly S-shaped ridge-and-furrow which was visible on an RAF aerial photograph taken in 1948. This feature was visible during the walkover survey. Feature 046 was situated 80m north of F044 and comprised 1.4ha of slightly S-shaped ridge-and-furrow which was orientated northeast-southwest. This area was visible during the walkover survey. Feature 046 terminated at a bank to the north, which was an associated plough headland (F018), oriented northwest-southeast. The remains of the headland (F018) were visible and measured approximately 242m in length by 8m in width with an approximate height of 1m (Fig. 19). Feature 018 was truncated near its southern end by Post-Medieval realignment of a burn, which drained a low lying area of pasture and allowed for expansion of farmland to the south.

Table 3. Medieval features from within the present Park

Feature	Feature	NGR	Dimensions	Period	Form	Condition	Threats	Potential
No	Type							
44	Ridge and furrow	NU 06789 25551 centre	0.55ha 5m between furrows	Medieval	Earthworks	Not surviving as an upstanding earthwork	-	-
46	Ridge and furrow	NU 06785 25751 centre	1.4ha 5m between furrows	Medieval	Earthwork	Only just surviving as upstanding earthwork	-	-
18	Earth bank	NU 06794 25860 to NU 06873 25667	242m long 8m wide 1m high	Medieval	Earthwork	Stable as upstanding earthwork	Erosion from tyre tracks and trampling by stock	May seal a buried land surface which could be sampled to provide a terminus post quem after which the headland was made



Fig. 15 Plough headland silhouetted against tree line: scales = 2m

4.4. Holloways

4.4.1. Dating the holloways is problematic. They are generally a feature of deserted village sites and fall out of use when the villages are abandoned, often as a result of eviction when areas of landscape are emparked. As the park was originally enclosed in the thirteenth century the amount of 'traffic' through the site after this date may have been minimal, although the Medieval farming activity would have required movement through the area. The depth of some holloways however, suggest that they have been formed over a considerable amount of time as they measure up to 1.50m deep. It is possible particularly given the extensive Iron Age presence in, and immediately adjacent to the park, that at least some of the holloways are prehistoric in origin.

Table 4. Holloways and associated features.

Feature No	Feature Type	Length and Width	Height	Period	Form	Condition	Threats
12	Holloway	240m	0.3m	Prehistoric	Earthwork	Surviving as depression with little evidence of infilling	Trampling and gullying, infilling from soil movement
30	Holloways	200	0.45 - 1.75	Prehistoric	Earthwork	Very good sinuous depressions amongst tree cover, some infilling	Tree roots, infilling from soil movement and debris build-up

Feature No	Feature Type	Length and Width	Height	Period	Form	Condition	Threats
34	Holloways and river crossing	75m	1.75m	Prehistoric	Earthwork	Sinuous depression with some infilling	Gullying, infilling from soil movement
50	Holloway	200m x 4m	1m	Medieval	Earthwork	Sinuous depression through tree cover with some infilling	Tree roots
51	Holloways	70m	0.6m	Prehistoric	Earthwork	Sinuous depression with some infilling	Trampling and gullying
53	Holloways	200m	-	Prehistoric	Earthwork	Largely infilled depression	Trampling and gullying
57	Trackway / holloway	190m	-	Prehistoric	Earthwork	Largely infilled depression	Trampling and gullying

- 4.4.2. A series of seven holloway networks were recorded in the survey (F012, F030, F034, F054, F050, F051 and F057). Five were previously known (F012, F050, F051, F054 and F057) and a record was made of these features. Feature 030 was afforested and would not have been found on aerial photography and is an all together new feature and feature F051 has had additional holloways added to it. A full illustration of all the holloway networks and associated features can be seen in Figure 16.
- 4.4.3. Feature 050 lay to the north-west of the park and comprised two holloways which were oriented in an arc running northeast-southwest. The northern part of the holloway network measured 100m by 3m with a depth of 0.5m and appears to level out near the eastern boundary of Church Wood. The southern holloway measured 200m by 4m with a depth of 1m and was possibly picked up again in the north of the park arcing northward 180m west of the Yoke stone. A single trackway/holloway (F057) was located in the centre of the park measuring approximately 190m long and is still visible as a sinuous depression within the surrounding landscape. It is presumed to be prehistoric but may have seen continuous use up to modern times. Three holloways (F053) in the north of the park were running east-west, parallel to a stream course which is situated 40m to the south. The northern holloway is approximately 200m long, the southern two fragmentary holloways, which are likely part of the same holloway, are also orientated east west. Feature 034 was located approximately 30m south of feature 050, and was a series of four holloways orientated east-west, averaging 75m in length and 1.75m in depth, all of which had been previously mapped. They were observed to level out some distance from a stream course, whereas in-fact, they converge on one point where a stream crossing is apparent (Fig. 17). The banks of the stream show that it had been utilised as a stream crossing for some time, and the crossing point was not shown on previous surveys. Holloway feature 012 was situated 300m to the north, and slightly west of, Ros Castle and comprised three holloways orientated north-east to south-west. The central holloway has a

small branch to the west and is the deepest and longest of the three, being approximately 240m long and 0.3m deep (Fig. 18). Fifteen metres to the north, and running parallel, is a second holloway approximately 90m long. Twelve metres to the south of the central holloway is a third, approximately 130m long. Both of these are not as well defined in the landscape, or as deep as, the central holloway. Feature 051 was a series of eight holloways which were situated on the lower western slopes of Ros Castle and were orientated north-south with the three northern holloways arcing to the west. These features were small and fragmentary and averaged approximately 70m in length and 1m in depth (Fig. 19). Feature 030 was a series or four holloways located in the southern extremities of the park 450m west and slightly south of Ros Castle. These were orientated east to west, ranging in depth from 0.45m to 1.75m. They averaged 200m in length and were spaced approximately 7m apart (Fig. 20).

Figure 16



Fig. 17 Looking towards the stream crossing F034, the holloway troughs are marked with ranging poles: scale = 2m



Fig. 18 Holloway F012: scale = 2m



Fig. 19 Two of the holloways from F051. Ranging poles mark the troughs of the holloways: scale = 2m



 $\label{eq:Fig. 20 Looking east towards F030,} Fig. 20 Looking east towards F030, ranging poles mark the troughs of the four holloways: scale = 2m$

4.5. Post-Medieval

4.5.1. The vast majority of archaeological features within the park belong to the Post-Medieval period, a list of which is presented in the table below. The features were concentrated in the south-west area of the park (Fig. 21).

Table 5. Post-Medieval features within the Park

Feature No	Feature Type	L and	Height	Period	Form	Condition	Threats	Potential
2	Quarry pit	12m x 8m	1.5m	Post- Medieval	Infilled dug out feature	Largely infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
3	Quarry pit	22m x 9m	2m	Post- Medieval	Infilled dug out feature	Infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
4	Quarry pit	20m x 9m	2m	Post- Medieval	Infilled dug out feature	Largely infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
5	Quarry pit	18m x 12m	2m	Post- Medieval	Infilled dug out feature	Largely infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
6	Quarry pit	25m x 12m	3m	Post- Medieval	Partially infilled dug out feature	Infilled by woodland debris	Slumping/in filling with soil and woodland debris Slumping/in filling with soil and woodland debris	-
7	Quarry pit	14m x 6m	1m	Post- Medieval	Infilled dug out feature	Largely infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
8	Quarry pit	27m x 14m	3m	Post- Medieval	Partially infilled dug out feature	Partly infilled by woodland debris	Slumping/in filling with soil and woodland debris	-
9	Old boundary	-	0.3	Post- Medieval	Stone and earthwork	Very low earth bank with no obvious surviving masonary	-	-

Feature	Feature	L	Height	Period	Form	Condition	Threats	Potential
No	Type	and W						
10	Yoke stone	-	-	Post- Medieval	Worked rock	Excellent survival of depressions on top of rock surface, little evidence of weathering	Weathering	-
11	Old boundary	-	-	Post- Medieval	Upstanding earth and stone bank	Low earth bank with no obvious surviving masonary	-	-
14	Square pads	(1m x 1m) x 20	0.30m	Post- Medieval	Stonework	Very little evidence of weathering and incised features survive well, with some infilling from woodland debris	Weathering	-
15	Deer Hemmel	36m x 26m		Post- Medieval	Upstanding stonework	Well preserved sandstone with little sign of damage. Roof structure has been replaced by corrugated sheeting, but timberwork still good	Collapse, weathering, erosion by visitors to park	Building Recording prior to conversion for visitors centre
16	Old boundary	-	-	Post- Medieval	Upstanding stonework	Low earth bank with no obvious surviving masonary	-	-
17	Arched culvert	4m x 2.5m	2m	Post- Medieval	Upstanding stonework	Very good stone work with some damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	-

Feature	Feature	L	Height	Period	Form	Condition	Threats	Potential
No	Type	and W						
19	Flat culvert	3m? x 1.5m	1m	Post- Medieval	Upstanding stonework	Damaged stone work with further damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	Rebuilding
20	Arched culvert	4.5m x 2m	1m	Post- Medieval	Upstanding stonework	Very good stone work with some damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	-
21	Arched culvert	4.5m x 2m	1m	Post- Medieval	Upstanding stonework	Very good stone work with some damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	Rebuilding
22	Old boundary	-	-	Post- Medieval	Buried stonework	Not surviving as upstanding feature, masonary survives at ground surface	Water erosion	-
23	Old boundary	-	-	Post- Medieval	Buried stonework	Not surviving as upstanding feature, masonary survives at ground surface	Water erosion	-
25	Rifle butt	3.5m x 1.5m	2m	Post- Medieval	Wood and metal structure filled with sand	Rusting metal work and decaying timbers still in stable condition in woodland	Weathering and collapse	Building recording and restoration

Feature No	Feature Type	L and W	Height	Period	Form	Condition	Threats	Potential
26	Rifle butt	4m x 4m	2m	Post- Medieval	Upstanding stonework	Poorly built and badly crumbling stone work	Weathering, collapse	Building recording and restoration
27	Old boundary	-	-	Post- Medieval	Upstanding stonework	Collapsing stonework where feature still survives	Collapse	-
28	Flat culvert	6m x 3m	2m	Post- Medieval	Upstanding stonework	Very good stone work with some damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	Rebuilding
29	Arched culvert	4m x 2m	1.5m	Post- Medieval	Upstanding stonework	Good stone work with some damage to upper surface and missing masonary	Erosion from tyre ruts and stock trampling	Rebuilding
31	Arched culvert	5m x 3m	1.75m	Post- Medieval	Upstanding stonework	Good stone work with some damage to upper surface and missing masonary	Erosion from tyre ruts and stock trampling	Rebuilding
32	Earth bank	-	1m	Post- Medieval	Earthwork	Survives as low upstanding earthwork	Erosion from tyre ruts and stock trampling	-
33	Arched culvert	4.5m x 2m	2m	Post- Medieval	Upstanding stonework	Very good stone work with some damage to upper surface by tyre ruts/stock trampling	Erosion from tyre ruts and stock trampling	Rebuilding
36	Ridge and furrow	22ha	4m between furrows	Post- Medieval	Earthwork	Poor survival of upstanding earthwork	-	-
37	Ridge and furrow	3ha	4m between furrows	Post- Medieval	Earthwork	Poor survival of upstanding earthwork	-	-

Feature No	Feature Type	L and	Height	Period	Form	Condition	Threats	Potential
38	Ridge and	W 3.3ha	4m between	Post- Medieval	Earthwork	Poor survival of	-	-
	furrow		furrows			upstanding earthwork		
39	Ridge and furrow	3.1ha	-	Post- Medieval	Earthwork	No survival as upstanding	-	-
40	D: 1	2.21	4	D	Trdd.	earthwork		
40	Ridge and furrow	2.2ha	4m between furrows	Post- Medieval	Earthwork	Poor survival of upstanding earthwork	-	-
41	Ridge and furrow	0.7ha	3.8m between furrows	Post- Medieval	Earthwork	Poor survival of upstanding earthwork	-	-
42	Ridge and furrow	1.3ha	-	Post- Medieval	Earthwork	No survival as upstanding earthwork	-	-
43	Ridge and furrow	1.2ha	-	Post- Medieval	Earthwork	No survival as upstanding earthwork	-	-
45	Ridge and furrow	2.5ha	-	Post- Medieval	Earthwork	No survival as upstanding earthwork	-	-
47	Ridge and furrow	4ha	-	Post- Medieval	Earthwork	No survival as upstanding earthwork	-	-
48	Ridge and furrow	2.5ha	-	Post- Medieval	Earthwork	No survival as upstanding earthwork	-	-
49	Quarry pit	-	-	Post- Medieval	Partially infilled dug out feature	Partly infilled with woodland debris	-	-
52	Quarry pit	-	-	Post- Medieval	Partially infilled dug out feature	Partly infilled with woodland debris	Tree roots	-
54	Old boundary	-	-	Post- Medieval	Upstanding stonework	Survives as low earth bank with some masonary blocks eroding from it	Collapse	-

Feature No	Feature Type	L and W	Height	Period	Form	Condition	Threats	Potential
55	Rubbing stone	-		Post- Medieval	Upstanding stonework	Little sign of weathering with rubbing marks to edges	-	-

Fig 21 post med features sw Park

4.5.2. Quarry Pits

There were nine quarry pits surveyed (F002-F008, F049 and F052). Of these F002-F005 and F006-F008 were groupings of pits, both of which were located in the western extremities of the park near to the Church of St Peter. These groups of quarry pits (F002-F005 and F006-F008) were no larger than 30m across and ranged from 1 to 3m in depth and were located on hill slopes in forested areas approximately 30m east of a two metre tall Post-Medieval sandstone boundary wall. Considering the proximity to the boundary walls, these quarry pits were probably utilised to extract sandstone for its construction. A further two quarry pits (F049 and F052) were surveyed. The first, F049, was located 200m north of the group of quarry pits (F002-005), which was probably utilised in a similar fashion for the construction of the walls in this section of the boundary. The second quarry pit was located in the southern extremities of the Park, 10m north of a culvert/bridge (F028). This large circular, dug-out feature was probably utilised to build bridge F028. This feature (F028) was approximately 6m long by 3m wide by 2m tall, and the boundary wall ran east-west on either side of it. Both of these features were built of sandstone blocks. Two other quarry pits were surveyed but are included under other feature numbers. Ros Castle (F013) has a quarry pit located internally to the east (section 4.2.2) and surrounding the Yoke Stone (F010) quarrying of the rock outcrop (section 4.5.4) could be seen.

4.5.3. Culverts/Bridges

There were eight culvert/bridges in the Park including six arched (F017, F020, F021, F029, F031 and F033) and two square (F019 and F028). The arched culverts were constructed using sandstone blocks and were all similar in architectural design. They comprised an archway over the water channel which was then covered with further blocks to form a flat surface at ground level (Figures 22 to 26). The flat culverts were also constructed using sandstone but no arch was incorporated into their design (Figures 27 and 28). The culverts were at various stages of degradation, due to a range of causes, such as animal trampling and tree roots, as well as human contact such as tyre damage. The best preserved culverts were F017 and F021 located in the south-west area of the park (Fig. 23 and Fig 24). Culverts F020 (Fig. 25) and F029 (Fig. 26), also in the south-west area of the park, were in the worst state of preservation. Feature 019 (Fig. 27), a square topped culvert was located 230m south of the deer hemmel and was in complete disrepair with most of the stones spread on the nearby ground. Feature 028 (Fig. 28) was a large bridging point measuring over two metres high. It ran for a distance of over 6m and measured 3m in width. The opening in the culvert was partially obscured by leaf debris, but measured approximately 0.5m wide. There were no signs of any capping stones for this feature (F028).



Fig 22. Feature 031 arched culvert: scale = 2m



Fig. 23 Feature 017 arched culvert: scale = 2m



Fig. 24 Feature 021 arched culvert: scale = 2m



Fig. 25 Feature 020 arched culvert: scale = 2m



Fig. 26 Feature 029 arched culvert: scale = 2m



Fig. 27 Feature 019 flat topped culvert: scale = 2m



Fig. 28 Feature 028 flat topped culver: scale = 2m

4.5.4. The Yoke Stone

The Yoke Stone (F010) was a partially quarried stone outcrop located on a steep hillside in the north of the park. Each side had been quarried leaving an outcrop with three circular depressions on the surface (Figures 29 and 30). The largest circular mark measured approximately 0.15m in diameter and the smaller two lay at either side, one 0.03m to the north and one 0.15m to the south, and measured approximately 0.07m in diameter. An old boundary wall and ditch oriented north-south (F009 south section, and F011 north section) ran up to and then beyond the Yoke Stone. It is possible that the Yoke Stone held a post which aided a pulley system, perhaps for hauling carts to and from the quarry faces at the top of the steep slope.



Fig. 29 Feature 010 Yoke Stone: scales = 0.15m and 0.25m



Fig. 30 View of Yoke stone looking south-west down boundary wall and ditch (F009): scale = 0.25m and 2m $\,$

4.5.5. Sandstone supports

A series of 20 square sandstone supports (F014) were located in the west area of the park and were oriented northeast-southwest (Fig. 31) The supports were placed at intervals of 1.75m (Fig. 32) and each support measured approximately one metre square. At the centre of each support was a small cut which measured 0.25m square by 0.25m in depth and had diagonal grooves cut into some of the corners (Fig. 33), presumably supporting a timber superstructure. It is possible that the supports may have formed the foundations of a temporary or seasonal structure. A building measuring 50m long and 10m wide appears on the second edition OS map at this location but its use is not noted.



Fig. 31 Sandstone supports looking north-east: scale = 2m



Fig. 32 Two of the sandstone supports: scale = 2m



Fig. 33 Close up of sandstone support showing internal cut and notches cut into the corners: scale = 1m

4.5.6. The Deer Hemmel

The Deer Hemmel (F015) was located in the west area of the park and was oriented east-west (Fig. 34). It measured approximately 36m long by 6m wide by 4m high. The Deer Hemmel was constructed using rough sandstone blocks with a timber-frame roof covered with corrugated iron sheets. The south elevation contained nine arches built of ashlar sandstone blocks. Each arch measured approximately 3m high by 2m in width (Fig. 35). The north elevation contained a row of windows which had been partially blocked up in order to create a smaller window (Fig. 36). The west elevation contained no features of architectural interest but the east elevation extended to the south. An old boundary wall (F016) ran along the eastern side of the Deer Hemmel and was oriented north-south. The wall was incorporated into a rectangular courtyard which lay to the north of the Deer Hemmel and measured approximately 36m long by 20m wide (Fig. 37). Remains of this wall were also present 311m to the south (F022 and F023).



Fig. 34 Feature 015, Deer Hemmel: scale = 2m



Fig. 35 Arched entrance of ashlar blocks situated on south of Deer Hemmel: scale = 2m



Fig. 36 Interior of Deer Hemmel, with blocked off window and slots to accommodate manger shown by arrows: scale = 2m



Fig. 37 Old Boundary Wall (F016) situated on right adjoining gate: scale = 2m

4.5.7. Rifles butts

Two rifle butts (F025 and F026) were situated in the south-west area of the park and have been linked to the establishment of the militias in the Jacobean period. Both rifle butts are present on the first edition Ordnance Survey Map of 1860 and it is thought that the Chillingham Rifles were the original users of the rifle butts. The rifle butt to the east, F025, measured approximately 3.5m long by 1.5m wide by 2m in height and was constructed using a wooden frame which was filled with sand and sandstone blocks. The south elevation was covered with horizontal wooden planks and the north elevation was covered with decorated iron sheeting (Figures 38 and 39). The second rifle butt (F026) was located 20m to the west of the eastern butt (F025) and measured approximately 4m square by 2m high. It was constructed using sandstone blocks and comprised two parallel walls oriented east-west. The space in between the walls was roofed with iron sheets (Fig. 40). The east elevation contained a doorway (Fig. 39) and the south elevation contained a large window (Fig. 41). Two small walls ran out from the south elevation at the east and west ends but were barely visible beneath the undergrowth.



Fig. 38 Rifle Butt F025 south elevation: scale = 2m



Fig. 39 Rifle Butt (F025) north elevation: scale = 2m



Fig. 40 Rifle butt (F026) east elevation: scale = 2m



Fig. 41 Rifle butt (F026) south elevation: scale = 2m

4.5.8. Ridge and Furrow

Aerial photography taking during the Second World War and at later dates was analysed as part of the Till-Tweed project and revealed nine areas of Post-Medieval ridge-and-furrow within the park. The latest Ordnance Survey vertical photography project which was undertaken in 1973 revealed that six previously recorded plots were no longer visible on the surface by this date (F039, F042, F043, F045, F047 and F048). Three areas were clearly visible during the walkover survey (F037, F038 and F040). Feature 037 comprised 3.2ha of ridge-and-furrow measuring which was orientated north-south. Feature 038 comprised 3.2ha of ridge-and-furrow which was orientated north-south. Feature 040 comprised 2.3ha of ridge and furrow which was orientated east-west. The furrows measured on average 4m between them, and were very straight, indicative of steam ploughing techniques. Two new areas of ridge-and-furrow (F036 and F041) were identified during this survey through the consultation of satellite photography. Feature 041 comprised 0.7ha of ridge-and-furrow which was orientated east-west but was not visible on the ground. Feature 036 comprised 24ha of ridge-and-furrow which was orientated east-west and was visible on the ground. Measurements between the furrows on these features averaged 3.9m and the cultivation marks were also very straight, indicating they were created by steam ploughing.

4.5.9. Rubbing Stone

A large stone which measured approximately 1.0m square was located in the north area of the park (Fig. 42). The wear on the stone suggests that it was placed there as a rubbing stone for the Wild Cattle.



Fig. 42 Rubbing Stone (F055)

4.6. Modern

4.6.1. First World War saw mill

A saw mill (F035) was located in the north area of the Park, approximately 260m to the east of the rubbing stone. It dates from the First World War and was set up by the Canadian Forestry Corps (Fig. 43) (Chris Leyland, pers. com.). It was situated on a gently sloping hill with a water source 70m to the south. The feature lay on a levelled area which had been cut into the slope of the hill. This area measured approximately 40m in length along the north edge with a depth of 2m. The south edge measured approximately 22m with a depth of 1m. The east edge measured 14m in length with a depth of 2m at the northern end and 1m at the southern end. The west edge was imperceptible and graded into the hillside. A concrete platform was located towards the north end of the levelled area and measured 5m long by 4m wide. Placed on top was a large concrete block which measured 4m long by 2m wide by 0.5m high. It is thought that the levelled platform would have been covered by a superstructure as some form of shelter, with the concrete block and steel mountings being a platform to support the timber cutting machine.

Table 6. Modern features within the Park

Feature	Feature	Length	Height	Period	Form	Condition	Threats	Potential
No	Type	and						
		Width						
35	WW1	40m x	2m	Modern	Upstanding	No	Erosion	-
	saw mill	14m			stone and	structure	from tyre	
					earthwork	surviving	ruts and	
						with silting	trampling	
						into	from cattle	
						platform		
						area		



Fig. 43 Feature 035, WWI saw mill looking east: scale = 2m

4.7. Consultation of archive sources

- 4.7.1 The archive sources were consulted in order to enhance understanding of the history of the Park and its surrounding areas.
- Northumberland Collections Service, Woodhorn, Northumberland Woodhorn Colliery Archives hold a great deal of valuable information concerning Chillingham. Most of the information belonged to the Tankerville collection (NRO 424) which contained maps and plans of the area, but little relating to the park itself. A plan produced between 1833-8 to show the boundary between Chillingham and Hepburn, as well as land purchased by the Earl of Tankerville was consulted as it showed the far south-west boundary of Chillingham Park (Fig. 43). There was no detail relating to the history of the park (NRO 424/1A/171). A plan dated 1857, illustrating the drainage for the 'Lower Park' (NRO 424/1A/156) shows the area directly to the south of Chillingham Castle and lies just outside of the south-west border of Chillingham Park (Fig. 44). There were two plans available which showed the proposed extension of the park's southern boundary wall (NRO 424/1A/154). Both plans (Figures 45 and 46) date from the eighteenth century and show the same detail where the wall is concerned. They both show the southern boundary encroaching on Hepburn Village to the south. The archive held a terrier map which was produced in 1711 by Henry Pratt as part of a larger survey of the estates held by Lord Ossulton (Tankerville Collection NRO 4206), which is discussed below in section 4.8. One item of interest was an undated sketch of the Rifle Men's badge (Fig. 47). As the park housed a rifle range the badge has been included in this report. A number of County Histories were available along with the first to third edition Ordnance Survey Maps (discussed below in section 4.8.). The fourth edition Ordnance Survey Map was not held at this archive.
- 4.7.3. Northumberland Sites and Monuments Record (SMR)

 The SMR was consulted in order to identify the location and significance of archaeological sites and find spots within the park and its surrounding areas. This data is included in a table in Appendix II and is illustrated in the map in Figure 2.
- 4.7.4. Berwick-upon-Tweed Records Office, Wallace Green, Berwick-upon-Tweed Berwick-upon-Tweed Record Office was consulted and Greenwood's 1828 map of Northumberland was studied. This is discussed in more detail below (section 4.8.). A number of the county histories were also available.
- 4.7.5. *Tyne and Wear Archives Service (TWAS)*There were a number of County Histories available at TWAS but no cartographic material was held.

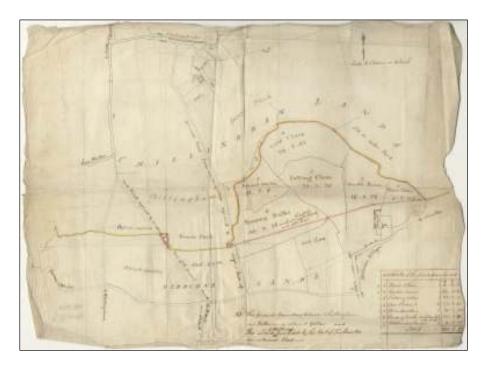


Fig.~44~Plan~(1833-8)~illustrating~the~boundary~between~Chillingham~and~Hepburn~(yellow~line)~and~the~land~purchased~by~the~Earl~of~Tankerville~(red~line).~Chillingham~Park~lies~to~the~north~of~the~yellow~line)



Fig. 45 Plan of drainage to Chillingham Lower Park. The area shown lies just outside of the modern south-west boundary

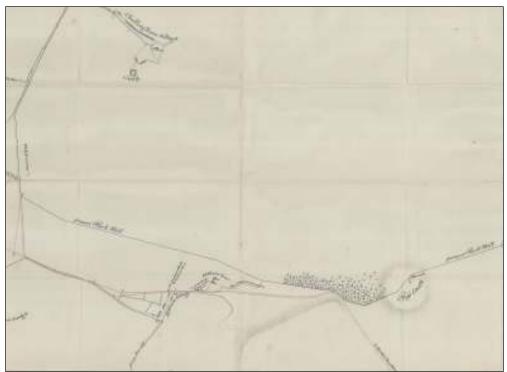


Fig. 46 Eighteenth century plan of proposed extension to southern boundary wall. New line of wall is marked in red

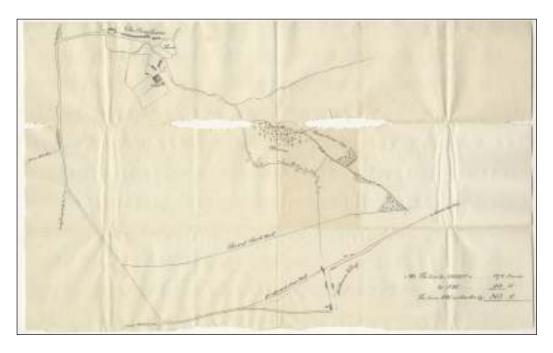


Fig. 47 Eighteenth century plan of proposed extension to southern boundary wall. New line of wall is marked in red

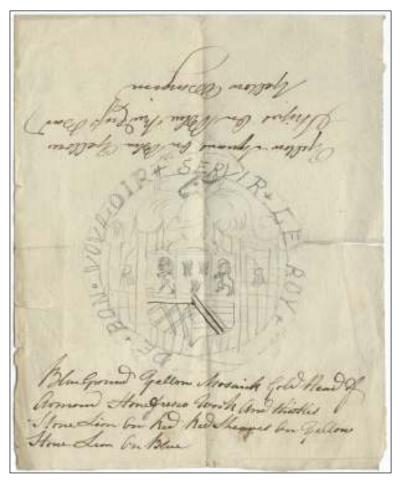


Fig. 48 Rifle Men's badge (undated)

4.8. Consultation of historic mapping

- 4.8.1. A number of maps were consulted in order to chart the history of the park, looking in particular at boundary changes. The earliest maps appear at a scale too large to be included in the map regression and are shown in Figures 49 to 52 below. A map found in Dodds' County History (1935) dating from 1799 and the first to third edition Ordnance Survey Maps were included in the map regression. These are illustrated in Figures 53 to 56.
- 4.8.2. The earliest known map which shows the area is Speed's 1610 map of Northumberland. The map is produced at too large a scale to show any detail of Chillingham Park but it is likely that the area was enclosed by this date (Fig. 49).
- 4.8.3. The terrier map of 1711 produced by Henry Pratt (Tankerville Collection NRO 4206) was consulted but permission issues prevented the reproduction of the map for this report. The original map was studied at Woodhorn but it was difficult to tell where the park boundaries lie as the map illustrates the whole of Chillingham Estate. It is likely that the boundaries were similar to those shown

below in the map of 1799 (Dodds 1935). The park is named 'Deer Park' and it is thought that the survey was undertaken by a London firm and that they were unaware of the significance of the Wild Cattle, hence the name 'Deer Park' (Philip Deakin, pers. comm. 2nd May 2007). There are a number of deer illustrated on the map. There is a large wooded area at the centre of the park with a smaller group of trees to the north-west. Ros Castle is not indicated on the map.

- 4.8.4. Armstrong's 1769 Map of Northumberland shows the emparked area clearly (Fig. 50). Although the map is still produced at a large scale it can be observed that the north-east boundary enclosed a greater area as the castle is included inside the boundary. A greater area to the south and south-west of the castle is also within the boundary. There appears to be no accuracy in the exact location of the boundary however which may extend beyond the castle only to illustrate that the area and castle are associated. The south-east boundary can be seen to run through the middle of Ros Castle as it does today. The text on the map referring to the Park states that "In this Park are a num of Wild Cattle" and the area is noted to belong to the Earl of Tankerville.
- 4.8.5. Fryer's 1820 Map of Northumberland illustrates the park in more detail and the boundary locations are clearer (Fig. 51). There are no features shown from within the park but it does show that Hepburn has been enclosed in the south. The castle and area to the west and south-west are still shown to be enclosed by the north-east boundary.
- 4.8.6. Greenwood's 1828 Map of Northumberland displays the park in more detail and sections within the park can be picked out (Fig. 52). Oak Wood to the north-west can be seen covered with trees as can the area known today as Foxes Knowes. The small 'teardrop-shaped' area of trees adjacent to the late prehistoric earthworks inside the north-east boundary can also be seen. It is labelled as 'Moordam Plantation' on later OS Maps. The two areas outlined in yellow were evidently planted prior to 1828 and the areas are presently under plantation undertaken by the Forestry Commission.



Fig. 49 Speed's 1610 Map of Northumberland, Chillingham outlined in red

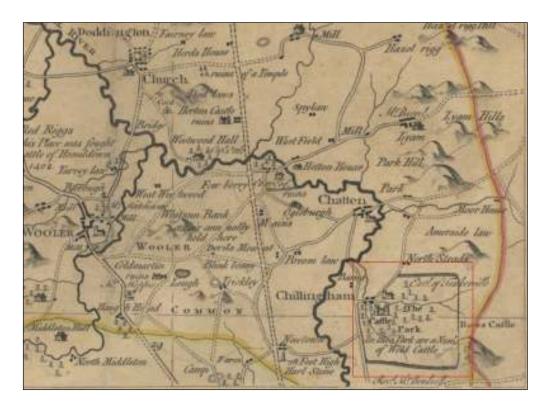


Fig. 50 Armstrong's 1769 Map of Northumberland. Chillingham Park is outlined in red

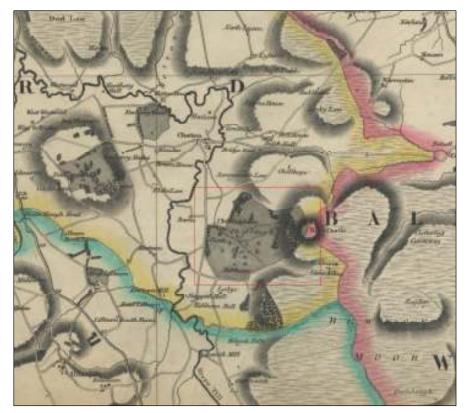


Fig. 51 Fryer's 1820 Map of Northumberland, the study area is outlined in red

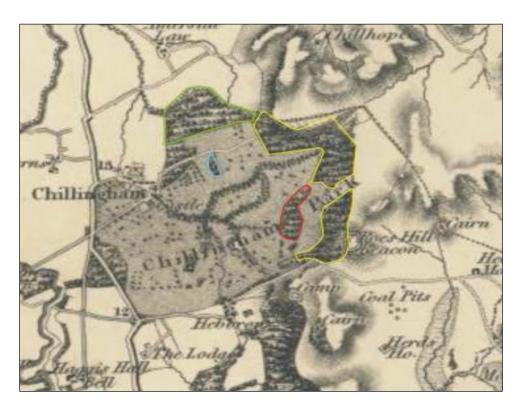


Fig. 52 Greenwood's 1828 Map of Northumberland. Oak Wood outlined in green, Foxes Knowes outlined in red, Moordam Plantation outlined in blue

4.9. Map regression

- The earliest map used in the map regression is that found in Dodds' County History (1935) which dates from 1799 and shows the proposed extension of the park (Fig. 53). Although this map has been scaled to fit in with the map regression exercise, it has been displayed as a full image, unlike the other maps used in Figures 48 to 51 in order to show all of the necessary details. The park is divided into 'Old Park' and 'South Park' and the proposed northern boundary lies further south than it does today. The area known as 'Paddock Park' on the 1711 terrier map discussed above has been divided into 'North Paddow Field' and 'South Paddow Field' and does not appear to have been emparked at this time. There are very few areas which have been covered by plantation although the whole of the eastern and north-eastern edge appears to be woodland. Robin Hood's Bog and Sandybank are labelled. There are a few clusters of trees in the central areas of the park which will later expand to become Foxes Knowes, Wilson's Corner, The Allers, and Taylor's Plantation. The area at the far north of the park, to the east of South Paddow Field is also covered with woodland and the Yoke Stone has been mapped on the northern edge of the area. It is likely that the extension of the park took place before 1860 because in the first edition Ordnance Survey Map of that date the park is much larger.
- The first edition Ordnance Survey Map of 1860 (Fig. 54) clearly shows the park boundaries. The boundaries that existed on the 1799 map to divide the Old Park from the New Park no longer exist but there is a label over the area known as Foxes Knowes that labels the area as 'Deer Park'. The park appears to cover a greater area to the north-west than the area indicated on the 1799 map (Dodds 1935) discussed above, so it may be that there was either a second phase of expansion or that the first phase turned out to be larger than first planned. The area formerly named 'North Paddow Field' at the far northern edge of the park has been renamed 'Amersidelaw Plantation' and 'South Paddow Field' is no longer named. The northern boundary of the park appears to have moved further north to include the area within the present Park boundary. The area where the Deer Hemmel lies today is marked as 'Deershed fold' and a single 'Lshaped' building can be seen with a trackway leading to it from the south which runs past it to the east. The wooded areas that exist today have been planted by the time of this map and most have been named as they exist today. 'Scott's Plantation' at the centre of the northern end however, is known on modern mapping as Harpsichord Plantation. The name 'Scott's Plantation refers to a precise tenant of a farm that was situated in the area of Harpsichord Plantation (Deakin, pers. comm.). Ros Castle is noted on this map as a 'camp (remains of)', as are the earthworks to the south of the Park near Hepburn Craggs and the earthworks to the north of the park. A further 'camp' is noted to the south-west of Hepburn Village. The earthworks adjacent to Moordam Plantation are not shown on this map. Hepburn Bastle is illustrated to the south of the park labelled 'The Bastle' and is noted to be in ruins. The rifle butts are visible on this map in the southern area of the park and an area to the south-west of these is a 900 yard rifle range. Although the park has been enlarged, traces of the original north, south and east boundaries which were present on the 1711 terrier map can still be seen.

- The second edition Ordnance Survey Map of 1897 (Fig. 55) illustrates that there have only been minor changes to the park. The former 'North Paddow Field' which was renamed 'Amersidelaw Plantation' has been renamed again and is now called 'Oak Wood'. Scott's Plantation has grown considerably and the name has been changed to Harpsichord Plantation. The area where the Deer Hemmel lies is now known as 'Deer Hemmel Plantation' as the area has been covered with woodland. A building has been erected to the north-east of the original building which appears on the first edition Ordnance Survey of 1860. It is likely that this building is associated with the large stone supports that still remain today. The area immediately to the south-east of Hepburn Bastle has been opened up as a quarry. An area of woodland just to the north-west of the rifle butts has been named 'Bullock Hemmel Plantation' which suggests that there was once a bullock hemmel in the area. This is not illustrated on either the first or second edition OS Map but may have been located in the wooded area. A number of the plantations have grown in size slightly, but there are no further visible changes to the nature of the park. There are still traces of the original south and east boundaries which were present on the 1711 terrier but the northern boundaries are less visible.
- 4.9.4. By the third edition Ordnance Survey Map of 1920 (Fig. 56), the building associated with the stone supports near the Deer Hemmel is no longer shown and it is likely that it was dismantled by this date, leaving only the stone pads. The quarry that was located to the east of Hepburn Bastle is now labelled as an 'Old Quarry'. There is still no mention of the earthworks adjacent to the Moordam Plantation.
- 4.9.5. Unfortunately there were no available copies of the fourth edition Ordnance Survey Map from around 1940 from which to take a copy. A digital copy can be found on the 'Tomorrow's History' website at www.tomorrows-history.com but cannot be reproduced. The level of zoom required to gain a detailed enough image of the map limits the amount of space viewed at any one time. It was therefore impossible to look at the park as a whole and only small sections at a time could be studied. It appeared that there were no changes to the park since the third edition Ordnance Survey Map of 1920. The boundaries that were illustrated on the terrier of 1711 and map of 1799 are less clear by the third edition Ordnance Survey. They only survive in section to the south and east and the boundaries to the north appear to be changing on a regular basis as a result of alterations to the Sandybank Plantation.
- 4.9.6. The modern Ordnance Survey map illustrated that a number of the original boundaries to the south, east and north which are shown on the 1711 and 1799 maps, still exist in sections (Fig. 57).

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4.10. Satellite photography

4.10.1. Many of the sites originally recorded from aerial photography are no longer visible on the ground. After studying satellite photographs available on the Local Live website (http://local.live.com) two new areas of ridge and furrow were identified (F036 and F041) at the east end of the park that had not previously been recorded by the Till-Tweed project. They are situated in the area directly below Ros Castle to the west (Fig. 58).

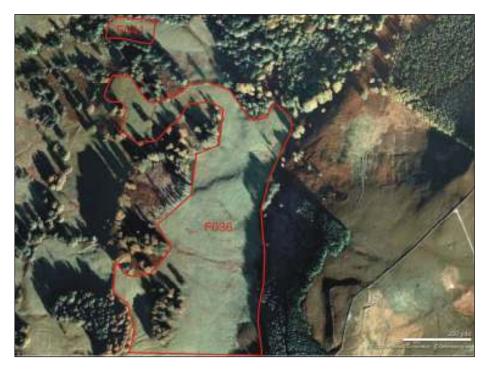


Fig. 58 Aerial photograph of new ridge and furrow sites (F036 and F041). Photographs taken from Local Live website

5. DISCUSSION

5.1. Introduction

5.1.1 It is thought that Chillingham Park was first enclosed during the thirteenth century in order to provide an area for hunting and food. The park was then enlarged in the eighteenth century and its primary function since then has been to provide a safe living and breeding environment for the Wild Cattle, with limited human influence. The park's rich past offers potential for enhancing its attraction to visitors and educational groups. This discussion presents a summary of the archaeological and palaeoenvironmental potential of the park and suggests a suite of strategies to maximise this potential, producing a greater understanding of the history of the landscape, it's floral and faunal biodiversity, whilst at the same time maintaining the primary function of the park as the habitat of the Wild Cattle.

These comments are presented as suggestions only and the ways which the past history of the park can be used and developed are diverse and numerous.

5.2. Understanding the past: archaeology and the environment

- 5.2.1. The park has changed little over the past two centuries due to its enclosure, but there is evidence for human activity within the park and its immediate environs stretching back to the Prehistoric period. The Iron Age hillfort of Ros Castle is one of the main archaeological features within the park and is well documented, although little investigative work has been undertaken on the site. There are however, other areas of more recent historical interest within the park, for example the rifle butts which are present by the First Edition Ordnance Survey of 1860, as well as the World War One saw mill. The new Late Iron Age or Romano-British enclosure is also of interest, particularly as it is a previously unknown feature.
- 5.2.2 Whilst this assessment has catalogued the features of the park, there are still unanswered questions. In particular this includes:
 - 1. Establishing precise dates and chronologies for the various arch features known within the park.
 - 2. the structural form and phasing of archaeological features within the park
 - 3. Understanding the function of various features within the park, whether these be agricultural, military, religious or socio-political.
 - 4. Understanding the human impact on the landscape in the short and long term

In order to answer these questions, archaeological and palaeoenvironmentsl work could include the followinbg.

- close-spaced geophysical survey such as Ros Castle and the late Iron Age/ Romano-British rectilinear enclosure.
- targeted excavation to answer specific questions.
- examination of potential buried land surfaces, such as those that may survive under the medieval plough headland or the banks of Ros Castle hillfort.
- coring of known organic sediment deposits, many of which have been identified on the estate.
- interpretation of palaeoenvironmental data to provide insights into the changes in landscape ecology within the park.
- comparison of palaeoenvironmental data with current vegetation communities to model future vegetation patterns within the park.

5.3. Presenting the future: outreach and educational opportunities

5.3.1. Present state and potential

The Park has many varied and interesting stories to tell about its past, not just regarding the cattle, and it is important that this information should be made available. This would not only provide improved intellectual access, but could attract more visitors to the park and surrounding area, and therefore assist with the financial viability of the estate. The Deer Hemmel currently serves as a low-

key visitor facility that primarily provides a shelter and a space to give informal talks. The building is of interest but is presently an under utilised resource. In addition there are a number of pathways within and around the boundaries of the park that are used as public routeways.

5.3.2. Possibilities for maximising the resource

The Deer Hemmel is a valuable asset. It could be transformed in a number of ways, including:

- small scale repair work (such as repointing), coupled with a replacement of the
 corrugated roof with material more in-keeping with vernacular roofing material.
 This work could be accomplished in such a way as to emphasise the internal
 features of the Hemmel, such as blocked up windows and the location of feed
 troughs.
- the installation of attractive information panels which would greatly enhance visitor experience and enjoyment and provide better intellectual access to the park and its resources.
- the development of simple interpretative material with an emphasis on resources for young people. This could include colouring in sheets relating to the natural history and archaeology of the estate, the creation of a simple quiz trail around the Hemmel and its courtyard, or the production of a bespoke young visitors pack.
- creation of a secure area at the eastern end of the building to house props such
 as cattle bones and deer skulls, as well as other interpretative material such as
 resources for interactive activities.
- if electric facilities can be linked to the Hemmel then this would provide a range of additional options ranging from the sale of refreshments through to an audiovisual facility.
- routes through the Park could be expanded with the use of permissive paths. This would improve access around the estate and could potentially allow more people to see the cattle, without having to access the park by a four-wheel drive vehicle, thus reducing the landscape impact from vehicles. These routes could be supplemented by self-guide leaflets, with information on points of interest, or with attractive, low-cost information panels at strategic locations.
- 5.3.4 The collection and interpretation of the palaeoenvironmental data, outlined above, can produce detailed vegetation histories of the park. These vegetation histories may be constructed to describe how the vegetation within the park has changed over the last 1000 years or more. A detailed understanding of the vegetational history of the Park would be a significant tool in planning the land-management schemes, as it would allow decisions to be made regarding the plant species that could be reintroduced or removed.

5.4 Managing the estate

5.4.4 The park is a combination of open grassland, upland heather and mixed woodland communities, which are a mix of ancient 'natural' woodland and more recent plantations. The influence of grazing by the deer, cattle and sheep is notable throughout the park and regeneration of the current herb and shrub communities, especially alder, appears to be heavily retarded with new plants

being eaten before they can become established and develop into mature adult communities. The consequence is that a number of floral communities are very old and are not being replaced. This will eventually lead to loss of species and a reduction in woodland and shrub diversity. One significant by-product of the enclosure and subsequent isolation of the park is an ecological history directly impacted by pastoral activity and evolving land-use management schemes. The anthropogenic/pastoral influence throughout the park over the last ca. 800 years would have been significant and directly contributed to factors that helped create the current appearance of the landscape. Therefore the current range of ecological communities throughout the park can be considered to be partly artificial and particularly influenced by stock grazing. The potential for future palaeoenvironmental analysis to investigate the full impact of grazing on the landscape of the park is enormous. By examining organic sediment sequences for pollen and other indicators, the effects of the different land-use regimes that have taken place on the park can be identified. This would provide a high-quality data set upon which to inform the effects of future management and land-use strategies on this landscape.

6. ACKNOWLEDGEMENTS

6.1. Archaeological Research Services Ltd would like to thank Phillip Deakin for his knowledge of the Park and his assistance in gaining access to the Woodhorn archives. Many thanks are also expressed to Chris Leyland for his assistance in gaining access to the Park, his extensive knowledge of the area and his help during the fieldwork.

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Local Live http://local.live.com

Tomorrows History www.tomorrows-history.com

APPENDIX I: PHOTOGRAPH REGISTER

Film One: Black and White Print

Shot Number	Description
1	Yoke stone (F010) and old boundary wall(F009), scale = 2m, 0.25m
2	Yoke stone (F010) and old boundary wall(F009), scale = 2m, 0.25m
3	Yoke stone (F010) and old boundary wall(F009), scale = 2m, 0.25m
4	Yoke stone (F010) and old boundary wall(F009), scale = 2m, 0.25m
5	At Yoke stone, looking down old boundary wall(F009), scale = 2m
6	At Yoke stone, looking down old boundary wall(F009), scale = 2m
7	In boundary ditch looking up towards Yoke stone (F010), scale = 2m
8	In boundary ditch looking up towards Yoke stone (F010), scale = 2m
9	Looking down towards Yoke stone from boundary wall (F011), scale = 2m
10	Looking down towards Yoke stone from boundary wall (F011), scale = 2m
11	Looking down towards Yoke stone from boundary wall (F011), scale = 2m
12	Looking down towards Yoke stone from boundary wall (F011), scale = 2m
13	Old boundary wall (F011), scale = 2m
14	Old boundary wall (F011), scale = 2m
15	Holloway network (F012), looking south-west, scale = 2m
16	Holloway network (F012), looking south-west, scale = 2m
17	Holloway network (F012), looking north-east, scale = 2m
18	Southern entrance to Ross Castle (F013), looking south-west, scale = 2m
19	Southern entrance to Ross Castle (F013), looking south-west, scale = 2m
20	Ross Castle (F013)western defences marked with ranging poles, looking north, scale = 2m
21	Ross Castle (F013)western defences marked with ranging poles, looking north, scale = 2m
22	Ross Castle (F013)western defences with faced stone, looking east, scale = 2m
23	Ross Castle (F013)north-western defences marked with ranging poles, looking north, scale = 2m
24	Ross Castle (F013)northern defences, looking north towards plateau, scale = 2m
25	Ross Castle (F013)northern entrance marked with ranging poles, looking north, scale = 2m
26	Ross Castle (F013)north-eastern defences marked with ranging poles, looking north-east, scale = 2m
27	Ross Castle (F013)eastern entrance marked with ranging poles, looking north-east, scale = 2m
28	Ross Castle (F013)eastern entrance marked with ranging poles, looking north-east, scale = 2m
29	Ross Castle (F013)eastern entrance marked with ranging poles, looking north-east, scale = 2m
30	Boundary wall running through centre of Ross Castle, looking north
31	Boundary wall visible in background with north-eastern defences in foreground, scale = 2m
32	Boundary wall visible in background with north-eastern defences in foreground, scale = 2m
33	View from Ross Castle, looking towards Hepburn Moor to the east
34	View from Ross Castle, looking towards Hepburn Moor to the east
35	View of Cheviots from Ross Castle
36	View of Cheviots from Ross Castle
20	, ie., or one note from root office

Film Two: Black and White Print

Shot Number	Description
1	Old trackway (F027) marked with ranging poles, looking north-west, scale = 2m
2	Old trackway marked with ranging poles, looking north-west, scale = 2m
3	Line of Sandstone pads (F014), looking north, scale = 2m
4	Sandstone pads (F014)showing separation distances, looking west, scale = 2m
5	Close up of sandstone pad (F014), scale = 2m
6	Close up of sandstone pad (F014), scale = 2m
7	Deer Hemmel (F015), looking north, scale = 2m
8	Interior of Deer Hemmel(F015), looking west, scale = 2m
9	Interior of Deer Hemmel(F015), looking east, scale = 2m
10	Interior detail of bricked up window in Deer Hemmel and fixtures, looking north, scale =
	2m
11	Deer Hemmel arches, looking north, scale = 2m
12	Exterior detail of bricked up Deer Hemmel, looking south, scale = 2m
13	Deer Hemmel exterior, looking west, scale = 2m
14	Deer Hemmel interior of alcove, looking east, scale = 2m
15	Deer Hemmel courtyard with old boundary wall (016) incorporated into structure, looking
	east, $scale = 2m$
16	Deer Hemmel courtyard, looking west, scale = 2m
17	View of Culvert from above, looking north, scale = 2m
18	Wild Cattle
19	Wild Cattle
20	Wild Cattle
21	Wild Cattle
22	Wild Cattle
23	Wild Cattle
24	Arched culvert (F017), looking east, scale = 2m
25	Working shot
26	Medieval plough headland (F018), scale = 2m
27	Medieval plough headland (F018), scale = 2m
28	Flat topped culvert (F019), scale = 2m
29	Arched culvert (F020), scale = $2m$
30	Arched culvert with capping stones (F021), scale = 3m
31	Old boundary wall (F022), scale = 2m
32	Old boundary wall (F023), scale = 2m
33	Eastern Rifle Butt (F025), looking north, scale = 2m
34	Eastern Rifle Butt (F025), looking south, scale = 2m
35	Western Rifle Butt (F026), looking west, scale = 2m

Film Three: Black and White Print

Shot Number	Description
1	Western Rifle Butt (F026), looking south-west, scale = 2m
2	Western Rifle Butt (F026), looking north, scale = 2m
3	Old boundary wall (F027), scale = 2m
4	Old boundary wall and possible drinking hole (F027), scale = 2m
5	Flat topped culvert (F028), scale = 2m
6	D shaped enclosure (F024), looking west, scale = 2m
7	D shaped enclosure (F024), looking west, scale = 2m
8	D shaped enclosure (F024), looking west, scale = 2m
9	D shaped enclosure (F024), looking west, scale = 2m
10	Arched culvert (F029), scale = 2m
11	Holloway network (F030), south-west of Ross Castle, scale = 2m
12	Holloway network (F030), south-west of Ross Castle, scale = 2m
13	Holloway network (F030), south of Ross Castle, scale = 2m
14	Holloway network (F030), south of Ross Castle, scale = 2m
15	Old boundary wall (F027), looking east, scale = 2m
16	Old boundary wall (F027), looking north, scale = 2m
17	Arched culvert with cascade (F031), scale = 2m
18	Old boundary ditch (F032), looking south-east, scale = 2m
19	Arched culvert (F033), scale = 2m
20	Holloway network converging on river crossing (F034), scale = 2m
21	WW1 saw mill looking east (F035), scale = 2m
22	Detail of WW1 saw mill (F035), looking south, scale = 2m