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**DESK-TOP ASSESSMENT OF THE  
ARCHAEOLOGICAL IMPLICATIONS OF  
PROPOSED CONSTRUCTION AT MANOR FARM,  
OFF SCOTHERN LANE,  
DUNHOLME  
LINCOLNSHIRE  
(DMF98)**



**A P S**  
ARCHAEOLOGICAL  
PROJECT  
SERVICES

Grids LI2448 LI2449 LI2450 LI2451  
Site location Mandatory Sanning  
LI2458 Earthwork Survey  
Source LI70 82  
53148 Roman  
54604 LI22120 E Sar  
52156  
54606 LI22122 Med  
52158 LI53158 Med/ Med  
2 54607 LI22122 Undated

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OFF SCOTHERN LANE,  
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LINCOLNSHIRE  
(DMF98)**

Work Undertaken For  
Persimmon Homes

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Report compiled by  
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## 1. SUMMARY

*A desk-top assessment was undertaken to determine the archaeological implications of a proposed development on land adjacent to Scothern Lane, Dunholme, Lincolnshire, including the former Manor Farm. In addition the development site was subject of an earthwork survey and a geophysical survey.*

*Documentary sources revealed that the development site lies within an area where evidence of prehistoric and Romano-British occupation has been recorded. Evidence suggests that Dunholme was probably established in the Anglo-Saxon period and was certainly in existence at the time of the Domesday Survey. During the medieval period Kirkstead Abbey held lands at Dunholme and evidence of the medieval occupation of the area has been found.*

*The development area itself revealed cropmark evidence, confirmed by geophysical survey, of buried features which suggest a prehistoric or Romano-British field system on the eastern part of the site.*

*During the 12<sup>th</sup> century Kirkstead Abbey was granted lands at Dunholme. The Abbey established a grange, or farm, on the development site, which was maintained until the Dissolution. Subsequently the land passed to the Grantham family, who apparently refurbished the grange buildings, and remained in their hands until the 17<sup>th</sup> century. Buildings dating to the medieval period, although subsequently altered, survived on the site until the late 19<sup>th</sup> - 20<sup>th</sup> century together with medieval finds and evidence of ancillary features associated with the medieval monastic grange such as ponds and possibly a moat. The main part of the grange lay at the western end of the development area where the former Manor*

*Farm was established.*

*The prehistoric or Romano-British remains identified in the eastern part of the site are likely to survive in good condition as this area has remained as open ground. There is also potential for the remains of the medieval monastic grange to survive (such as foundation trenches) although post-medieval development in and around Manor Farm has occurred at the western end of the site. However, any features such as a moat or ponds will survive as buried remains and in addition may contain waterlogged environmental evidence.*

## 2. INTRODUCTION

### 2.1 Definition of a Desk-top Assessment

*A desk-top assessment is defined 'as an assessment of the known or potential archaeological resource within a specified area or site on land, consisting of a collation of existing written and graphic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional, national or international context as appropriate' (IFA 1994).*

### 2.2 Planning Background

*Archaeological Project Services was commissioned by Persimmon Homes to undertake a desk-top assessment of land at Manor Farm, Scothern Lane, Dunholme, Lincolnshire. This was in order to determine the archaeological implications as part of a pre-application enquiry. The archaeological assessment was undertaken in accordance with a brief designed by the Assistant Archaeology Officer, Lincolnshire County Council (Appendix 1).*

### 2.3 Topography and Geology

Dunholme is located 9km northeast of Lincoln and 26km northwest of Horncastle (Fig. 1) in West Lindsey District, Lincolnshire.

The proposed development site is located 240m south of the village centre as defined by the parish church of St. Chad, at National Grid Reference TF 0260 7921 (Fig. 2). The site is triangular in shape, approximately 6.1 hectares in extent and is situated at a height of 13m OD.

The development area is located on a gentle south facing slope of the Dunholme Beck valley, with the beck running through the centre of the village.

Local soils are likely to be of the Aswarby Association, Curdrige Association or the Fladbury Association. The Aswarby Association is found in the west of the investigation area and comprises fine loamy gleyic brown calcareous soils (Hodge *et al.* 1984, 99). Occupying a narrow strip through the centre of the village are soils of the Curdrige Association, typically argillic gley soils. To the east are Fladbury 2 Association mottled clayey soils (*ibid.* 153, 196). These soils overlie drift deposits of sand and gravel which are generally less than 1m thick and which in turn overlie a solid geology of Jurassic Kellaway Clays (Crofts 1982).

### 3. AIMS

The aims of the desk-top assessment were to locate and, if present, appraise known archaeological sites in the vicinity and to determine the archaeological potential of the proposed development area. Such location and assessment of significance would permit the formulation of an

appropriate response to integrate the needs of the archaeology with the proposed development programme.

Further to the above, statutory and advisory heritage constraints were identified as well as the physical and Health and Safety restrictions.

### 4. METHODS

Compilation of the archaeological and historical data relevant to the area of the proposed development site involved examination of all appropriate primary and secondary sources available. These have included:

- historical documents, held in Lincolnshire Archives
- enclosure, tithe, parish and other maps and plans, held in Lincolnshire Archives
- recent and old Ordnance Survey maps
- the County Sites and Monuments Record
- archaeological books and journal
- place-name evidence
- aerial photographs

Information obtained from the literature and cartographic examination was supplemented by a walk-over survey of the proposed development site. This walk-over survey investigated the present land-use and condition; the extent of hardstanding and other firm surfaces and the presence, or otherwise, of dumped materials.

Results of the archival and field examinations were committed to scale plans of the area.

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## 5. RESULTS

### 5.1 Historical Data

Dunholme is first mentioned in the Domesday Survey of 1086. Referred to as *Duneham*, the name is derived from the Old English '*Dunna's hām*' (Ekwall 1974, 153) meaning the houstead or village of Dunna. At the time of the Domesday Survey, Dunholme was Sokeland of Nettleham and was owned by the King, Ilbert de Laci, Ralf Pagenel and Odo the Arblastar and there were 18 sokemen and 84 acres of meadow in the parish (Foster and Longley 1976). In the subsequent Lindsey Survey of c. 1115, the land had passed to the hands of the Bishop of Lincoln, Alfreit de Canceio and Hugh de Vallo with only Ralf Pagenel retaining land from 1086 (*ibid.*). The first two Bishops, Remigius and Robert Bloet, obtained 42 prebends for the cathedral of which one must be Dunholme as no other prebends were obtained for some period.

In 1123, the Church of Dunholme was granted to Humphrey *in prebendum* by Bishop Alexander, and confirmed by Papal Bull in 1146 (Smith 1980, 26; Hill 1990, 144). This reference must be to an earlier church as the present structure has been dated to the period 1190-1250 (Pevsner and Harris 1989, 260).

In the mid 12<sup>th</sup> century, confirmation of lands held of the Bishop's Fee by the monks of Kirkstead was granted by Bishop Robert Chesney (Smith 1980, 87). Kirkstead priory maintained a grange in the parish until the dissolution in 1537 (Page 1906, 137). In the Kirkstead Abbey valuation of 1537, the grange of Dunholm is mentioned as containing 10 oxgangs (between 40 and 100 hectares) and was leased to Vincent Grantham for 80 years at a rent of 66s.8d (Owen 1989, 42). The connection with the Grantham family

would suggest that the grange once occupied the proposed development site as the family was living here and was not a grange of Barlings Abbey as claimed by Leach (1964, 4; Leach and Pacey 1992, 27). Also there is no grange of Bardney in Dunholme according to the Victoria County History (Page 1906).

Prior to the dissolution of the monasteries, Dunholme was briefly involved in the Lincolnshire Rising of 1536 and was the final mustering place before insurgents from Louth marched into Lincoln (Ward 1996, 45).

At the dissolution the abbey passed to Sir Charles Brandon, Duke of Suffolk, who transferred it to Vincent Grantham around 1545, though the Grantham family had held land in Dunholme since at least 1452 (Leach 1964, 4). The Grantham family would appear to have then refurbished the grange, as wood panelling, with the coats of arms of the family was located in the main building and has been dated to the mid 16<sup>th</sup> century (Simpson 1898b, 226). Additionally, a datestone of 1593 on the kitchen fireplace suggests later work (Simpson 1898a, 194).

The Grantham family remained at Dunholme Grange until the early 17<sup>th</sup> century, soon after the death of Robert Grantham of the Black Monks and founder of the Dunholme Charity in 1616. The land then passed to the Muncton family who, in turn, sold the grange to Sir Charles Hussey of Halton Hologate in 1631.

Sir Charles Hussey was a Royalist supporter during the English Civil War of 1642-1646 and supplied horses and men from Dunholme to serve the King in 1642 (Beckwith 1993, 65). Hussey, at the time one of the King's Commissioners for Lincoln and Nottingham, was killed during the siege of Newark and buried in Newark

parish church on the 14<sup>th</sup> December 1645 (RCHME 1964, 94). Following the Civil War, Dunholme was subject to penalties for supporting the Royalist cause (Beckwith 1993, 65).

A survey of the Bishop's land at Dunholme in 1647 stated that there is '*no house of the Lord of Donham*'; indicating that the manor house of the Bishop had disappeared (Leach 1964, 24). Thirty years later a manor house is described in Grange Close, suggesting that the name had been transferred to the former monastic grange (*ibid.*).

Possibly as a result of Hussey's death and the penalties incurred upon Dunholme, the grange passed into the hands of the Anderson family in the mid 17<sup>th</sup> century (Leach and Pacey 1992, 27).

Enclosure of the parish took place between 1655 and 1660 and Oak Lane, a thoroughfare from the grange (now the Manor House) to Lincoln Road was granted to the Anderson family (Leach and Pacey 1992, 30). A marked reduction in the size of the population at this time has been associated with the enclosure of the parish (P. Everson, RCHME Archive notes).

## 5.2 Cartographic Data

The area under investigation is located south of the village of Dunholme. Appropriate maps of the vicinity were examined.

Armstrong's '*Map of Lincolnshire*', dating from 1788 represents one of the earliest detailed maps of the county (Fig. 3). Dunholm is shown as a small cluster of buildings along a single road and the position of the church. Areas away from the roads are shown as open ground.

The first edition 1" Ordnance Survey map of Lincoln was produced in 1824 and updated to include railways in 1882. This represents the earliest accurate map of Dunholme (Fig. 6). However, it is of insufficient scale to note anything more than the gradual development of the village

Dunholme is shown in greater detail in Bryant's '*Map of the County of Lincoln*' of 1828 (Fig. 4). This depicts a L-shaped building labelled as the Hall on the proposed development site. A cluster of small buildings is also evident and an indistinct mark to the south may represent an area of woodland. In the village, more buildings are apparent and the road system is recognisable as that which is in use at present.

The Tithe Award plan, dating from 1844, represents the earliest large scale map of the village and its environs (LAO A362). The proposed development site is shown as a group of small paddocks to the west and a large open area towards the east (Fig. 5). The fields are numbered and the associated schedule lists the field names (reproduced with Fig. 5). The manor house is evident as a L-shaped structure adjoining another structure, northwest of the number 217 and opposite a narrow track (Oak Lane) to the west.

The Second Edition 25" Ordnance Survey map (Fig. 7) of 1906 and depicts a cluster of buildings that comprise Manor Farm with associated ponds. The manor house is absent from the plan, corresponding with the demolition of the structure in 1898. The Second Edition 6" map of 1907 shows relatively little change having occurred (Fig. 8). Subsequent Ordnance Survey plans show the gradual development of the village with the infilling of closes.



### 5.3 Aerial Photograph Data

Aerial photographs held in various repositories were examined for evidence of archaeological remains. A full list of aerial photographs examined for this assessment appears as Appendix 2.

Two photographs are maintained by the County Sites and Monuments Record (Code: JT Hayes LM11/1 and 2). They depict an area northwest of the village and show rectangular enclosures, a droveway and a circular feature, possibly a hut circle. No part of the proposed development area falls within the area photographed.

A single photograph is kept in the archives of the Cambridge University Committee for Aerial Photography (Code: RC8-CN-76). Centred on an area south of Dunholme, Manor Farm and its environs can clearly be seen. However, the scale of the photograph precludes identification of archaeological features.

Several photographs of the investigation area are maintained in the archives of the Royal Commission for Historic Monuments. Transcription of all cropmarks has been done for the area by the RCHME and these depict incomplete rectangular enclosures across the site, concentrated on the eastern area of the development site. Based on form alone, these cropmarks are typical of field systems of the prehistoric and Romano-British periods.

One of the Royal Commission photographs (Code: 05/69217) depicts cropmarks of a possible ditched enclosure towards the east end of the site. Additionally, a long ditch, which the possible enclosure may be attached to, is also evident. Cropmarks, of ridge and furrow also occur to the east and southeast of the site, and elsewhere around the village.

### 5.4 Archaeological Data

Records of archaeological sites and finds are held in the Lincolnshire County Sites and Monuments Record. Other, secondary, sources were also examined. Details of archaeological and historical remains falling within 1km of the proposed development areas are collated in Table 1 and committed to Figure 9.

Table 1: Archaeological Sites in the Vicinity

Map Code No.	Sites and Monuments Record No.	Description	National Grid Reference
1	53159	Polished flint axe, Neolithic	TF 0285 7935
2	53155	Enclosure and hut circle, Late Iron Age	TF 0200 7968
3	53148	Pottery, Romano-British	TF 0266 7928
4	53152	Grey ware pottery, Romano-British	TF 0224 7987
5	54229	Pottery, Romano-British	TF 0200 7975
6	53149	Pottery, Anglo-Saxon	TF 0266 7928
7	53156	Settlement of Dunholme, medieval	-
8	53142	Water mill, site of, medieval	TF 0225 7940
9	53158	Manor House, former grange, site of, medieval	TF 0246 7913
10	53154	St. Chad's church, medieval	TF 0248 7941
11	53150	Pottery, medieval	TF 0266 7928
12	53141	Water mill, site of, post-medieval	TF 0225 7940
13	53151	Nuremburg jetton, 1580-1610	TF 0266 7928
14	53157	Settlement of Dunholme, post-medieval	-
15		Bishop's Manor, site of, medieval	TF 0243 7940
16		Stone building, site of, medieval	TF 0274 7933

### *Prehistoric Archaeology*

A Neolithic (4000-2250 BC) polished flint axe represents the earliest find from the investigation area (Fig. 9, No. 1). This was found immediately east of the site overlooking Dunholme Beck and may indicate transient human occupation of the area at this time.

Iron Age (800 BC-AD 50) remains are known from aerial photographs to be located north of Dunholme. Evidence for their date came from archaeological investigations along Ryland Road during 1997 (Fig. 9, No. 2). Eight ditches were identified that contained Late Iron Age pottery (Albone 1997, 1).

### *Romano-British Archaeology*

Romano-British (AD 50-410) settlement has not been identified from Dunholme. However, pottery of this period has been found at three locations around the village (Fig. 9, Nos. 3, 4 and 5) although is in insufficient quantities to suggest occupation.

### *Saxon and Medieval Archaeology*

Anglo-Saxon pottery was recovered from a site adjacent to the investigation area in 1976 (Fig. 9, No. 6). However, neither the quantity or precise date of this material is known (White 1977, 71).

During the medieval period (1066-1500), settlement was centred principally on the village core, generally along a broad street

that followed Dunholme Beck and terminating in a triangular area of open ground (P. Everson, RCHME Archive notes). Extant remains of this period are represented by St. Chad's church built in the early 13<sup>th</sup> century (Fig. 9, No. 10). This replaced an earlier church indicated by documentary evidence. It is probable that the church was built within the Bishop of Lincoln's holdings in the village and possibly adjacent to the original manor. A possible location for the manor is suggested as lying in the area now occupied by the vicarage to the north of the development site (Fig. 9, No. 15), where earthworks were once apparent (Leach 1964, 24).

Medieval utilisation of the area may best be represented by the monastic grange founded on the proposed development site (Fig. 9, No. 9). A medieval building was present on the site until 1898 when it was demolished (Leach and Pacey 1992, 27). Photographs of the building indicate a small structure with a blocked doorway (Plates 1 and 2). The grange would have provided a focus for Kirkstead Abbey's operations in the area which, as in the case of many Cistercian abbeys, may have principally have been a *bercary* (sheep farm). As such, there would possibly be associated features such as corrals, sheep washing pits (there are two ponds recorded on the site) and ancillary features such as dovecotes and fishponds. It is stated that a moat was visible at the site in 1903 (Leach & Pacey 1992, 28). However, this could indicate the presence of either a moat around the main complex of monastic buildings, a fishpond or even formal gardens (possibly of post-medieval origin). A medieval stone building together with much medieval glazed roof tile and pottery identified during past fieldwalking at the eastern extreme of the site, may also be associated with the grange (Fig. 9, No. 16; P. Everson RCHME Archive notes).

Evidence for medieval field systems takes the form of areas of ridge and furrow, principally obtained from aerial photograph information (SMR 54177) and occasionally through archaeological investigation (Wragg 1996). Other medieval remains include pottery found within the village (Fig. 9, No. 11) and the site of a water mill mentioned in documentary sources (Fig. 9, No. 8).

### *Post-medieval Archaeology*

A water mill was partially excavated in 1968, revealing a wall and part of a mill pond (Fig. 9, No. 12). The mill was on the site of the earlier medieval mill and had gone out of use in the late 17<sup>th</sup> century (Whitwell and Wilson 1969, 114).

One other post-medieval find is a Nuremburg jetton (trading token) dated to 1580-1610 (Fig. 9, No. 13).

No industrial sites are known from the vicinity, although early maps indicate the presence of a smithy north of the proposed development. Brickworks were located east of the village (Leach 1967). White's Directory (1856, 149) lists a farrier, wheelwright and blacksmith in the village.

### **5.5 Walk-over Survey**

A site visit was undertaken on 3<sup>rd</sup> June 1998 to assess the possible level of surviving archaeological deposits and to identify hitherto unknown archaeological sites. Visibility was good.

At the west end of the proposed development site the former farmyard is indicated by areas of hard standing. Piles of rubble (chiefly breeze blocks and brick) are randomly scattered across the hard standing and to the north. Trees are present in the northwest corner and fruit trees (possibly from an old orchard) are set back from Scothern Lane. South of the area of hardstanding is a small (4m x 1.5m)

compound and a stock trough. A footpath runs north-south at the rear of the hardstanding area.

In the centre of the proposed development area is a collapsed breeze block structure with an associated pipe, possibly marking the location of a septic tank. Two slight north-south ridges are noticeable. A small band of trees are present parallel to the southern boundary. A footpath incorporating brick and stone rubble runs east, from the area of hard standing, to join Ashing Lane opposite the junction with Beck Lane. Adjacent to the footpath is a backfilled test pit.

The eastern end of the site has been fenced off and a number of saplings planted. A hollow is apparent adjacent to the northern boundary but does not correspond with earlier depictions of ponds on the development area. A second test pit was located on the eastern boundary that had medieval pottery on the surface of the backfilled material.

## 6. GEOPHYSICAL SURVEY RESULTS

### *Methodology*

The techniques employed are more fully discussed in Appendix 3. Briefly, the whole of the proposed development area of c. 6ha was scanned, c. 0.4ha was subject to detailed resistivity survey and c. 1ha of detailed magnetometry was carried out in those areas containing potential archaeological deposits.

### *Results*

An area along the northern boundary was subject to detailed magnetometer survey which revealed part of a large enclosure, depicted in red on Figure 10. Smaller enclosures were apparent on the southwest corner.

A number of agricultural features were

identified (green on Figure 10) and probably relate to ploughing or possibly former ridge and furrow.

Modern features and ferrous material were also identified.

A second area, directly north of the position of Manor Farm was found to contain ferro-magnetic anomalies. No archaeological features were detected.

## 7. EARTHWORK SURVEY RESULTS

### *Methodology*

Following the walk-over survey, which identified possible earthworks, all features were plotted using a Geodolite and hand held computer for processing the survey data. Furthermore, a profile was drawn from north to south over the position of the former grange in an attempt to identify the position of the building or associated features such as a moat.

### *Results*

A general slope down to the north and east was discernable from the ground. A slight ridge was evident running north to south east of the public footpath. A further marked drop in height was found east of the ridge and in the northeastern corner of the proposed development area (Fig. 11).

The profile (Fig. 12) shows the general drop in height from the south to the north. A level area appears halfway along the profile and indicates the area of the former farm with its associated yards and outbuildings. At the northern end some slight rises and drops in the ground level may indicate the former position of ridge and furrow. The possible ridge and furrow is aligned on the same axis as the agricultural features identified in the geophysical survey.

## 8. CONSTRAINTS

### 8.1 Heritage Constraints

#### *Statutory and Advisory Constraints*

The area of investigation does not lie within a Scheduled Ancient Monument protected by the Ancient Monument and Archaeological Areas Act of 1979 (HMSO 1979).

There are two listed buildings within the investigation area, but not on the site, that of the parish church and the vicarage (DoE 1985).

As such, any archaeological remains within the area of the proposed development are protected only through the implementation of PPG16 (DoE 1990).

### 8.2 Other Constraints

#### *Health and Safety Constraints*

The proposed development site lies to the east of Scothern Lane. Details of the proposed development are unknown at present but will presumably involve the excavation of trenches for new foundations and services. The following risks have been identified:

- a) Plots of all services (gas, electricity, water, British Telecom) in the vicinity of the proposed development were examined. Electricity cables are recorded along the northern boundary at the rear of properties fronting Ashing Lane. A foul sewage pipe is shown running from the boundary next to Clifton Lodge towards the north. This does not preclude the presence of other, unrecorded, services within the site confines, especially considering that buildings were present on the site until 1990.
- b) The presence of former buildings

associated with the farm buildings may indicate the presence of cellars. A possible septic tank was noted during the walkover survey.

- c) Excavation of trenches for archaeological evaluation, foundations and services entails a certain degree of risk which is enhanced by the use of a mechanical excavator.

## 9. ASSESSMENT OF SIGNIFICANCE

For assessment of significance the *Secretary of State's criteria for scheduling ancient monuments* has been used (DoE 1990, Annex 4; See Appendix 4) and the Single Class Description used by the Monuments Protection Programme (English Heritage 1989; See Appendix 5).

### **Period**

Cropmarks and geophysical survey indicate a prehistoric or Romano-British field system existing on the eastern part of the site. Pottery of Romano-British date, although in small quantities, has been found adjacent to the site. Such field systems are a typical feature although may contain unusual features.

The western half of the area is the former site of a medieval monastic grange, as such they are representative of the period. However, few grange sites have been excavated in Lincolnshire and their layout and function not fully understood.

### **Rarity**

Prehistoric and Romano-British field systems, as indicated by cropmarks are not particularly rare and are typical of the periods represented. However, all sites of this period are likely to contain rare or unusual features.

Monastic granges are also not rare and it is

estimated that several thousand examples were established in medieval England. However, the limited work undertaken on these monuments has not identified any regular pattern of layout and therefore, it must be presumed that each grange has rare or unusual features.

#### **Documentation**

Records of archaeological sites and finds made in the Dunholme area are kept in the Lincolnshire Sites and Monuments Record. Synopses of nearly all the archaeological work carried out in the vicinity have previously been produced.

There is a range of documentation contemporary with the monastic grange which is best summarised in Page(1906) and Leach and Pacey (1992).

The present report provides the first site-specific consideration of the archaeological and historical aspects of the proposed development area.

#### **Group value**

Moderately high group value can be ascertained from the cluster of Prehistoric sites, Romano-British occupation and funerary activity, medieval field systems and post-medieval housing and industry.

#### **Survival/Condition**

The west part of the site lies in an area where post-medieval development has occurred, notably the Manor Farm. As such, archaeological deposits may well be disturbed. The eastern extent of the investigation area has remained as open ground. Consequently, any archaeological remains in this area are likely to survive in good condition.

#### **Fragility/Vulnerability**

As the proposed development may impact the investigation area, possibly into natural strata, any and all archaeological deposits present on the site are vulnerable.

#### **Diversity**

Little functional diversity, possibly Romano-British field systems with medieval monastic agricultural estate.

Period diversity is high, a succession of Romano-British, Saxon and Medieval archaeological material has been recovered from the vicinity or within the site.

#### **Potential**

Potential exists for limited remains of the monastic grange surviving, perhaps only in the form of robbed foundation trenches. If a moat was present on the site, this should survive with good potential for waterlogged material at depth. Additionally, early maps record ponds on the site and these too may contain waterlogged environmental evidence.

Potential for Prehistoric/Romano-British field systems is indicated by aerial photographs and the initial geophysical results. Concentrating on land at the east end of the site, potential for their survival is considered high, as the area has remained as open ground.

## **10. CONCLUSIONS**

The concentrations of archaeological finds and observations represent occupation and use of this part of Dunholme in the past. The proposed development site lies in an area from which stone tools of the Neolithic period have been recovered. No settlement remains of these periods has been found to place in association with these finds. An Iron Age field system, comprising several enclosures is known from north of the village and has partly been examined. Cropmarks of enclosures have been found within the investigation area and geophysical survey has established their precise location. However, no prehistoric material has been identified and a few Romano-British pottery sherds may

suggest an enclosure of this date.

Placename evidence suggests Dunholme was established in the Anglo-Saxon period and this is supported by its inclusion in the Domesday Survey. Soon after the Survey, some land in the parish passed to the Bishop's of Lincoln of which Bishop Chesney is likely to have granted the proposed development area to Kirkstead Abbey who established a grange on the site. Documentary evidence suggests that the grange was leased to the Grantham family who eventually bought the land following the Dissolution. Several episodes of remodelling of the grange are indicated by datestones and oak panels which were recorded prior to the demolition of the building in 1898.

Geophysical survey did not establish any remains associated with the manor or grange as the western area of the site is too disturbed. However, it did establish the presence of ditches associated with a possible Romano-British, or maybe prehistoric, field system. Earthwork survey results did not provide any feasible differences associated with former occupation and may indicate that the site was levelled.

The wealth of documentary evidence associated with the grange and potential of surviving archaeological remains may indicate that this site is certainly of regional importance.

## 11. ACKNOWLEDGEMENTS

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Grundy of the Archaeology Section, Lincolnshire County Council. Thanks are also due to the staff of Lincolnshire Archives Office and Lincoln Central Library. Dave Start allowed access to the archaeological parish files maintained by Heritage Lincolnshire.

The earthwork survey was undertaken by Ed Lewis and Chris Moulis of Archaeological Project Services. The walk-over survey was conducted by Gary Taylor.

## 12. REFERENCES

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### 13. ABBREVIATIONS

- BGS        British Geological Survey
- CLAU      City of Lincoln Archaeology Unit



DoE	Department of the Environment
HMSO	Her Majesties' Stationary Office
HTL	Heritage Trust of Lincolnshire
IFA	Institute of Field Archaeologists
LAO	Lincolnshire Archive Office
PCA	Pre-Construct Archaeology
RCHME	Royal Commission on the Historical Monuments of England
SMR	County Sites and Monuments Record number

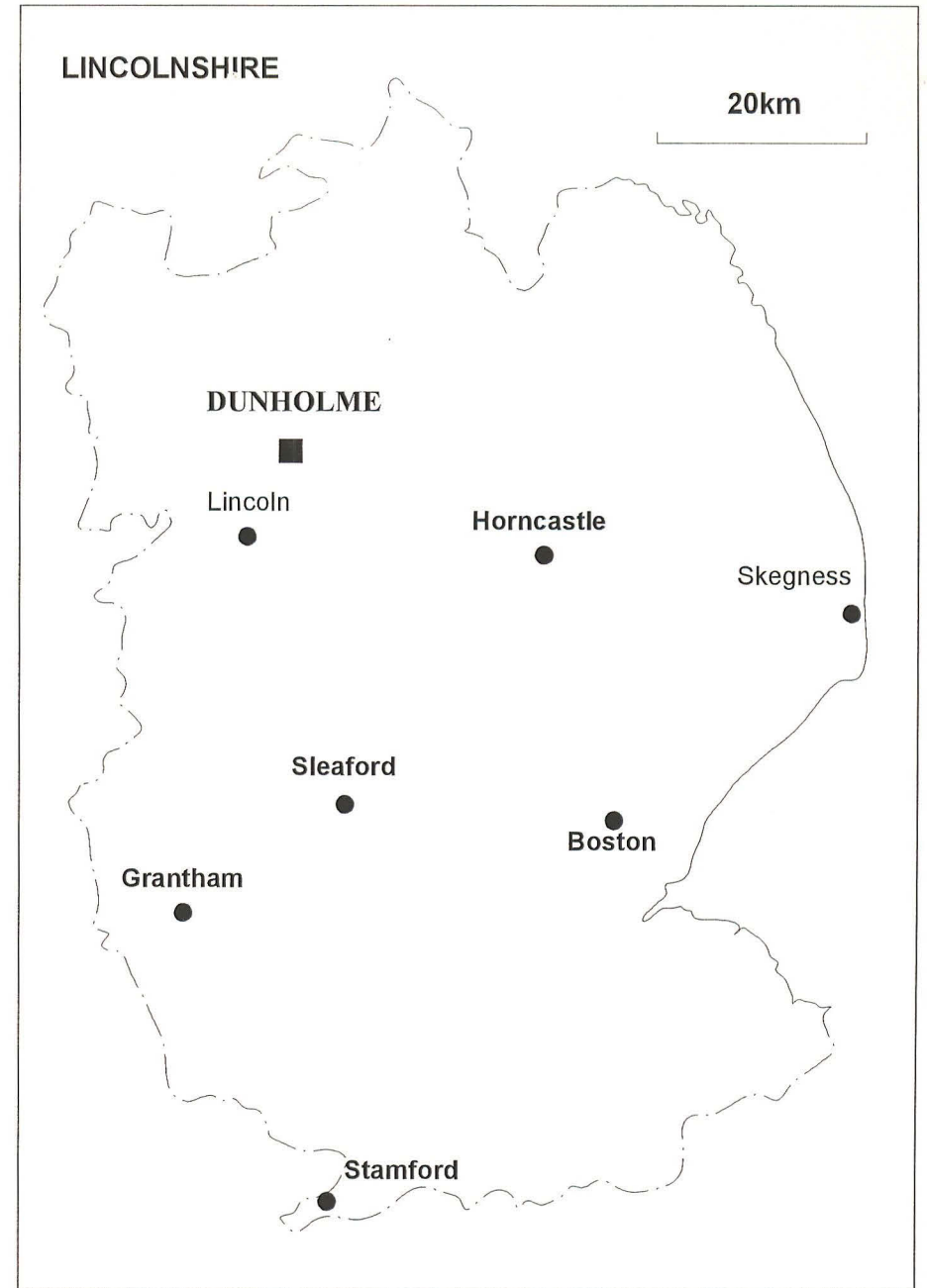
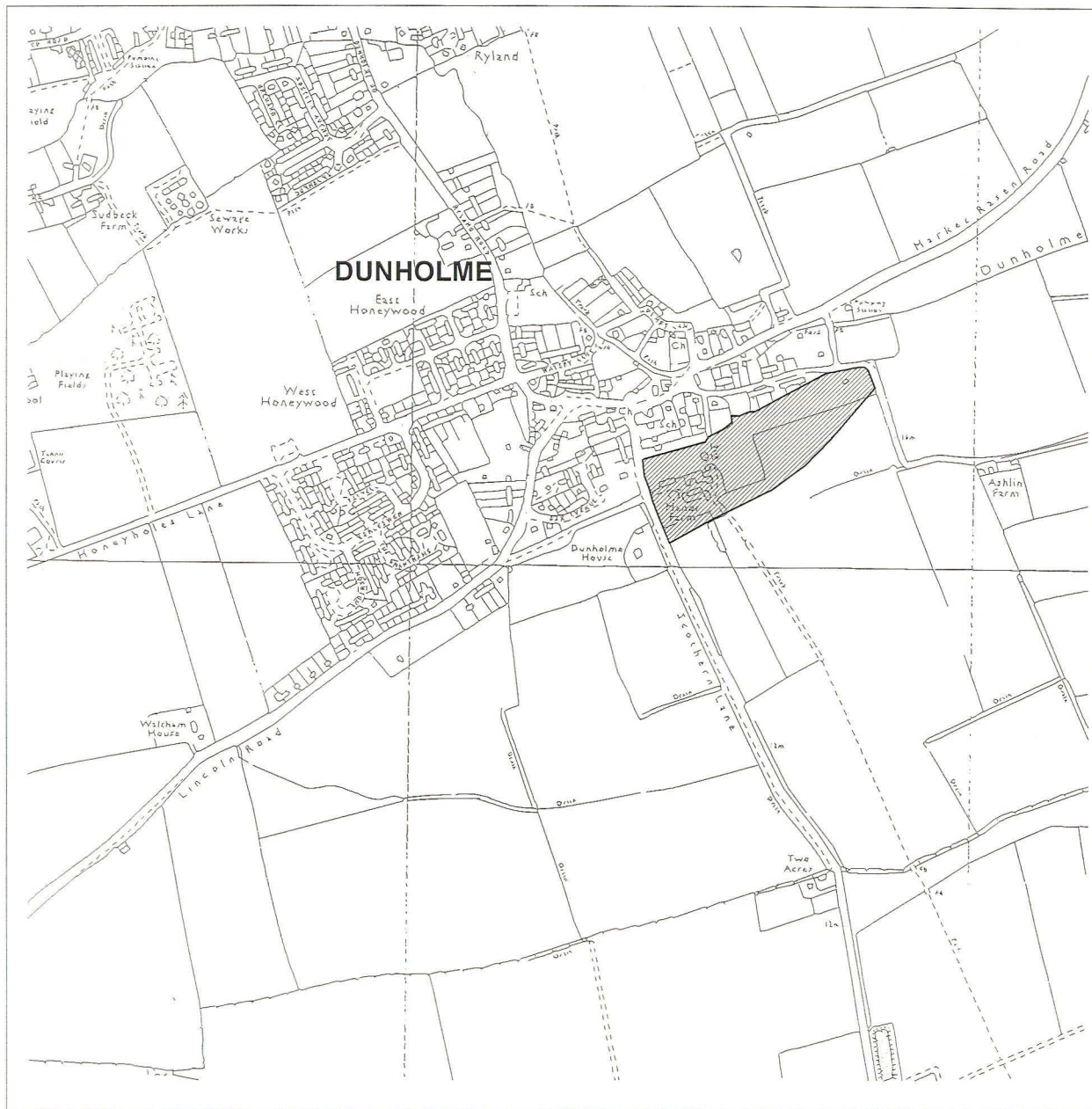


Figure 1 - General Location Plan

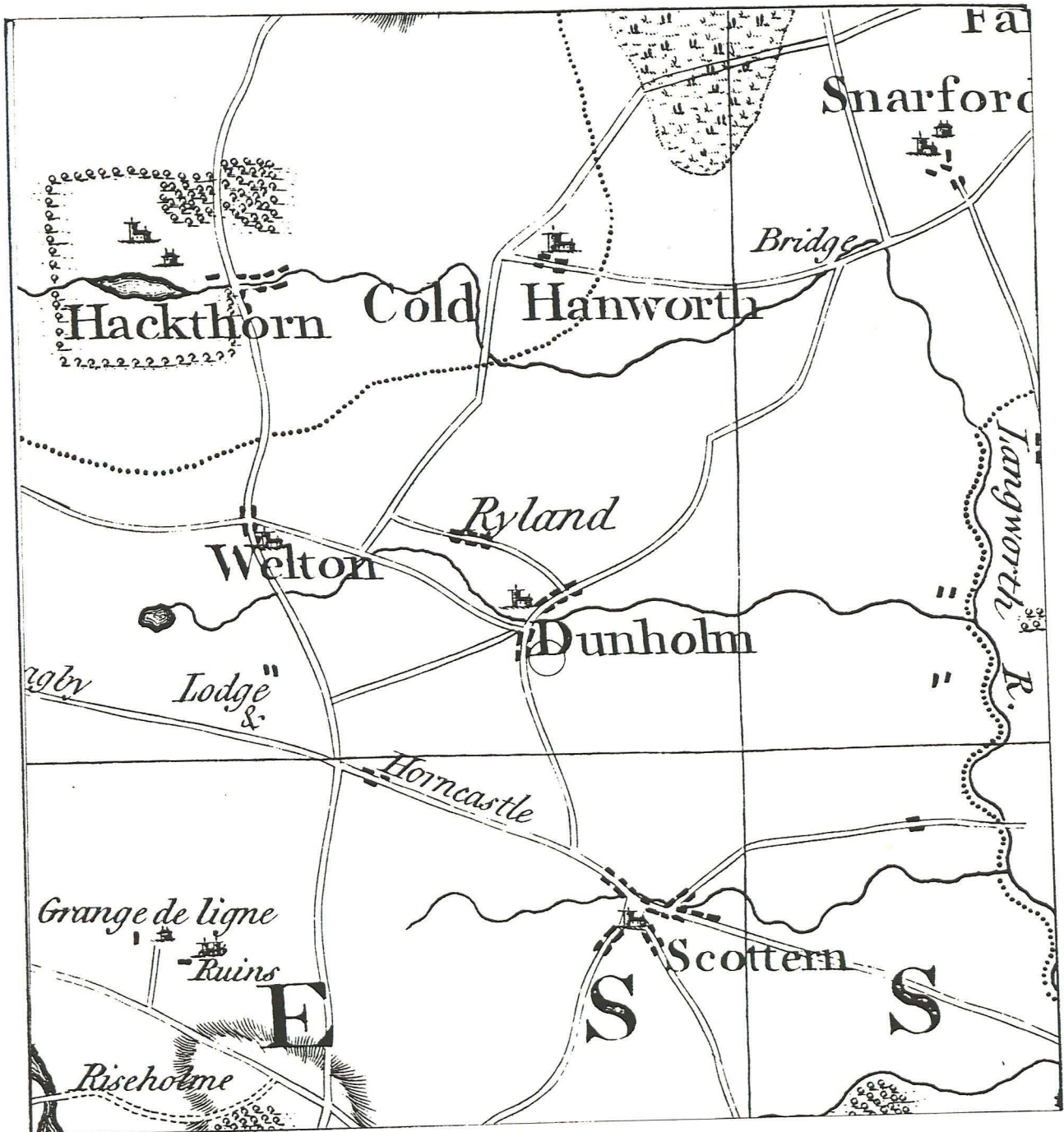


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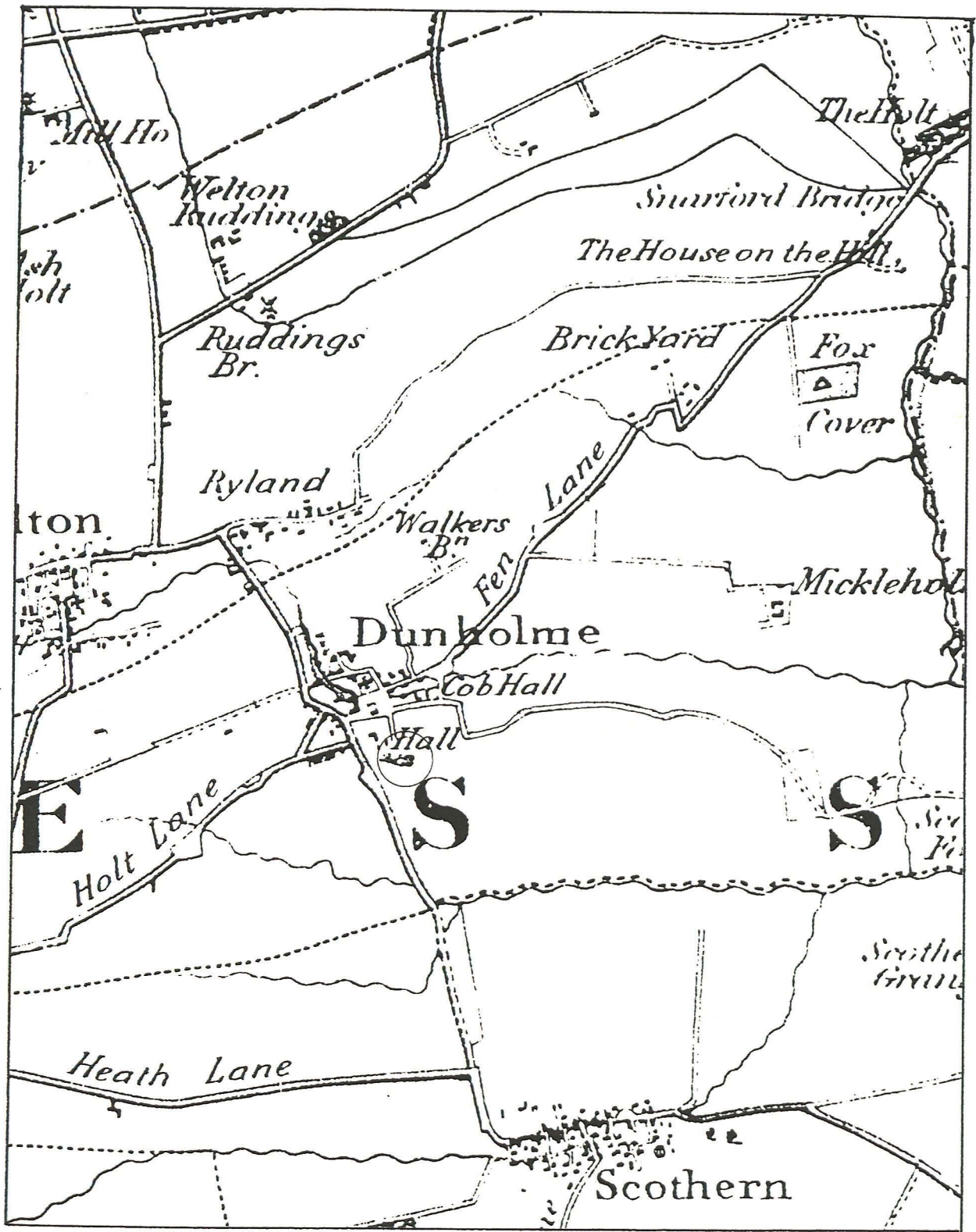
 Proposed Development Area

Figure 2 - Site Location Plan



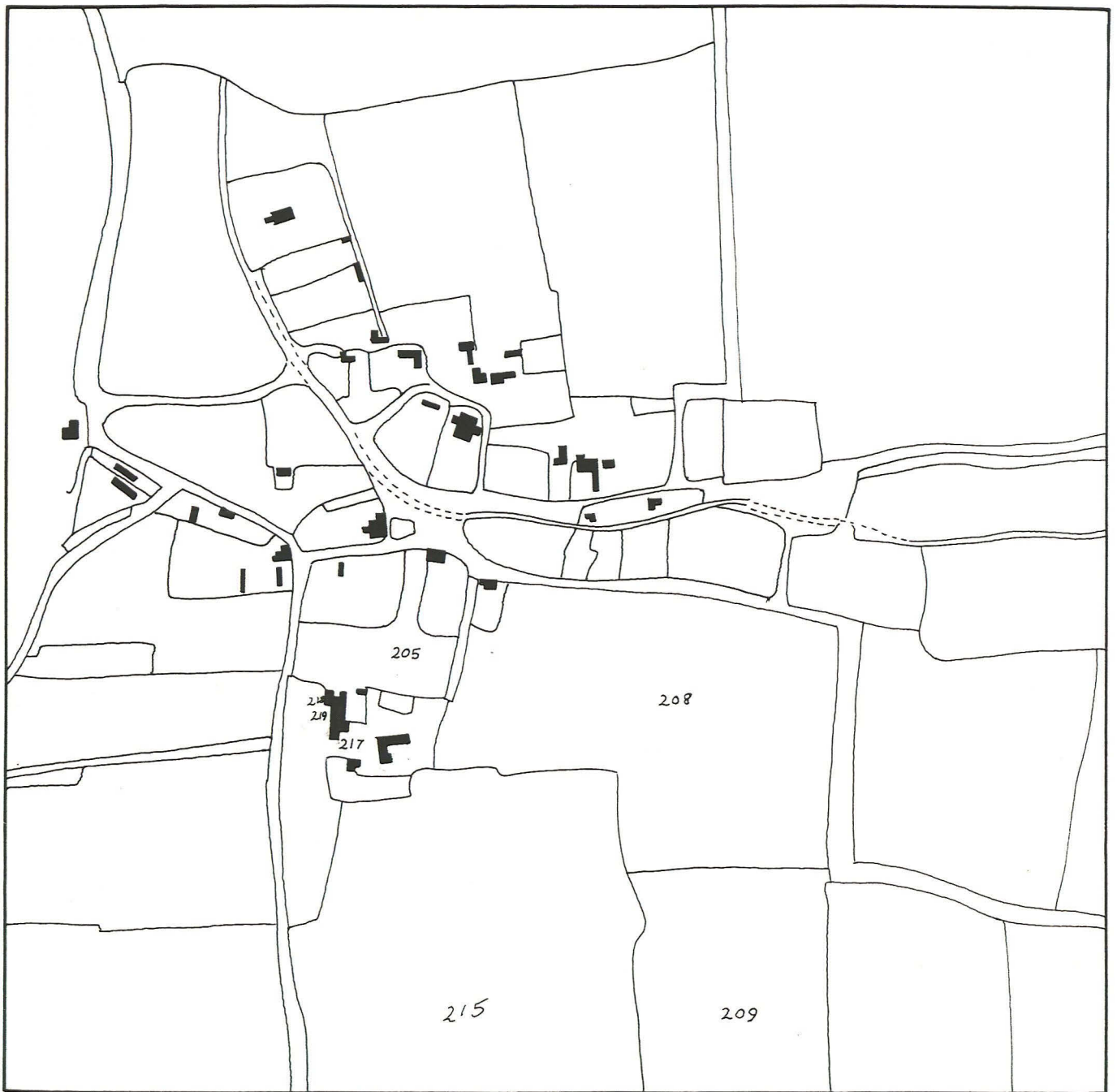
(no scale available)

Figure 3 - Extract from Armstrong's 'Map of Lincolnshire', 1788



(no scale available)

Figure 4 - Extract from Bryant's 'Map of the County of Lincoln', 1828



(no scale available)

Field Names	
205	Paddock
208	Grange Close
209	Burn Hooking
215	First Holmes
217	Pasture and Gardens
218/9	Manor House and Premises

Figure 5 - Copy of Dunholme Tithe Award map, 1844 (LAO A362)

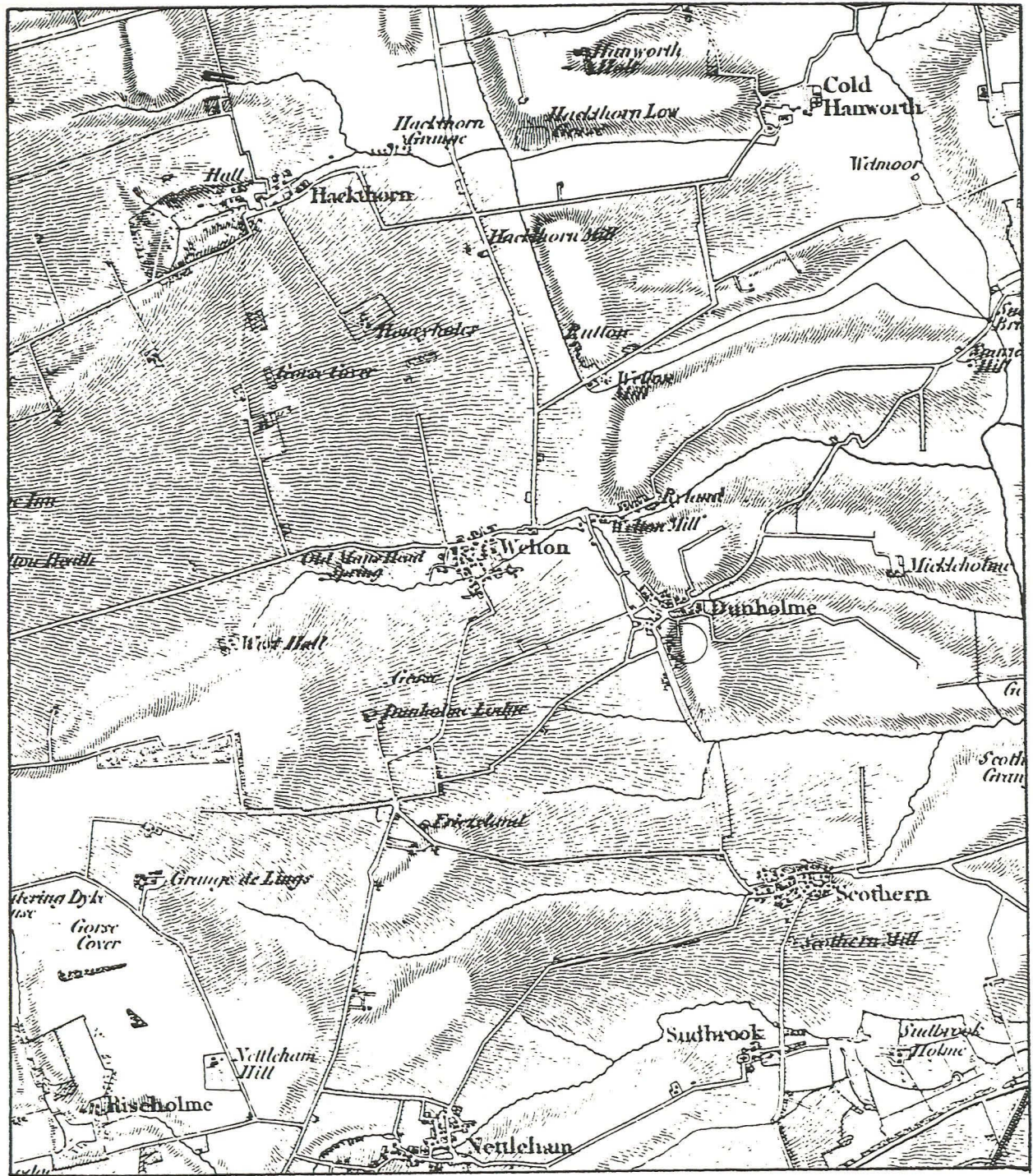


Figure 6 - Extract from 1<sup>st</sup> Edition 1" Ordnance Survey Plan, 1882

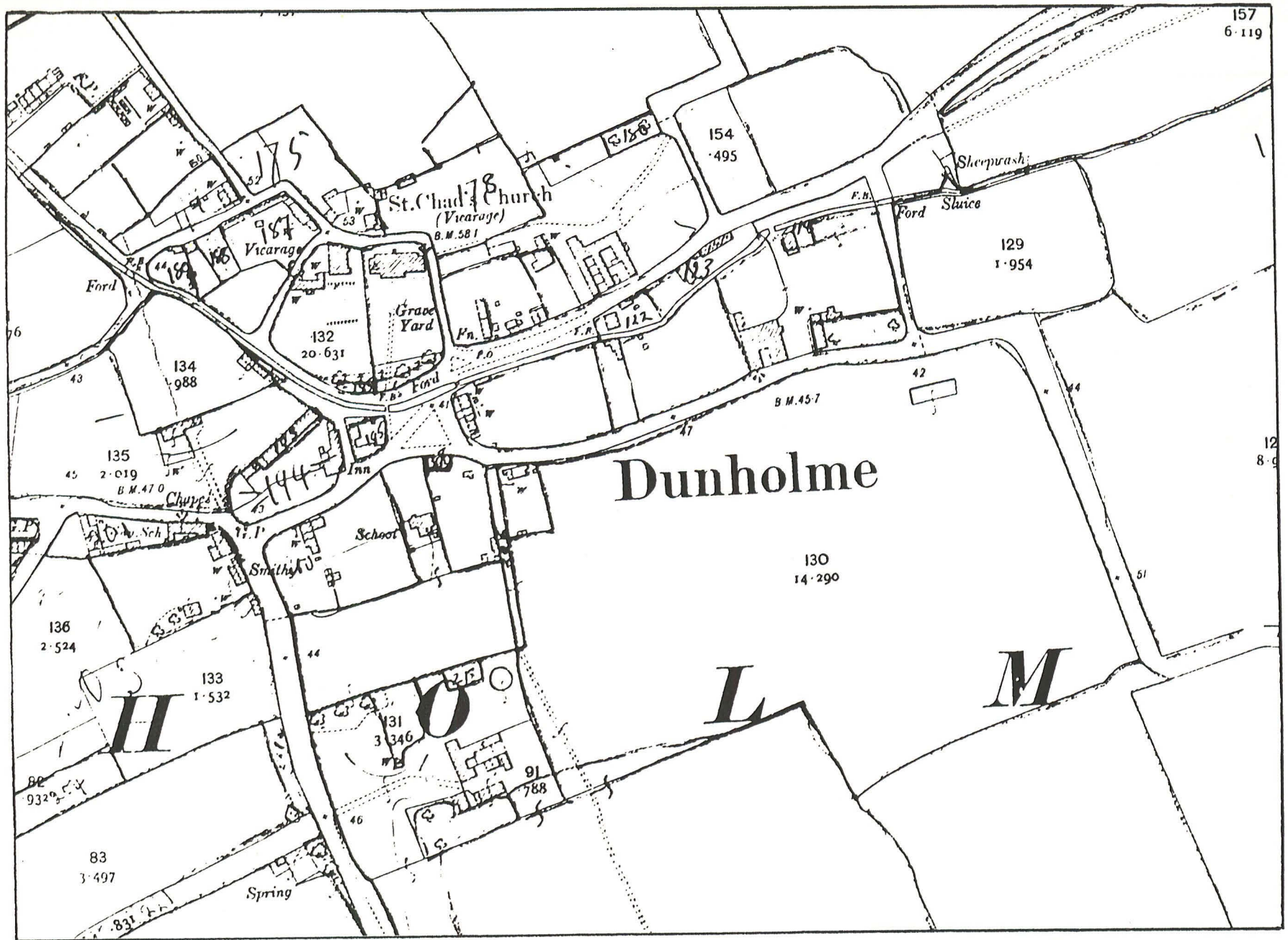


Figure 7 - Extract from 2<sup>nd</sup> Edition 25" Ordnance Survey Plan, 1906



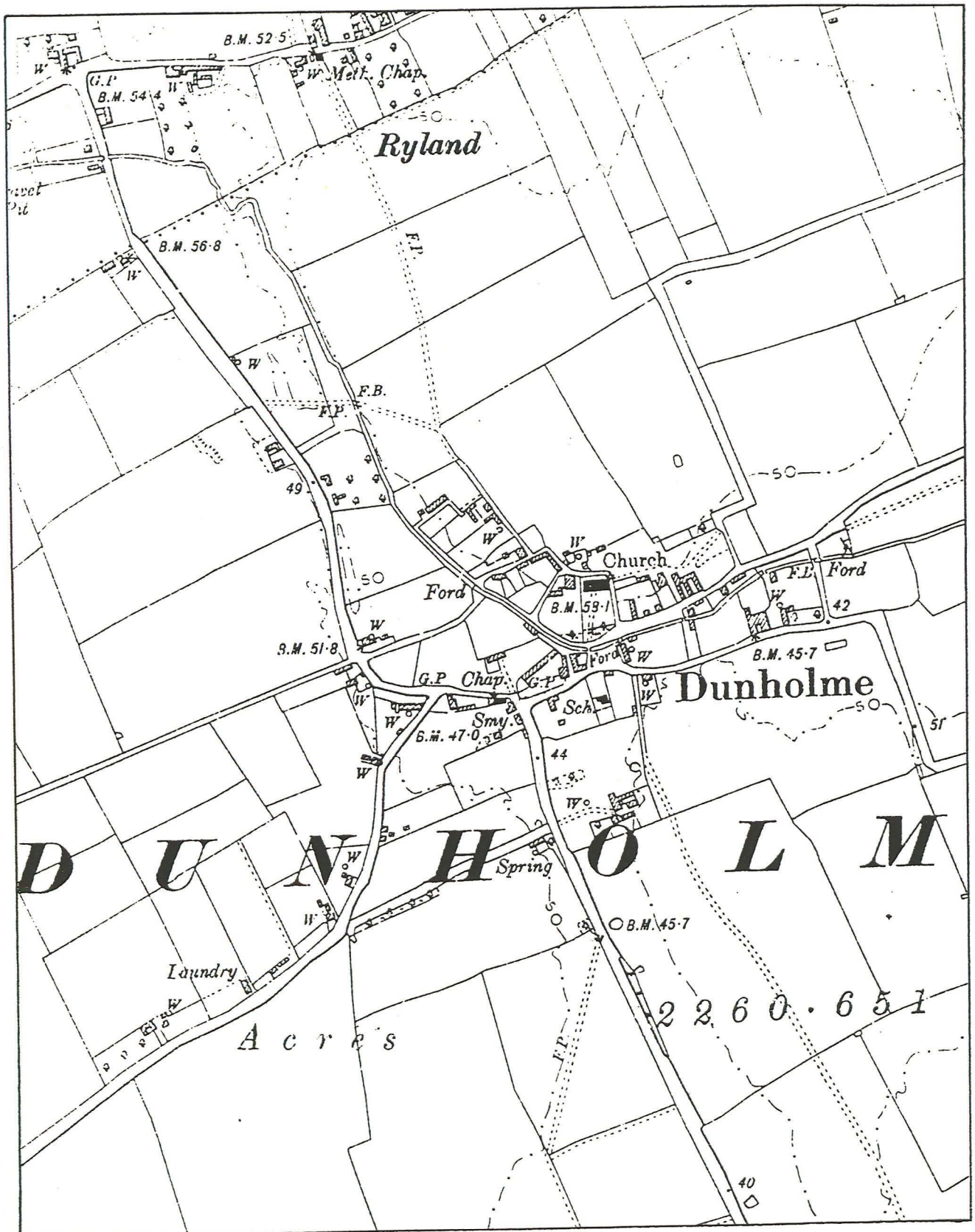


Figure 8 - Extract from 2<sup>nd</sup> Edition 6" Ordnance Survey Plan, 1907

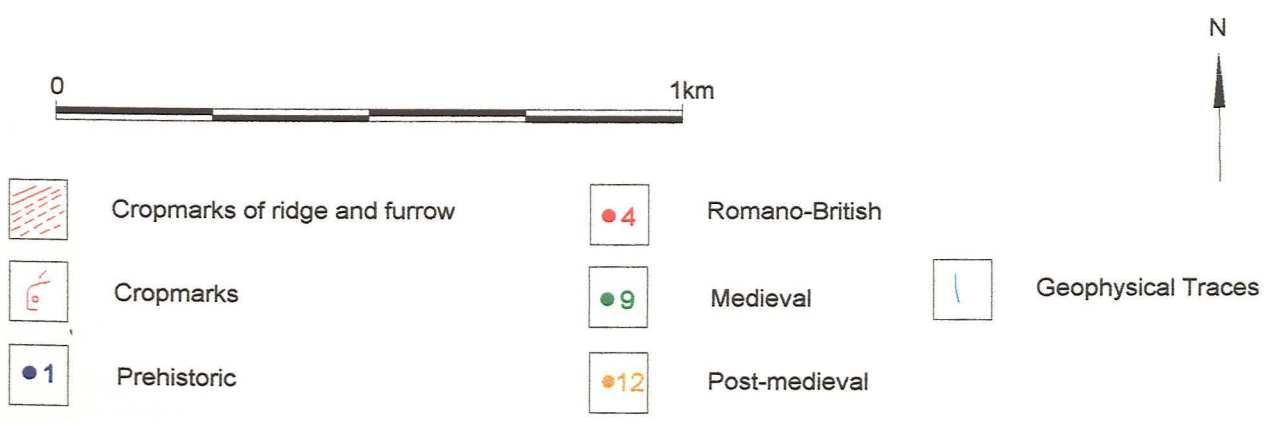
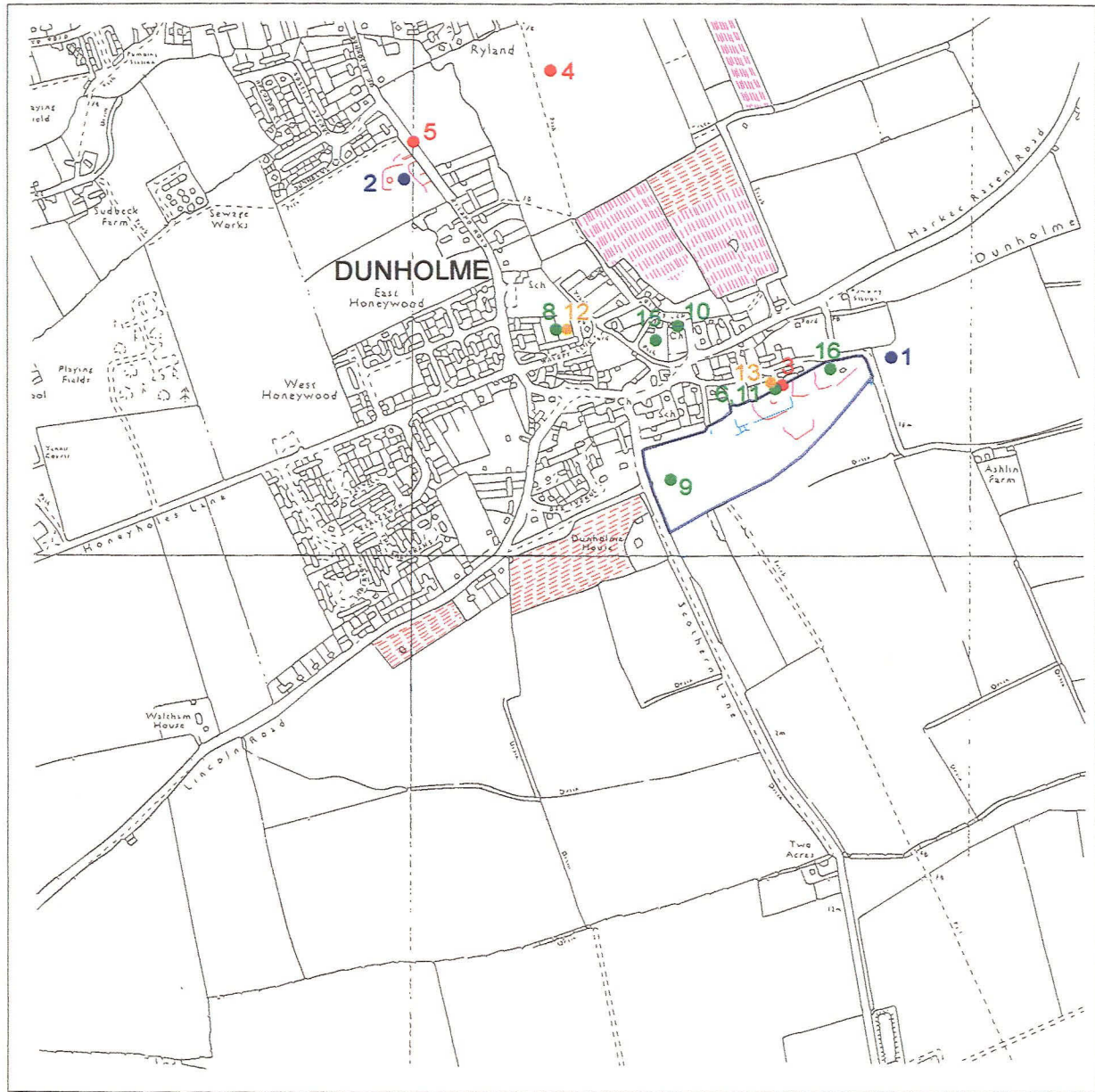


Figure 9 - Investigation Area, showing Archaeological sites in the vicinity

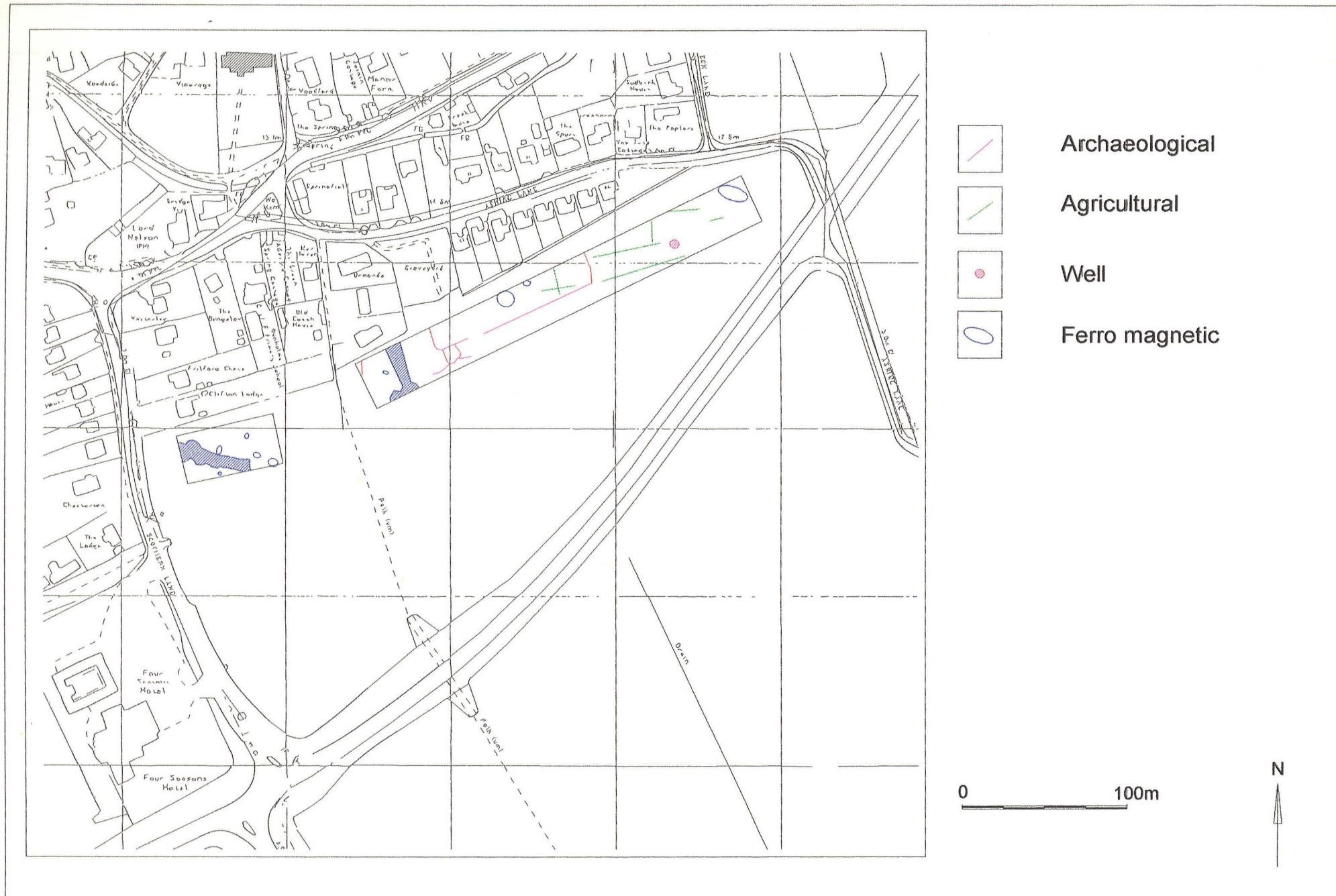


Figure 10 - Plan showing Geophysical Survey Results



Figure 11 - Earthwork Survey Results

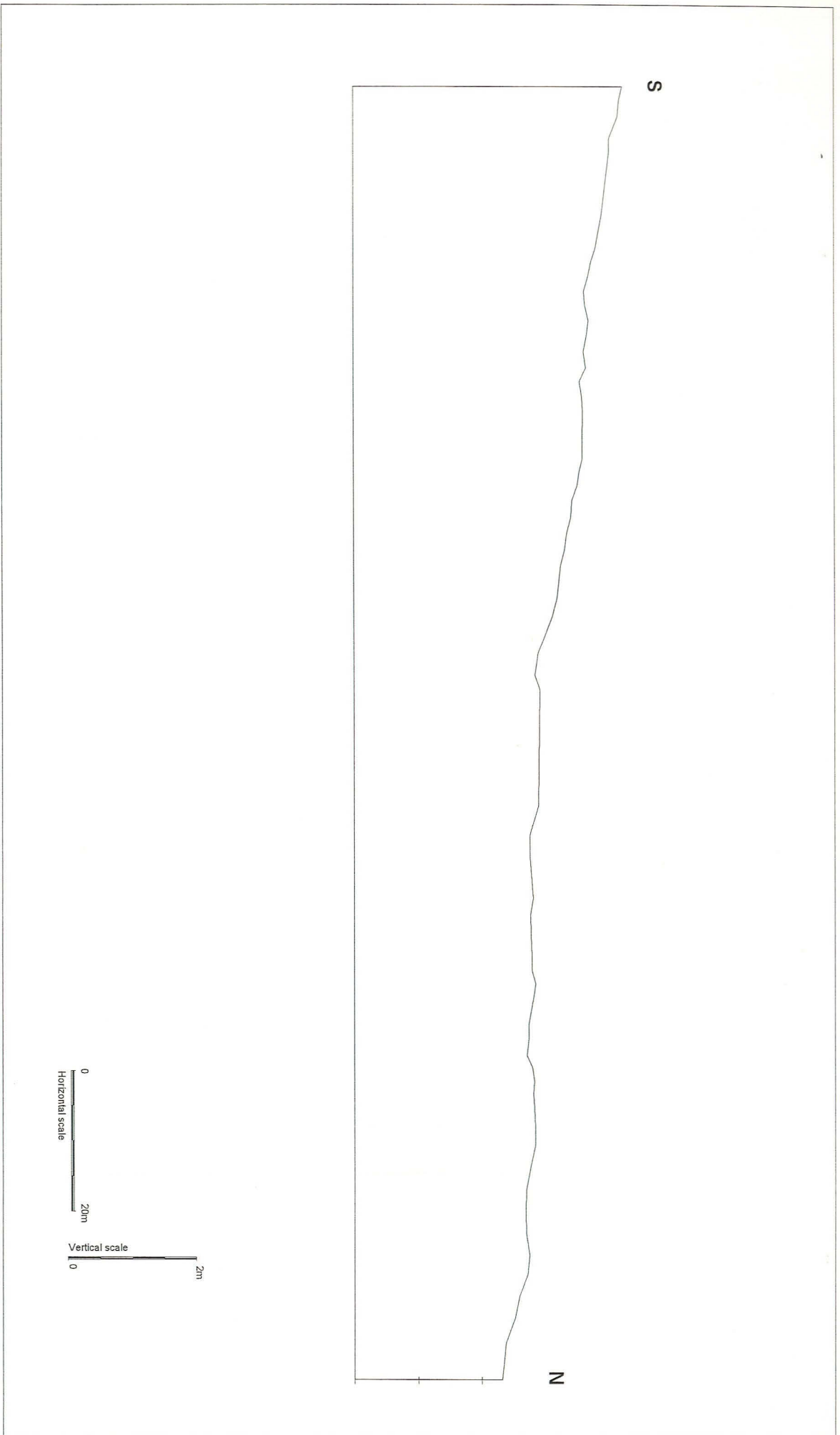


Figure 12 - Transect Survey Profile of Earthworks (exaggerated vertical scale)



Plate 1 Dunholme Manor in the late 19th Century (from Leach and Pacey, 1992)

No plate 2

## Appendix 1

### PROJECT BRIEF - ARCHAEOLOGICAL EVALUATION AT OLD MANOR FARM, DUNHOLME, LINCOLNSHIRE

#### 1. Introduction

- 1.1 This document should be read in conjunction with the *Standard Brief for Archaeological Projects in Lincolnshire*, available from the Lincolnshire County Council, Archaeology Section. The successful specification must be approved by this section on behalf of the planning authority.

#### 2. Site Description

- 2.1 Dunholme is situated just north of the A46, approximately 7km northeast of Lincoln in the administrative district of West Lindsey. The parish spans the limestone dip slope from the River Langworth at 8m OD in the east to above 30m on the limestone heath.
- 2.2 The site forms a broadly triangular piece of land bounded by Scothern Lane to the west, residential properties off Ashing Lane and the Lane itself to the north and the A46 to the south. The buildings of manor Farm are located in the western third of the area and there is a pond to the north and a further pond in the eastern corner of the site. The ground conditions on the rest of the site are not yet known as a site visit has not been made. A footpath runs north-south through the farmyard.

#### 3. Planning Background

- 3.1 This evaluation project brief has been requested by Persimmon Homes as part of a pre-application inquiry.

#### 4. Archaeological Background

- 4.1 Prehistoric activity is known from the vicinity of the site. A Neolithic flint axe was found just to the east of the proposed development area. Although this does not in itself confirm prehistoric activity on this site other prehistoric finds and sites are known from the parish including further axes, a prehistoric cropmark enclosure and a Bronze Age arrowhead to the west and Late Iron Age enclosure and hut circle on the Welton Road.
- 4.2 Romano-British pottery is also known from the vicinity of the site, found in gardens along Ashing Lane. Further finds of pottery of this period have been made in the parish, including on the Late Iron Age site on the Welton Road.
- 4.3 The medieval settlement contained an episcopal manor and a grange of Kirkstead Abbey. Remains of the medieval period were reported in Grange Close before they were levelled in 1948. These are reported to be the remains of the Bishops' Manor or Grange. Field walking has located a main stone building at TF 02747933 with much associated medieval glazed roof tile and pottery. The site of the Old Manor House is believed to have been a former monastic property which was acquired by the Grantham family in 1545 and gave rise to a 'substantial residence' demolished in 1898. A report of a moat may have been a formal garden but nothing now remains of this feature. The village is recorded as possessing a watermill from 1202.
- 4.4 NMP plots show features within the site and under Ashing Lane which are interpreted as probable unknown medieval earthwork tofts and building. These are in the location of the possible Bishop's Manor/Grange.

#### 5. Specific Project Requirements

- 5.1 This brief covers the execution of the first two stages of the archaeological evaluation. The first stage will be a fully detailed desk-top assessment. Accurate plotting of aerial photographic information will

be expected within the boundary of the site. Sketch plotting of features in the wider area will also be expected. The value and effect of previous development on the site should also be considered. The report of the first stage should be produced before any further work takes place. It will be expected to contain suggestions for further work and alterations to the project design in the light of the results. Any revisions to the strategy for the second stage must be submitted to and approved by this section on behalf of the local planning authority.

- 5.2 The second stage will consist of the use of non-intrusive evaluation techniques.
- 5.3 The results of both stages will be used to determine the strategy for the third phase of evaluation which will be trial trenching (if appropriate). The third stage will be the subject of a separate project specification.



## Appendix 2

### AERIAL PHOTOGRAPHS

This list represents those aerial photographs examined for this study.

J.T. Hayes

LM11/1	Cropmarks west of Ryland Road	Undated
LM11/2	Cropmarks west of Ryland Road	Undated

RCHME

69217/743	Vertical view of Dunholme c. 1: 10 000	June 1969
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CUCAP

RC8-CN-76	Vertical view of Dunholme c. 1: 15 000	April 1978
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## Appendix 3

### DUNHOLME GEOPHYSICAL SURVEY Engineering Archaeological Services Ltd.

#### INTRODUCTION:

NGR Centred on TF 026 793

#### LOCATION AND TOPOGRAPHY

*The area surveyed lies to the southeast of Dunholme village lying between Scothern Lane and the A46. The area has been abandoned for a number of years and as a result ground conditions are poor with rubbish having been tipped in a number of areas as well as dense vegetation which needed mowing prior to survey.*

#### ARCHAEOLOGICAL BACKGROUND

*The area lies close to the medieval centre of Dunholme, and the brief refers to a possible medieval building towards the northeast of the site.*

#### AIMS OF SURVEY

*It was hoped that a combination of scanning and magnetic susceptibility would detect general areas of archaeological potential while detailed resistivity survey and magnetometry would detect any archaeological features and help clarify their nature and extent.*

#### SUMMARY OF RESULTS

*Magnetometry detected part of an enclosure close to the northern boundary of the site.*

#### SURVEY RESULTS:

##### *Area*

An area of c. 6Ha. was scanned. c. 0.4 Ha. of detailed resistivity and c. 1 Ha of detailed magnetometry in two blocks was carried out.

#### COMPLICATING FACTORS

The whole area had been covered by dense vegetation prior to survey and this had been cut leaving a very variable surface with some areas of thick vegetation, dense swathes of grass on the ground and a rough surface beneath presumably from the areas last ploughing. Part of the area had previously had buildings and yard areas and was littered with construction debris. The irregular surface and variable thickness in ground cover meant that consistent magnetic susceptibility results using both the MS2D search loop and the MS2F probe could not be obtained.

The very dry ground conditions over recent months and the rough ground conditions created problems for resistivity survey.

##### Scanning

to investigate this feature. Ferro-magnetic disturbance was detected across much of the rest of the area mostly attributable to agricultural or demolition activities but also with the effects of fly tipping and bonfires on the site.

No other archaeological features were detected.

#### Detailed survey:

##### Area 1

##### Resistivity survey

The eastern end of Area 1 was surveyed both to test for the possible presence of a potential medieval building in the area and to investigate the nature of the linear feature detected during scanning. Problems were experienced with probe contact resistance across the whole area, this was exacerbated in several areas by the apparent stony nature of the topsoil. The densest area of high readings caused by the ground conditions roughly corresponds to the area where the enclosure ditch turns north (Figure 2) where a low resistance feature would be expected.

No archaeological features at all were detected.

##### Magnetometer survey

The principle feature detected was part of an enclosure (Figure 5), there are a number of other features connected to the southwestern corner of this enclosure. There is a small, potentially archaeological feature in the northwestern corner of the area.

The eastern half of the area has a number of very feint features (Figure 3). While these features are potentially archaeological the main axis is parallel or orthogonal to the lane to the north and it is likely that these represent relict ridge and furrow or drainage features.

Towards the eastern end of the area is a circular feature. This is almost certainly a well. It still has a small bore iron pipe projecting from it though this is too small to be responsible for the feature detected.

The remaining features are all ferro-magnetic and correspond to modern rubbish, disturbance and services. The eastern most of these features corresponds to a trial hole where medieval pottery was observed on the surface.

##### Area 2

This area was found to be fairly noisy during scanning but it was felt that it was fairly close to the village centre and therefore warranted detailed investigation.

The features detected are all ferro-magnetic in character. These features are all probably modern though there is some indication of a linear spread which may indicate the former existence of a track or path approached Manor Farm from the corner of the field.

#### MAGNETIC SUSCEPTIBILITY

Soil samples were taken from random locations across the area in order to assess the magnetic susceptibility of the soils. No sub-soil samples were obtained for comparison.

The susceptibilities as measured show a significant variation. It may be significant that the higher values come from the western end of the enclosure and that area immediately to its west.

Sample	Volume susceptibility $X_v$	Mass susceptibility $X_m$
--------	--------------------------------	------------------------------

Grid 1	53	45.3
Grid 4	11	10.2
Grid 7	11	8.7
Grid 8	47	37.3
Grid 11	28	23.3

## CONCLUSIONS

It is a fundamental axiom of archaeological geophysics that the absence of features in the survey data does not mean that there is no archaeology present in the survey area only that the techniques used have not detected it.

No archaeological features were detected by the resistivity survey.

Both scanning and detailed magnetic survey detected archaeological features close to the northern boundary.

Surveyed by John Price.

May 1998

## TECHNIQUES OF GEOPHYSICAL SURVEY:

### Magnetometry:

This relies on variations in soil magnetic susceptibility and magnetic remanance which often result from past human activities. Using a Fluxgate Gradiometer these variations can be mapped, or a rapid evaluation of archaeological potential can be made by scanning.

### Resistivity:

This relies on the variations in the electrical conductivity of the soil and subsoil which in general is related to soil moisture levels. As such, results can be seasonally dependant. Slower than magnetometry' this technique is best suited to locating positive features such as buried walls that give rise to high resistance anomalies.

### Magnetic Susceptibility:

Variations in soil magnetic susceptibility occur naturally but can be greatly enhanced by human activity. Information on the enhancement of magnetic susceptibility can be used to ascertain the suitability of a site for magnetic survey and for targeting areas of potential archaeological activity when extensive sites need to be investigated. Very large areas can be rapidly evaluated and specific areas identified for detailed survey by gradiometer.

## INSTRUMENTATION:

1. Fluxgate Gradiometer - Geoscan FM36
2. Resistance Meter - Geoscan RM4/DL10
3. Magnetic Susceptibility Meter - Bartington MS2

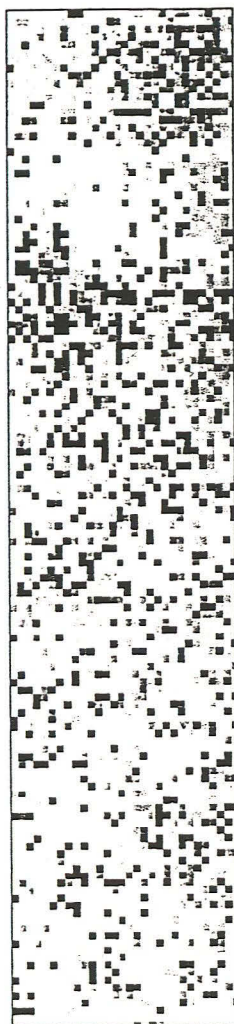
## METHODOLOGY:

For Gradiometer and Resistivity Survey, 20m x 20m or 30m x 30m grids are laid out over the survey area. Gradiometer readings are logged at either 0.5m or 1m intervals. Data is down-loaded to a laptop computer in the field for initial configuration and analysis. Final analysis is carried out back at base.

For magnetic scanning transects 10m apart are laid out across the survey area any features detected are measured and their position shown on the location map.

For Magnetic Susceptibility Survey a large grid is laid out and readings logged at 10m intervals along traverses 10m apart, data is again configured and analysed on a laptop computer.

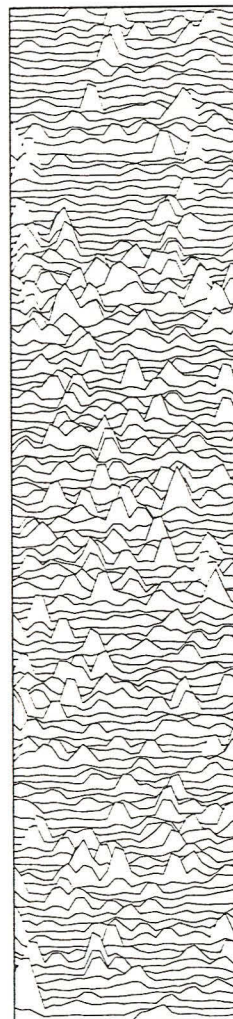




70.0  
65.0  
60.0  
55.0  
50.0  
45.0  
40.0  
35.0  
30.0  
25.0  
20.0  
15.0  
10.0  
ohms



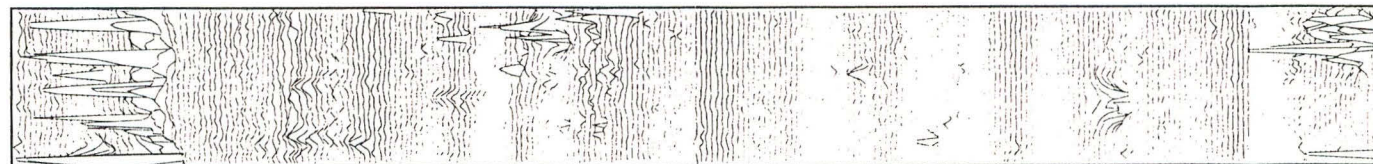
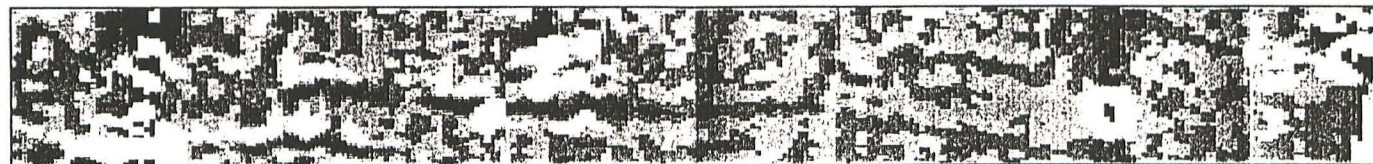
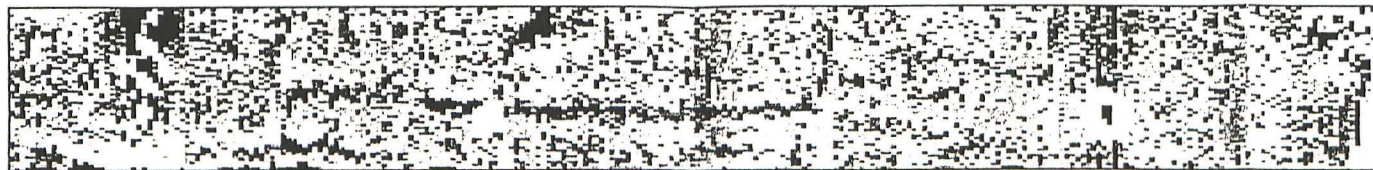
250 ohms



Dunholme  
Area 1 - Resistance Data

Scale 1:1000

Figure 2



4.0  
3.4  
2.8  
2.3  
1.7  
1.1  
0.5  
-0.1  
-0.7  
-1.3  
-1.8  
-2.4  
-3.0  
nT



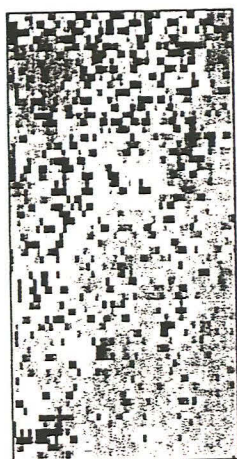
40nT

Dunholme  
Area 1 - Magnetometer Data

Scale 1:1000

Figure 3

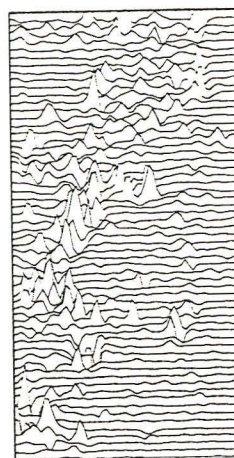




20.0  
17.1  
14.2  
11.3  
8.0  
5.4  
2.5  
-0.4  
-3.3  
-6.3  
-9.2  
-12.1  
-15.0  
nT



200nT



Dunholme  
Area 2 - Magnetometer Data

Scale 1:1000

Figure 4



## Appendix 4

### SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS - Extract From *Archaeology And Planning* Doe Planning Policy Guidance Note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

- 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 records 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 or 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 that 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 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.

## Appendix 5

### EXTRACT FROM SINGLE MONUMENT DESCRIPTION, MONASTIC GRANGES (English Heritage 1989)

Alternative, related and colloquial terms: Bercary; Barton; Cote; Lodge; Monastic estate farm; Monastic horse stud; Smithy; Vaccary, Whether

Ordnance Survey map term: Barn; Grange

#### 1 Definition

Particular problems surround the definition of the monastic grange as a class of monument, since the word "grange" has been used in a variety of different senses in the past, for example the term grange can refer generally to a medieval building or postmedieval farm complex. A grange may be defined as a consolidated block of monastic demesne land, anything from c30ha to c2000ha or more in extent, often (though not invariably) at a distance of several kilometres from the abbey itself, organised as an estate farm and worked more or less independently of the manorial system of communal agriculture and servile labour. At the core of the estate were farm buildings, paddocks, gardens, granaries, industrial workings and, occasionally, a chapel. It is this central core which is often recognised as the monument, with grazing land and field systems recorded as outlying associations.

Such properties were especially characteristic of the estates of Cistercian abbeys, but the system of farming pioneered by the Cistercian monks was soon imitated by other orders, particularly the reformed regular canons such as the Premonstratensians and Gilbertines. Even the older-established Benedictine and Cluniac houses borrowed some elements of the idea, reorganising the exploitation of their own properties to increase their income.

The class of granges may be subdivided into roughly five types, including: agrarian farms, bercaries (sheep farms), vaccaries (cattle ranches), horse studs and industrial complexes (iron workings). An individual monastic estate might include several types of out-station or outlying grange, in addition to a "home grange" adjacent to the monastery. This served as an estate office and centre of organisation. Most of the specialised out-stations (for example iron workings; horse studs) also included some degree of mixed farming or animal husbandry. This combination of functions results in the repetition of components between types within the class, and with classes of secular monument such as farmsteads and moats.

Monastic granges in these senses can be recognised either through documentary records, or from the examination of upstanding buildings, or from the evidence of earthworks and cropmarks, or from a combination of those approaches. They normally include a place of residence and a barn. Other features, such as a chapel, granary and other farm buildings, stock enclosures, dovecote, fishpond and garden are frequently present.

The components of the grange may not vary significantly from secular manorial estates. The only thing that distinguishes them is monastic ownership, though as a consequence of this they may be more impressive in scale, architectural adornment and planning than their secular counterparts. Monastic granges exploited certain commercial ventures earlier, and on a larger scale, than secular counterparts; for example, iron working complexes of the 12th and 13th centuries and horse studs of the 13th and 14th centuries.

The function of monastic granges was twofold, (i) to provide food and raw materials for consumption within the abbey itself, and (ii) to produce surpluses for sale for profit. Monastic granges can first be recognised in the 12th century, and continue in use, with some significant changes in management and function, up until the Dissolution (1535 - 40).

Outside its definition as part of a monastic estate, the term "grange" has several less specific meanings which should not be confused with monastic granges. These include: a barn, particularly a large and architecturally impressive one, for the storage and processing of anthracite grain; the medieval Latin term grange, used in monastic records, frequently has this specific conventional meaning; a granary for the storage of threshed grain; or any large country house of post-medieval date with farm buildings, built as the residence of a gentleman farmer.

Morphologically, monastic granges are similar to the Cameraes associated with medieval Preceptors, nonconventional alien priories and monastic retreat houses. Some will resemble the comparable groups of domestic and agricultural buildings on the estate of an episcopal or secular landowner.

## 2 Date

Within the broad date-range indicated above, building operations on many sites can be dated more precisely by documentary evidence, architectural style, datestones and, in the case of timber structures, by radiocarbon or dendrochronological methods.

Architectural evidence indicates a building programme beginning in the 12th century, accelerating considerably in the 13th century, and continuing on a selective basis through to the dissolution. By its very nature the survival of architectural evidence is heavily biased towards the more substantial examples of later medieval rebuilding. Many of the first generation of grange buildings were probably of comparatively low standard, reflecting the limited capital investment possible at the start. Although upstanding 12th century buildings have been recorded, for example the domestic range of the grange of St Augustine's Abbey, Canterbury, at Minster-in-Thanel, Kent, such survivals are exceptional. The architectural survival is also biased towards the domestic buildings and the greater barns; comparatively few of the lesser grange buildings survive.

Radiocarbon dating has been applied to some grange buildings, including Beaulieu Abbey's barn at Great Coxwell, Berks (mid 13th century), Evesham Abbey's barn at Middle Littleton, Worcs (c1250-60) and Pershore Abbey's barn at Leigh, Worcs (14th century, perhaps c.1325). Dendrochronological dating has also been used for the barns at Coxwell, Littleton (c1315), and Glastonbury (post-1361) but has proved difficult in other cases, for example Leigh.

A few grange buildings include medieval datestones. Examples include Kingswood Abbey's barn at Calcot (Glos), with a reset datestone of 1300, and Winchcombe Abbey's barn at Church Enstone (Oxon), which has a datestone of 1382 obviously not in its original position. Datestones must be used with caution as dating evidence: sometimes they record merely the date of repairs to an earlier building, sometimes they are reset in a later one; nonetheless, they are of value as a record that building or repair work was going on at the stated date.

Foundations of specialised granges as out-stations of monasteries varied according to fluctuations in the value of the surplus commodities which they produced. Foundation grants to most Cistercian houses and to those of other monasteries during the 12<sup>th</sup> century make it clear that sheep formed an important part of their economies. The role of sheep farming increased during the 13<sup>th</sup> century, before declining from the early 14<sup>th</sup> century. Many regions were covered by vast sheep walks ranging from the Cheviots in the north to the Cotswolds and Hampshire Downs in the south. The larger houses ran large flocks: Fountains flock at its peak is estimated at 15,000, while Meaux ran 11,000 on the Holderness marshes. Although sheep farming survived up to the dissolution, it retained its earlier economic predominance.

The Cistercians created vast upland cattle ranges from the 12<sup>th</sup> century. Their purpose was to produce meat, but more importantly, to yield hides for leather and parchment. Other orders, quickly followed and large areas of appropriate grazing ground in upland marshland and fenland were colonized throughout the 13<sup>th</sup> century. Early documentary evidence for monastic horse studs is meagre. Burton Abbey had one in the early 11th century and two in the 12<sup>th</sup> century. Their main floruit appears to be in the 13<sup>th</sup> and 14<sup>th</sup> centuries, but this is probably an impression created by the documents available to us. It seems likely that, as the main source of motive power, most monastic houses continued to breed at least their own supply of horses.

## 3 General Description

There is a considerable literature on monastic estates, including some important works focussing upon the grange as an agrarian unit; but much of the work of historians has been concerned primarily with the processes of acquisition, distribution, administration and economic exploitation of the estates, and while such studies are important in their own right and for the background information they provide, few of them have shown more than a marginal interest in grange buildings and other structures. The first systematic general study of monastic grange buildings was carried out by Platt, and this work still stands alone as a general synthesis, though the estates of some individual houses have also received superficial examination. The previously defined "settlement type" earthworks on a number of Cistercian granges may actually represent villages depopulated prior to a grange's creation.

Comparatively few granges have been examined by excavation. An early exception was the grange of St Augustine's, Canterbury, at Minster-in-Thanel, partly excavated. In the 1950s the house yard and byre of an upland pastoral farmstead on Dean Moor, Dartmoor, belonging to Buckfast Abbey was totally excavated, but this seems to have been a small outstation occupied only seasonally by a single lay-brother and herdsman, and is somewhat marginal to the main class of granges. More extensive excavations have taken place since the 1960s at the Fountains Abbey grange at Cowton, Yorks, the Evesham Abbey grange at Badby, Northants, and the Abingdon Abbey grange at Dean Court, Oxon (neither of the last two yet fully published). In Wales

the granges at Llantwit Major, Carno and Merthyrgeryn have been the subjects of limited excavation.

Some significant architectural studies have also been carried out, notably on the great barns of Beaulieu Abbey at Beaulieu St Leonard's, Hants, and Coxwell, Berks, the barn of Evesham Abbey at Littleton, Worcs, the barn of Pershore Abbey at Leigh, Worcs, the barn of Gloucester Abbey and Frocester, Gloucester and the barn of Winchcombe Abbey at Enstone, Oxon.

The following discussion is divided according to the main types of monastic grange: agrarian, bercaries, vaccaries, horse studs and industrial complexes.

#### Agrarian Granges

There is no universally-standard agrarian grange plan, but certain components recur, their comparative importance and arrangement varying according to date, local topography, form of organisation preferred by the monastic order concerned, capital resources of the individual house, and the particular economic characteristics of the individual property (especially whether arable or pastoral husbandry is predominant).

From the 12th century, when evidence first becomes available, the central feature of most granges as a residential building. An unusually early surviving example is that already noted at Minster-in-Thanel, much altered in the 15th century. On Benedictine and Cluniac estates especially, the domestic accommodation was often not significantly different from a contemporary secular manor-house; it normally included a hall with a solar or chamber and service rooms, kitchen and garderobe. The dimensions of halls known from documentary records and from surviving examples range from c14m-c6m long and c. 10m-6m broad; chambers vary from c. 10m-6m x 6m-4m. The hall served as a refectory, the chambers provided sleeping-quarters. Later in the middle ages domestic buildings on selected granges might be considerably elaborated as they became detached from their agricultural land and were developed into country residences for the abbot (eg Meare on the Glastonbury estate). In such cases peripheral features such as gardens, courtyard walls and moats and gatehouses began to make their appearance. It is not clear at present what arrangements were made on the early Cistercian granges for the accommodation of the lay-brothers; it has been suggested that one of the two long buildings surviving as earthworks at Hen Ddinbych, Clwyd, may be interpreted as a communal refectory and dormitory range. Accommodation for hired agricultural labourers and domestic servants was also required, and some granges may have had what amounted to a small estate village nearby.

Every grange needed a place of worship (and the Premonstratensian statutes specifically insisted on this); but initially no provision of special buildings was made for this purpose, and devotions probably took place in the open air. The Cistercians in their early years opposed the building of chapels at the granges, insisting that no grange should be more than a day's journey from the abbey church. The provision of permanent chapels may have been delayed by two factors: a reluctance or inability to infringe upon existing parochial rights, and a reluctance to make the grange too independent of the abbey itself. The acquisition of more distant estates, and the more frequent visits to granges by the monks and canons themselves, broke down the initial resistance to grange chapels, and numerous examples were built after the 13th century (eg St Pancras Chapel, Washford, on the Cleeve Abbey estate, Somerset).

The second major requirement was a barn for the storage and processing of grain crops. Barns would be designed to accommodate not only the produce of the monastery's own demesne, but also, where appropriate, rents and tithes paid in kind. Little is known of early monastic barns, although there are occasional documentary references in the 12th century. However, documentary and architectural evidence suggests a widespread programme of barn construction on monastic estates after c1200, continuing into the 15th century. Monastic houses whose landed estates were less extensive sometimes elected for a single large barn in their own outer court centralising grain storage from all their estates, instead of numerous outlying barns on the estates themselves. Even where there were barns on the outlying estates, there was often also a large barn on a home grange immediately adjacent to the abbey, as at Glastonbury or Abbotsbury. The size of monastic barns varies considerably. Many of them were very large (all dimensions quoted hereafter are internal): Abbotsbury is 82.6m x 9.4m; St Leonards, 68.3m x 20.4m; Tisbury, 57.3m x 9.8m; Frocester, 56m x 9.1m; Bradford-on-Avon, 51.2m x 10m; Great Coxwell, 46.3m x 13.4m; Middle Littleton, 43.3m x 11.6m; Leigh, 42.9m x 10.7m. Some are known from excavation to have been extended, for example the home grange barn of Waltham Abbey, five bays long when first built in c1200, was extended later in the 13th century to twelve bays, achieving maximum dimensions of 64m x 12.8m. Others were considerably smaller, and may reflect a different form of organisation or purpose: the Shippon barn on the Abingdon estate, for example, is only 17.5m long x 5.6m wide internally, and this appears to have housed the tithes destined for the abbey kitchener's office.

Other agricultural buildings, normally housed within the same courtyard as the barn, included granaries, dovecotes, haybarns, pigsties, storehouses and buildings for sheep or cattle, with their associated yards and boundary banks or walls.

Granaries appear to be comparatively rare as surviving features, though there is an intact example adjoining the great barn on the

Shaftesbury Abbey grange at Bradford-on-Avon., Wilts, and a ruined granary over 60m long is reported at Neath Abbey's grange at Monkknash.

Dovecotes are well-represented in the documentary evidence from the early 13th century onwards, and many examples survive. They vary considerably in form. On present evidence circular stone-built dovecotes appear to be generally earlier than square or rectangular dovecotes of stone or timber (at the home grange of Waltham Abbey a circular dovecote was succeeded by a square one); but there is also considerable regional variation. Circular examples on the Evesham Abbey estates range in size from Hillborough (internal diameter of 7.7m, height to wall-plate 5m) down to Wickhamford (internal diameter of 4.4m, height to wall-plate 4.1m). A rectangular two-storey dovecote 13.1m x 7.1m survives on the Gloucester Abbey grange of Frocester.

Other farm buildings such as henhouses, stables, pigsties and haybarns are frequently documented, but rarely appear to survive. An inventory of the Kensworth property of the canons of St Paul's in 1152 mentions an ox-house 10m x 3.7m x 4m, a sheephouse 11m x 3.7m x 4m, and a lamb-house 7.3m x 3.7m x 3.7m. Cattle-sheds and sheepcote are significant components of granges in pastoral areas, and may sometimes stand alone; these have sometimes been identified from earthwork evidence. Storage buildings of various kinds regularly occur; a Woolsthorpe has been identified on the grange of Rievaulx at Laskill. Buildings for the processing of food, including dairies, bakehouses and brewhouses, occur occasionally, although such operations were more frequently probably carried out at the abbey itself. Industrial buildings such as workshops of various kinds, forges, smithies, tanneries, tile kilns, corn mills and fulling mills may be found on some granges, but are not regular or essential components.

Fishponds frequently occur on monastic granges, but on present evidence they generally seem to be of comparatively simple form, rarely involving more than two or three ponds, though occasionally these may be of considerable size. Buildings associated with the fishery (fishermen's houses, fish and net stores, drying furnaces) survive only at Meare on the Glastonbury estate, but a number of other examples have been recognised from earthwork or documentary evidence, and examples have been excavated on Byland Abbey's grange at Cam's Head, Yorks.

In the wider landscape, paddocks, fields and roads associated with granges can be recognised around Tintern's grange of Merthyrgern. At Garendon Abbey's grange of Reevestones (now Roystone, Derbyshire) careful examination of existing stone field walls has distinguished those built in the late 12th and 13th centuries under the abbey from those of earlier and later construction. Monastic farm boundaries, and routeways linking the granges with the central abbey and the bercaries and vaccaries with their pasture can also sometimes be identified.

### Bercaries

Monastic sheep farms are a series of enclosures adjacent to extensive enclosed grazing grounds. Transhumance was commonly practised, with summer pastures some distance away. Perhaps the most distinctive feature of the cote complex is the often large numbers of enclosures of varying size and probably function. Those in Bolton Priory's site on Malham Moor are typical. Each major entrance has an internal enclosure through which the animals have to pass before entering the main complex. These probably represent counting pens. Other enclosures are distinguished by deep humic soil. Like many other sites, this bercary housed other animals (horses and pigs) and had a chequered development, so it is likely that what survives is not all of one phase, nor devoted wholly to sheep breeding. Sheep washing pits are usually sited alongside a shallow watercourse: most grazing grounds should possess one where the sheep were not centralized. Isolated folds existed to catch and pen the sheep. Two types are known: the circular "stells" on the Northumbrian Cheviots, and "L" shaped stone walls with an opening in the angle into an enclosed fold, found in the Derbyshire Peak. Those at Roystone Grange, a bercary of Garrondon Abbey, (Leicestershire), form the backbone of the subsequent field boundaries, but are distinguished by their form of walling.

Separate winter and summer grazing grounds could create extra facilities on permanent monastic farms, and temporary accommodation on summer pastures: temporary summer shelter may not leave any permanent trace, for manuscript illustrations show wheeled cabins very similar to those in use until recently in areas like Sussex.

The most common building found on deserted sites is a long, narrow, structure up to 100m long, sometimes with single or double aisles. These have been found on surveyed sites at Malton Priory's bercary on Levisham Moor (North Yorks) and Bolton Priory's bercary on Malham Moor (North Yorks), respectively Gilbertine and Augustinian houses. They are seen commonly on aerial photographs of upland cotes, as on Rievaulx's sites at Knawels and Griff. These are often the only buildings in small isolated enclosure complexes on large sheep-walks.

Similar smaller structures are being recognised on Warwickshire bercaries. Other structures identified during survey and from aerial photographs include large barn-like buildings. On large complexes, domestic and administrative buildings are known. The function of the farm buildings is uncertain, and their interpretation made more difficult by the multi-function role that many of these sites served, housing other animals with different sheltering and grazing needs.

Some of the larger houses centralised some process for economic efficiency. Rievaulx's great woolhouse still survives at its grange at Laskills, while documentary evidence suggests that Bylands centralised store lay at Thorpe Grange, a building which does not appear to survive, but which acted for smaller houses and secular wool producers in the region. The Cistercians cleaned and sorted their wool, other orders sold it unsorted.

It is possible that some of the enclosures were for sheepmilking, as perhaps were the isolated pens of the Peak District. The ' often large numbers of hurdles purchased in some -regions suggest that they were used to make temporary folds, also used to concentrate manuring on stubble and grassland. The large quantities of milk produced suggests large permanent dairies to process it. In the early 14<sup>th</sup> century Canterbury Priory reclaimed vast tracts of the east Kentish marshes to graze 6,000 ewes which produced, after the weaning of lambs, upwards of 50,000 gallons of milk per year. Such large quantities, not untypical of other large houses, imply large and efficient dairies close enough to the grazing grounds for easy processing.

#### Vaccaries

Monastic cattle ranches were made up of two main components: a farm-like nucleus, surrounded by its grazing ground. Documents show that the principal farm buildings would be barns for fodder and storage, a dairy and possibly accommodation for the cowherd/keeper, depending on the size and status of the site. Like sheep-cotes, vaccaries have been studied by economic historians but we know very little about their plans or development. Building material was determined by regional geology. Earthworks representing stone buildings are well known on Pennine vaccaries, while cob or timber buildings occurred more frequently in low lying, coastal/marshy regions.

#### Discussion

Often only the buildings at the nucleus of a grange are studied archaeologically. The grange must, however, be examined within its whole estate. Certain activities took place outside the nucleus. Sheep-marking, for example, led to isolated corrals within grazing enclosures. Similarly, sheep-washing required pits in outlying grazing areas. These features will overlap with secular monuments and are therefore studied individually, for example sheep dips form a separate class. It is not yet clear whether a grange's filiation (monastic order) affected the style and size of its buildings. It is possible, however, that the central administration of a monastic estate arranged for all grange buildings to be constructed along similar designs, or repaired by the same carpenters. Differences in components and plan might be expected for granges worked by resident lay-brothers of the order (especially Cistercians, Premonstratensians, Gilbertines), in contrast to granges staffed by non-resident manorial labourers.

The overlapping of components between grange types has already been noted. In addition, granges may have changed function. On Bolton's estates (c1300) bercaries were created by converting existing sites.

#### 4 Distribution and Regional Variation

No region of England is without monastic granges, and in areas like Yorkshire which have been subjected to more intensive work, scores of examples are known; but because of the ambiguities of the term and the uneven coverage of local work, it is difficult on present evidence to discern whether there are significant variations in the national distribution. The occurrence of specialised out-stations was constrained by environmental and geological factors.

There is likely to be regional variation both in the general plan and characteristics of agrarian complexes, reflecting variations in agricultural exploitation, and in the form of their individual components, conforming to local building materials and traditions.

In lowland areas where there were few physical constraints on the layout of the buildings, a more or less regular double courtyard plan appears to be common, with the inner court including the main domestic buildings and gardens, separated by a gatehouse from the outer court containing the agricultural buildings. Moats and drainage channels are a special feature of granges established on reclaimed marshland. Upland sites faced the severest limitations, and tend to have the least regular plans.

Of the individual buildings, barns were naturally largest and most elaborate in the areas where arable farming predominated: the east and south. Cattle-sheds and sheepcote are more important in the pastoral areas of the north, and west.

Circular stone-built dovecotes with conical timber roofs and lanterns are common in the midlands. In the west of England and Wales circular stone dovecotes are also common, but roofs are more frequently of corbelled stone. Square and rectangular dovecotes make an earlier appearance in the east.



Bercaries are distributed according to the short fine grass suitable for sheep fodder. This factor concentrated sheep walks and their cotes on low moorlands, downland and weald, although more hardy varieties of sheep could thrive on upland, coarser grassed pastures. Thus the availability of suitable grazing concentrated sheep breeding, but not to the exclusion of other areas. Most regions contained a variety of grazing conditions, and to maximise resources, animals would be farmed together to exploit the range of grazing.

The distribution of monastic cattle ranches were dictated by the appropriate grazing conditions. Cattle thrived on the rich grass of freshwater marshes as well as the uplands of northern Britain, but not to the exclusion of other habitat types such as woodland and rough pasture. There were areas of concentration such as the Pennine chain, with particular houses holding adjacent blocks of pastures: Fountains and Byland held respective sides of the Nidderdale valley; Jervaulx had stations in Wensleydale; and Rievaulx on the Cleveland Hills; Stanlaw Abbey had cattle ranches to the west of the Pennines in Rossendale.

## 5 Rarity

A minimum estimate of the number of monastic granges would require detailed documentary research and survey for each postconquest monastic house (minimum of c750 monasteries for men and c150 nunneries). Some of the smaller monastic cells and nunneries had no granges additional to their home farms. Most monasteries, however, had several granges, with major houses owning perhaps several dozen. It may be estimated, therefore, that several thousand monastic granges were established in medieval England.

Within the class of granges, agrarian farms were most numerous in southern and lowland areas. In the northern and upland regions, bercaries occurred more frequently. Perhaps least numerous were the more specialised holdings, in particular iron workings and horse studs.

## 6 Survival and Potential

At the Dissolution, many granges were transferred in ownership but remained in use as farms and domestic occupation. Their buildings were not generally subject to the dismantling process undergone by components of some monasteries. Domestic buildings were converted to residential farms and manor houses, which some already resembled, and barns continued to be used. Some survive up to the present day as standing stone and timber structures. More often the components of granges survive as earthworks or cropmarks. Stone enclosure walls and isolated corrals of bercaries occasionally survive, and may form part of an upland relict cultural landscapes. Of the vaccaries, many of the Pennine lodges still survive as farms, much reduced from their medieval extent. Iron workings are sometimes marked by mounds, dams and platforms. Some sites by watercourses have a distinctive horn or "U"-shaped bank attached. The large, tall, well-defined mounds of the type at Bently Grange (of Bylands Abbey, North Yorkshire) are probably postmedieval. Medieval ironworkings are likely to be represented by the less common, shallow, more irregular mounds.

The sorts of deposit recovered by excavations at monastic granges vary between types within the class. Agrarian complexes are associated with contexts characteristic of medieval domestic occupation, including construction (kilns, stone and timber foundations, walls, architectural features, floors, drains, gullies, culverts, wells, paths, courtyards) and domestic debris (pottery, glass, coins, animal bones). Potential for environmental evidence and waterlogged deposits is offered by the gardens and moats which often accompany this type. Cereal-based sites may yield evidence for milling (waterlogged timber frames, wheel pits, quernstones), threshing floors, and storage barns. Fish processing sites have produced wattle structures, waterlogged baskets, lead weights and drying furnaces. Bercaries, vaccaries and horse studs are seldom excavated, but are characterized by stone walls, pits and deep deposits of humic soil.

Several kinds of documents are associated with monastic granges. Monastic chronicles may record the building activities of successive abbots in some detail. Compotus rolls and obedientiaris' accounts sometimes provide evidence for the erection, or at least for the existence of grange buildings. Manorial extents, rentals, customals, terriers and surveys may also provide a terminus ante quem for the existence of grange buildings. Charters, cartularies, registers andoucher-books document the acquisition of estates and to some extent provide a terminus post quem for the first capital investments, although in the case of the old Benedictine estates, the erection of specialised grange buildings may not have occurred until centuries after the first acquisition of the property, while conversely later acquisition of land may include preexisting structures which might be incorporated into the grange.

Placename and fieldname evidence can be useful in identifying specialised out-stations. The extensive complex of dams and

platforms at Fountains' grange of Bradley was identified after following up a characteristic "cinderhills" field-name. Iron workings are also associated with the name components of Oliver, Smithy, Smithies, and Dam. Bercaries may be denoted by Whether and Cote. Vaccaries are sometimes marked by the name Lodge.

### 7 Associations

Monastic granges may be associated with a large number of other sites through stratigraphic, spatial and legal associations. Granges are occasionally superimposed upon earlier medieval villages and hamlets which were depopulated in order to create the grange. Prehistoric field boundaries were sometimes re-used in grange enclosures (for example Malham Moor). In monastic ownership, granges sometimes evolved into retreat or retirement houses for monks. Some developed parks and hunting-lodges in place of working farms.

Spatially, granges may be considered within their own estates; within the larger monastic estate; and as a component within the medieval landscape. Within the grange estate, the main nucleus was linked to fields, paddocks, corrals, Sheep washing pits and mills. Vaccaries were probably located near dairies and tanneries. Granges were linked spatially and legally to their monastic house' and formed one component of the monastic estate. The unit of the estate was made up of the monastery, its home grange, out-stations and various agricultural and tenuous elements (for example, rabbit warrens, villages, gallows, churches, mills). The estate was linked by roads, watercourses and field-boundaries, and was one part of the medieval manorial system. Monastic estates and granges were legally associated with markets. Monastic granges sometimes shared centralised facilities, for example woolstores. Associations varied according to the different types of leasing which operated on monastic estates. Where links with the monastic mother house were cut, granges were able to develop independently, thereby reducing associations. Where tenant-managers assumed control of granges, the integrity of the monastic estate was retained.

### 8 Characterisation Criteria

The four criteria for assessing class importance apply to granges as follows:

Period (currency): Extended. Many monastic granges were in existence for c400 years. During this time, however, their functions may have changed and they were often leased out to secular landlords. More specialised types (for example, ironworkings; horse studs) may have been restricted or transient.

Rarity: Abundant. Present estimates suggest that several thousand monastic granges were established. Most numerous were arable farms, bercaries and vaccaries. Less numerous were industrial complexes and horse studs.

Diversity (form): High. The class of granges can be divided into a number of types according to function: agrarian farm, bercary, vaccary, horse stud and industrial complex. These types vary morphologically according to region. Their plans may be considered in lowland, marshland and upland groups.

Period (representativity): Low. Monastic granges are one of many medieval monuments characteristic of the period.

Assigning scores to these criteria following the system set out in the Monument Evaluation Manual, granges yield a Class Importance Value of 20. This lies about one third up the range of possible values (max = 64), and is low within the category of ecclesiastical monuments. The score reflects the general abundance of the class. A sample of nationally important granges should include a number of transient period (currency), in order to examine patterns of disuse and change of function. In order to identify a variety of types, a nationally based sample would recognise regional biases in types and function.

## Appendix 6

### GLOSSARY

<b>Cropmark</b>	A mark that is produced by the effect of underlying archaeological features influencing the growth of a particular crop.
<b>Earthworks</b>	Alterations to the natural landscape by human action. Normally, earthworks are evident as elevations ('bumps') or depressions ('hollows') in contrast to the general trend of the land surface.
<b>Geophysical Survey</b>	Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry survey and resistivity survey.
<b>Medieval</b>	The Middle Ages, dating from approximately AD 1066-1500.
<b>Post-medieval</b>	The period following the Middle Ages, dating from approximately AD 1500-1800.
<b>Prehistoric</b>	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
<b>Romano-British</b>	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
<b>Saxon</b>	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany