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**A Desk-based Assessment of Budby South Forest,
Sherwood Forest National Nature Reserve. Budby,
Nottinghamshire.
(SK 60333 64766).**

Desk-based Assessment

Andy Gaunt
Mercian Archaeological Services CIC
07/03/2018
Ref: RSPBG AU18001
Report MAS039



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Title:	A Desk-based Assessment of Budby South Forest, Sherwood Forest National Nature Reserve. Budby, Nottinghamshire.
Author:	Andy Gaunt MA BSc CertHE FGS FRGS
Derivation:	-
Date of Origin:	20/11/2017
Version Number:	1.0
Date of Last Revision:	07/03/2018
Revisers:	
Status:	Final
Summary of Changes:	Editorial changes
Mercian Project Identifier:	RSPBG AU18001
Client:	RSPB
Checked / Approved for Release by:	Sean Crossley MA PGDip BSc (Hons)

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Non-technical summary

This Desk-based Assessment has been undertaken by Mercian Archaeological Services CIC as part of the Sherwood Forest National Nature Reserve Archaeology Survey which itself forms a part of the Sherwood Forest Archaeology Project.

This report is the result of research bringing together information regarding the history and archaeology of the site. It discusses the archaeological work undertaken in the surrounding area and provides a historical and archaeological background for the site.

The report includes analysis from archaeological reports, the Historic Environment Record for Nottinghamshire, historical documents, primary sources, archives, aerial photographs, LiDAR data and previous archaeological research to interpret the archaeological resource that may be present at the site.

Results are presented through discussion, and through maps generated from LiDAR data and historic map analysis.

This document forms the first stage of an archaeological project that is investigating the results from this document and undertaking fieldwork to systematically survey Budby South Forest.

The Royal Society for the Protection of Birds (RSPB) have been managing the site of Budby South Forest since 2015. This report was commissioned by the RSPB to provide a greater understanding of the archaeological resource within Budby South Forest and to aid in the management of the site.

1. Introduction

This Desk-based Assessment has been undertaken by Mercian Archaeological Services CIC as part of the Sherwood Forest National Nature Reserve Archaeology Survey which itself forms a part of the Sherwood Forest Archaeology Project.

This report is the result of research bringing together information regarding the history and archaeology of the site. It discusses the archaeological work undertaken in the surrounding area and provides a historical and archaeological background for the site.

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1.1. Site location

The site which forms the focus of this report is the historic area of Budby South Forest, Budby, Nottinghamshire. The site consists of a 200.14-hectare expanse of ancient historic heathland and woodland. The site lies 6 miles to the northeast of Mansfield, 6 miles to the south of Worksop.

The current area of Budby Heath forms the northern half of the Sherwood Forest National Nature Reserve, with the ancient woodland of Birklands and Bilhaugh forming roughly the other half to the south. The west is bounded by the parish of Warsop, and the modern A616 forms part of the eastern boundary. Historically this road crossed part of the Budby heath, which originally stretched to the east of the road. To the north the site is bounded by farmland, which historically formed the open fields of Budby village. The site since post medieval times has formed part of the Thoresby Estate and was later taken over by the military in the second half of the 20th century.

Since 2015 the site has been managed by the RSPB as part of the Sherwood Forest National Nature Reserve. According to the RSPB website “*Budby is the largest area of historic heathland in the Midlands, blended with ancient woodland... Budby is an extraordinary blend of historic heathland and ancient woodland and wood pasture; a snapshot of a medieval landscape... Budby forms half of the Sherwood Forest National Nature Reserve (NNR); home of Robin Hood and the Major Oak. Surrounded by forestry and farmland, and in the middle of a landscape steeped in mining and military history, the NNR is a snapshot of a medieval landscape that would once have covered the county*”

(<https://www.rspb.org.uk/reserves-and-events/reserves-a-z/budby-south-forest/#7tB8xJGD9WSseVRI.99> - accessed 19/02/2018).

Budby South Forest is situated in the Sherwood Forest Landscape Character Area and has been within the historic Sherwood Forest since its likely inception in the late 11th- early 12th century.

To the south of Budby South Forest lies the ancient woodlands of Birklands and Bilhaugh, forming the southern half of the Sherwood Forest National Nature Reserve, and to the northwest lies Welbeck Estate, to the northeast the Thoresby Estate, and beyond Thoresby to the north lies Clumber Park. This area is known as the Dukeries as each of the residences was formerly the seat of a Duke. The Dukes of Portland at Welbeck Abbey, the Dukes of Newcastle at Clumber, and the Dukes of Kingston, later the Earls Manvers, at Thoresby Hall. Rufford Abbey, a former Cistercian Abbey, subsequently the home of the Talbot family, Earl's of Shrewsbury and latterly the Saville family lies 2½ miles to the southeast. Robin Hood's village of Edwinstowe, home to the Sherwood Forest Visitor Centre is under 2 miles to the south. The former medieval royal hunting complex of King John's Palace in Clipstone, lies under 4 miles to the southwest, and the village of Cuckney is situated 2½ miles to the northwest (see figure 1 below). The area is therefore extremely significant historically and culturally and also in terms of natural habitat.

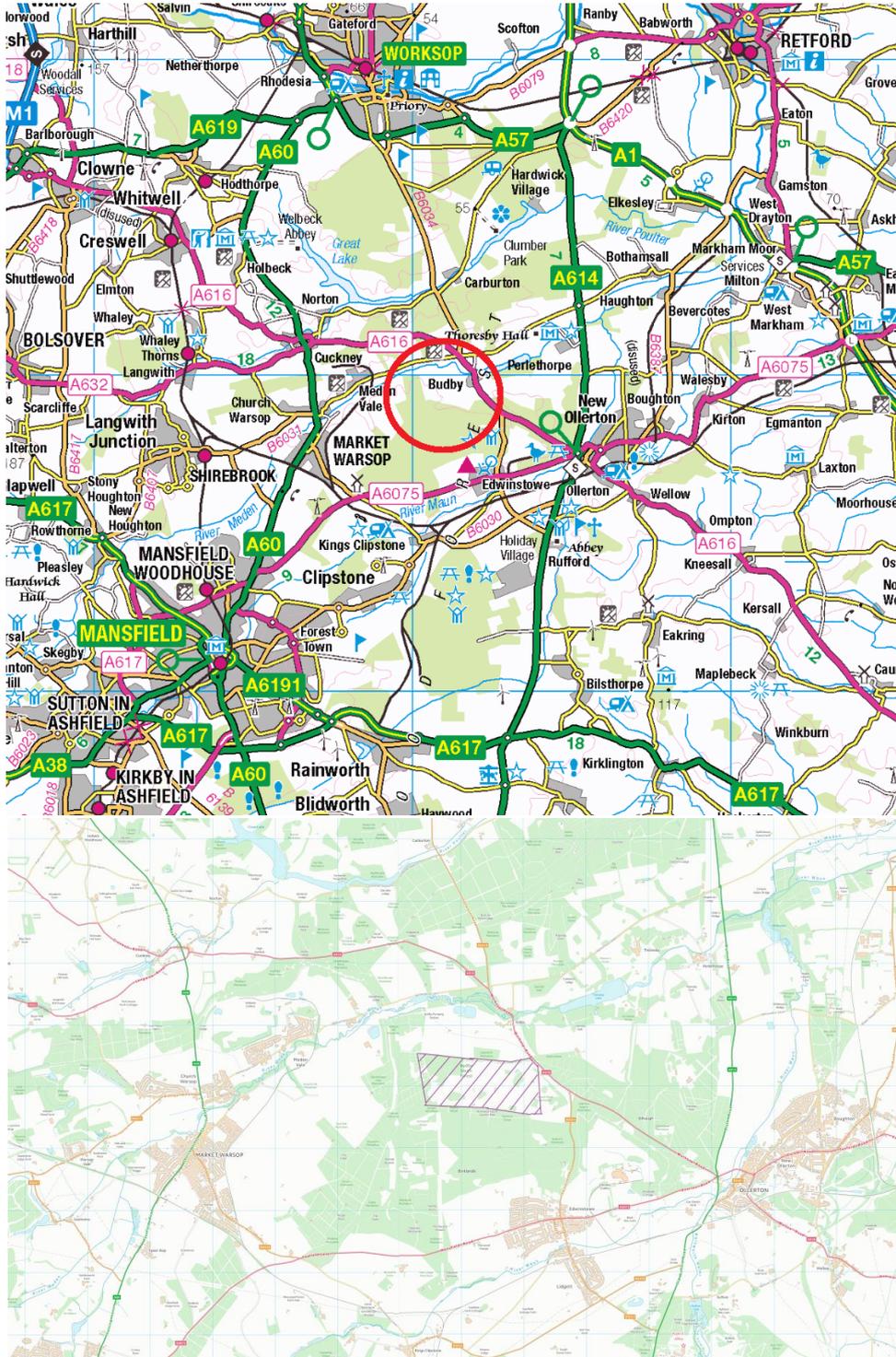


Figure 1: Location of Budby South Forest. The top map shows the site location in a red circle. The lower map shows the site highlighted with purple hatching. Contains OS data © Crown copyright and database right (2018).

1.2. Geology

The site is situated on what was previously known as the Nottingham Castle Sandstone Formation, belonging to the Sherwood Sandstone Group (BGS Geology of Britain viewer, accessed 20/02/2018). The Nottingham Castle Sandstone Formation has been re-classified as Unit C of the Sherwood Sandstone Group; Unit C is named the '*Chester Formation*' and the Nottingham Castle Formation has been subsumed within it (Ambrose et al 2014, 15, 21). The Chester Formation is of Early Triassic age (Ambrose et al 2014, 32). As such they date from approximately 247 to 250 million years ago. The Chester Formation is described, in the Nottinghamshire area, as "*pinkish red or buff-grey, medium to coarse-grained, pebbly, cross-bedded, friable sandstone*" (Ambrose et al 2014, 31). The depositional setting was one of rivers. "*These sedimentary rocks are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting)*" (BGS Geology of Britain viewer, accessed 20/02/2018).

2. Aims and objectives

The report was undertaken as part of ongoing research by Mercian Archaeological Services CIC to bring together information regarding the history and archaeology of the site to enable a 'base-line' understanding of the archaeological remains that may be present.

3. Methodology

3.1 Research Methods

The Desk-based Assessment has been compiled from research into the following sources:

- Historic Mapping Evidence (estate maps 1738, 1843 etc),
- John Chapman's map of Nottinghamshire (1774)
- George Sanderson's map, Twenty miles around Mansfield of 1835,
- National Mapping Project (NMP) cropmark data,
- Historic Ordnance Survey Maps 1885 to modern.
- Aerial Photographs,
- Google Earth,
- Secondary Written Historical Material,
- Archaeological Reports from previous works in the vicinity of Budby South Forest,
- Historic Environment Record (HER) data search,
- Heritage Gateway data,
- Thoroton Society Transactions publications,
- LiDAR data provided by The Friends of Thynghowe.
- Published interims from Mercian Archaeological Services CIC in the Transactions of the Thoroton Society Journal.
- The Manvers Collection at the University of Nottingham Manuscripts and Special Collections (visit to collection).
- Nottinghamshire Archives searches (online and visit to archives).

- Nottingham Angel Row Central Library Local Studies Collection (visit).
- The Sherwood Forest Books (Boulton 1964).
- National Archives (online search)

Please see the bibliography for full coverage of the texts examined as part of the preparation of the Desk-based Assessment.

It has not been possible to consult all documentary sources, especially primary sources in private collections, or at the National Archives. Subsequent reports for the Sherwood Forest National Nature Reserve will include any updates as they are identified. The corpus of reports for the project as a whole, which will be available via Mercian's publications page <http://mercian-as.co.uk/publications.html> and the Sherwood Forest National Nature Reserve Archaeology Survey page at: <http://www.mercian-s.co.uk/sfnnr.html> should be consulted in the process of mitigating and managing the archaeological resource.

The records included have been weighted as to their importance. In particular maps have been included, or data extracted from them and aerial photographs, have been included, where they provide the earliest identifiable date for a feature seen either in LiDAR or in current day mapping and aerial photographs. Much of the discussion in this report revolves around LiDAR data and the relationship of features to that data. The next phase in determining the archaeological potential for the site, and thus enable better management of the resource, is ground truthing of LiDAR data through Level One survey utilising the results of this desk-based assessment, integrated with Level Two survey of certain identified features. Mercian Archaeological Services CIC are undertaking this work at the time of writing.

3.2. Archiving and reporting:

3.2.1. OASIS

An OASIS entry pertaining to the work has been created. The OASIS identifier for the project is OASIS ID - merciana2-311081.

3.2.2. Historic Environment Record

A copy of the report has been logged with the Nottinghamshire Historic Environment Record (HER).

3.2.3. Public Dissemination

Mercian will publish free downloadable versions of the report via our website publications page:

<http://mercian-as.co.uk/publications.html>

And at the Sherwood Forest National Nature Reserve Archaeology Survey page:
at: <http://www.mercian-s.co.uk/sfnr.html>

4. Previous Archaeological work

No Archaeological work has been undertaken within the boundaries of Budby South Forest, but concurrent to this report a Level One Archaeological Survey of Budby South Forest is being undertaken by Mercian Archaeological Services CIC as part of the Sherwood Forest National Nature Reserve Archaeology Survey. The findings of this current survey have been used in places to inform discussion regarding previous work and to aid in the basic interpretations for this report.

Although no archaeological work has taken place within the site itself prior to the current work being undertaken by Mercian Archaeological Services CIC, a large amount of work has been undertaken in the ancient woodlands of Birklands and Bilhaugh to the south of the site, and in the wider landscape.

A search of the Historic Environment Record (HER) covering a rectangular area 4km north to south by 4km east to west centred on grid reference SK 61634 68627, produced:

- 22 archaeological elements,
- 31 listed buildings,
- part of Edwinstowe Conservation area,
- 1 registered park and garden,
- 4 Non-designated Parks and Gardens,
- 2 Historic Village Cores.

(results from Nottinghamshire Historic Environment Record) but please note that none of these fall within the boundaries of Budby South Forest.

Various archaeological investigations are registered on the Nottinghamshire County Council Event/Activity List Report within the HER search area, but also please note that none of these fall within the boundaries of Budby South Forest:

- ENT1019 Watching brief at St Mary's Church, Edwinstowe. Event - Intervention John Samuels Archaeological Consultants
- ENT1281 Watching Brief along River Meden near Church Warsop by TPAT- Event - Intervention Trent and Peak Archaeological Trust
- ENT1491 Field Observation at Perlethorpe cum Budby by Colquhoun- Event - Survey Ordnance Survey
- ENT1506 Field Observation at Perlethorpe cum Budby by Colquhoun- Event - Survey Ordnance Survey
- ENT1507 Field Observation at Perlethorpe cum Budby by Colquhoun- Event - Survey Ordnance Survey
- ENT2096 Field Observation at site of St Edwin's Chapel, Clipstone- Event - Survey Organisation not specified

- ENT2142 Field Observation at Perlethorpe cum Budby by A Oswald- Event - Survey Organisation not specified
- ENT2156 Survey of Clumber Park, Worksop by The National Trust- Event - Survey The National Trust
- ENT2739 Documentary Record of an iron church at Perlethorpe cum Budby- Event - Interpretation Unknown
- ENT2741 Field Observation at Perlethorpe cum Budby by A Oswald- Event - Survey Organisation not specified
- ENT2900 Metal detecting in Clipstone Event - Survey Unknown
- ENT2902 Metal detecting in Clipstone Event - Survey Unknown
- ENT2907 Metal detecting at Edwinstowe Event - Survey Unknown
- ENT3176 Field Observation at site of St Edwin's Chapel, Clipstone by Seaman- Event - Survey Ordnance Survey
- ENT3258 Geophysical surveys at Gleadthorpe by Oxford Archaeotechnics- Event - Survey Oxford Archaeotechnics
- ENT3259 Systematic Fieldwalking at Gleadthorpe by TPAT- Event - Survey Trent and Peak Archaeological Trust
- ENT3356 Metal detecting in Edwinstowe Event - Survey Unknown
- ENT3722 Walkover survey of reservoir site, Hangar Hill, Warsop, by TPAT- Event - Survey Trent and Peak Archaeological Trust
- ENT3774 Trial Trenching at Gleadthorpe Farm, Warsop, by TPAT- Event - Intervention Trent and Peak Archaeological Trust
- ENT3775 Trial Trenching (trench 14) at Warsop by TPAT- Event - Intervention Trent and Peak Archaeological Trust
- ENT4052 The 'Court Circle' Excavation at- Thynghowe, Hanger Hill, Sherwood Forest
- Event - Intervention Mercian Archaeological Services

- ENT985 WATCHING BRIEF AT BUDBY FOREST, WARSOP/PERLETHORPE CUM

- BUDBY- Event - Intervention Heritage Lincolnshire

(Nottinghamshire Historic Environment Record).

The Nottinghamshire County Council Monument Full Report lists 64 monuments in a search of the Historic Environment Record (HER) covering a rectangular area 4km north to south by 4km east to west centred on grid reference SK 61634 68627.

These include:

- MNT3956 The site of St Edwin's Chapel at SK 5936 6662.
- MNT4036 Linear features near Warsop - part of nearby brickwork field system.
- MNT4095 Linear features in Edwinstowe (prehistoric) SK 613 671.
- MNT4099 Linear features, Edwinstowe (prehistoric) SK 632 670.
- MNT4408 Deep V-shaped ditch, Perlethorpe cum Budby SK 6146 7054.
- MNT4458 Enclosures, linear features & circular feature, Perlethorpe cum Budby SK 608 701. *"Complex of linear features, probably field boundaries. 2 small rectangular enclosures. 1 circular / semicircular feature. (1) Cropmarks at Budby Carr of irregular plan fields probably of pre-Ro date, joined to twin subrectangular enclosures of 0.12 and 0.2Ha in area, and a circle, probably a round house, 18.0m in diameter. There are also several rectangular fields, two of which are perhaps 1.6 and 3.0Ha in area"*.
- MNT4468 Linear features & enclosures, Perlethorpe cum Budby Linear features, probable field boundaries. 4 small enclosures. NB much recent change in this area of tracks / plantations. (1) Cropmarks N of Thoresby Lake of 3 isolated enclosures, 500sqm to 1.0Ha in area, connected to a field of 3.0Ha in area. (2) Morph: 58.8.1 Unknown Prehistoric Field Boundary, 58.8.2, 3& 4 Unknown Prehistoric Enclosures (3).

- MNT11768 Trackway and boundary ditches at Gleadthorpe. The ditches were U or curved V shaped in profile with no clear recuts. Pebble concentrations towards the centres of the fills of some were noted and suggest natural silting. No finds except occasional FCP. SK 5957 6982.
- MNT11770 Romano-British ditches at Gleadthorpe. Excavated cropmarks. *“The Y-shaped arrangement of ditches was located at the northern limit of the field. Ditch c proved to be two ditches diverging to the south and produced 16 sherds of RB pot and a bone fragment from cleaning over its surface and a further 24 sherds and 8 FCP from its fill. Ditch a ... two sherds of RB pot from its fill. The area to the north has been subject to mining subsidence remediation works”*. SK 5954 7003.
- MNT16328 Tree Avenue, Hangar Hill Drive, Warsop. SK 5990 6868.
- MNT26018 Romano-British Farmstead at Gleadthorpe, Warsop. *“Large group of cropmarks N of Broomhill Lane. Linear features, forming field systems and trackways, and enclosures. (1) (2) E of Assarts Farm, cropmarks of strips and field boundaries, one boundary formed by 2 parallel ditches 3-4m apart. Also a lane with side ditches 15.0m apart which expand into a "funnel" entrance, intersects the strips; a central rut is visible at one place. A small enclosure cluster (area 0.4Ha), another to SE (area 0.3Ha). Several isolated enclosures to the N vary in area from 500 sq m to 0.3Ha. (3) Morph 18/1/2-10,15 Ro enclosures, linear features, farmstead; 18/2/1 Ro linear feature/trackway. (4) Trial trenches during evaluation of reservoir site identified cropmark ditches and trackway. Ditch b/d and the later re-cut of ditch c have been securely dated to the Ro period by associated finds. The quantity of finds in ditch c suggests that a settlement focus exists towards the north end of the area (ie to north of the reservoir). (5)”*
- MNT26893 Curvilinear earthwork near Thynghowe. Bank and ditch feature approximately 50m to the north east of Thynghowe, Sherwood Forest. SK 59980 68410.

Alongside the records listed on the HER search for the area designated; a number of documents were also provided by Nottinghamshire County Council that have ‘*not yet been absorbed*’ into the database.

These include:

- Gillott, E. 2017. *Sherwood Forest County Park Walkover Survey*. Nottinghamshire Community Archaeology. Nottinghamshire County Council. (discussed below)
- Gaunt, A. 2008. *An Ancient Work in Birklands: a Topographical Survey of an Earthwork in Sherwood Forest Nature Reserve*. NCA-003. Nottinghamshire Community Archaeology. Nottinghamshire County Council.
- A table of 53 features recorded by the Friends of Thynghowe up to 2012 in western Birklands and surrounds, including boundary stone, military pits ancient trees, boundary trees etc.
- Magnetic Susceptibility and Fluxgate Gradiometer surveys, Land East of Swinecoat Road, Edwinstowe, Pre Construct Archaeology.
- Cultural Heritage Appraisal, Edwinstowe Hall, Mayfield CA.
- An Archaeological Watching Brief on St Marys Church, Edwinstowe, JSAC.

The Historic Environment Record (HER) search has helped to demonstrate something of the archaeological potential for the site, however, the database is far from comprehensive and is missing a large volume of the work published in interims (particularly that of Mercian Archaeological Services CIC in the Thoroton Transactions- see bibliography), and also does not cover some of the work by Mercian and others in the wider area that helps to set the site in its context, and which may have some bearing on the site of Budby South Forest, certainly in telling its history and archaeological potential and importance. The following section will discuss some of the most important recent work in more detail and discuss the importance of that research and the results it presents.

4.1. The Sherwood Forest Archaeology Project

The Sherwood Forest Archaeology Project by Mercian Archaeological Services CIC has undertaken a large body of work across the wider Sherwood Forest area, including at Thynghowe, Edwinstowe, King John's Palace, the landscape of Clipstone, Clipstone Peel, St Edwin's Chapel, and Cuckney and the Battle of Hatfield. These individual sites and projects have been subject to various phases of work including full excavation, trial trenching, test-pitting, plough-soil test-pitting, geophysical surveys (resistance, magnetometer, ground penetrating radar), topographic survey, fieldwalking, and Level One Surveys. These projects have all been undertaken as research-based projects including fieldschools, training sessions, and community archaeology projects.

A large body of work has so far been produced as part of this project and the following list is by no means an exhaustive example of some of the publications and reports that have been written as part of the project:

- Budge, D. J. 2017. *Discover King John's Palace Plough Soil Test Pitting Kings Clipstone, Nottinghamshire*. Mercian Archaeological Services CIC. Archaeological Survey Report. MAS033.
- Budge, D. J. 2016. *King John's Palace, Clipstone*. in King 2016 (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol 120 (in press).
- Budge, D. J. 2015(b). *King John's Palace, Kings Clipstone*. In King (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol. 119.
- Budge, D. J., 2014a. *King John's Palace, Clipstone*. in Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol 118. p17.
- Budge, D. J., 2014b. *Clipstone, Edwin's Chapel*. in Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol 118.
- Budge, D. J., 2014c. *Clipstone, King John's Palace*. in Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol 118. p11.
- Budge, D J, 2014, *Draft interim Report on Excavation at Castle Field, King's Clipstone, Newark and Sherwood District, Nottinghamshire*. Mercian Archaeological Services Unpublished Document.

- Budge, D.J. 2013. *King John's Palace, Clipstone*. In Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society volume 117.
- Budge, D. J. & Gaunt, A. 2013. *Clipstone Village*. In Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society volume 117.
- Gaunt, A. 2018a (forthcoming). *The Sherwood Forest National Nature Reserve Archaeology Survey - A Level One Survey of Budby South Forest, Season 1, 2018*. Mercian Archaeological Services CIC. Mercian Archaeological Services CIC. Archaeological Survey Report. MAS040.
- Gaunt, A. 2018b (forthcoming). *The Sherwood Forest National Nature Reserve Archaeology Survey, Season 1, 2018*. Mercian Archaeological Services CIC. Archaeoastronomical and Topographic Survey Report. MAS041.
- Gaunt, A. 2018c (forthcoming). *Interim Report on Ground Penetrating Radar Survey at the Pheasantry, King's Clipstone, Sherwood Forest, Nottinghamshire*. Mercian Archaeological Services CIC.
- Gaunt, A. 2017a. *Archaeoastronomical and Topographic Survey at St Mary's Church, Edwinstowe in Sherwood Forest Nottinghamshire*. Mercian Archaeological Services CIC. Archaeoastronomical and Topographic Survey Report. MAS030.
- Gaunt, A. 2017b. *Geophysical Magnetometer Survey of King John's Palace in Sherwood Forest. Castle Field, Waterfield Farm, Kings Clipstone, Nottinghamshire*. Mercian Archaeological Services CIC. Geophysical Survey Report. MAS024.
- Gaunt, A. 2017c. *Topographic Survey at King John's Palace In Sherwood Forest Castle Field, Waterfield Farm, Kings Clipstone, Nottinghamshire*. Mercian Archaeological Services CIC. Geophysical Survey Report. MAS011.
- Gaunt, A. 2017d. *Geophysical Magnetometer Survey at Thynghowe, Hanger Hill, Sherwood Forest, Nottinghamshire*. Mercian Archaeological Services CIC. Geophysical Survey Report. MAS023.
- Gaunt, A. 2015a *Geophysical Ground Penetrating Radar Survey, King John's Palace*, in King (Ed.). *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol. 119.
- Gaunt, A. 2015b. *Hanger Hill/ 'Thynghowe', Budby/Edwinstowe/ Warsop*. In King, C. (Ed.) *Archaeology in Nottinghamshire 2015*. Transactions of the Thoroton Society volume 119
- Gaunt, A. 2014a. *Clipstone, King John's Palace, Geophysical Magnetometer Survey*. In Challis (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol. 119.

- Gaunt, A. 2014b. *Edwinstowe Test Pitting Project*. In Challis, K (Ed.). *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society volume 118
- Gaunt, A. 2013. *Thynghowe, Hanger Hill*. In Challis, K (Ed.). *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society volume 117.
- Gaunt, A. & Budge, D. 2016. *Excavation at Thynghowe, Hanger Hill*. in King C. *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society volume 120.
- Gaunt, A., Crossley, S. & Budge, D. 2018 (forthcoming). *Excavations at the Viking Assembly site of Thynghowe, Budby, Sherwood Forest, Nottinghamshire*. Archaeological Report. Mercian Archaeological Services CIC, MAS028.
- Gaunt, A. & Crossley, S. 2016. *An Integrated Archaeological Survey of Cuckney Churchyard, Castle, and surroundings. Cuckney, Nottinghamshire*. Integrated Archaeological Survey Report. Mercian Archaeological Services CIC, MAS021.
- Gaunt, A. & Crossley, S. 2014. *The 'Court Circle' Excavation at Thynghowe, Hanger Hill, Sherwood Forest, Nottinghamshire*. Archaeological Report. Mercian Archaeological Services CIC, MAS005.
- Gaunt, A., Wright, J., Crossley, S. & Budge D. 2015. *Excavation of the Medieval Boundary Ditch of King John's Palace, Kings Clipstone, Sherwood Forest, Nottinghamshire*. Mercian Archaeological Services CIC. Archaeological Report MAS010.
- Wright, J. 2013. *Brammer Farmhouse and Arundel Cottage, Mansfield Road Road, King's Clipstone, Nottinghamshire – A standing building survey*. Mercian Archaeological Services CIC Standing Building Survey. MAS001.

Other publications by Mercian's Directors in Sherwood Forest include:

- Gaunt, A, 2011. *Clipstone Park and the King's Houses: Reconstructing and interpreting a medieval landscape through non-invasive techniques*. Institute of Archaeology and Antiquity. University of Birmingham. Unpublished Masters Thesis.
- Gaunt, A. 2010. *The King's Houses. A geophysical Resistance survey of King John's Palace, Clipstone, Nottinghamshire*. NCA-018. Archaeological report. (part of Masters Degree for Institute of Archaeology and Antiquity, The University of Birmingham)
- Gaunt, A. 2010. *A Geophysical survey of King John's Palace. King's Clipstone, Nottinghamshire*. In Robinson (Ed.) *Archaeology in Nottinghamshire*. Transactions of the Thoroton Society Vol. 114.

- Gaunt, A., & Wright, J. 2014. *A palace for our kings - A decade of research into a royal residence in the heart of Sherwood Forest at Kings Clipstone, Nottinghamshire*. Castle Studies Group Journal. Issue 15.
- Gaunt, A., & Wright, J. 2013. *A romantic royal retreat, and an idealised forest in miniature: The designed landscape of medieval Clipstone, at the heart of Sherwood Forest*. Transactions of the Thoroton Society Vol. 117.
- Gaunt, A., & Wright, J., 2011. Bothamsall Castle, Nottinghamshire: An Archeological and Historical Landscape Analysis. Transactions of the Thoroton Society Vol. 115.
- Mallett, L., Reddish, S., Baker, J., Brookes, S. and Gaunt, A. 2012. *Community Archaeology at Thynghowe, Birklands, Sherwood Forest*. Transactions of the Thoroton Society 116.

4.1.1 The Sherwood Forest National Nature Reserve Archaeology Survey

Mercian Archaeological Services CIC are also currently undertaking the Sherwood Forest National Nature Reserve Archaeology Survey, covering neighbouring Birklands Wood but also the Budby South Forest area as part of the Sherwood Forest Archaeology Project (including this report).

4.1.1.1. Budby South Forest Level One Survey

The Level One survey of Budby South Forest commenced in February 2018 and has so far detected a large amount of previously unrecorded features. These are to be presented in Gaunt 2018a forthcoming. Work in the 2018 season is focussing on the western half of Budby South Forest. Season 2 in 2019 will focus on the central compartments, and season 3 will focus on the eastern compartments in 2020.

The Level One survey is initially utilising the results of LiDAR data, focusing on identifying and ground-truthing features detected in the LiDAR data (banks, ditches, ridge and furrow etc.). Areas between features are then being surveyed in as objective a way as possible using lines of volunteers to traverse areas. Walking accurate 5 metre transects is not possible due to vegetation, but attempts are being made to cover areas evenly.

Features discovered on the ground are recorded in line with Best Practice Guidance for Archaeological Survey: Jamieson, E. 2017. *Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice (Second Edition)*. Historic England. and Ainsworth, S, Bowden, M, McOmish, D and Pearson, T. 2007. *Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice*. Swindon: English Heritage.

Records include:

- Individual Identification code for features.
- GPS location accurate to within 10m as required but recorded with +/- 2-4 m accuracy using Garmin Etrex 20 GPS. Grid references are recorded manually in site book for each location to avoid data problems seen in work by others in neighbouring sites,
- Measurements including depth width, length and height recorded in field using hand tapes and ranging poles,
- Photographic record of all features including use of appropriate scales,
- Description of feature,
- Interpretation of feature,
- Possible date,
- Comments on preservation,
- Archaeological importance,
- Notes will be taken on all of above to enable future discussion.
- Distribution maps to be produced in GIS software.

Features detected so far include four earthen banks visible as features in the LiDAR data, but three of which are not seen in historic mapping in this desk-based assessment, extensive areas of ridge and furrow, and military pits.

4.1.1.2 Budby South Forest Level Two Survey

The Level Two surveys will be conducted in line with Best Practice Guidance for Archaeological Survey: Jamieson, E. 2017. Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice (Second Edition). Historic England. and Ainsworth, S, Bowden, M, McOmish, D and Pearson, T. 2007. Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice. Swindon: English Heritage.

Survey will be undertaken using a combination of Differential Survey Grade GPS for objective survey, and control of survey to sub +/- 1cm accuracy, and EDM Total Stations.

The survey will employ Subjective and Objective techniques resulting in the production of DTM and Hachure Plans of groups of features to aid in interpretation and management of the resource.

4.1.1.3. Birklands Level One and Level Two Survey

At the time of writing Mercian Archaeological Services CIC are also undertaking a Level One and Level Two Survey of Birklands Wood as part of the Sherwood Forest National Nature Reserve Archaeology Survey.

The Level One survey commenced in January 2018. It is being undertaken using the same methodology mentioned above in section 4.1.1.1. utilising LiDAR data and focusing on initial ground-truthing as well as recording features not seen in LiDAR data by systematic walkover. This survey is intended to continue over at least the next 5 years to record the archaeology of the Sherwood Forest National Nature Reserve to the highest possible standards.

The survey so far has recorded with GPS locations, photographic record, measurements etc, features including; ridge and furrow, holloways, military pits, and banks and ditches.

A Level Two survey undertaken to the same methodology as that outlined above in section 4.1.1.2 will commence in April 2018 and continue at various times as areas of archaeological significance are highlighted by the Level One Survey.

This Level Two survey will focus in season 1 on an area containing a large number archaeological features. It is intended that a Level Two survey will be conducted over as large an area in Birklands as possible over the next 5 years.

The results of season 1 will be presented in Gaunt, A. 2018b (forthcoming). *The Sherwood Forest National Nature Reserve Archaeology Survey, Season 1, 2018*. Mercian Archaeological Services CIC. Archaeological Survey Report. MAS041.

4.2. The Friends of Thynghowe

The Friends of Thynghowe were formed in 2005 to interpret, record, research and promote Thynghowe and its landscape. Recent work by the Friends of Thynghowe both at home and abroad has suggested that the site is a *'Thing'* site as seen in Scandinavia and throughout the Viking Diaspora, linking Thynghowe into a network of meeting sites stretching across Northern Europe and the Viking Diaspora (Reddish & Mallett 2012). Their work has been a fantastic example of community archaeology research consisting of fieldwork undertaken to the highest standards and exemplary reporting, publication, and dissemination.

4.2.1. Projects and results to date

A total of 54 archaeology features detected from 2005 to 2017 in the area around Thynghowe and western Birklands have been identified using a combination of map regression, LiDAR ground-truthing and Level One and Two Survey techniques. The list is publicly available to view at the Thynghowe website:

<http://www.thynghowe.org.uk/ResBirk.html>.

The features have all been recorded to include the following criteria: feature name, type, grid reference, interpretation, woodland character, topography/geology, related features, photographic record, date, surveyor details, research progress, and notes.

A map of the location of 52 of these features can be seen at:

<http://www.thynghowe.org.uk/ResBirkMap.html>

Photographs of these features can be seen in the form of a table at:

<http://www.thynghowe.org.uk/Images.html>

The Friends of Thynghowe have submitted this information to the Nottinghamshire Historic Environment Record. These items have '*not yet been absorbed*' into the database.

Their website contains a '*Catalogue of Documents*' from a search of the National Archives database relating to Birklands wood and ranging from 1231- 1876 that may be useful to research:

<http://www.thynghowe.org.uk/BirkArchive.html>

The work of the group up to 2012 resulted in the published article:

Mallett, L., Reddish, S., Baker, J., Brookes, S. & Gaunt, A. 2012. *Community Archaeology at Thynghowe, Birklands, Sherwood Forest*. Transactions of the Thoroton Society of Nottinghamshire, Volume 116.

Alongside this the group's work has resulted in the following output:

- Gaunt, A. & Crossley, S. 2014. *The 'Court Circle' Excavation at Thynghowe, Hanger Hill, Sherwood Forest, Nottinghamshire*. Archaeological Report. Mercian Archaeological Services CIC, MAS005.
- Reddish, S.C. & Mallett, L. 2012. *According to Ancient Custom: Research on the possible origins & purpose of Thynghowe*. Paper presented at the National Museum of Iceland, Reykjavik, in collaboration with Thingvellir National Park. March 9, 2012.
- Gaunt, A. 2011b. *A topographic earthwork survey of Thynghowe. Hanger Hill, Nottinghamshire*. Report for Nottinghamshire County Council. Report No. NCA-016.

- Reddish, S. 2010. Paper presented: *Viking Law Thing Discovery in Robin Hood's Sherwood Forest, Thynghowe*. Program Partner Meeting. Faeroe Islands 05th-07th October 2010
- Reddish, S. 2010. Paper presented: *Thynghowe: A thing site in the Sherwood Forest*, The THING Project. THING Sites International Networking Group 2009 – 2012 Shetland/Orkney Partner Meeting 14-18 April 2010
- Gaunt, A. 2009. *An Ancient Work in Birkland- A topographic survey of an earthwork in Sherwood Forest National Nature Reserve*. Report for Nottinghamshire County Council. Report No. NCA-003.

Friends of Thynghowe Publications:

- King John in Sherwood, Exploring King John's connections to Nottinghamshire 2014
- Thynghowe and Birklands, Stories from the past of Sherwood Forest retold along the route of two perambulations of an ancient boundary 2013

Publications with references to Thynghowe:

- Things in the Viking World, Olwyn Owen (ed.), The Thing Project Shetland Heritage Publications 2012.
- The Woodland Heritage Manual, Ian D Rotherham, Melvyn Jones, Lindy Smith, Christinr Handley (eds.) The Woodland Heritage Champions Project Wildtrack Publishing 2007.
- Warsop 1816 to 2016, Steve Horne, Warsop Footpaths & Countryside Group, 2016

The above forms just some of the output from the group, and their excellent reporting means that keeping up with their tireless work is very difficult. New reports from fieldwork appear all the time, and in order to understand this landscape a regular visit to their website is essential: <http://www.thynghowe.org.uk/>

The excellent work of The Friends of Thynghowe has helped to better understand, protect, and promote the site of Thynghowe and to set it in its regional, national, and international context.

Their work in western Birklands has shown much about the varied archaeology present in Birklands and the archaeological potential there. It demonstrates how vital it is that proper records are now being made in eastern Birklands through Mercian Archaeological Services CIC's *Sherwood Forest National Nature Reserve Archaeology Survey*, following problems seen in previous work undertaken there by others.

The Friends of Thynghowe's meticulous record keeping and comprehensive publications mean that this information is available to those trying to understand the landscape of Birklands and in this instance Budby South Forest. Their work has been particularly useful in understanding the origins and routes of trackways in and across the Birklands forest area, and this research is now extending into researching these routeways as they cross Budby South Forest itself.

Their work is ongoing, and at the time of writing, includes fieldwork to determine the routeway that crosses Budby South Forest from the southwest to northeast discussed in the text below.

4.3. LiDAR Friends of Thynghowe

A LiDAR survey of Thynghowe and the surrounding landscape was undertaken in 2012 by Geomatics Group- Environment Agency.

This DBA and the subsequent Level One Survey of Budby South Forest has been kindly given permission to utilise and re-produce the LiDAR data from that survey.



Figure 2: LiDAR data for Budby South Forest. Courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

4.4. Walkover Survey Birklands Wood 2003

In 2003 a survey of the Sherwood Forest National Nature Reserve was commissioned and paid for as part of the Heritage Lottery Fund (HLF) Sherwood Initiative. Nottinghamshire County Council Community Archaeology team was contracted to undertake a survey of the entire extent of, what then made up, the Nature Reserve (namely; the eastern half of Birklands wood, and the western parts of Bilhaugh wood) or “to carry out a walkover survey of the council managed Country Park area” (Gillott 2017 p8), and to produce a Level One Archaeological Survey report.

The stated general aims for this survey included:

- To understand how well the HER reflected the archaeology of the area prior to the survey, and how that could be enhanced following the survey
- To enhance both the HER and on site interpretation

(Gillott 2017, p4).

The specific objectives of the survey were:

- To record archaeological features to an accuracy of a few metres
- To enhance the Nottinghamshire HER with data produced by the survey

(Gillott 2017, p4).

In the event only approximately 50% of the intended survey area was surveyed (Gaunt & Gillott 2011, figure 1; *Birklands and Bilhaugh, survey area within the Sherwood Forest National Nature Reserve* (map), p14). The other half was not surveyed.

The geographic data for the results unfortunately appear to have been lost: “*The Level 1 survey recorded over 800 features, but unfortunately the locational data has been lost*” (Badcock 2017, p7), which has meant that no archaeological report for the survey could be written, and no geographic maps of the data can be produced “*Problems with retrieving the GPS data from the survey work have prevented a full write up and analysis of the survey*” (Gillott 2017, p2).

Instead a written discussion of this work was produced in 2017 by Emily Gillott of Nottinghamshire County Council Community Archaeology. The write up contains no geographical data or photographs of individual archaeological features, no measurements of archaeological features, and no discussion or description of any individual features, instead some of the features are discussed in a general way in the body of the text. A map (re-produced from Gaunt & Gillott 2011 on a different map base) displays a number of these features. The write up also contains three photographs of features: two photographs are of trees- ancient oak trees with numbers carved into them, and the third photograph is of some possible ridge and furrow, but no location information is provided for any of these features.

At the time of writing no data from this survey was available, and no data was recorded on the Historic Environment Record (HER). However, the survey detected

ridge and furrow, military pits, holloways and other archaeological features which hinted at the complexity of land use at the site (Gaunt & Gillott 2011; Gillott 2017).

These features are undoubtedly relevant to the study of Budby South Forest, as will be shown below but unfortunately very little can be gained from the 2017 review.

4.5. Survey of the ‘Hayman Rooke Enclosure’, Birklands Wood

As part of the Nottinghamshire County Council Community Archaeology walkover survey a feature was detected that was subject to a measured survey. The ‘Hayman Rooke’ enclosure was surveyed in 2008 with the fieldwork being led by the current author (Gaunt) and written up in the report: A. Gaunt 2008: *An Ancient Work in Birklands. A Topographic Survey of an Earthwork in Sherwood Forest National Nature Reserve, Nottinghamshire County Council NCA-003.*

Gaunt suggested the earthwork was most likely to be Romano-British in age and form part of the Brickwork plan field system:

“Observations relating to relative dating included trees of veteran age, (exceeding 600 years) which stand across the site. In places they are growing on top of the bank, and within the ditch. This suggests that the earthwork predates the oak trees, and had probably gone out of use by at least the 15th century. However the site may be considerably older than that. A number of working hypotheses exist, with regard to the origin and purpose of the earthwork, and its possible age. Although the Major believed the site had a surviving ditch and vallum, the surviving bank is on the outside of the ditch, which suggests the site was not built for defensive purposes, but perhaps as a livestock enclosure. The irregular shape of this enclosure could mean the earthwork is prehistoric. The Brickwork-plan field systems mentioned previously are interspersed with smaller enclosures, assumed to be farmsteads (Garton 2008). It is possible that the earthwork is one such enclosure. Although the earthwork is considerably larger than most of the enclosures associated with this field system, it is similar in typology and dimensions to Enclosure 1 at Dunston’s Clump, near Babworth, Nottinghamshire, excavated in 1981 (Garton, D. 1987), which is part of this field-system to the east. The earthwork is also of similar dimensions to a

Romano-British enclosure cropmark at Raymoth Lane, Worksop, Nottinghamshire. This was recorded from air photography and excavated by Pre-construct Archaeology and Nottinghamshire County Council. The Raymoth lane site contained evidence of domestic occupation, although this mainly dated to the 2nd and 3rd century AD (Mumford, W. & Palmer-Brown, C. 2003)” (Gaunt 2008, pp 17-18).

Another possibility is that the earthwork was medieval in origin and was used in deer management (Gaunt 2008, p18). The likelihood that it relates to Roman-age field systems however, is of importance to the site of Budby South Forest, as there is a high degree of probability that remains of the field system survive beneath medieval and later deposits across the site.

4.6. LiDAR Brickwork Plan Field System

Recent analysis of lidar data by Steve Malone (Trent & Peak Archaeology) appears to show “*dramatic evidence*” (Badcock 2017, p2) for the late Iron Age to Roman ‘Brickwork plan field systems’. These are shown in the publication (Malone 2017) to be particularly clear within the area of Bilhaugh (to the East of Budby South Forest), with the clearest area of data appearing to fall within the area of Thoresby Estate around Buck Gates (SK 63939 69358), and with clear evidence visible to the south of the A616 at Sherwood Heath (SK 63298 68584).

The results are spectacular and would suggest that the identified features represent an extensive area of extremely rare upstanding earthwork remains of a field system almost entirely preserved only as cropmarks elsewhere.

It has been suggested that this provides a *tempus post quem* for the foundation of Bilhaugh Wood, in other words, the time after which Bilhaugh became a woodland. If the area was cleared as part of a field system dating to the Romano-British period-identified as being in use from 1st century BC to the 4th century AD (Garton 2008, pp15-110) then Birklands wood could not have formed until this field system went out of use.

Malone also suggests that the LiDAR shows the field system extending westward into Birklands Wood, and would therefore also provide a *tempus post quem* for Birklands wood.

This would be a very important piece of information for the landscape history of Sherwood Forest.

This suggestion is taken further by Gillott:

“It is worth noting that many of the boundaries within the wider area, including the Edwinstowe - Budby parish boundary, are on the same alignment as the Romano-British ‘brickwork plan’ field system identified by Malone (2017). This raises interesting questions about both the level of continuity from the Roman landscape to the Early Medieval period, and of the dating of the creation of the hay of Birkland. It is possible to tie up some of the features within the survey area, and boundaries in the wider landscape, to the common field systems suggesting perhaps that there was no episode of total abandonment and later re-planning. This is different to the evidence we see elsewhere in the county, particularly in the Trent Valley, where Medieval field systems bear little relation to the Roman ones evident in crop marks” (Gillot 2017, p24).

This would be a very important revelation as the ‘Brickwork plan field system’ has been shown through excavation to have gone out of use by the 4th century. A large number of Scandinavian place-names in the area have long been suggested to indicate a 9th - 10th century foundation for the origin of many of the villages (although this should be taken with caution, as place-names are not a confirmation of the founding date of a settlement, nor do we know what form settlements at this time may have taken).

However, no archaeological evidence so far has been found in the area to suggest that occupation continued unabated through to the medieval period as Gillott is suggesting, certainly not in regard to the ‘*common field systems*’. Mercian Archaeological Services CIC are investigating the developments of settlements and landscape as part of the Sherwood Forest Archaeology Project, but evidence will take many years to uncover and will need to be gathered from systematic examination of a very large part of the landscape before any such claims could be proven or disproven.

It is, however, worth injecting a little caution regarding the LiDAR data and all the conclusions seemingly being rapidly drawn from their results. At the time of writing, archaeological survey including ground-truthing of LiDAR is being undertaken, by Mercian Archaeological Services CIC, of the eastern half of Birklands Wood (Gaunt 2018b forthcoming), and of Budby South Forest (Gaunt 2018a forthcoming) as part of the *Sherwood Forest National Nature Reserve Archaeology Survey*. So far, no evidence has been found of any earthworks relating to the 'Brickwork plan field system' in Birklands Wood, or on Budby Heath.

On Budby Heath some of the lines seen running east-west in the LiDAR data are in fact ridge and furrow lines, where occasionally one ridge is higher than those surrounding it (results from level one survey and LiDAR ground-truthing (Gaunt 2018a forthcoming). Careful manipulation of sunlight angles in LiDAR software can make the ridge and furrow in between these more prominent ridges appear and others disappear, thus creating a landscape more 'brickwork' in appearance.

The Budby and Edwinstowe parish boundary mentioned by Gillott above (formerly the boundary between Budby and the crown woodland of Birklands) does in places appear to follow the alignment of the inferred 'Brickwork plan field system'.

Although in reality from east to west the boundary across the north of Birklands in the National Nature Reserve runs first southwest, then northwest, then southwest, then northwest again before, having left the Nature Reserve, heading west, and then curving gently to the southwest as it heads towards Hanger Hill (Thynghowe) before turning to run steeply to the western head of Birklands to the southwest. Therefore, the boundary does not particularly follow the orientation of the 'Brickwork plan field system' for any great length.

An explanation for the Budby and Birklands boundary may come from the medieval period rather than Gillott's Romano-British suggestion. The landscape mosaic of the medieval Forest (personal research by the author) indicates that the villages were situated on the rivers, surrounded by their arable fields. This area in turn was surrounded by pasture in the form of Sheep walk and Lings. Woodland occupied the periphery of settlement areas. As the villages were on the rivers the woodland therefore tended to cling to the higher ground, at the periphery of parishes and lordships, with areas of woodland on either side of a boundary being in different

ownerships, often with a ridge of higher ground forming their boundaries (discussed by the author (Gaunt) to some degree in Gaunt & Wright 2013, pp 39-43).

The boundary of Birklands wood follows a ridge of higher ground extending eastwards from Hanger Hill, formerly Thynghowe (Gaunt 2009, p16), and so this is the natural route for a boundary between the woods of one ownership (in this instance the crown), to the south, and another, to the north, in this instance the village of Budby (assarted by the township).

The alignment of this boundary could be explained by the medieval landscape mosaic and by natural topography and is not necessarily therefore directly attributable to any Romano-British field systems. It may not therefore be an example of continuity from Roman to Early Medieval. It may be that trackways running parallel to medieval boundaries formed by natural topography, and the outline of the '*Budby Assart*', and other features have had a 'brickwork' plan projected onto them and onto ephemeral features running through Birklands and across Budby South Forest, from the clearer results seen in LiDAR in neighbouring Bilhaugh.

However, the possibility of continuity from the Roman to medieval landscape cannot be completely disregarded and research into this period is called for as part of regional research aims. It also forms part of the investigations into settlement and landscape which are long-term research aims of the Sherwood Forest Archaeology Project.

In order to enable better understanding of the more ephemeral features in the LiDAR data sets provided (which could be interpreted to be part of the 'Brickwork plan field system') in both Birklands and on Budby South Forest, it was decided, by Mercian Archaeological Services CIC to investigate the areas mentioned above around Buck Gates (SK 63939 69358), and to the south of the A616 at Sherwood Heath (SK 63298 68584). Despite these areas having the clearest signals in Malone's data, no evidence was found on the ground, with much of the area (especially in the '*Buck Gates*' area) churned up by the activity of forestry vehicles, and possible military activity (Gaunt 2018a and 2018b forthcoming). One of the features presented as a 'Brickwork plan field system' field boundary (the most northerly in the data set presented by Malone) for instance, was found to have been, in fact, a deeply rutted vehicle track (possibly from a tank) at the location (Gaunt 2018a and 2018b forthcoming).

It is possible that the lines seen in the LiDAR are indeed part of the 'Brickwork plan field system', but unfortunately (at the time of writing), no evidence of these features has been found either in Birklands, Bilhaugh, Buck Gates, Sherwood Heath or on Budby Heath.

Until they are detected it will be impossible to date them through invasive techniques, and so caution should be employed regarding their origin, date and function, and on any conclusions regarding continuity from Roman to medieval landscapes and open field systems.

However, having recommended caution, it is important to note that cropmarks, from aerial photography, and recorded as part of the National Mapping Project (NMP) data sets, do show ancient field systems in the area of Budby South Forest with notable clusters in the Meden Valley to the northwest and near Thoresby to the northeast, at Clipstone in the southwest and Edwinstowe to the southeast. It is therefore important to consider their presence when looking at any archaeological interpretation and/or possible mitigation.

Even if earthworks do not survive it is possible that buried remains survive (in-filled) beneath later deposits, and these should therefore be considered when undertaking any works. Geophysical survey may help to detect buried ditches where earthworks have been removed or covered by later activity.

5. Development or other impact

This Desk-based assessment has not been compiled in response to any particular planning requirement, it is designed as a 'base-line' data set to help inform any potential mitigation for works arising as part of the general management of the site. Items mentioned in this report should be compared with items recorded in the associated archaeological surveys of the site, and mitigation could involve geophysical surveys or other archaeological works.

If works requiring planning permission are to be undertaken, then the Nottinghamshire County Council Principal Archaeologist should be contacted regarding mitigation.

This document and subsequent fieldwork reports can be utilised in any mitigation.

6. Conclusions and discussion

It is possible from the historical and archaeological sources mentioned above and listed in the bibliography, through the research undertaken by the author in the landscape, through historic map regression, the study of aerial photographs, archive documents, and other sources to build up a picture of the landscape of Budby South Forest over time.

This historical timeline and landscape history is discussed below. In the latter part of this section historic mapping and LiDAR data are contrasted to build up a picture of the features that appear to survive on the ground. The evidence collated here has already begun to form the basis for further archaeology fieldwork on the site as already outlined. This will be discussed further later in the document.

6. 1. Prehistoric

A scatter of Mesolithic flints were found in 1993, during a *Watching Brief, near the River Meden in Church Warsop SK 595 702*, “A total of ten pieces of flint were found: five were blades, two were flakes, one was a core, one was possibly struck and one was natural. Since they are mostly blades they are thought to be Mes or later. Five of the pieces were found within a 70m area, whereas the rest were widely scattered. Too few were found to point directly to a settlement site, but enough were found to suggest Mes activity within this area”. (L9554 - MNT9460, Nottinghamshire HER).

A Bronze Age spearhead was recorded as found at Clipstone (L5965 - MNT5902) Identified as a Copper-alloy spearhead, side-looped and socketed. Fragments of wood in socket. Middle BA, c 1400-1200 BC. Found by metal detector, reported 10/02/1993. at SK 5964 6645 (Nottinghamshire HER).

Recent excavation at the site of Thynghowe have suggested large scale activity in the Bronze Age at the site with the discovery of large quantities of 'pot-boiler Stones' (Gaunt, Crossley & Budge 2018 (forthcoming), suggesting the site has been a focus of activity for millennia.

6.2. Roman

Little is known about the Roman Forest landscape especially at the location of Budby South Forest, except that the 'Brickwork plan field systems' are known to be present in the vicinity and suggested to be extensive. Cropmarks, from aerial photography, and recorded as part of the National Mapping Project (NMP) data sets, do show ancient field system in the area of Budby South Forest with notable clusters in the Meden Valley to the northwest and near Thoresby to the north east, at Clipstone in the southwest and Edwinstowe to the southeast.

Part of this system includes MNT11770 Romano-British ditches at Gleadthorpe at SK 5954 7003, and MNT26018 a Romano-British Farmstead at Gleadthorpe, Warsop (see above).

Roman coins from have been found at nearby Clipstone (L5967 - MNT5904) at SK 5994 6638, and at Edwinstowe (L5973 - MNT5910) at SK 6325 6696. (Nottinghamshire Historic Environment Record).

The '*Hayman Rooke Enclosure*' (Gaunt 2008), discussed above may be a surviving upstanding remnant of this field system.

It is possible that elements of the 'Brickwork Plan field system' extend across Budby South Forest (Malone 2017) perhaps not as earthworks- (Gaunt 2018a forthcoming) but very likely in the form of buried and infilled ditches.

6.3. Saxon / Viking

Little is yet known regarding the settlement and landscape of the Saxon period, however it is likely that woodland and heathland dominated to some degree as this inherited landscape would have made the landscape appealing to the Norman kings for a Forest. Heathlands were very likely a prominent element of the landscape of this area in Saxon times.

Budby South Forest was historically in the Wapentake of Bassetlaw:

“The place name for the Wapentake of Bassetlaw has been spelled Bernesedelaue, Bernedelawe, Bernedeslaue, in Domesday Book of 1086, Dersetelawa in 1157, Bersetalawa 1165, Bersetelaw(e) 1219, Bersetlaw 1298, and Bersettelowe 1305. A possible interpretation of this place-name is “a compound of bænet, ‘land cleared by burning’ and sæte, ‘settlers, inhabitants’ hlaw”. The first element being some lost Mercian tribal name in sæte (Gover, Mawer & Stenton 1940, p22)” (Gaunt 2017a, p64).

The western part of Bassetlaw was known as the Hatfield District *“The Hatfield District was the western part of the Wapentake of Bassetlaw. Hatfield is depicted on Chapman’s map of Nottinghamshire dating to 1774, as covering an area; 15 miles long from Edwinstowe in the south, to Bawtry in the north, by 9 miles wide stretching from the Derbyshire border in the west to the Great North Road in the east. This area is roughly concordant with the area of the Sherwood Sandstone Geology (BGS.ac.uk), within Nottinghamshire” (Gaunt 2017a, p66),*

“This interpretation could further explain the name Hatfield in this area, as it is possible that the earlier settlers of this part of Nottinghamshire maintained a landscape of heath land clearances through controlled burning: “If the Hatfield division of Bassetlaw was the core of the territory of the Bernet-seatte, then it will have covered the Sherwood Sandstones, an area of wood and perhaps more substantially heath. Summer parching of vegetation on the “droughty” sandstones, or the seasonal burning of scrub, gorse and ferns, to maintain pastures, could give a context to “burnt land” (Anglo-Saxon Nottinghamshire – East Midlands Historic Environment Research Framework project p10

<http://archaeologydataservice.ac.uk/researchframeworks/eastmidlands/attach/County-assessments/NotAngloSaxon.pdf> - accessed 24/07/2017). (Gaunt 2017a, p64).

“It is possible that the Hatfield district in Nottinghamshire may have formed part of an early Anglo-Saxon regio or sub-kingdom, known as ‘Haethfelthland’. Everson and Stoker state that “part of what was to become north Nottinghamshire was within an intermediate or border territory called Hatfield (Heathfeldland)” (Everson & Stoker 2015, p23)” (Gaunt 2017a, p64).

The oldest documentary mention of 'Sherwood Forest' comes from a charter dating from 958AD granting Scrooby and Sutton cum Lound, in north Nottinghamshire from the Crown to the Archbishop of York. This charter lists a 'Scirwuda' (Shire Wood) as a boundary mark of the land granted to the Archbishop (Davies 1983, pp 13-22).

In medieval times Budby was part of the Edwinstowe parish. The medieval parish of Edwinstowe included a large number of the surrounding villages: Clipstone, Carburton, Perlethorpe, Thoresby, Ollerton, Wellow, and Budby. It is just possible that these chapelries situated in the villages surrounding Edwinstowe formed a fossilised Anglo-Saxon 'parochia' centred on Edwinstowe, with the church there acting as a 'mother house'. This could have been a central '*superior church*' linked to the King's Manor of Mansfield (Gaunt 2017a pp 20-21). This would possibly be due to the association of Edwin of Northumbria and Edwinstowe church.

Edwinstowe, means '*Edwin's Holy Place*' (Gover, Mawer & Stenton 1940 pp75-65), and was the centre of a medieval cult of St Edwin, and the church there is orientated on the sunrise on 12th October (Edwin's saint day at the time of its rebuilding in the 12th century), the people of Edwinstowe marked his saints day with a vigil and feast, and there is a chapel of St Edwin in neighbouring Clipstone (Gaunt 2017a).

It is highly likely that Edwin of Northumbria was killed at the Battle of Hatfield in neighbouring Cuckney (Gaunt & Crossley 2015; Gaunt 2017a; Revill 1977), in the year 633, Bede lists this date as the 12th October (Sherley-Price & Latham, p138), and was temporarily buried under the church in Edwinstowe (Gaunt 2017a).

The battle is currently being investigated by the *Battle of Hatfield Investigation Society* and Mercian Archaeological Services CIC and is a very important element in the Saxon period for the area.

A test pit located outside the north wall of Edwinstowe churchyard in the adjacent property discovered evidence of Saxo-Norman (late 10th -12 century) and Medieval pottery (Gaunt 2014, p20). This would indicate that the area around the church was occupied in the Saxo-Norman period.

During archaeological survey by Mercian Archaeological Services CIC at Cuckney Church and Castle in 2015, two sherds of late Saxon pottery were recovered. The pottery suggests that the area around the present church and nearby in the Poulter valley saw human activity in the late Saxon period and may tentatively be suggested as a location for pre-conquest activity. The medieval sherd may be contemporary either with the supposed period of occupation of the castle or the current church.

Early, mid and late Saxon-age pottery has been discovered by Mercian Archaeological Services CIC in the village of Clipstone in what appears to be a likely occupation site outside the site of the King's Houses (Budge 2017).

These recent discoveries by Mercian Archaeological Services CIC help to suggest that the settlements in the Forest were formed or forming in Saxon times. The likely origin of settlements during this period may mean that trackways crossing Budby South Forest and Birklands Wood (Gaunt 2017d, p48) have very early origins (see below).

The Domesday book lists King Edward Confessor as landowner of Budby in 1066 as owner of the Manor of Mansfield.

6.3.1. Place-name, Budby.

The most significant indicator of Viking occupation in the area comes from place-names, in the form of the place-name for Budby and the location of Thynghowe in the parish.

The derivation of the place-name Budby is presumed to come from a Scandinavian personal name '*Botti*', '*Butti*', '*Botte*', or '*Butte*', with the name ending '*by*' being the Old Scandinavian for 'farm' (Gover et al 1940, p91-2).

An alternative for the derivation of the place-name for Budby comes for Stuart Reddish of the Friends of Thynghowe and the *Public Information Research Organisation* and relates to the site of Thynghowe.

The site of Thynghowe lies at the extreme southwestern edge of Budby Parish, just beyond the area of Budby South Forest.

The English Place Names Society volume for Nottinghamshire published in 1940 gives the derivation of Hanger Hill as '*formerly Thynghowe*'. Spellings include '*Thinghowe*' c1300 and '*Thingaw Hill*' in the early 17th century. The origin of the name of Thynghowe is '*þing haugr*' ('þ' is the Saxon letter thorn pronounced 'th'), meaning '*hill of assembly or meeting place*' (Gover, Mawer & Stenton 1940, p92).

At Þingvellir in Iceland, a major 'Thing' Site, '*thing booths*' were known as '*Þingbúðir*' literally '*Þing*' (Thing) '*búðir*' (booth). These structures were the buildings which housed the delegates attending the Thing (Bell 2010, p8). '*Thing booths*' are found at many Thing sites (Bell 2010; Sanmark 2008). They consisted of turf or stone walls over which a tent or canvass was erected (Bell 2010, p8).

Stuart Reddish has noted that Booths in Iceland are spelled '*búð*' (Reddish, 2012).and he has posited that Budby may mean '*the Booth Farm*' (Stuart Reddish pers comm).

Budby contains the name element '*Bud*'. Although the '*Bud*' element is what first draws this comparison it should be noted that the place-name for Budby is first recorded in Domesday Book as '*Butebi*' in 1086 (see below).

Although the '*Bud*' element is suggested to emerge only in the 14th century, it is still possible that the '*Butebi*' of Domesday, '*Buttebi*' or '*Butheby*' or any of the early forms could derive from the name for '*Booth*', and it is possible in-light of the proximity to a '*Thing*' site that the derivation of the placename Budby may now need to be reconsidered.

Another element of the place-names of the landscape that is significant to Budby South Forest is the term '*Lings*' from the Old Norse for heather (Field 1972, 126). These are discussed below in the '*6.4.3. Landscape of the Forest*' section. As the most extensive area of lowland heath in the Midlands, and largest surviving remnant of the ancient '*chase*' landscape of the medieval Sherwood Forest the origin of the

heathlands is very important, and the place-name evidence suggests they were present at least as early as the Viking period. Of course, they may be considerably older but it is not possible to confirm this, at present, with regard to the origins Budby South Forest itself.

6.4. Medieval

6.4.1. Domesday 1086

As stated the first mention of Budby, in the form of '*Butebi*', comes in Domesday Book of 1086. Here the settlement is referred to with 2 Carucates of land as a part of the Crown Manor of Mansfield.

A carucate or carrucate was a medieval unit of land area which related to the amount of land a plough team of eight oxen could till in a single annual season. The estimated size of a Carucate is 120 acres, and therefore the above reference refers to a ploughable area of 240 acres. Three arable fields are mentioned in the 1609 Crown Survey of Sherwood Forest '*Nether Feild*', '*North Feild*' and '*Towne End Feild*'. These have at that time a combined acreage of 425-6-17 (Acres- Roods- Perches). So although the reference in Domesday Book may not include all the ploughed land, it suggests that the settlement grew in size during the medieval period (Mastoris & Groves 1998, pp55-56).

The place-name for Budby undergoes a number of changes in spelling through the medieval period. Alongside the Domesday Book appearance as '*Butebi*', it also appears as *Buttebi* in 1168; '*Butheby* 1234; *Butteby* 1280, 1287, 1294, 1330; '*Boteby*' 1252, 1276, 1287, 1297; '*Botheby*' 13th century, and '*Budby*' in 1433 and '*Budeby*' 1444 (Gover et al 1940, p91-2).

6.4.2. The Sherwood Forest Books

Entries in the Sherwood Forest books gives us not only an early glimpse of the place-name but also evidence of human activity and a snap-shot of the landscape of the time, and the impact of the Forest law on both the landscape and inhabitants of medieval Budby:

“Boteby: villata de Boteby tenet ix acras et iii perticas purpresture in campo de dominico domini regis. Item villata de Boteby tenet iiii acras et dim. perticam purpresture in eadem de dominico domini regis.” (Boulton 1964, p97).

The above entry shows that the village holds 9 acres and 3 perches, and 4 acres, in perpresture (clearing or encroachment) in the fields of the King.

Enteries from the Eyre Roll of Roger de Veschy from the Forest Eyre court of 1287 include:

“Villa de Boteby tenet xvi acras et I rodam arrentatas in eodem itinere” (Boulton 1964, p157)- The tennants of Budby have 16 acres and 1 rood in assart.

and:

“Boscus de Boteby qui est de dominico domini regis vastatur” (Boulton 1964, p158) refers to the wood of Budby as having been made 'waste'.

The fact that all these entries relate to the Forest Law show something of the level of control on people's lives with regard to accessing their natural resources particularly woodland and the 'vert' of the Forest and their rights (or not) to clear it to produce food in one form or another through arable or pasturing.

They also show us something of the landscape through the mention of assarts, perprestures, waste and woodland. Budby South Forest formed a key part of this landscape mosaic.

Alongside documentary evidence, entries on the Nottinghamshire Historic Environment record include:

- A medieval copper alloy seal matrix, was found in Edwinstowe, (L8590 - MNT8508). A medieval copper alloy seal matrix from the time of Edward I, (1279

- 1307). Inscription : S: SVBSIDII: PANNORUM (impression in SCM records) was Found by metal detector, and reported 06/ 03/1991. at SK 632 671.
- Silver pennies (sterling) Edward I (1279-1307). 2 coins of Alexander III (1249-1286). Bronze thimble. Silver penny (shortcross) Henry III (1216- 1272). (L8837 - MNT8748) Found by metal detector, reported 13/12/1989. were found in Edwinstowe at SK 6325 6696.

In medieval times Budby was part of the parish of Edwinstowe (see above).

6.4.3. Landscape of the Forest

A discussion of the landscape and settlement pattern of Sherwood Forest is also given by the author (Gaunt) in a paper written in 2013 on the nearby designed landscape of Clipstone (first interpreted by Gaunt in 2011), as well as an interpretation of the agriculture of the Forest (discussed later):

“The medieval forest of Sherwood in medieval times was an area of land subject to forest law, introduced by the Normans to England in the later years of the eleventh century. Forest law protected the beasts of the chase (primarily deer, or ‘the venison’) for the exclusive use of the king, and also protected the trees and woodland of their habitat, known as ‘the vert’. It was therefore illegal to hunt ‘venison’ or damage the ‘vert’ within a royal forest without the permission of the King (Turner 1901). Forest law reached Nottinghamshire by at least as early as the reign of Henry I (1100–1135) (Crook 1994), and possibly as early as the time of William I (Crook 1980,). Following a period of dispute over their extent early in the reign of Henry III (Crook 1979), the forests of Nottinghamshire were defined by perambulation, and Sherwood Forest subsequently covered an area extending from the River Trent at Nottingham in the south to the River Meden in the north, and from the Doverbeck and the road from Nottingham to Blyth in the east, to the River Leen in the west (Figure 1; Boulton 1964, 33–42). Sherwood Forest was not one extensive area of woodland and contained many villages. Even the town of Nottingham was within its bounds, though it seems

to have been exempt from forest law (Crook 2005). The landscape of the forest included open arable fields, areas of pasture, meadow, and carr lands alongside the great open heaths of heather, and the tracts of woodland that are more familiar to popular imagination.

“Sherwood Forest was divided into two administrative districts or bailiwicks, with ‘Thorneywood Chase’ in the south and ‘The High Forest’ in the north as described by the eighteenth century antiquarian Hayman Rooke (Mastoris 1998, 81) (Figure 1). Much of a third area, ‘Rumwood’, was also subject to forest law despite being to the north of the forest boundary of the River Meden, because a good deal of the area consisted of crown demesne lands, which included Clumber and Carburton as well as a number of other places (Boulton 1964, 41). The British Library Map, dating from the seventeenth century (British Library, Add. MS. 74219) shows that the High Forest stretched from below Bestwood Park in the south to the village of Budby in the north on the River Meden, and included within it Mansfield, Mansfield Woodhouse, Edwinstowe, Ollerton, Rufford Abbey, Newstead Priory, Papplewick, Linby, Rainworth, Blidworth, Thoresby, Perlethorpe, Warsop, and Clipstone (Mastoris 1998). The High Forest contained a number of large areas of crown woodland: Forsworn Wood or No Man’s Wood, and Lyndhurst Wood (Crook 1981), along with the Hays of Birklands and Bilhaugh. These were of great commercial value to the crown through the sale of timber and game, for the provision of gifts, and for payment or service (Turner 1901). Alongside these royal woods were the numerous woods belonging to the villages; Caluerton Wode, Maunsefelde Wode, Wodhowse Wode, Kyrkeby Wode, Aluerton Wode, and Sutton Wode are amongst the most obvious, although settlements also had many woods with names of uncertain significance, such as the ancient Samson Wode (which gives its name to a presentday plantation on the same site). There were also the woods belonging to the Archbishop of York at Blidworth, including byschope Wode and Hay Wode, and those of the Abbot of Rufford, including Burne abotote wode. All these woods are listed on the medieval ‘Belvoir map’ of Sherwood Forest (Photographic copy in NAO, XF/1/s), which belongs to the Duke of Rutland, and is in his archives at Belvoir Castle. It was tentatively dated by Maurice Barley to the late fourteenth or early fifteenth century (Barley 1986, 136). The High Forest area also contained much open heathland, often called ‘lings’, from the Old Norse for heather (Field 1972, 126). These included Hardwick Linge, shown on the map (TNA, MR 429 (2)) from the 1609 Crown Survey

of Sherwood Forest by Richard Bankes (Mastoris and Groves 1998), and Kighill Lieinges and Ravenshead Lieinges, on a map by Thomas Langdon of 1613 (Walker and Howell 1998). Other large areas of heath included the Forest beside Emsley Rayle depicted on Bunting's map of 1637 (NAO, RF/4/L) (which includes a reference to Lingie Feildes), and the 'wastes' belonging to Mansfield and Mansfield Woodhouse (Mastoris and Groves 1998). To the south, lings were also abundant on the sandstone geology with Basforde Lingges, Bulwel lyingges, Radforde lyngges (Barley 1986) and Nottingham Lynges (Mastoris & Groves 1998; Butler 1950).

"A landscape dominated by heathland and woodland was particularly suited to the hunting of red deer, and provided sport known as the par force des chiens. A selected red deer was hunted over the course of many hours and across many miles using hounds, until the quarry was finally slain by the huntsman's sword (Sykes 2007, 50). Such hunting required great expanses of open heathland and woodland and these were in abundance in the High Forest and on the sandstone geology. Alongside the native wild red deer, the Normans introduced the tamer fallow deer to England following the conquest (Sykes 2007, 50), and it was for their preservation that the Normans built deer parks (ibid). Presumably the crown located and developed the palace at Clipstone to take advantage of the surrounding woodland and heath that dominated the landscape of the High Forest of Sherwood for the hunting of red deer. They also subsequently developed the park within that landscape for the housing, hunting, and supply of fallow deer." (Gaunt & Wright, 2013. pp39-40)

6.4.4. Settlement and farming in the Forest

Within this sandstone landscape a particular settlement pattern developed which is reflected in the landscape of Budby and Budby South Forest:

"Although it has been claimed that the settlement pattern of Sherwood Forest was dispersed (Knight et al 2012, 100) consistent with a 'woodland' landscape region (Williamson 2003, 91), evidence from seventeenth-century mapping, along with Sanderson's 1835 map, suggests strongly that all the villages of the High Forest are nucleated. They are located on, or close to the rivers, and surrounded by small islands of permanently cultivated land which included the village tofts and crofts and

gardens, and by areas of old grassland and large areas of heathland and woodland (Fowkes 1977, 55)” (Gaunt & Wright 2013, p39).

This can be seen to be the case at Budby where the village is built along and adjacent to the River Meden.

“Open fields in the High Forest region usually only account for approximately 20% of the landscape of parishes and lordships (Fowkes 1977; Senior 1630 & 1638; Sanderson 1835). The majority of settlements in the High Forest operated a system of agriculture based on a version of the ‘in’ and ‘out’ field system which is often found in areas where soils are poor and population relatively small. This is not dissimilar to landscapes of East Anglia (Williamson 2003, 123).

“Many villages... were operating the ‘Breck system’ (Fowkes 1977), where areas of sheep walk were turned over to temporary arable. Brecks are recorded in the 1609 crown survey in Rumwood district at Carburton, Norton, Clumber, and in the High Forest area at Clipstone, Warsop, Edwinstowe, Budby, Thoresby and Calverton (Mastoris and Groves 1998). Allamore Breck, Corne Breck and Hanging Hill Breck are also shown on a series of sketch maps for Blidworth from the late 1600s (NRO, BD 6S & NRO BD 4S). A Syre Byrkes is also listed on the Belvoir Map (Barley 1986, 133) and shown as Sike Breck on the Sanderson 1835 Map, but this name may also mean ‘dry birches’ (Alan MacCormack personal communication. Alongside these references to Brecks, the Belvoir Map (Barley 1986, 135) also depicts Budby Owte Fieldes, and the Bunting Map of 1637 also shows an out field at Rufford” (Gaunt & Wright 2013, p42).

6.4.5. The ‘Breck’ system

With regard to Nottinghamshire David Halls account of Brecklands gives a thorough account of how this system functioned especially with regards to Budby and surrounding Forest villages:

“Townships lying around the edge of the sandy Sherwood Forest supplemented their open-field farming by creating ‘brecks’ that resembled infield and outfield cultivation. Under this arrangement temporary enclosures were made for three to nine years and used for arable crops, after which the land was opened and returned to a sheep

walk. Additional arable was needed because with good land in short supply, each settlement had a core of permanent enclosures around it that included pasture for hay as well as arable. Outside the enclosures was a large area of sheep walk and warren. In the eighteenth century Budby had 394 out of its 2,096 acres enclosed, and Rufford 19,935 out of 9,910 acres, presumably for the same reason as that earlier brecks had been created, namely a shortage of arable land (Fowkes 1977),

On the east of Herwood brecks belonged to each oxgang (Timson 1973, ii 223). A mapped example is Carburton, 1615 (2,235 acres). There had been some enclosure of arable but there was still a small common open field next to the village, 175 acres, and lying further out were several enclosed areas called 'brecks'. The largest, 518 acres, was 'the waste lying in brecks' (Beresford and St Joseph 1979, 45-48).

"Brecks were used at an early date. At Blyth in c.1220 there was a grant of breck and lands in the fields (Timson 1973, I: 22). Most townships had brecks in the eighteenth century. Norton had seven different brecks, For individual holdings in Ollerton (1762), a forty-six-acre holding had ten acres of breck, The brecks were used for spring corn, rye, and sometimes specialist crops such as turnips or improved grass. The area under breck was always about the same but the locations varied. Kirkby-in-Ashfield brecks were called 'fields' and had a nine-year rotation system. Calverton enclosed its brecks for seven years, the expenses being met by the occupiers. Each message has one acre of breck and any unwanted land was let out for the upkeep of the poor. There is no published information on how long brecks were left between cultivation periods (Fowkes 1977)." (Hall, D. The Open Fields of England. Oxford University Press, p 93).

"The settlement structure of Sherwood Forest's sandstone landscape of the High Forest was one of nucleated village, surrounded by relatively small open fields. On the periphery of these villages areas of woodland and heathland provided resources for livestock; similar to an 'in field' – 'outfield' model of pastoral farming or that of so-called 'sheep-corn husbandry' (Williamson 2003, 125). Livestock require an external nutrient store if they are to successfully fertilise fields through manure. In such a system, herds of livestock could graze the 'out fields' before being concentrated in folds overnight to fertilise the soils of the 'in fields'. In this way the vast tracts of heath land were not 'waste' but great nutrient reservoirs that could be used to provide

fertiliser for the leached and nutrient deficient soils of the open fields (Williamson 2003, 125)” (Gaunt and Wright 2013, p42).

The ‘out fields’ could therefore be used for both pasturing animals and temporary arable through brecks.

As already mentioned above ‘*Budby owte feldes*’ is depicted on the Belvior map of Sherwood Forest (Barley 1986, 135). The location is not presented in a cartographically accurate way. However, the site is located in the vicinity of ‘*Henghow*’ (Thynghowe), ‘*Birkelande*’ (Birklands wood), ‘*Musmere*’, and ‘*Gledthorpe*’ (the village of Gleadthorpe)- all locations known in the landscape from historic cartographic evidence and is shown south of the River Meden. It is highly likely that this reference to the ‘out fields’ of Budby is an early reference to the use of brecklands, and the likely location for this is at least part of what is now Budby South Forest.

The 1609 Crown Survey gives the following acreage for ‘*Butebi Common*’, land parcel ‘498’: ‘*One common field next adjoining and belonging to Botebie*’ with an acreage of 599-2-3.

The current Budby South Forest is 200.14 hectares, which equates to around 494 acres. The missing acres registered in 1609 probably equate to the areas now in other land parcels that were part of the common at this time, including land to the east of Swinecote road.

The fact that this ‘*Budby Common*’ is the area of land equatable with Budby South Forest is attestable from its location adjacent to land parcel ‘497’ from the survey described as ‘*One long peice of woodground called Botebi Assartes, lying between Botebie Common and Birkland [442] and Bilhawe [444], extending from Hanger Height to the end of the lordship, abutting Thoresbie Lordship on the Breckes*’

To the north of ‘*Botebi common*’ are listed the arable fields of the village including ‘*Nether Field*’ [499] and to the north of the River Meden ‘*North Field*’ [507], and although a number of Brecks are mentioned north of the common: a field adjoining nether field in Breck called ‘*Long Landes Breck*’ [504], a ‘*Kinges Stand Bre(e)cke*’ [505] and a ‘*Hinde Well Breck*’ [506], it is very likely that the ‘*Budby Owte Feldes*’ reference mentioned on the Belvoir Map, which is outside (to the south) of the ‘in-fields’ of the village, and lies south of the River Meden, corresponds to at least part of the Common. This will be discussed below.

6.5. Post Medieval

The fate of Budby South Forest in the post-medieval period was linked to the Dukes of Kingston and later Earls of Manvers as part of the Thoresby Estate, the following brief history recounts the fortunes of these landowners, and gives an overview of the background history of the site:

“The Pierreponts were based in north and central Nottinghamshire until the marriage of Henry de Pierrepont to Annora de Manvers at the end of the 13th century brought the estate at Holme, four miles from Nottingham, into the family. It was not until 1633 that the Thoresby estate was purchased by Sir Robert Pierrepont. The medieval Pierreponts were prominent local landowners and politicians, and two of them, Sir Robert de Pierrepont in the fourteenth century, and Sir Henry Pierrepont in the fifteenth century, also distinguished themselves on the battlefield.

Sir George Pierrepont (d 1564), Sir Henry Pierrepont (d 1616), and Sir Robert Pierrepont (d 1643) presided over a period of expansion and consolidation of the family estates. Sir George Pierrepont purchased a number of former monastic estates in Nottinghamshire following the dissolution of the monasteries in the 1530s. Sir Robert Pierrepont (1584-1643) was created Earl of Kingston-upon-Hull in 1628, and purchased extensive estates in North Nottinghamshire (Thoresby, Laxton etc.), Derbyshire (Beighton, Calow, Owlcotes and Heath), Lincolnshire (Newball, Hagworthingham, Crowle, Hemingby, Langton-by-Wragby) and Yorkshire (Adwick upon Dearne, Wothersome, and Ingleby Arncliffe). The Orton Longueville estate in Huntingdonshire came to him through his marriage.

Following Robert's death in 1643, his eldest son Henry, created Marquess of Dorchester in 1645, succeeded to the Holme Pierrepont and Orton Longueville estates. However, most of the Earl's purchased estates were settled on his second son William Pierrepont (d 1679) of Tong Castle (Shropshire) and later of Thoresby. William's eldest son, Robert Pierrepont, inherited the Thoresby and Lincolnshire estates, and also acquired the West Dean (Wiltshire and Hampshire) estate through

his wife Elizabeth, daughter and heir of Sir John Evelyn. The Derbyshire, Yorkshire and Shropshire properties were again left to younger sons.

The Marquess of Dorchester died without male issue in 1680, when he was succeeded as 3rd Earl of Kingston by his great-nephew Robert Pierrepont. From then on, Thoresby became the main residence, in preference to Holme Pierrepont Hall. The 3rd Earl died in 1682, being succeeded in turn by his brother William as 4th Earl and, in 1690, by another brother Evelyn (c. 1665-1726) as 5th Earl.

The 5th Earl of Kingston inherited the Holme Pierrepont, Thoresby, Lincolnshire, Huntingdonshire and Wiltshire estates at his accession. He sold Orton Longueville in 1706, but inherited the Beighton and Adwick estates on the death of Samuel Pierrepont of Oldcotes in 1707. He also acquired the Shropshire and other Yorkshire estates, together with an estate at Hanslope (Buckinghamshire), on the death of his uncle, Baron Pierrepont of Hanslope, in 1715. He was created Duke of Kingston-upon-Hull in 1715, and was succeeded in 1726 by his grandson Evelyn (1711-73). The 2nd Duke of Kingston developed his property in Bath, which remained in the family until its sale in 1874. However, other estates in Yorkshire (except Adwick) were sold during the eighteenth century, as were Hanslope in 1763, Tong in 1764 and West Dean after 1773.

The male line died out with the 2nd Duke of Kingston in 1773. The estates were inherited in 1788, following the death of the Duke's widow, by his nephew Charles Medows (1737-1816), despite the legal challenges of Charles's elder brother Evelyn, who initiated a successful court case against the Countess of Kingston for bigamy. Charles assumed the surname Pierrepont in 1788, and was created Viscount Newark in 1796 and Earl Manvers in 1806. He was succeeded by Charles Herbert, the 2nd Earl (1778-1860), Sydney William Herbert, the 3rd Earl (1825-1900), Charles William Sydney, the 4th Earl (1854-1926), and Evelyn Robert, the 5th Earl (1888-1940).

The first four generations of Earls Manvers were all based very firmly in Nottinghamshire, taking local offices appropriate to their status, and interesting themselves greatly in local affairs. The family's wealth, almost all of which came from careful management of landed property, enabled the 3rd Earl Manvers to build the present sumptuous Thoresby Hall from 1864 to 1871. However, as rent receipts for agricultural land fell in the late nineteenth and early twentieth centuries, the family

began selling some of their estates. Properties in Wiltshire, Lincolnshire, Derbyshire and Yorkshire were sold in the 1910s and 1920s, and some of the outlying Nottinghamshire estates in the 1930s. Death duties following the death of the 5th Earl in 1940 forced the sale of the Holme Pierrepont estate. By 1950 the estate was limited to properties in Perlethorpe, Budby, Edwinstowe, Laxton, Kneesall, Kersall and Eakring, plus chief rents from Weston, and rents from canal, railway and utility companies on the old Holme Pierrepont estate. With the 6th Earl's death, in 1955, the Manvers title became extinct. His widow remained at Thoresby Hall, which was sold in 1980, until her death in 1984"

(<https://archiveshub.jisc.ac.uk/search/archives/226720b9-aeef-39f0-9f80-3254f4ea4d66-> accessed 20/02/2018).

The main Nottinghamshire holdings of the Pierrepont's, including mention of the acquisition of Thoresby, Perlethorpe, Budby, Ollerton etc. by the 1st Earl of Kingston-upon-Hull in 1633:

- Holme Pierrepont estate. Core estate made up of land at Holme Pierrepont, Adbolton, Gamston, Bassingfield, Cotgrave, Clipston, Radcliffe-on-Trent, Lamcote and surrounding areas. Acquired through marriage of Henry de Pierrepont to Annora de Manvers, daughter of Michael de Manvers, and sister and heiress of Lionel de Manvers, in late 13th century. Further land in Cotgrave bought by Sir George Pierrepont (d 1564). Radcliffe-on-Trent property was sold in 1914 and 1920. Bulk of estate sold 1941.
- Gedling, Carlton and Stoke Bardolph. Owned by 1684.
- Nottingham, Colwick and Sneinton. Piecemeal sales up to 1933.
- Edwinstowe manor. Acquired 1828 from the Duke of Portland, in exchange for the manor of Holbeck and Woodhouse and lands in Cuckney, Norton, Hatfield Grange, Holbeck, Holbeck Woodhouse, Holbeck Woodhouse Hall, Warsop and Kirkby in Ashfield.
- Holbeck. Owned by Sir Robert Pierrepont in the early 14th century. Manor of Holbeck and Woodhouse and lands in Cuckney, Norton, Hatfield Grange, Holbeck, Holbeck Woodhouse, Holbeck Woodhouse Hall, Warsop and Kirkby in Ashfield, bought by Sir George Pierrepont (d 1564). Given to Duke of Portland in 1828 in exchange for manor of Edwinstowe.
- Laxton. Acquired by the 1st Earl of Kingston-upon-Hull, early 17th century. Manor sold 1951.
- Kneesall, Dunham, Eakring, Weston and Fledborough. Owned by 1684. Further purchases 1866-71. Sold 1917, 1930-31 and 1941.

- Thoresby, Perlethorpe, Budby, Ollerton etc. Acquired by the 1st Earl of Kingston-upon-Hull in 1633. Most properties sold during 20th century. Thoresby Hall sold 1980.
- Walkeringham. Sold 1911.
- Widmerpool

(<https://www.nottingham.ac.uk/ManuscriptsandSpecialCollections/CollectionsInDepth/Family/Manvers/FamilySeats.aspx> - accessed 16/02/2018).

6.6. 17th century

No Bespoke plan of Budby and in particular Budby South Forest survives from the 1609 survey: '*Sherwood Forest in 1609: A Crown Survey by Richard Bankes*'. However, the accompanying terrier for the lost map does survive and is published under the aforementioned title by Step Mastoris and Sue Groves (Mastori & Groves 1998). As mentioned above in 1609 the area of Budby South Forest went by the name '*Botebie Common*' and covered an area of *599-2-3 acres, roods and perches*.

6.7. 18th century

The 1738 Thoresby Estate map (Ma 4 P 20) depicts a number of routeways which cross Budby South Forest. These have been depicted in figure 3 and aligned with routeways visible in the Thynghowe LiDAR data set.



Figure 3: Routeways depicted on 1738 Thoresby Estate Map aligned to Lidar results. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

Names can be attributed to some of these routeways from other mapping sources, and these can be seen numbered in figure 4 below.

The Tithe map of Budby from 1843 '*The Townships of Budby, Edwinstowe and Perlethorpe in the Parish of Edwinstowe, in the County of Nottingham, 1843*' (National Archives: IR 30/26/22) labels the northern routeway running east-west along the northern boundary of Budby South Forest (1) on figure 4 as '*to Retford*'. It also shows the current A616 (7) on figure 4 as '*to Newark*'. These were clearly important routeways leading farther afield than the more local routeways which are given names on a map of 1791 (below).

These two routes are also depicted as crossing an area of heath land on John Chapman's Map of Nottinghamshire drawn in 1774.

A 1791 Map (NRO ED 4 L) '*A plan of the hays of Birkland and Bilhagh within the Forest of Sherwood in the County of Nottingham belonging to the crown*', surveyed in the year 1791 by John Renshaw following an Act of Parliament in the 26th year of George III gives a number of names for some of the routeways depicted in 1738. The map depicts a number of trackways crossing the woods of Birklands and Bilhagh, which can be extrapolated to match those crossing Budby South Forest in 1738. These include '*Gleadthorpe Gate*' (2) on figure 4, '*Budby Bridle Way*' (3), '*from*

Budby (4), *'Swinecote gate'* (modern day Swinecote Road, B6034) (5), and *'Nether Warsop Gate'*.

Nether Warsop Gate was identified as a surviving earthwork in the National Nature Reserve during the Walkover survey and was identified as *'Nether Warsop Gate'* by the current author (Gaunt) in 2011 (Gaunt and Gillott 2011, p16), although the name was wrongly attributed to the earthwork. The earthwork mapped as Nether Warsop Gate was in fact *'Gleadthorpe Gate'*. This error was corrected by Gaunt in 2017 (Gaunt 2017, p37).

Nether Warsop Gate has been recorded in LiDAR by the Friends of Thynghowe in Western Birklands, proven through ground-truthing, and measured and recorded in the field.

The routeway *'from Budby'* was identified by the current author (Gaunt) as relating to a v-shaped holloway recorded in the walkover survey of Birklands (Gaunt & Gillott 2011, p16). This holloway is to be recorded in a level two survey by Mercian Archaeological Services CIC at the time of writing, results will be presented in the upcoming report for *'the Sherwood Forest National Nature Reserve Archaeology Survey- Birklands Wood, 2018 season'* (Gaunt 2018b forthcoming).

The trackways between the villages which cross Budby South Forest have not been dated through excavation. However, a case can be made for inferring that they date from a far earlier time. *'Nether Warsop Gate'* for instance can be shown to be at least early 17th century in age from the mapping evidence, *"and movement between Warsop and Edwinstowe would have been required from the times the settlements were formed. Both settlements were in existence by the time of the Norman conquest (Morris 1977), and Saxo-Norman pottery found in Edwinstowe by Mercian Archaeological Services CIC is dated to between the 10th to 12th century (Gaunt 2014), making it plausible that the track way was in place in Viking times"* (Gaunt 2017d, p48) or highly likely by medieval times. This is also likely to be the case for trackways between Gleadthorpe, Edwinstowe, Budby and others (2, 3, 4, 5, 6, 7, and 8 in figure 4 below).

Track way (8) is currently being investigated by the Friends of Thynghowe via archaeological survey. The route is depicted on the 1738 map, but the western part of the route is also depicted on the 1606 sketch map of Clipstone and Warsop

boundaries (photograph in NAO WP/5/S), which suggests the routeway has early post-medieval if not medieval origins. Its exact route in earlier times is the subject of their research.



Figure 4: Routeways depicted on 1738 Thoresby Estate Map aligned to Lidar results. Routeways which can be identified from other sources are numbered. The numbers relate to the names provided in the text. Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

6.8. 19th Century

Budby model village was built by the Earl Manvers in about 1807 with the houses in a Swiss/Gothic style. Replacing the earlier settlement and buildings.

(<http://southwellchurches.nottingham.ac.uk/budby-chapel/hhistory.php>).

The 1843 map mentioned above depicted a large number of boundaries not previously shown. These are displayed as blue lines on the aerial photograph in figure 5 below. The lines have been extracted from the map in GIS and are not in their precise location. The accurate location of surviving elements of the 1843 map which can be seen in the LiDAR data are displayed in figure 6 below. It is clear from the 1843 map, that by that time Budby South Forest was divided into many separate parts



Figure 5: Features depicted on the 1843 maps (blue lines). Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom.

No woodland is depicted within the area of Budby South Forest in 1843, or 1738.



Figure 6: Features recorded on maps dating to 1843 which survive as features detected in LiDAR. Red lines are features displayed in 1843 that predate that time. Blue lines surviving elements from 1843. Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.



Figure 7: 1900 1: 10,560 Ordnance Survey Map. Drawn 1897 published 1900.

The Ordnance Survey 6 inch to 1-mile map of Budby South Common drawn in 1897 and published in 1900 shows the site for the first time in great detail. It is clear that by the late 19th century the site has a number of plantations of trees including three named plantations: '*Pond Hill Plantation*', '*Crown Hill Plantation*' and '*Church Road Plantation*'. '*Pond Hill Plantation*' has changed to its current name of '*Pigeon Pond Plantation*' on the 1919 Ordnance Survey 6 inches to 1-mile Ordnance Survey Map. There is also an area which appears to be demarcated as a plantation in the southwestern corner adjacent to '*Hanger Hill Wood*', and the northwestern corner is clearly marked as covered in an orderly plantation of trees covering a large rectangular enclosure. This large rectangular enclosure is later named as '*Boundary Plantation*' appearing as such on the 1919 Ordnance Survey 6 inches to 1-mile map. As well as these plantations, Budby South Forest is depicted as having a large amount of woodland dotted across it with areas of heathland in between. These plantations are also depicted on the earlier 1885 map. Maps do not always show every detail of a landscape especially prior to the Ordnance Survey, as maps were often drawn to show ownership or land tenure rather than being fully cartographic representations. However, from the mapping evidence it could be suggested that the named plantations on Budby South Forest depicted in the 1880's and shown above on the 1900 OS map in figure 9, were planted after the 1843 maps and before 1883-4 when the 1885 map was drawn.

To the northeast of '*Pond Hill Plantation*' the 1900 map shows a hollow depicted with hachures, this feature is numbered (1) in figure 9 below. These hollows clearly pre-date the military presence on the heath (20th century) and their origin is confirmed on

the County Series 1885 1,2500 map which labels them hollows as an 'Old Clay Pit' (see figure 8 below). It is not known whether these represent medieval or post-medieval clay extraction at this time, but it is possible they date from a time when Budby South Forest was in common use.

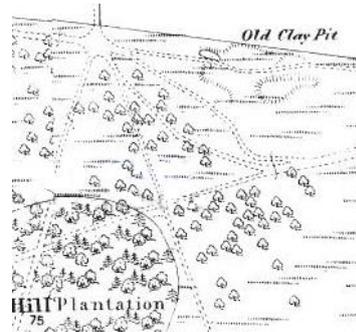


Figure 8: An extract from 1885 1,2500 OS map, showing 'Old Clay Pit' to the north of 'Pond Hill Plantation'



Figure 9: The 1: 10,560 Ordnance Survey Map. Drawn 1897 published 1900. Features from this date highlighted in green.

The 1897/1900 map also shows a number of trackways and boundaries not previously depicted. These are highlighted in green on the map in figure 9 above. The two curving trackways in the western (2) and northwestern (3) parts of the Budby South Forest appear to originate between the 1843 map depiction and that of 1885. Unlike their earlier counterparts of 'Nether Warsop Gate', 'Gleadthorpe Gate', 'Swinecote road' 'Budby Bridle Way' and the trackway 'to Budby', they do not cross

the common having entered from outside, but instead are contained entirely within Budby South Forest.

Features 4, 5 and 7 and 8 do not appear in the LiDAR data, feature 6 has been detected as a long linear earthwork bank as part of the Level One Survey (Gaunt 2018a forthcoming).

6.9. 20th Century

The publication “*The Transformation of Sherwood Forest in the Twentieth Century: The Role of Private Estate Forestry*” by Duncan Kottler, Charles Watkins and Chris Laver covers the 20th century development of Thoresby estate in terms of vegetation cover- mainly focusing on ancient and modern trees.

The paper discusses the area surrounding Budby South Forest centred on the Thoresby Estate and suggests that “*rather than being a slowly changing woodland landscape, it has been transformed in response to changing social, economic and government policy pressures*” (Kottler, Watkins and Laver 2005, p95).

The tree cover, mainly relating to the named plantations, and the slight changes discussed in this report are confirmed on sketch maps in the paper.



Figure 10: 1919 Ordnance Survey Map (drawn 1914).

The 1919 Ordnance Survey shown in figure 10 above shows very few changes from 1897-1900 in the landscape. The main exception appears to be the extension of Pigeon Pond wood to the northeast to include a rectangular area to the south of trackway (2) as shown in figure 9. The overall level of tree coverage seems very similar to that depicted in 1900.

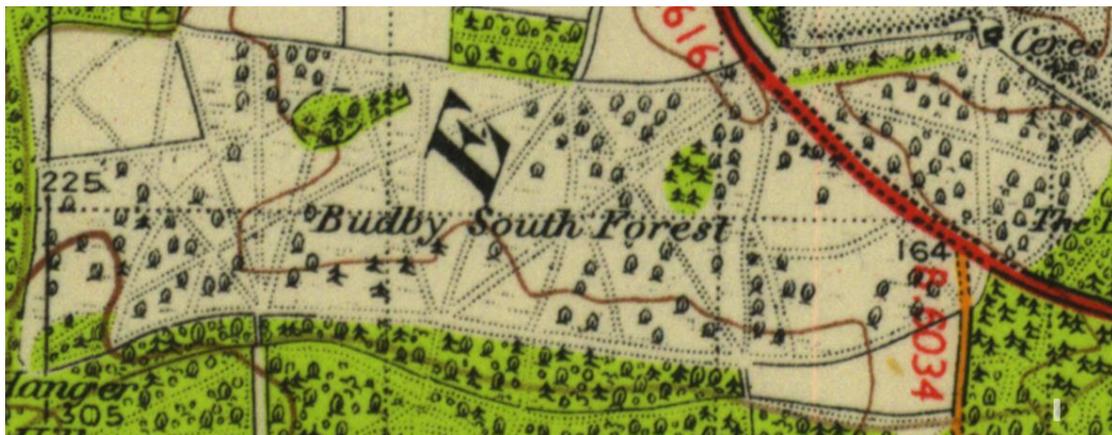


Figure 11: The 1947 Ordnance Survey Map (drawn 1945).

The 1947 Ordnance Survey Map depicted in figure 11 was drawn in 1945. The map shows but does not name 'Pigeon Pond Plantation' or 'Pond Hill Plantation' and 'Crown Hill Plantation'. The area of plantation on the southwestern corner adjacent to Hanger Hill is depicted. 'Church Road Plantation' is not depicted on this map although it is present on later maps (see below). Of interest is that 'Boundary Plantation' is shown as a compartment but empty of trees. The map suggests the presence of pine trees in a number of areas. 'Crown Hill Plantation' is shown entirely as pine, with 'Pigeon Pond Plantation' or 'Pond Hill Plantation' also containing some pine plantation.



Figure 13: Ordnance Survey map drawn 1958 published 1960

6.10 Military Presence

The Second World War brought Budby South Forest under military use: *“Military requisitioning, beginning on 12th March 1942... Birklands and Bilhaugh ancient oaks... were used as ammunition dumps... Budby South Forest was established as a tank training ground”* (Kottler et al 2005, p 103).

Up until 2015 the site of Budby South Forest was used as a *“military training area by the Defence Training Estate”* (Crouch 215, p6). The main activity on the site therefore, between the mid-20th century and 2015 has been from the use of the site by the military. Aerial photographs examined for this report have helped to show some of that activity, features detected include; pits, linear banks, ditches, and craters.

Aerial photographs from 1953 (540/RAF/1121:4-5-53), 1983 (NCB) and 1985 help to identify an offer the opportunity to tentatively date certain features. The image in figure 14 shows features seen in this aerial photograph which are present in the LiDAR data. These features are highlighted in blue for when first seen in 1953, red for 1983, and orange for 1985.

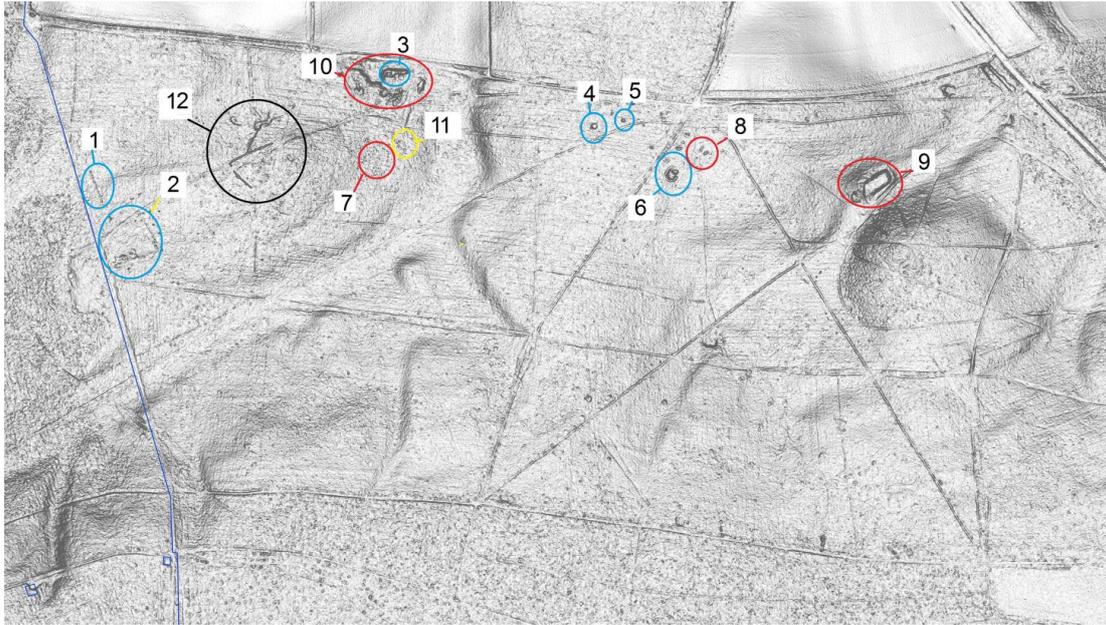


Figure 14: Military activity evident on aerial photography from 1953, which survives on the LiDAR data. Blue 1953, Red 1983, Orange 1985. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

Features that are interpreted as military related are shown above of Figure 14.

Feature (1) has been ground-truthed as a linear bank (Gaunt 2018a forthcoming) it is first seen in 1953, as is area (2) immediately to the south of it; area (2) is still cordoned-off as a military enclosure behind wire fencing and clearly dates from 1953 or earlier.

A small part (3) of the 'Old clay Pit' (previously shown above on the 1885 map in figure 8) appears to have been freshly re-dug by the military in circa 1953. It appears white in the 1953 photograph which suggests that fresh sand is at the surface. Military activity around this time is clearly taking place in this area, and this activity widens to cover the larger area surrounding the 'Old Clay Pit' with many of the earthworks (10) being visible for the first time in 1983.

Two large craters (4) and (5) apparently caused by explosions (ground-truthing results in Gaunt 2018a forthcoming) can be seen in 1953 and are assumed to be from the Second World War era.

A curved linear feature is visible and marked (6) in figure 14. This feature has not been ground-truthed, to date, as it lies in a compartment due for survey in the 2019 season. It is visible in the LiDAR data and was in existence by 1953.

A series of pits (7) are visible lining the perimeter of Pigeon Pond Wood, these can be seen on the 1983 NCB aerial photograph and are therefore highlighted in red but are most visible in the 1985 photograph. The Level One survey has ground-truthed these features, which include circular pits (Gaunt 2018a forthcoming). A Level Two survey is planned to map them in detail. A semi-circle of pits can also be seen in the LiDAR to the northeast (11) of (7) which appear to date from slightly later. They are not visible in 1983 but appear in the 1985 photograph, and as such they marked in yellow. Both sets of pits are believed to be from military exercises or related activity.

Features (8) and (9) first appear in the 1983 photograph. They are due for ground - truthing in 2020, and clearly survive in the LiDAR data and presumably on the ground. They will be checked by a site visit as part of the Level One Survey (Gaunt 2018a forthcoming) and will be described briefly in that report, in order to enable interpretation, until they are surveyed in full at a later date (2020). This will also be done for the other features not due for survey in 2019 and 2020, but which have been identified in this report.

Feature (12) has so far not been dated from aerial photography as it exists under woodland. It is present as an extensive feature in the LiDAR data and has been recorded through ground-truthing in the Level One Survey as a steep-sided trench system associated with a pond or swampy area to the north. It will be discussed in the Level One Survey (Gaunt 2018a forthcoming).

Further archaeological remains from military activity undoubtedly exists, and when they are discovered through Level One Survey, further examination of aerial photography may be able to date features to a particular phase of activity. It is intended that this method of archaeological survey and aerial photographic research alongside LiDAR data will be tried and tested through the Level One Surveys in 2018, 2019 and 2020.

With regard to the ground cover of Budby Heath and its use during the military phase, the photographs continue to show the presence of the named plantations, and Kottler et al lists 'Boundary Plantation', 'Pigeon Pond Wood', 'Crown Hill Plantation' and

'Church Road plantation' as being present on Budby South Forest in 1998 (figure 2 Kottler et al 2005, p97), and this is also confirmed by Ordnance Survey mapping. These plantations survive to this day.

6.11 RSPB and the Sherwood Forest National Nature Reserve

Budby South Forest now forms part of the Sherwood Forest National Nature Reserve:

“One NNR is designated in Sherwood (and Nottinghamshire), coinciding with the Birklands section of the Birklands and Bilhaugh SAC, but also including the large open heath to the north, known as Budby South Forest (or Budby Heath)”... “Whilst the southern part of the NNR (coinciding with the Birklands section of the Birklands and Bilhaugh SAC) remains under the management of Nottinghamshire County Council, Budby South Forest came under the management of the RSPB in early 2015” (Crouch 2015, p6).

7. Recommendations

It is recommended that this document is used as a 'base-line' for beginning to understand the potential archaeological remains that could be present on the site of Budby South Forest. It is intended as a research document bringing together some of the documentation and background information to create a timeline for the site and to demonstrate its potential significance. It should be viewed as part of a larger body of work that will help to interpret the archaeological resource for aiding management of the site.

At the time of writing a Level One survey has already begun to ground-truth LiDAR data, and to systematically search for remains not seen in those data-sets. As has been discussed above features seen in LiDAR may not be apparent on the ground, and features on the ground do not always show up in LiDAR data.

The Level One survey is locating, measuring, photographing, and recording these features.

The surveys will compliment and to some extent supersede the information in this document. Documentary research will continue during the subsequent surveys, and new projects will deliver new reports in the vicinity of Budby South Forest, which will be incorporated into the reports for these surveys. This report should be seen as a starting point in understanding the archaeology of Budby South Forest, which will continue to grow through future work.

Recommendations for work alongside the ongoing Level One Survey include undertaking Level Two surveys of complex areas of features such as those already identified in Pigeon Pond Wood.

As well as the archaeological Level One and Level Two Surveys already underway it would be strongly recommended that a number of sites be subject to geophysical survey (magnetometer and resistance survey) to search for archaeological features not visible on the surface that may survive as buried features such as potential ditches relating to the 'Brickwork plan field system', if the opportunity arises, or if works on the site require actions that could impact buried archaeological layers.

The 2018 season of ground-truthing focused on the western compartments of Budby South Forest. Figure 15 shows some of the features that were investigated. The lines

depicted in green are ground-truthed as linear banks. Some of these features do not appear on the mapping evidence or aerial photographs researched above. Three large linear banks can be seen orientated north to south. These were seen in the LiDAR data and subsequently ground-truthed. Also, briefly shown to help manage the resource prior to the completion of the Level One survey (Gaunt 2018a forthcoming) are a number of areas of ridge and furrow. These have been ground-truthed and measured and will be discussed in the forthcoming report. The areas highlighted here are to demonstrate the areas seen in the LiDAR and show something of the extent of these features. It is not known yet whether this ridge and furrow is medieval and perhaps part of Breck land management in the Budby Outfields, or whether it is of later date. Of possible interest is a reference to mechanised ploughing on Budby North Forest (Ma 4 P). The results and interpretations will be discussed in the Level One Survey report.



Figure 15: Areas of ridge and furrow (red) and Linear banks detected through ground-truthing and seen in the LiDAR data. See Level One report (Gaunt 2018a forthcoming for full details). LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

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- The Sherwood Forest Belvoir Map circa 1437. (Barley 1986 - *Photographic copy in NAO, XF/1/s*)
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- Ma 5 E 31/7 1930's map of electricity lines. Manvers Collection.
- All historic Ordnance Survey maps for the site.

9. Acknowledgments

Mercian Archaeological Services CIC would like to thank RSPB and in particular Chloe Ryder, Site Manager, Budby South Forest.

Robin Orr for offering up his research into the landscape, mapping and archives relating to Budby and Thoresby.

Steve Horne of the Friends of Thynghowe for his provision of LiDAR data for this publication and for use on the associated Level One Survey of Budby South Forest.

The Friends of Thynghowe for his provision of LiDAR data for this publication and for use on the associated Level One Survey of Budby South Forest.

David Littlewood of Nottinghamshire County Council Historic Environment Record for providing details from the HER database and undertaking searches.

Staff at the King's Meadow Campus for help with the Manvers Collection.

10. Disclaimer

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Appendix I: Maps

(the Figure numbers in the Appendix are the same as in the main body of the text for ease of reference).

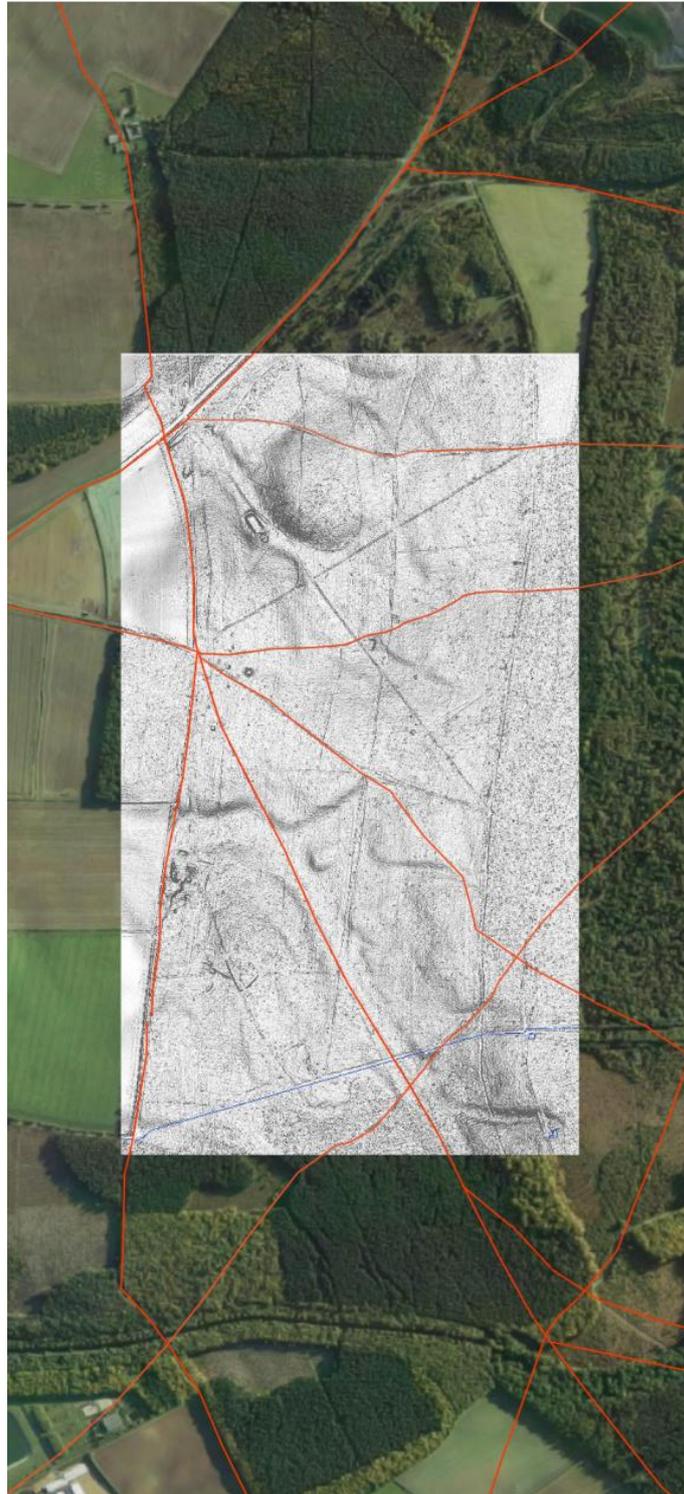


Figure 3: Routeways depicted on 1738 Thoresby Estate Map aligned to Lidar results. LIDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

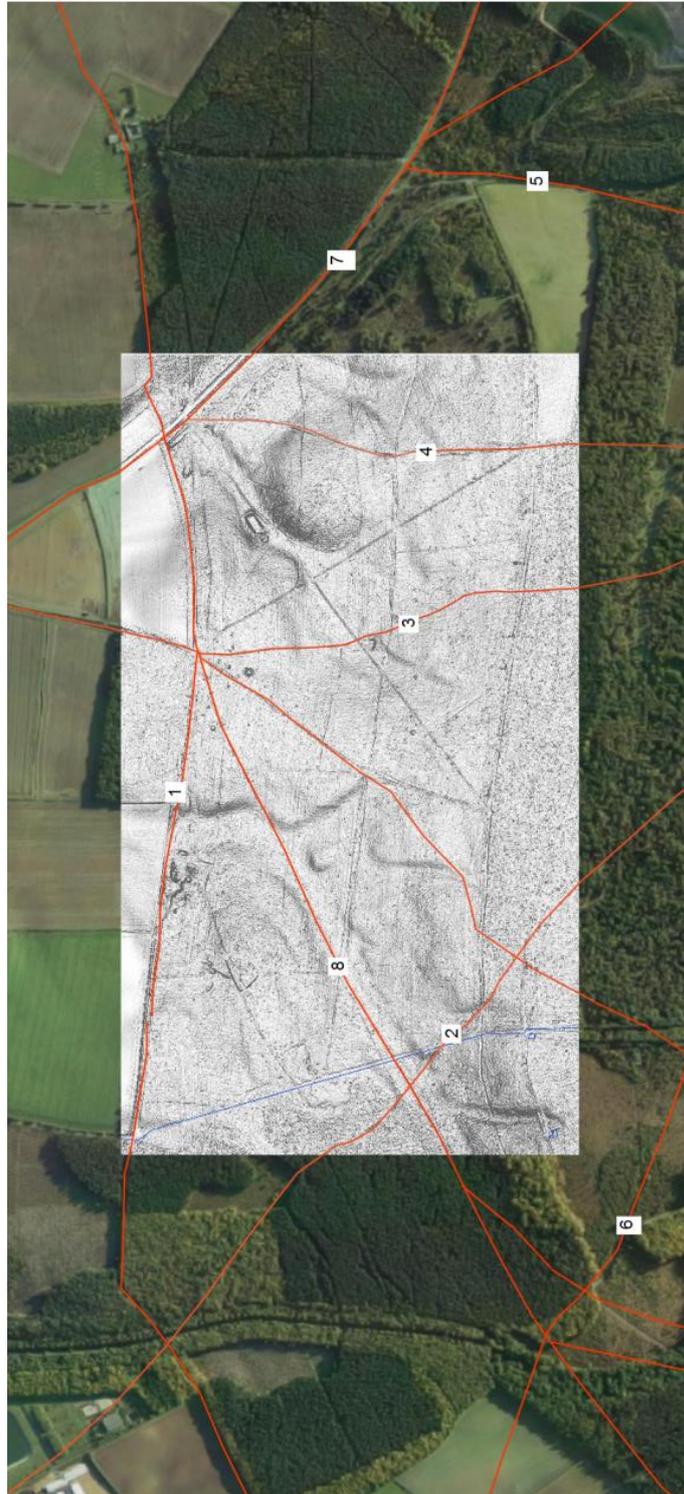


Figure 4: Routeways depicted on 1738 Thoresby Estate Map aligned to Lidar results. Routeways which can be identified from other sources are numbered. The numbers relate to the names provided in the text. Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.



Figure 5: Features depicted on the 1843 maps (blue lines). Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom.



Figure 6: Features recorded on maps dating to 1843 which survive as features detected in LiDAR. Red lines are features displayed in 1843 that predate that time. Blue lines surviving elements from 1843. Contains imagery ©2018 Getmapping Plc. Infoterra Ltd & Bluesky, Map data ©2018 Google, United Kingdom. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.



Figure 9: The 1: 10,560 Ordnance Survey Map. Drawn 1897 published 1900. Features from this date highlighted in green.



Figure 14: Military activity evident on aerial photography from 1953, which survives on the LiDAR data. Blue 1953, Red 1883, Orange 1985. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.

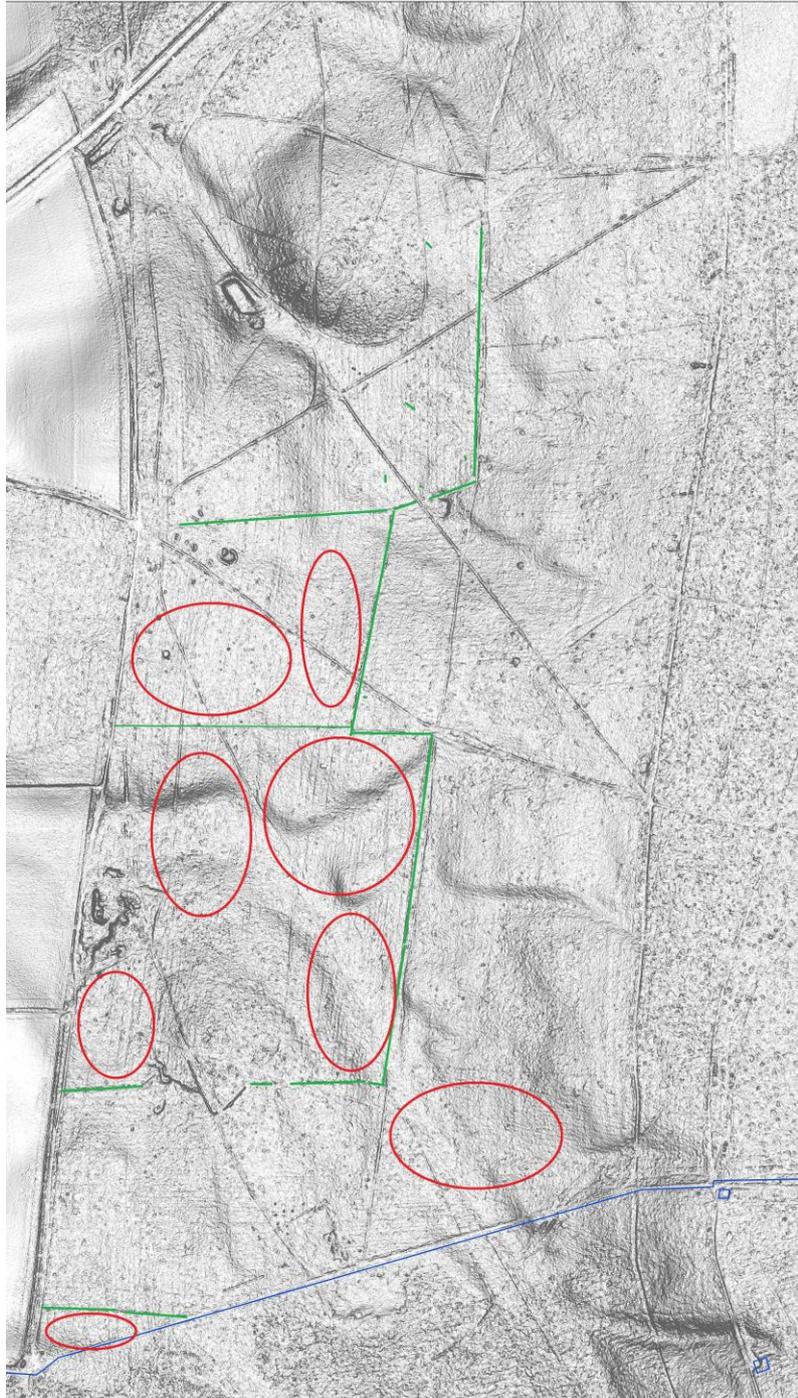


Figure 15: Areas of ridge and furrow (red) and Linear banks detected through ground-truthing and seen in the LiDAR data. See Level One report (Gaunt 2018a forthcoming for full details. LiDAR data for Budby South Forest, courtesy of the Friends of Thynghowe/ Geomatics Group Environment Agency.