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Case study report: Woodside Farm

Field Systems in the High Weald

High Weald AONB Unit

March 2017

Results summary

Historic Saxon & medieval core, church and green; Source archives

Internal boundary loss of regular fields; remaining boundaries replanted as Countryside Steward mix on no bank; Source historic maps and field walk

Dog-legged boundary with banks and silted ditches

Quarry, plough headlands & lynchets; Source field walk

Veteran oaks on large banks in hedges; Source field walk

Modern track on old hollow way; Earthwork in shaw; source historic maps and field walk

Large quarry; Source historic maps and field walk

Lynchets and quarries , lost field boundaries; Source historic maps and field walk

Woodside = Modern farmstead historic buildings now converted; Source historic maps and field walk

Site of historic Owlets Farm: Source historic maps & geophysical survey

Hollow way, plough headlands, platforms; Source field walk

Woodside Farm Fieldwork with archive;
Summary of Historic evidence

Plough headlands,veteran oaks woodbanks ditches; Source field walk

Significant boundary loss of assart fields; source historic maps and field walk

Woodside Farm, Benenden, Kent
Full field walk with some archive and a geophysical survey

* Fields to east of main track have undergone considerable alteration, with loss of all internal boundaries and only a few main alignment hedges at right angles to track surviving. These hedges are modern (no bank) with high species mix typical of CS scheme planting.
* Traces of lynchets and old quarries still surviving in field
* Site of deserted early post-med farmstead of Owlets - ? found on geophysical – part of Dingleden Farm in C18. Owlets = place where alders grow.
* Dingleden a Saxon swine pasture – place-name evidence of early first phase colonisation of Weald (inga)
* Fields close to gill woodland have wood banks with plough headlands, old hollow ways and platforms surviving in pasture, some ridge and furrow
* on west side of track large banked hedges with large veteran oaks, fields 'hanging from main ridge route and the historic settlement core

Contents

1. Introduction

Woodside Farm is adjacent to the village of Benenden in the county of Kent. The farm is a pastural farm managed through sheep grazing. A map of the extent of the farm — which, as the entire farm was surveyed, also illustrates the survey area — may be seen below.

2. Method

The whole farm was covered in one day in August by two people, access using a Landrover. This was predominantly a pasture farm with one field planted to turnips. Sheep farmed here.

A further day was spent by a historic environment specialist researching published material and seeking information from known local historians. A magnetometer survey of a suspected deserted farmstead was carried out in May by Hastings Area Archaeological Research Group (HAARG).

The boundaries and the fields together with archaeological features were photographed to provide a visual record of the site (see the photos below).

Boundary ditch

Boundary bank and ditch

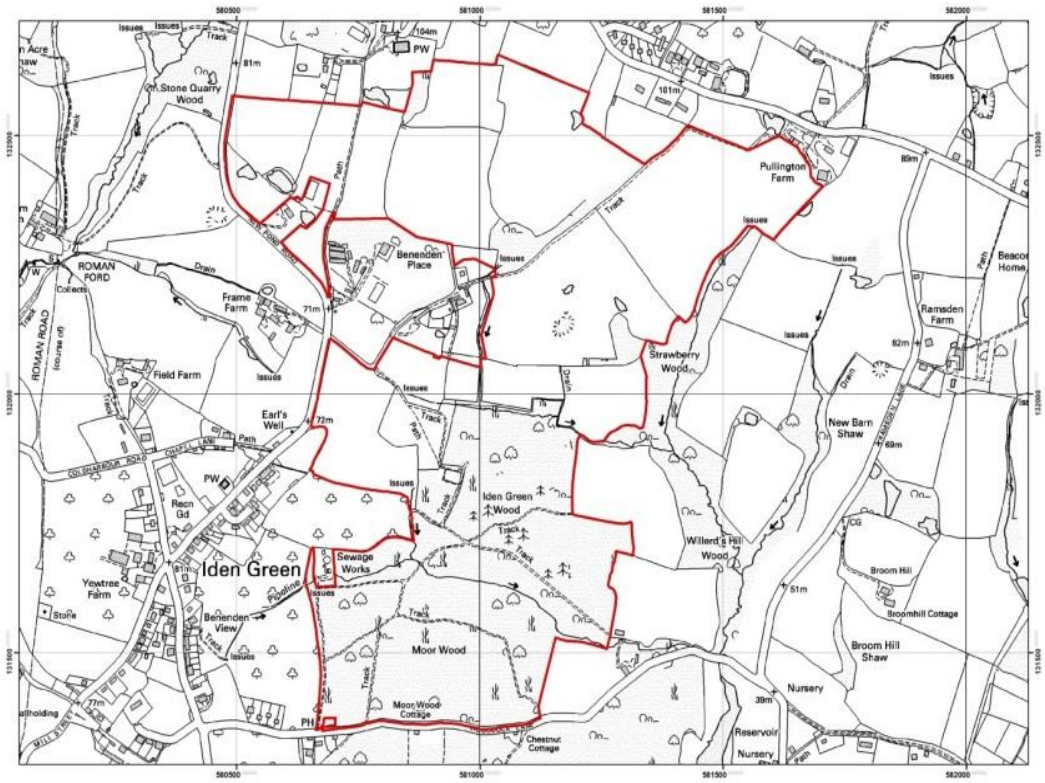
Individual forms were filled for each field and a map of the site was annotated using a key.

3. Challenges & limitations

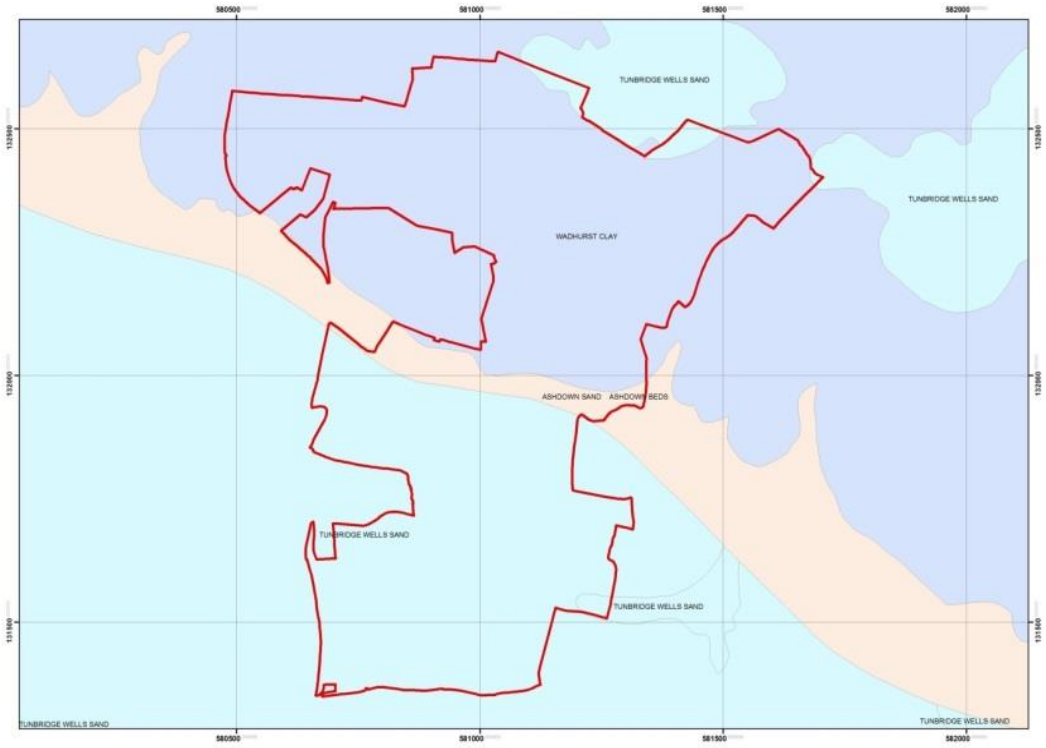
The main issue was the amount of bracken undergrowth covering the earthwork component of the boundaries making it difficult to quickly assess the boundary structure and changes along its length.

4. Modern maps

Ordnance Survey 10k

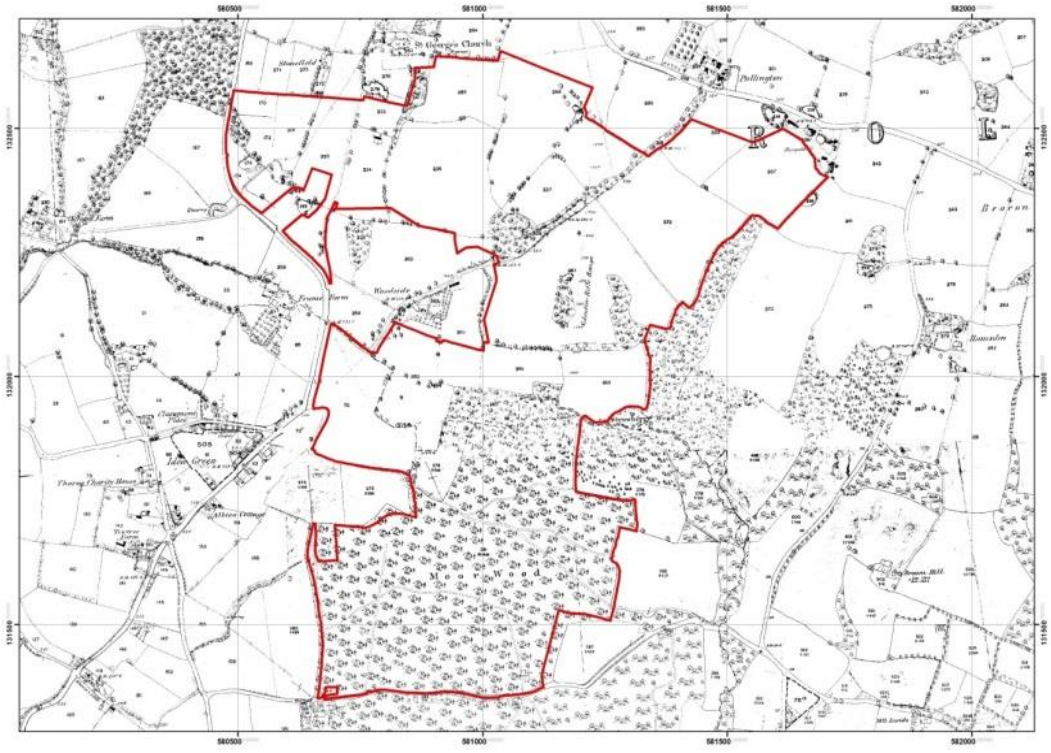


Geology

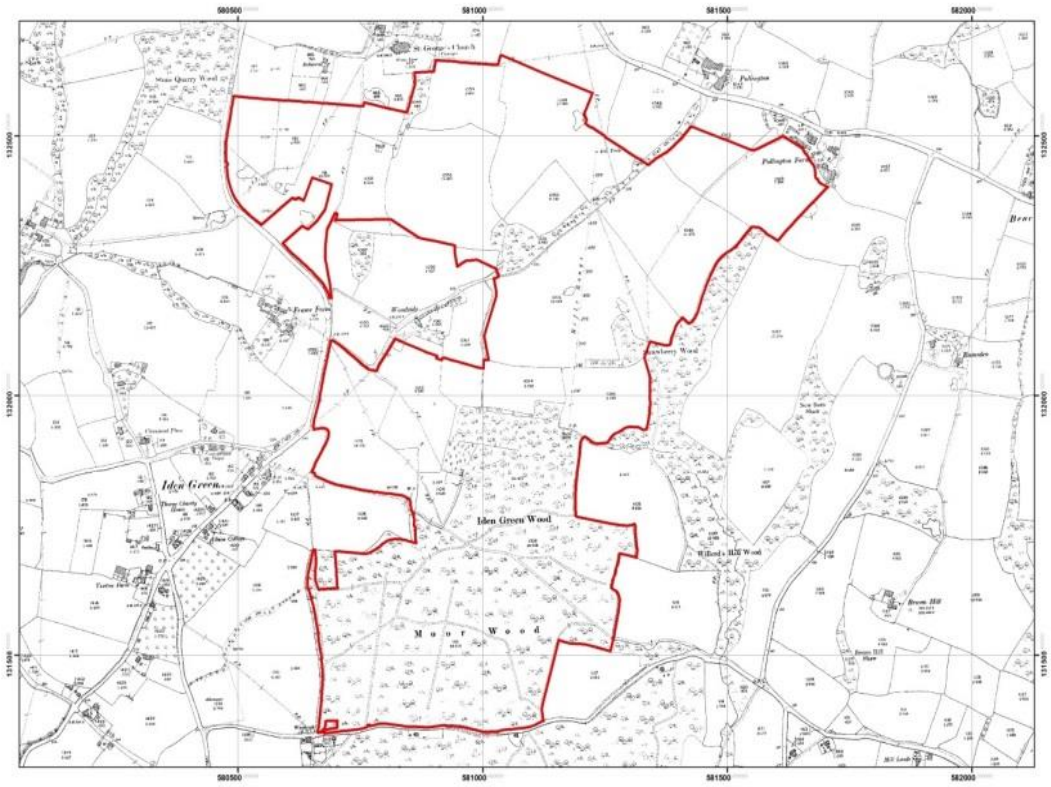


5. Historic maps

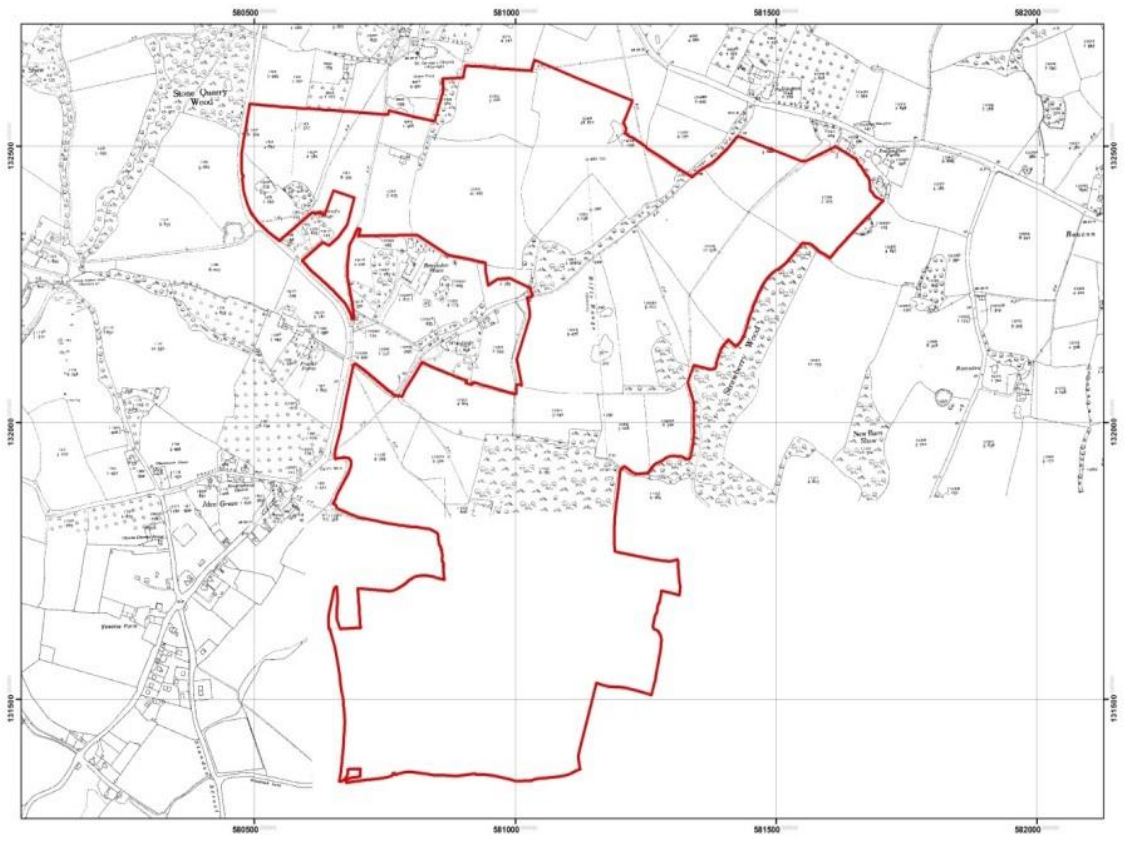
Epoch 1



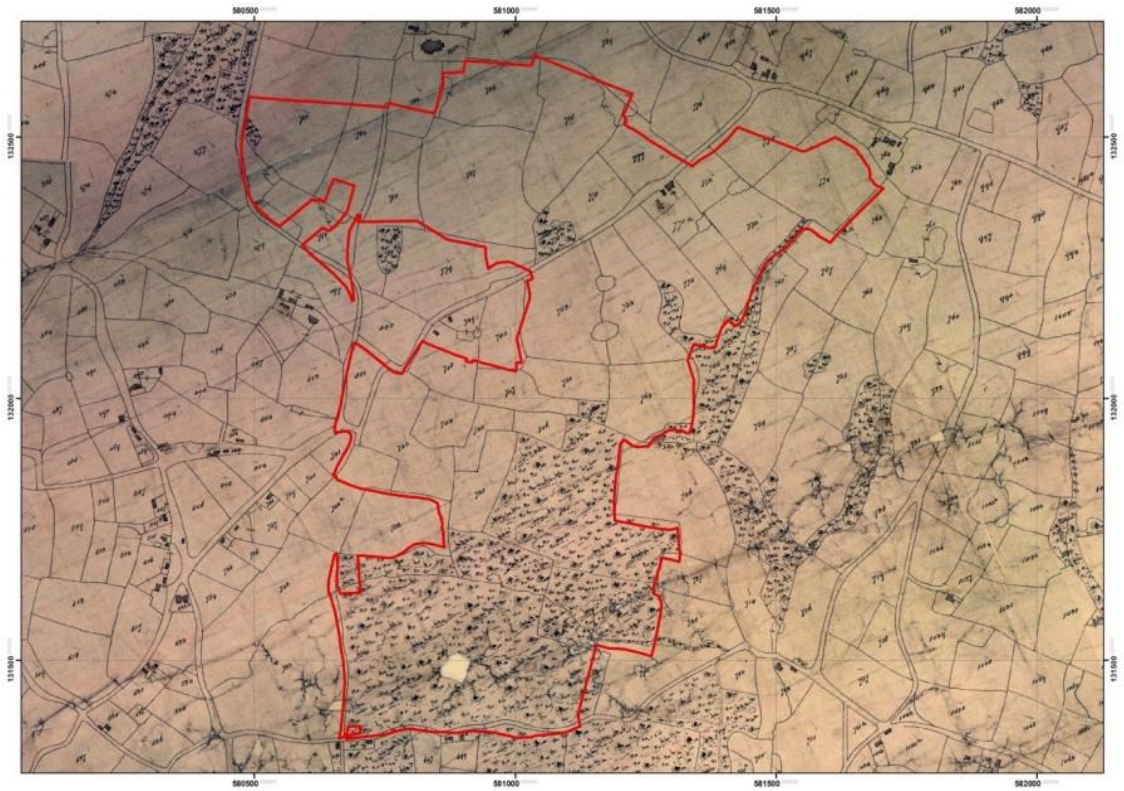
Epoch 2



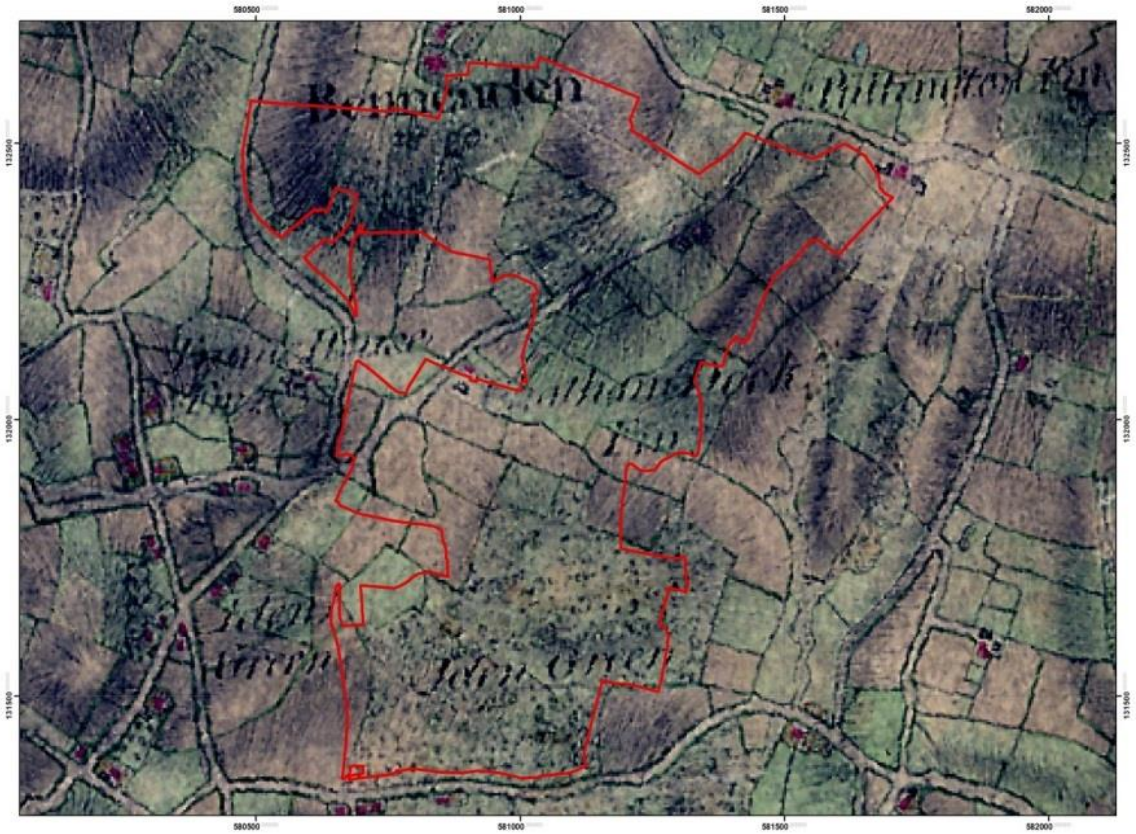
Epoch 3



Benenden tithe



Ordnance Surveyors Draft (OSD)



6. Survey map & forms

HE 7056 Field Systems in the High Weald
Recording Form – Revised August 2015

FIELD ATTRIBUTES

CASE SITE REFERENCE		SURVEY AREA WOODSIDE		CIVIL PARISH	BENENDEN	DISTRICT		COUNTY	
POLYGON NO	F12			FIELD REF/ID		ECCLESIASTICAL PARISH	BENENDEN		
SHAPE	Rectangular	Square	Irregular ✓	Irregular rectangle	Irregular square	Curved/inverted 'S'	Other - Specify		
SIZE – visual	Small	Medium	Large ✓	Very large					
SIZE – numerical	Present Day Ha		Present Day Acres		Historic – Tithe A-R-P		Historic - other		
ORIENTATION of Field shape	N / S	E / W	NE / SW ✓	NW / SE	Hanging from road	Ridge ✓	Watercourse	Settlement	Other
PHYSICAL	Geology								
	Soils	711e	WICKHAM 1						
	Topography	Ridge top	Valley sides ✓	Valley bottom	Whole valley	Other - specify		Degree of slope	
	Hydrology	Stream	River	Canal	Artificial channel				
FIELD NAMES	Historic names								
	Present names								
RATIONALISATION		Boundary Loss	4		Boundary Gain	1			
ARCHAEOLOGY	Name of feature + HER REF NO	Position in field – middle	Position in field – corner	Position in field Side	Position in field All	Relationship to boundary	Cut by	Adjacent to	Part of boundary
	QUARRY		✓			B37		✓	
	LYNCHET	✓							
HLC	HLC Type A	DMF	✓		HLC Revision	B34/35		✓	
HISTORIC ARCHIVE									
SOURCE		Owner		Occupier		Land use		Area	
PHOTO REFS									

By gateway from track into field – [illegible] bridge? [illegible]

HE 7056 Field Systems in the High Weald
Recording Form – Revised August 2015

		Boundary number											
Polygon no.		B36		B37		B38		B39		B40			
Type	Hedge												
	Hedge with trees							✓		✓			
	Wooded Hedge					✓							
	Woodland edge	✓											
	Shaw												
	Stone Wall												
	Stone faced bank												
	Fence			✓									
	Ditch												
	Balk												
	Watercourse												
	Uncertain												
Function	Agrarian	✓		✓		✓		✓		✓			
	Farm												
	Parish												
	Recreation												
	Local Admin												
	Regional Admin												
	Road												
	Other												
Morphology	Straight												
	Curved			✓		✓		✓					
	Sinuous												
	Dog-legged	✓								✓			
	Inverted S												
	Discontinuous												
	Other - specify												
Relationship	Boundary No	B37	B35	36	38	37	39	38		B39			
to adjacent	Abutting	✓	✓	✓	✓	✓	✓	✓					
boundary	Overlying												
	Overlaid												
	Cut by ditch												
	Gate									✓			
	Other - specify												
	Uncertain												
Relationship to slope	Across slope												
	With slope	✓				✓		✓		✓			
	No slope			✓									
	Undulating												
	Uncertain												
Orientation	N/S							✓		✓			
Of boundary	E/W					✓							
	NE/SW	✓											
	NW/SE												

B36 37 38 B39 B40

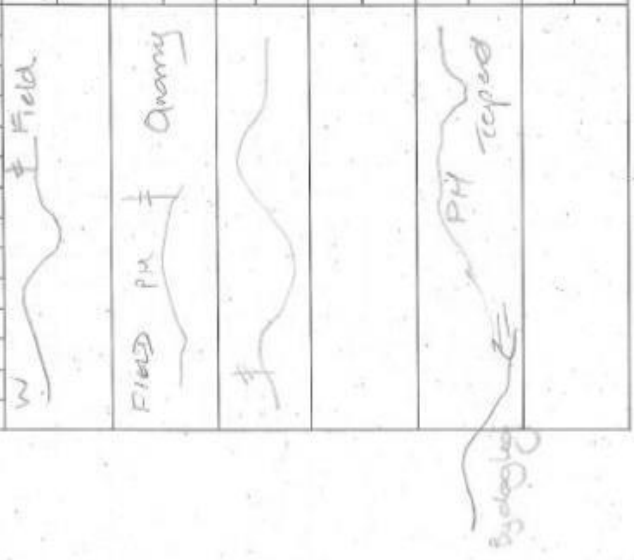
HE 7056 Field Systems in the High Weald
Recording Form – Revised August 2015

Historic	Pollard							✓					
Management	Stubbed					✓		✓					
	Coppiced	✓											
	Laid												
	Flailed												
	Hand trimmed												
	None			✓				✓		✓			
Modern	Flailed	✓						✓		✓			
Management	Coppiced												
	Laid												
	Uncertain												
	None			✓		✓							
Species	0 - 3			✓		✓				✓			
	4 - 6	✓						✓					
	+ 6												
	Thorn sps dom												
	Woodland sps	✓				✓				✓			
	Mixed							✓					
	None												
	Key Species	CB				CB		CB		CB			
		CM						QR, QR		Rosa			
		AC						CA		Rub a			
		CA ✓						Rosa Rub					
Biodiversity value	High												
	Medium									✓			
	Low			✓		✓							
	Uncertain												
Cross ref with meadow survey													
Earthwork	**Bank**	✓		O		✓		O		✓			
	Size - Width												
	0 - 1.0m												
	1.0 – 3.0m	✓				✓							
	+ 3.0m									✓			
	Size - Height												
	0 – 0.5	✓								✓			
	0.5 – 1.0m					✓							
	+ 1.0m												
	Profile A/S/L	A				S							
	Ditch	✓		O		✓		✓		✓			
	Size - Width												
	0 – 0.5m												
	0.5m – 1.0m	✓				✓		~		✓			
	+ 1.0m												
	Size - Depth												
	0.0-5m	✓						✓		✓			
	0.5m – 1.0m					✓							
	+ 1.0m												
	Profile A/S	S				S		S		S			
	Silted									✓			

F.12

HE 7056 Field Systems in the High Weald
Recording Form – Revised August 2015

		B36		B37		B38		B39		B40			
Furniture	Gate	✓											
	Stile												
	Markers							✓		✓ CB			
	Stock watering								✓				
	Creeps/smoots												
	Other - specify			PH							PH		
	None												
Notes		Fence along outer edge ditch		PH sand edge quarry		Broom Rose Sycamore				Bank - dogleg around			
Photo refs													
Sketch Profile													



7. Results

7.1 Features recorded

Figure 1. Map of features recorded in the field survey.

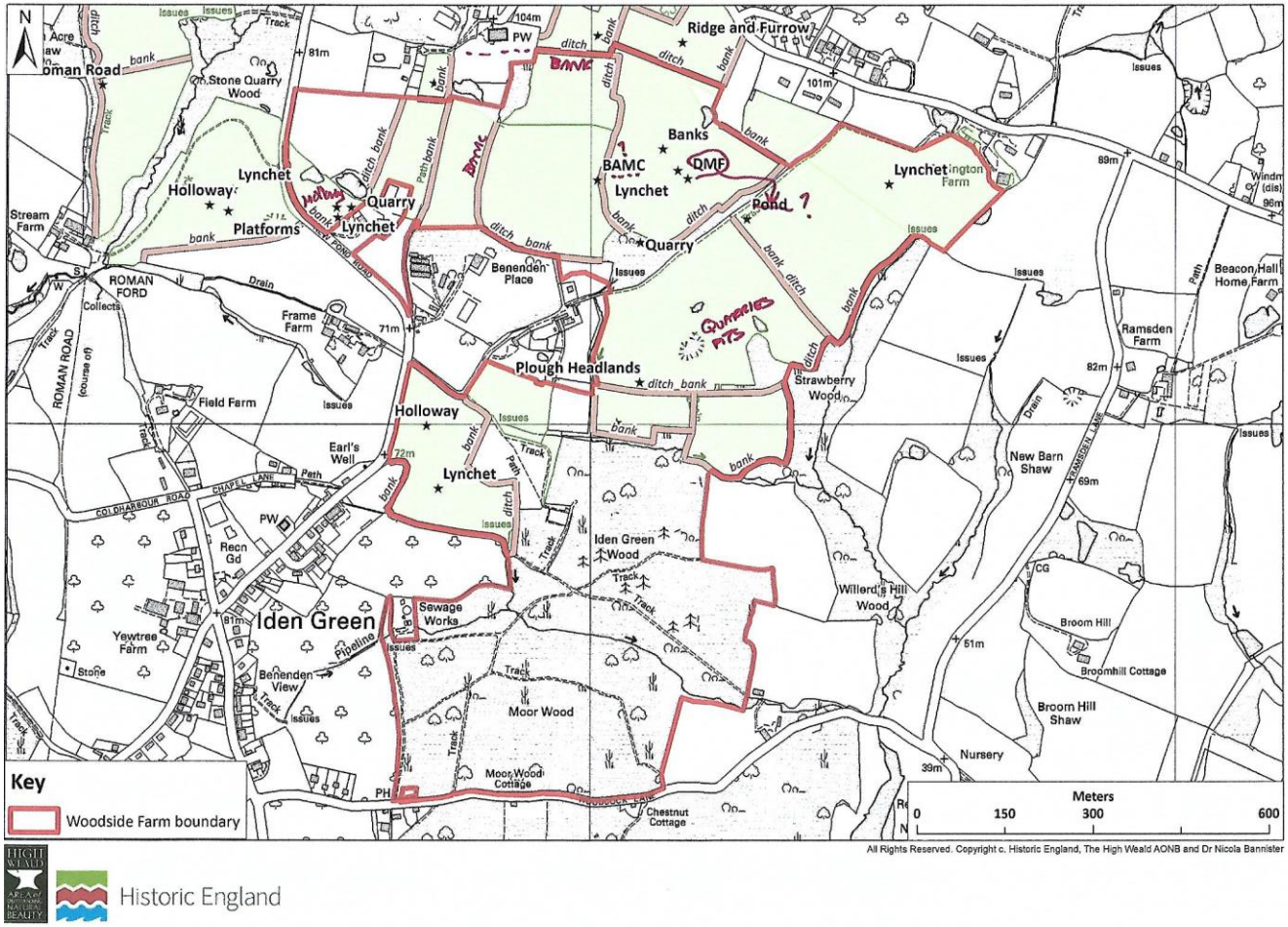


Table 1. Features recorded in the field survey.

Woodside Farm	
Archaeological features	
Type	***Number recorded***
BAMC	1
DMF	1
Holloway	1
Lynchet	4
Plough headland	1
Quarry	1
Pond	1
TOTAL	**10**
Boundaries	
Type	***Number recorded***
Fence	11
Ditch	1
Hedge	10
Hedge with trees	4
Wooded hedge	7
Woodland edge	9
TOTAL	**42**
Earthworks	
Type	***Number recorded***
Asymmetrical bank	7
Lynchet bank	3
Symmetrical bank	6
Symmetrical ditch	18
Asymmetrical ditch	1
Bank with 'uncertain' symmetry	3
Ditches with 'uncertain' symmetry	2
TOTAL	**40**

Summary stats:

- 11 individual fields were surveyed at the Woodside Farm study site
- Therefore, there are 10/11 = 0.91 archaeological features per field surveyed.

Field	
Type	***Number recorded***
Irregular fields	6
Rectangular fields	3
Square fields	2
TOTAL	**11**
Boundary furniture	
Type	***Number recorded***
Gate	6
Marker trees	4
Stile	10
Veteran tree	1
TOTAL	**21**

7.2 HLC enclosure types and field sizes: a statistical analysis for the Kent parishes of Goudhurst, Cranbrook, Hawkhurst and Benenden

A statistical analysis was carried out to investigate whether there's a difference in size between a certain field type and the rest of the fields in the area of four parishes in Kent: Goudhurst, Cranbrook, Hawkhurst and Benenden. Furthermore we ran a calculation on average field sizes for both the parish of Frant and the four parishes of Kent, which is a considerably larger area. The results are compared in this short report.

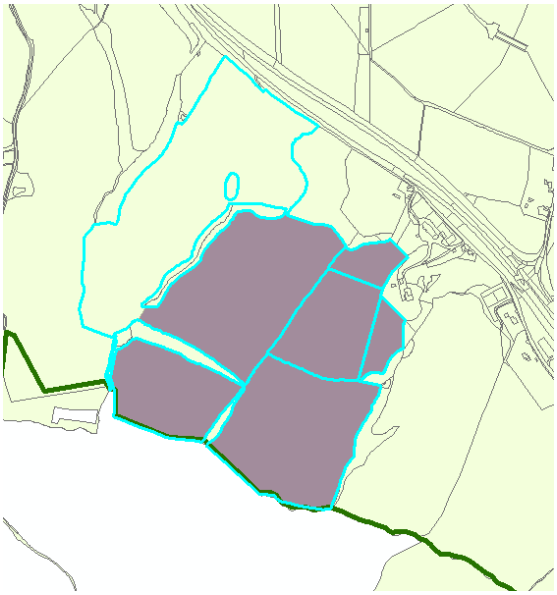
7.2.1 GIS data preparation

The two main GIS datasets used for the analysis are:

- Revised version of Kent HLC, which only covers the four parishes of Goudhurst, Cranbrook, Hawkhurst and Benenden
- Sussex HLC
- MasterMap data

Both HLC datasets were created by unionising individual MasterMap polygons. This means that the HLC data shows polygons that are groups of merged individual fields. However, to be able to do the analysis we have to go one step back again and acquire the individual MasterMap polygons again. This was done by extracting the individual polygons from MasterMap that were located within a certain HLC field type (e.g. all MasterMap polygons within aggregate assart field type) for both the parish of Frant and the four Kent parishes. As Kent HLC seems to line up with Mastermap correctly and Sussex HLC does not (possibly since a more recent version was used), the same procedure as the Frant parish was carried out to select and extract all HLC types and Mastermap polygons situated within these HLC polygons. However, some MasterMap polygons covered a larger area than the actual HLC polygon did. So after selecting and extracting the MasterMap polygons, some polygons had to be split and the outlying parts were deleted (Figure 2).

Figure 2.. Selected (blue) MasterMap polygon overlaps HLC (purple) polygon, but also covers an area which is not part of this particular HLC type. Such polygons had to be split.



All Mastermap polygons within the parish boundaries of Frant and within the Kent HLC extent were selected and exported as a separate shapefile. This Mastermap data was next filtered and cleaned up, because we don't want to use polygons in our calculations that are for example built areas, woodland, etc. This could be achieved by using the Metadata guidelines of the field boundary data:

(Y:\HWAONB GIS data\Internal Data\Key Components\Master Files\Character component metadata\Unit outputs\Metadata\Field & Heath)

This document states that the codes 10111 and 10056 (which represent natural environment and general surface) were selected from the field 'FEATCODE' and the rest of the polygons were removed from the attribute tables. Then a selection based on polygon size was applied and the polygons smaller than 1000 m^2 were removed from the table. Also polygons with size over 20 000 m^2 were removed. In addition, all features containing the word 'trees' in the field 'DESCTERM' were removed. This was done to ensure that only polygons that are most likely to be fields remained.

CALCAREA	CHANGE	DESCGROUP	DESCTERM
26.113	2004-08-04 Position	General Surface	
128.006488	2004-08-04 Position	General Surface	
14144.019064	2004-08-04 Position	Natural Environment	Coniferous Trees; Coppice Or Osiers; Rough Grassland; Scrub

Next, all HLC field types within the parish boundaries were selected by attribute from the Sussex HLC and/or Kent HLC and exported as a separate shapefile Y:\HWAONB GIS Data\Working\Tessa2015\Data\Frant_HLC_MasterMap_extractions.

Then, all individual Mastermap polygons within each field type were selected with the 'Select by location' tool. The selections were checked and corrected manually. These selections were exported as a shapefile as well. The Mastermap polygons were manually checked to see if every polygon was an actual field and no built up area or wooded area. This wasn't done for Kent HLC however, as this would take too much time.

7.2.2 Present day average field size: Kent parishes

The results for the Kent parishes are shown in table 1. If we then calculate the average field size with exclusion of modern field amalgamations, the average field size decreases from 2.24 ha to 2.10 ha.

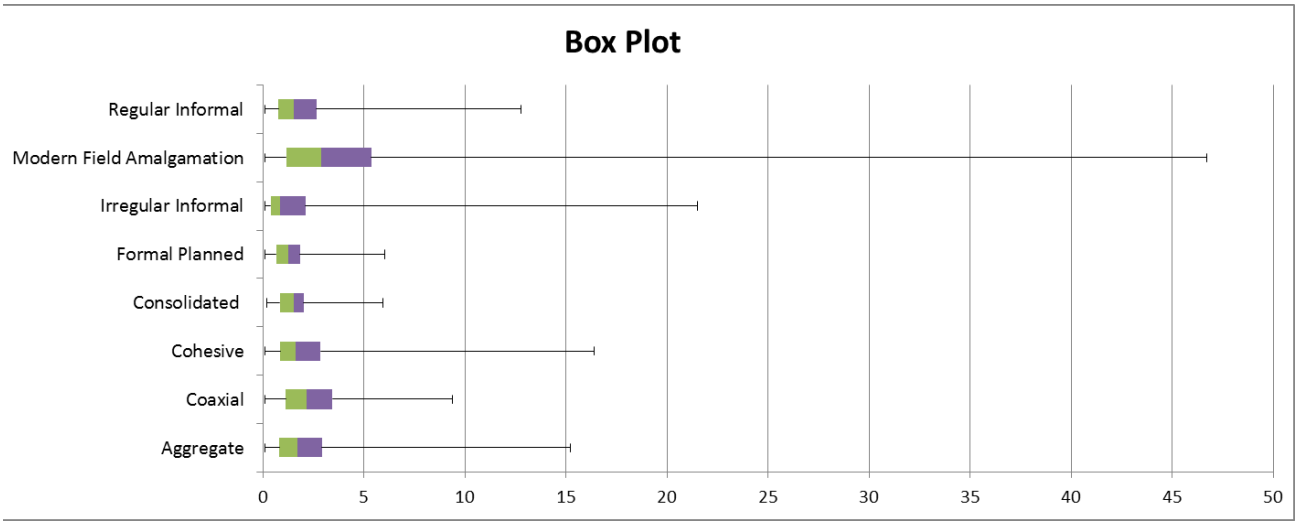
Table 2. Kent parishes present day average field sizes per field type and % of fields of total area of enclosures within these four parishes.

Parish	HLC Field type	Average size (ha)	Total area (ha)	Number of polygons	Field type % of total area of fields
Kent parishes	Aggregate assarts	2.2430	998.15	445	19
	Cohesive assarts	2.5300	172.04	68	3
	Coaxial fields	2.1505	858.06	399	16
	Consolidated strip fields	1.7248	50.02	29	1
	Formal planned	1.5138	139.27	92	3
	Irregular Informal	1.7461	130.96	75	2
	Modern field amalgamation	3.9984	2155.11	539	41
	Regular informal	2.0395	795.39	390	15
Sum			**5299**	**2037**	
Average		**2.24**			
Average area of all fields but modern field amalgamations		**2.10**			

7.2.3 Mann-Whitney U Test for two independent samples

To investigate if the field sizes for each different HLC field type are significantly different from each other a statistical analysis was carried out. The values of every different field type are graphed into histograms to see how the data are distributed. The data were also plotted in box plots to enable quick visual assessment regarding distribution (Figure 3).

Figure 3. Distribution of field sizes by HLC field type.



Assumptions of normality are in this case quite unrealistic as the boxplots and histograms have shown that our data is not normally distributed. This box plot shows us how our data is distributed and show the symmetry of our data, which is often a sufficient substitute for normality. As all box plots are not particularly symmetrical, we can't assume normally distributed data.

As it is not restricted by any assumptions about the nature (e.g. distribution) of the population(s) from which the samples have been taken, the Mann-Whitney U test is a good alternative for our data analysis (Ebdon 1977, 57-58). In our case, the populations of which the samples are drawn are:

1. Aggregate assarts– or any of the other field types - of Kent HLC within the High Weald boundaries.
2. The rest of the field types of Kent HLC located within the High Weald boundaries: coaxial fields, cohesive assarts, consolidated strip fields, formal planned fields, irregular informal fields, modern field amalgamations and regular informal fields.

With this test we are trying to find out whether there is a significant difference between the size of aggregate assarts and all other types of fields within the extent of the Kent HLC within the High Weald boundaries. Our null hypothesis is:

H_0 = the average value of each different field size are not different from each other.

In other words: There is no difference between aggregate assart field size and the overall mean of the rest of the field types except aggregate assarts. Our alternative hypothesis is:

H_1 = the means of the different field sizes are significantly different from each other.

The test was carried out by installing the Real Statistics Resource Pack for Excel 2010 (http://www.real-statistics.com/free-download/real-statistics-resource-pack/). Using the Real Statistics Excel functions, all parameters could be easily calculated, as listed in table 1. Since it is a two-tailed test: test against a non-directional alternative hypothesis: $H_1 : X \neq Y$. So the value of U needed to be calculated for the test is the smaller of U_x and U_y.

It should be noted that in the Mann-Whitney U test the null hypothesis can only be rejected if the calculated value is *less than or equal to* the critical value at the chosen significance level (Ebdon 1977, p.

61). The outcomes are either to reject our null hypothesis and thus to accept our alternative hypothesis or vice versa. This means that there is a significant difference between the size of aggregate assarts and all other HLC field types or the other way around. The same calculations were carried out for the different field types of which the outcomes are:

Table 3. Mann-Whitney U test results.

Field type	Field type size is significantly different from the overall	
	Yes	**No**
Aggregate assarts	Yes	
Cohesive assarts	Yes	
Formal planned fields	Yes	
Irregular informal fields	Yes	
Modern field amalgamations	Yes	
Regular informal fields	Yes	
Coaxial fields		No
Consolidated strip fields		No

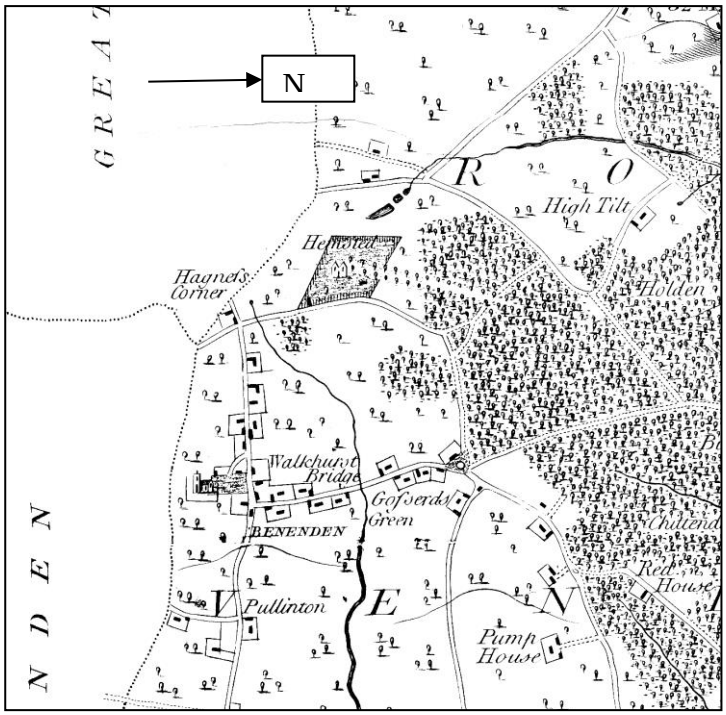
8. Archive research

Benenden is a medieval village situated on the edge of the High Weald AONB. Settlement in the parish dates back to the Roman period. The landscape of Benenden village and the surrounding parish has been shaped by the processes of human interaction with environment over thousands of years to create the historic landscape character we see today. A Bronze Age palstave axe was found at the site of Benenden Hospital indicating human activity here over 3000 years ago. The Hospital lies close to an old routeway following one of the high ridges that characterise this part of the High Weald.

Evidence at Farningham Farm in the adjacent parish of Cranbrook has been found for Roman ironworking organised by the "Classis Britannica" or the Roman Fleet. There is recorded evidence for Roman settlement at Hemsted the junction of two Roman Roads, one from Rochester and one from Ashford the RB settlement at Westhawk Farm to Hastings. However it was in the Early-medieval period [AD 450 – D 1066] that the landscape of Benenden began to take on its present character.

The Weald was divided into large 'commons' attached to Jutish agricultural estates in north and east Kent. The commons were used for seasonal grazing but were gradually broken up into dens or swine pastures attached to the parent manors on the periphery of the Weald. Eventually temporary farmsteads became permanent ones taking their names from the 'dens' and enclosing fields from the swine pastures in order to cultivate. The name Benenden, like nearby Biddenden is a 'folk-name' meaning the *swine pasture for the Bynni people* (Wallenberg 1934, 347). These folk names represent an early phase of Saxon settlement in the Weald probably 6th to 8th century AD (Witney 1976, 70-71). Benenden belonged to the Manor of Bilsington in the common of the lathe of Lympne. Hemsted (or the 'homestead' Wallenberg 1931, 341) lay within the common of the lathe of Wye. Again this is an early recorded den and indicating early established settlement, possibly a continuation of the Roman settlement on the junction of two Roman roads. The division between the lathes was continued when the lathes were divided into hundreds with the boundary between that of Rolvenden and Selbrittenden traversing the area south of the ridgeway road.

The den of Benenden (which developed into the village of Benenden and its immediate environs) is thought to have been a large swine pasture located in what was to become the middle of the parish and centred on the cross way between the east-west ridgeway route (along which the medieval village developed) and the north-south Rochester to Hastings Roman Road (Pollard and Strouts 2005, 57). A church, recorded in Domesday Book, was founded in the den of Benenden before 1066 to provide spiritual welfare to the scattered farmsteads across the parish. Before 1066 it was held by a Saxon Osgeard from King Edward. The fact that Benenden manor is a rare example of a Wealden settlement recorded in Domesday suggests that it was already fairly independent of its parent manor on the outskirts of the Weald and thus well-settled. Small farmsteads would have been established as the land was enclosed from the wood and wood pasture. The medieval village of Benenden grew up around the church which became the focus for ecclesiastical and secular activity, in particular fairs and markets. The church was appropriated as part of the possessions of nearby Combwell Priory (in Goudhurst) before 1370 (Hasted 1797, 182).



Edward Hasted, an early commentator on the Kent landscape describes the parish as being situated *mostly on high ground, much more so than most of the adjoining country, which consequently makes it more pleasant.... the northern boundaries of it*. (Hasted 1797 173). He also refers to this junction of the Roman Road with the ridge way route as 'Hagner's Corner'.

In the medieval period the village of Benenden comprised a small scatter of farmsteads and cottages, along the ridgeway route, with a cluster around the church and green. Apart from some estate buildings and modern small-scale infilling, the village of Benenden has remained little altered over the centuries. To the east of the village is the old Manor of Benenden. In the C12 it became the practice to construct water-filled moats around the main manorial farmstead and both the manor for Benenden and Hemsted were moated. Most were not only a status symbol but were constructed as a supply of fish as well as a form of local defence, during periods of political instability.

Surrounding these small farmsteads were the fields, paddocks, meadows and woods. To the south of the ridgeway road these fields have remained fairly intact, but to the north the gentrification of Hemsted manor, begun with the enclosure of the deer park in the Tudor period followed by the landscaping and enlargement of the park in the C18 and C19 has swept away the medieval fields to replace them with a designed landscape.

Footpath case Study Area

This includes an area which is being considered for housing allocations [SALLY Check ?].

It is into this historic medieval landscape of small wooded hedged fields, gill woods and small scattered farmsteads that a large-scale housing development is proposed as part of Tunbridge Wells Site Allocations Development Plan Document. The site called Latters Toll is located in the area of medieval fields to the south of the ridgeway route. Here the fields respect the Roman road coming up from the south, suggesting that they were enclosed when the road was a prominent and well-used landscape feature. To the west and located closer to the village is the present road from Iden Green. This route follows the higher ground and cuts across the field patterns as it reaches the ridgeway route. Witney suggests that this a medieval drove which developed closer to the village in order to service the community. The map evidence and field

evidence suggests, that this route is C17 or early C18 in origin and was laid out when the condition of the old Roman route had become too difficult to pass. Today it is a deep hollow way which would have been impassable in winter. The route was altered again in the mid C19 when Hemsted Park was enlarged. From the mid C19 the small fields were gradually enlarged by the removal of some of the internal boundaries, the north-east field was landscaped and planted to ornamental trees when the carriageway from the park and lodge were constructed to provide a continuation of the picturesque landscape for those coming in and out of the southern entrance of Hemsted Park.

The medieval fields, have a formal layout close to the settlement but those close to the woodland edges are more irregular suggesting they were later clearance from the woodland. Parsonage Wood is wet and contains stone diggings within it. ? Shaw is also a wet gill wood, but with extraction pits and old banks running through it.

Apart from some loss of internal boundaries and the realignment of the north-south roads, this area of Benenden has remained little altered. The area is close to the centres of medieval and earlier settlement associated with the Roman and Saxon routeways. Settlement has always been small-scale and dispersed along the routes and this historic character remains today.

The Roman road then became the alignment of a lathe boundary between the two Saxon agricultural estates of Wye and Lympne (Pollard and Aldridge 2008). Settlement in Benenden is small-scale and the present village is aligned along the ridgeway route extending from the church to the east.

The historic landscape character of this area is essentially of a palimpsest of small medieval fields aligned and respecting the Roman and ridgeway roads, overlain by a post-medieval road, and with C18 stone and marl extraction, and C19 gentrification.

Between 1777 and 1840 at the north end of this area, some of the field boundaries were removed to create an instant park land effect. This appears to have coincided with the realignment of the park entrance on to the ridge way road away from Manor Farm. The objective being that as people accessed Hemsted Park from the ridge way road, a parkland vista was seen on both sides, essentially extended the designed landscape into the wider farmed landscape. The alignment of the 1777 boundaries is visible on OS Epoch 1 as lines of mature trees, the parkland vista developed with additional tree planting. Today remains of these parkland trees (surviving conifers mostly) can be seen in the gardens of the ribbon-development of the village along the road. By circa 1860 many of the internal boundaries in this area had been removed as part of the wider claim by the park on the landscape.

The route of the foot-path site included on the east side part of Woodside Farm (see below) but on the west the fields which abutted the line of the Roman Road through Benenden.The footpath route crossed the lands which historically formed part of Frame Farm, Ginders (Farm) [Is this Woodside today ?] belonging to the Rev. D Curtis and Benenden Manor Farm (which became part of the Hemsted Estate in the C18 and was owned in circa 1840 by Thomas Law Hodges). Full details of the fields are given in the accompanying terrier to the 1777 Estate map by Joseph Hodskinson (KHLC P20/27/1 & P20/27/2). The terrier was only partly transcribed by E. Pollard. A full transcription is needed to accompany the Estate Map.
Edward Hasted gives a brief account of the ownership of Frame Farm in his History and Topographical Survey of Kent (Vol VII, 174). Francis Motley Austen was the owner in 1797.

Woodside Farm – field recording of boundaries
Woodside Farm is a relatively modern farm created from lands which formed part of the Hemsted Estate in the C18. They were tenanted as part of Dingleden Farm and the smaller farm of Owletts.

Woodside is a modern appellation. However Owletts probably means land or place where alder trees grow (Field 1989, 158). Dingleden is a much older place – a den or swine pasture in the lathe of Lympne belonging to the Manor of Aldington (Pollard and Strouts 2005). It is a folk name 'inga' which suggests an earlier Saxon settlement part of the first wave of colonisation of the Weald (Witney 1976, 196). It is identified in 1226 in the Assize Rolls as *Tenelyngden* (Wallenberg 1931, 62; 1934, 348). The Anglo-Saxon Charter of AD 785 records woodland at *dun ualing daenn* and grazing rights at *daening daenn* as part of a grant of land at Ickham and Palmstead in Kent (Sawyer 1968, No 123 & 1614.).
Hasted does not mention it in his account of Benenden which suggests that as a place it may have already been part of the Hemsted Estate ? A more detail research of both the Hemsted archives and the manorial records for Aldington would provide further information.

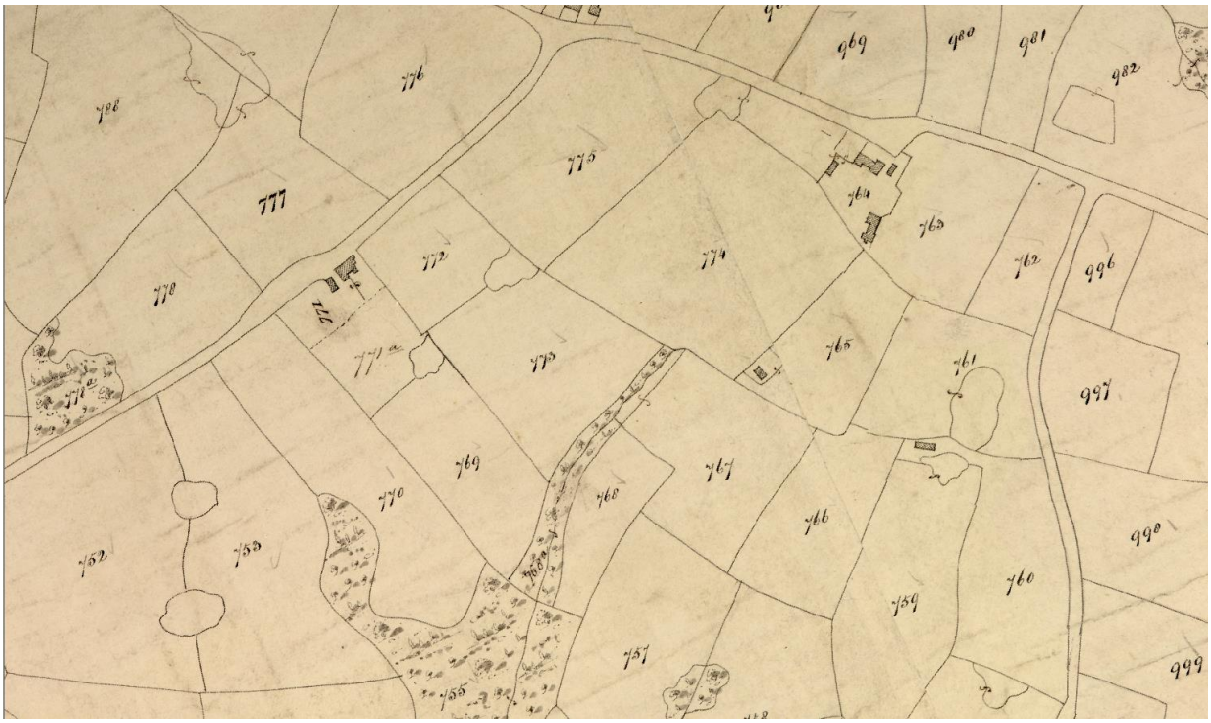
Woodside Farm comprises regular enclosures aligned along the ridge way route and also to routes from this one south towards the valley. These fields have been reorganised in modern times and today several of the NW-SE aligned hedges are modern replacements (as part of Countryside Stewardship) to these older alignments. At the southern end there are smaller assart fields enclosed from woodland the remains of which occupy gill valleys.

Owlets Farm
Part of Woodside Farm is the site of Owlets Farm which survives as the field name Howletts
The deserted farmstead of Owlers Farm was set within a small group of regular enclosures (which are listed as O9-O15 in the Terrier for the 1777 map). The only one named is o-14 Hop Ground. These fields are shown on the Tithe map. Owlet's House is described as house and garden (771) owned by Thomas Law Hodges and leased by Mary Santer. The fields 772-775 with 769 are also owned by Thomas Law Hodges and leased by Thomas Neve who farmed Pullington Farm located on the ridgeway road.

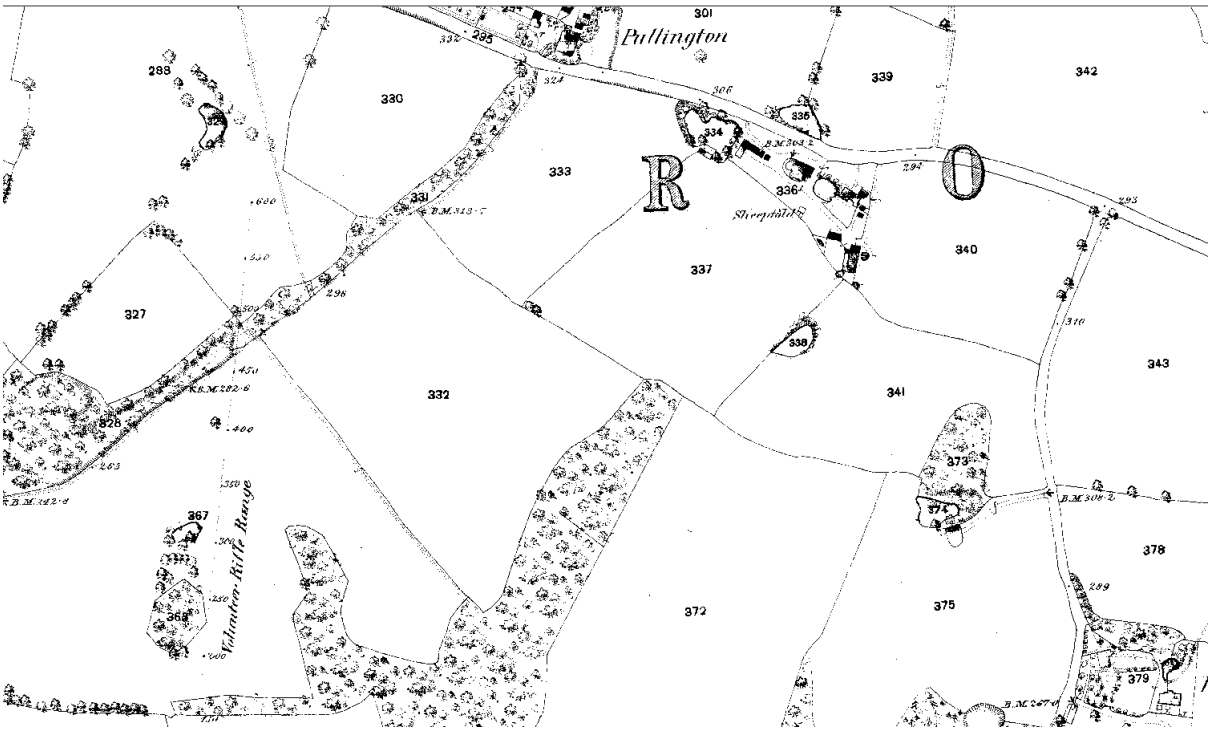
By c. 1860 the buildings at Owletts had been removed along with the internal boundaries of the small fields creating several large fields. This process had taken place across the fields which formed part of Pullington Farm suggesting the adoption of modern cropping in the mid to late part of the C19. By the 1940's, all the east west aligned hedges in this area had been removed and replaced with fences (RAF AP 1946), which in turn were replanted as part of a Countryside Stewardship agreement. The hedges are characterised by a high diversity of mixed shrubs (the standard hedging mix) planted straight into the ground with no bank or ditch.

The site of Owlers Farm in 1777 [KHLC P20/27/1]

Tithe Map – site of Owlets Farm



OS Epoch 1 Site of Owletts Farm



RAF Aerial Mosaic circa 1946 [Kent HER – Kent County Council]

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9. Geophysical survey summary conclusions

Introduction

The use of geophysical surveys as an evidence source in evaluating the significance of field systems and their heritage features was assessed as part of the High Weald Field System Project.

From the case studies a number of sites were selected for investigation based on the results of the field survey walk over and archive findings.

The overall objective was to see what below ground archaeology could be found within fields and the association with other heritage features.

Results

The results of the geophysical analysis have been very positive and show the importance of undertaking such surveys ahead of land use change whether it is development, woodland planting or installation of renewable energy farms. Although none of the features could be identified with a date, the relationship of some of the features to existing heritage features provides a clue as to their antiquity.

Woodside Farm

The site of the building was confirmed as well as a possible industrial site and a pre-Tithe (and pre-C18) field system within the survey area. This site shows that archive evidence can inform geophysical survey but also that the field also produced other features which may or may not have been associated with Owletts Farm. Interestingly the geophysical survey did not reveal evidence for the boundaries shown on the Tithe Map but it might be due to the small size of the survey area.

Conclusions

Woodside Farm highlights the importance of undertaking archive research for identifying below ground heritage features. Confirmation by magnetometer survey has revealed more than just the site of the farm.

Overall Conclusion

When considering land use changes in fields however ‘empty’ they appear from a walk-over a geophysical survey is strongly recommended. The survey can direct further investigation in the form of evaluation trenches and field walking. As an evidence base geophysical survey is an important tool in understanding land use changes in fields.

APPENDIX 1

WOODSIDE FARM
IDEN GREEN
BENENDEN
KENT
TN17 4EZ

GEOPHYSICAL SURVEY

NGR TQ 814 324

SURVEY CODE WOODBEN1

Report by
Kevin and Lynn Cornwell
Joint Field Officers
Hastings Area Archaeological Research Group

Registered Charity No. 294989

May 2016

Summary

The Hastings Area Archaeological Research Group (HAARG) were approached by Sally Marsh, Co-Director, High Weald AONB Partnership and asked if HAARG would like to undertake magnetometer surveys within the High Wealden AONB.

Two sites were identified and this report relates to Owlers Farm, now part of Woodside Farm, Iden Green, Benenden, Kent.

Owlers Farm is a deserted C15 or C16 farmstead located by an old routeway running south from the main east west ridge on which the village of Benenden is sited. No above ground evidence for this site remains and therefore a geophysical survey was commissioned.

This work was undertaken on 21 May 2016.

The survey revealed features including the remains of buildings, an industrial area and field systems.

Cover Picture – 1839 Benenden Tithe Map indicating the survey area outlined in red.

Content

Figures

1.0 Introduction

In June 2015 Kevin and Lynn Cornwell from the Hastings Area Archaeological Research Group (HAARG) were approached by Sally Marsh, Co-Director, High Weald AONB Partnership and asked if HAARG would like to undertake magnetometer surveys within the High Weald AONB. After further discussions and field work by the unit a subsequent project design was issued by Dr. Nicola Bannister, Landscape Archaeologist for the unit in April 2016.

The project design (Bannister 2016) highlighted two farms and this report relates to Owlers Farm (now part of Woodside Farm), Iden Green, Benenden, Kent [centred on National Grid Reference (NGR) TQ 814 324] (see Figures 1, 2 & 3).

2.0 Geology

The underlying geology of the field is Wadhurst Clay (British Geological Society Geology website).

The area surveyed is pasture, used for animal grazing.

3.0 Significance of the Site and Historical Background (by Dr. Nicola Bannister)

The 'Significance of the Site and Historical Background', has been compiled by Dr. Nicola Bannister (Bannister 2016) and has been reproduced in this section of the report with her permission.

Owletts (alias Owlers) Farm, Benenden, Kent is a deserted C15 or C16 farmstead located by an old routeway running south from the main east west ridge on which the village of Benenden is sited. It is shown on historic maps and had disappeared by 1860. Today the farmer calls the field Howletts. The field has been ploughed in the past and no features were found above ground during the field survey although it is possible that there may be below ground structures together with old field boundaries. The objective is to see what if anything remains of this known site and to establish the potential for fields to preserve below ground archaeology in this part of the Kentish High Weald.

Further documentary research is ongoing.

4.0 Scope, Objectives and Methodology

4.1 Scope and Objectives

Within the project design 'Geophysical Survey Brief' (Bannister 2016), are a number of aims and objectives. The use of geophysical survey and analysis forms part of the wider "Field systems in the High Weald Project Design - Aims and Objectives".

The objectives of the geophysical survey are:

Identify and undertake survey of parts of selected case study areas to inform the context and history of the current field system and its associated settlement/farm.

Identify potential and possible evidence for earlier settlement and their relationship to the present field system surviving below ground and which may influence the character of the present one.

To establish the potential evidence for previous settlement sites and associated field systems.

4.2 Methodology

The magnetometer surveys were conducted using a Bartington Dual Sensor Grad 601-2 Magnetometer with the results being processed in Geoplot version 3.00.

The Grad 601-2 consists of two high stability fluxgate gradiometers suspended on a single frame. Readings relate to the different localised magnetic anomalies compared with the local soils magnetic background. Each gradiometer has a 1m separation between the sensing elements so enhancing the response to weak anomalies.

An important consideration when conducting a magnetometer survey is the locality of any fencing. Multi-stranded wire fencing can produce a large distortion in the local magnetic field so magnetic data should be collected at least 1m away for each strand of wire but the disturbance can be detected up to 5m away (Gaffney & Gater 2011, 81). When conducting a magnetometer survey a 5m 'exclusion zone' is maintained around the edge of the field.

The survey grids measuring 40 x 40m were laid out with respect to field boundaries to ensure the survey maximised the number of complete grids and minimised the number of partial grids. The location of the first grid was measured by tape to known fixed points recorded on an OS map or by using the website NGR Finder.

The magnetometer was set to record 4 readings per meter transverse, surveying in a zig-zag pattern with the magnetometer set to a sensitivity of 0.03 nanoTeslas (nT). A balance station was set up on site in a 'metal free area' and the magnetometer was prepared for use at this point in accordance with the manufacturer's guidelines with regular re-zeroing at this point to prevent distortion of results.

As part of the data processing, to minimise interference from surface scatters of modern ferrous materials and ceramics, the data was 'clipped' and 'de-spiked' to remove any large 'spikes' or 'peaks'. The 'high pass filter' was applied to remove low frequency, large scale spatial detail, typically a slowly changing geological "background" response. This was followed by the 'zero mean grid' and 'zero mean traverse' applications. Finally, the 'low pass filters' and 'interpolate processes' were used to produce an interpretable image.

5.0 Results and Interpretation

The results of the magnetometer survey of Owlers Farm can be seen at Figure 5 with graphic interpretations of the results at Figure 6.

A selection of features have been represented in different colours on the graphic interpretation with the area surveyed outlined by a fine black line and subdivided into 40m squares. The project design suggested survey area (Bannister 2016) is indicated by a series red dots and modern metal fences/hedges have been indicated in green.

An area to the north of the site (centred on TQ 81291 32384, coloured brown on Figure 6) and measuring 40 x 25m is of particular interest. This area of disturbed ground containing brick and tile is probably associated with the demolished farmstead indicated on the 1839 Tithe Map (Figure 4). There are faint remains of a field boundary (Figure 6 – coloured yellow) to the south of the farmstead which is present on the Tithe Map.

Two quarries are visible on the ground and are indicated on the 1839 Tithe Map and graphic interpretation of the magnetometer results (Figures 4 & 6 – labelled A (TQ 81364 32315) & B (TQ 81416 32388)). On the northern edge of quarry B is an area suggestive of industrial activity (TQ 81390 32426) due to the levels of magnetic response (Gaffney and Gater 2011, 170-75). There is no evidence of iron production furnaces or slag banks on these results. The purpose and date of this activity is unknown.

To the east and west of the survey area (Figure 6 - coloured mauve) are the remains of earlier boundaries which are not present on the Tithe Map so probably pre date 1839. Gaffney and Gater (2011, 143) comment *'these features are notoriously difficult to date even with excavation as they can produce little dating evidence'.*

6.0 Discussions

6.1 Limitations

The size of the survey areas and metal fencing around the site has limited the potential evidence for the previous settlement. A larger survey similar to the one being conducted by HAARG (Cornwell forthcoming) on behalf of Hastings Borough Council in the Hastings Country Park would enable a better understanding of features identified and earlier land use.

6.2 Findings

The survey at Owlers Farm identified a number of features including the possible site of the farmstead, industrial activity and suggestions of a field system of unknown date, pre dating the 1839 Tithe Map.

The fences/hedges/boundaries indicated in the centre of the site on the 1839 Tithe Map with the exception of a short length of field boundary to the south of the farmstead area have not been identified on the magnetometer results which is suggests that these features have been lost due to agricultural activity in modern times.

6.3 Comments

This site has identified the limitations of the magnetometer when searching for the remains of robbed out structures, however it did identify possible industrial activity to the east of the site. Depending on the construction of the building, for example a timber frame resting on post pads or with minimal post holes will leave very little remaining response. From previous surveys undertaken sandstone foundations will also leave a minimal response on magnetometer survey in this area of the Weald (Cornwell & Cornwell, 2013 & 2015).

Given the potential of this site and the documentary evidence for a farmstead it is suggested that a resistivity survey be conducted, with the landowner's consent.

Furthermore, to assist with the interpretation and extent of the 'industrial area' to the east of the site further magnetometer investigations to the east of the hedge line maybe beneficial.

7.0 Sources Consulted

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National Grid Reference Finder – www.gridreferencefinder.com [accessed 21 May 2016].

8.0 Acknowledgements

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Dr. Nicola Bannister, Landscape Archaeologist at the High Weald AONB Partnership for arranging the project.
HAARG members Roy Dunmall, Martyn Ellis and Bob Washington for assistance in the field.

9.0 Report Distribution

Sally Marsh, Co-Director at the High Weald AONB Partnership.
Dr. Nicola Bannister, Landscape Archaeologist at the High Weald AONB Partnership.
Mr and Mrs Holmes & Mr and Mrs Bird, Woodside Farm.
HAARG members Roy Dunmall, Martyn Ellis and Bob Washington.

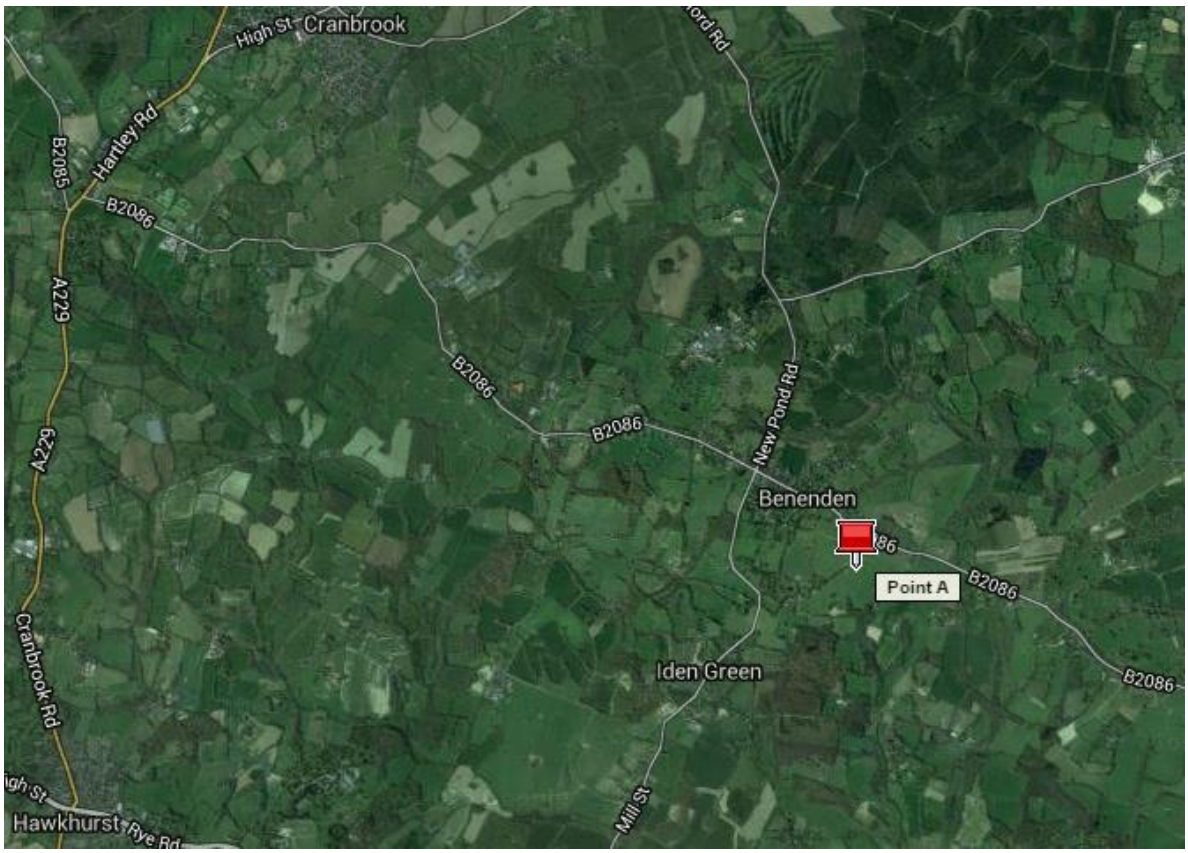

Figure 1 – Woodside Farm survey area (highlighted by the red pin on Google Earth image) in relation to Benenden, Iden Green, Hawkhurst and Cranbrook, Kent.

Figure 2 – Woodside Farm survey area (highlighted by the red pin on Google Earth image) in relation to Beacon Stud, Benenden Church Primary School and the B2086 (Rolvenden to Benenden road).

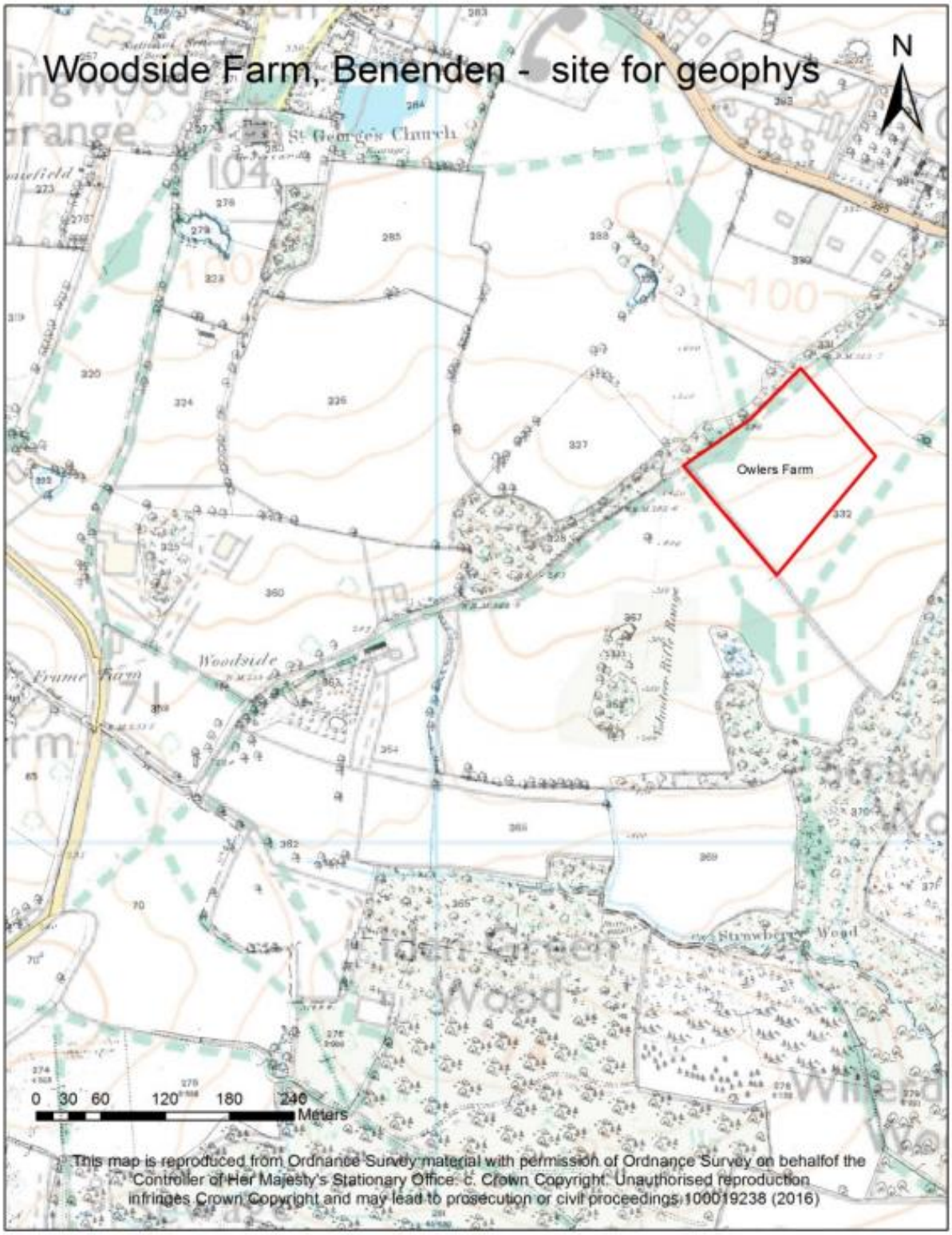

Figure 3 – The red area is indicative of the area to be surveyed rather than absolute (Bannister 2016).

Figure 4 - Benenden Tithe Map 1839 with survey area indicated in red.

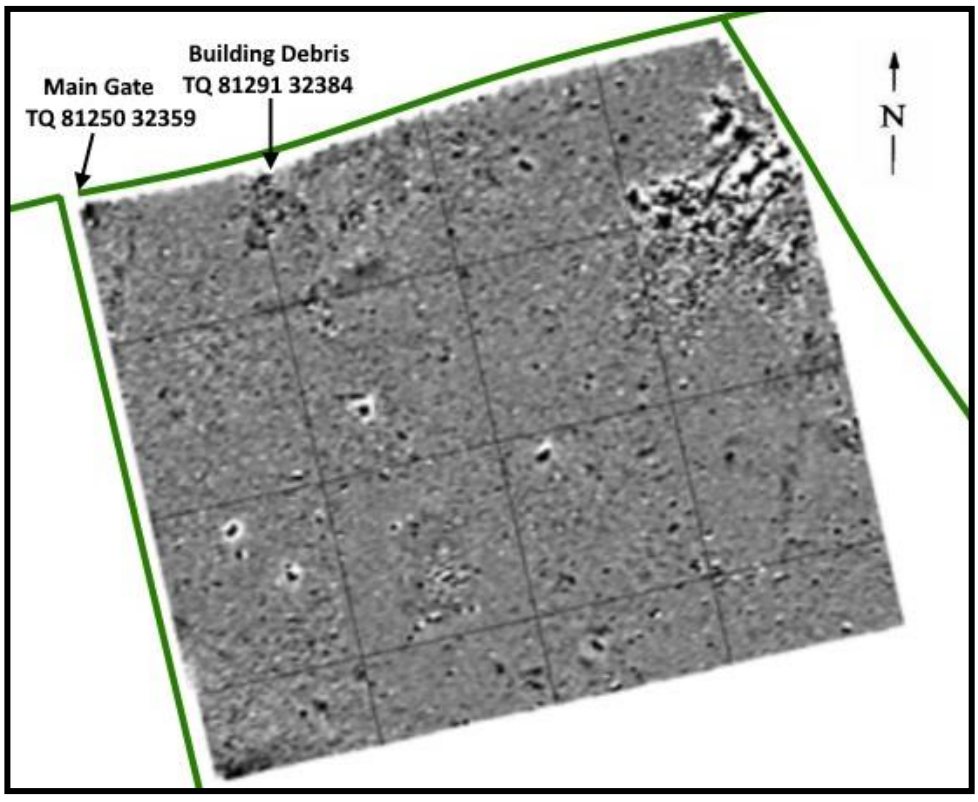

Figure 5 – The results of the magnetometer survey of Owlers Farm, Benenden. Grid sizes 40x40m.

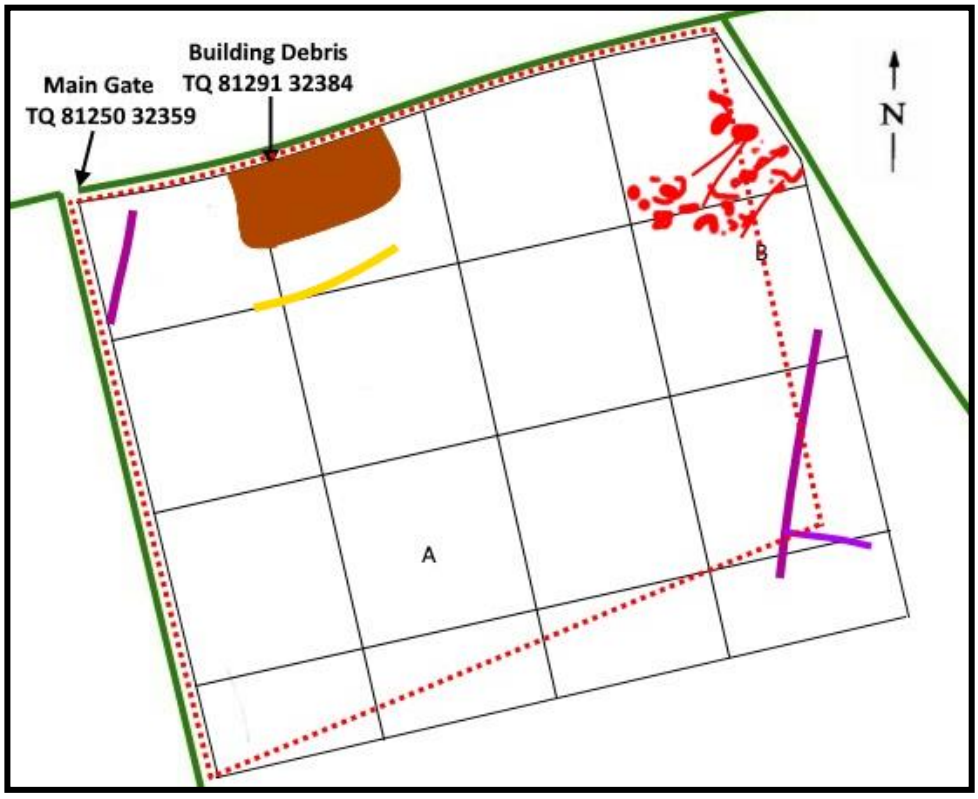

Figure 6 - The graphic interpretation of the magnetometer survey of Owlers Farm, Benenden. Grid size 40x40m.