



BURNHAM WICK FARM, BURNHAM, ESSEX (TQ960962)



Investigation of Satellite Image Anomalies



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ACKNOWLEDGEMENTS

The work was undertaken between early March and 29th April 2006 (9 days) and could not have been carried out without the kind support and assistance of Martin Smith, the landowner, which included the marking out of the crop marks prior to harvesting and the services and operation of a machine to cut the various trenches opened by the Group. Excavations were carried out by members of the Maldon Archaeological & Historical Group (MAHG). Brian Riley transferred information onto an ordinance survey map of the area and then onto the site to verify the position of the anomalies and enable the successful positioning of the trial trenches, subsequently mapping the locations and dimensions of the completed excavations. Michael Steel conducted a metal detector survey of the spoil heaps. Our thanks also go to the Essex Field Archaeology Unit for the spot dating of the pottery sherds and to Nick Lavender for the supplementary pottery analysis.

The benefit of discussions and site visits with and by Dr David Andrews, of Essex County Council and Howard Brooks of Colchester Archaeological Trust is also gratefully acknowledged.

Bernie Steel
Maldon Archaeological & Historical Group



BACKGROUND

Burnham on Crouch lies on the bank of the River Crouch in the Dengie Hundred peninsula, which is an area of both marsh and rich farmland.

There is evidence of considerable prehistoric activity with Neolithic remains and Bronze Age burial sites found in the area. The Creeksea Cliffs area is especially rich in prehistoric history. With the coming of the Iron Age the 'hill fort' at Asheldham was established, the remains of which can be seen today.

This investigation of land to the north of Wick Road, Burnham was initiated at the request of the owner of Burnham Wick Farm, who had noted significant crop marks over previous years and, having also obtained satellite imagery clearly showing unusual crop marking, contacted the Maldon Archaeological and Historical Group (MAHG) for advice and assistance in determining whether these consisted of natural geology or were archaeological features (see image on front cover of this report). From the complex nature of the anomalies apparent in the images and the limited time available to carry out the work it was decided that the investigation could proceed without carrying out any preliminary geophysical surveys.

The site itself lies to the east of Burnham on Crouch. To the west of the site, towards or beneath areas now covered by modern housing, there is recorded evidence of Bronze Age barrows, and to the north-east, excavation of nearby red hills details of which, together with briquetage finds, are held at the Burnham on Crouch Museum.

In 1915 an airfield, which was used as a night flight station, was established on land to the south of Wick Road, in the vicinity of Burnham Wick Farm.

The RFC / RAF retained use of the site for No. 37 Squadron until July 1919 when it was returned to the Croxon family and the airfield was returned to agricultural use.

The site was re-opened, and operated as an airfield, on 28 August 1934 by Her Grace the Duchess of Bedford when the land came into the ownership of the Royal Corinthian Yacht Club.

Prior to the construction of the nearby sea defences (further information about which is available from the Burnham-on-Crouch Museum), the area to the east and south of the site consisted predominantly of marshland and was in recent historical times used for the grazing of sheep. A number of small farmsteads existed, which have since been demolished. The land is now used for the production of arable crops.



DOCUMENTARY SOURCES

Evidence of earlier use and occupation of the site and surrounding land was taken from both public records and records held by the landowner that included:

- Maps dated 1777 by Chapman & André
- Records of local field systems and field names
- Satellite imagery and aerial photographs

APPROACH

With investigative time restricted to weekends (principally Saturdays only) and the site only being available to us between early March and the 29th April 2006 (9 days), it was decided that excavation would be restricted to a number of trial trenches to determine: the nature of the rectilinear anomaly; the character of a possible ditch running north / south forming the western boundary of a potential track way or similar feature; a ditch line to the south of the rectilinear anomaly; and, a large pit-like anomaly located to the south-west of the rectilinear anomaly and towards the southern end of the track-like anomaly.

EXCAVATION

The ground intervention work consisted of eight trenches shown on the site plan (see Appendix 1). These consisted of:

- Trench A Located over a section of ditch on the southern side of the rectilinear anomaly.
- The excavation revealed a ditch measuring 3.5 metres wide cut into the orange sandy gravel natural. The top fill of the ditch, excavated to a depth of 200mm, consisted of a fine silty material containing charcoal flecks and a few small friable potsherds. These sherds were of similar appearance and matrix to those found in trenches B, D, E, and F. There was insufficient time to fully excavate the ditch fill.
- Trench B Situated over a section of ditch on the western side of the rectilinear anomaly (to the south of a possible entrance way).
- The excavation revealed a ditch measuring 3.4 metres wide, and 1.85 metres deep from the field surface (1.4 metres measured from the bottom of plough level), with a 0.5 metre basal width. The top fill of the ditch consisted of a fine silty material containing charcoal flecks and a number of potsherds. See 'Deposition' below. Within this top fill, at a depth of 1 metre below field surface (430mm below bottom of plough level), was found a patch of charcoal across the full width of the trench and extending into the baulk on the south side to a depth of 20mm. Against the south east edge of the charcoal was a piece of fired earth.
- Trench C Situated east / west over a section of ditch on the west side of the north / south track way anomaly.



Excavation revealed a ditch feature measuring 3.1 metres wide. The ditch fill was not fully excavated and therefore the full depth and profile have yet to be defined. The soil below plough level was of brick earth type and the fill within the ditch consisted of gravel with clay lenses (400 mm below bottom of plough to the west & 200mm to the east; the thickness of this layer being 200mm on average), below which was a layer of compact gravel. No dating evidence was obtained from this trench.

Trench D Situated over a section of ditch on the western side of the rectilinear anomaly (to the north of and close to a possible entrance way).

The excavation revealed a ditch measuring 3.5 metres wide, and 1.75 metres deep from the field surface (1.03 metres measured from the bottom of plough level). Only half of the width of the ditch was fully excavated and therefore the actual basal width was not defined. The top fill of the ditch consisted of a fine silty material containing charcoal flecks and a number of potsherds. One group of sherds appear to be from the same pot. Towards the centre of the ditch at a depth of 500mm within the top silty fill were the *in situ* remains of the lower section of a pot. See 'Deposition' below.

Trench E Situated along the line of the ditch on the western side of the rectilinear anomaly to locate the north and south ditch terminals bounding an possible entrance to the west side of the 'enclosure'.

The excavation revealed both ditch terminals confirming that this did in fact form a 7.9 metre wide opening with a hardened surface at a depth of 800mm below the field surface between the ditch terminals. The upper ditch fill consisted of fine silty material containing flecks of charcoal, potsherds (one with a full rim profile), and worked flints (or wasters from flint working).

Trench F Situated along the line of the ditch on the northern side of the rectilinear anomaly to locate ditch terminals bounding a possible entry point to the north side of the possible enclosure.

The excavation revealed that the ditch was continuous. The anomaly noted on the satellite imagery was caused by a modern cut, approximately 1 metre square on a diagonal alignment, into the trench fill. A sondage was put across the cut and it was found to have regular vertical sides with fill consisting of compacted 'modern' rubble. The upper ditch fill consisted of fine silty material containing flecks of charcoal and a number of potsherds (one with a part rim profile)

Trench G Situated centrally in a north / south direction across a pit like anomaly to the southeast of the rectilinear anomaly.

Excavation proved the pit to be a 'modern' rubbish pit 1.1 metre in depth below the field level (600mm below the top of the sub-soil) containing remains of barbed wire, voids presumed to have been caused by the rotting of small timber posts, a few pieces of rotted wood, and what appear to be the remains of an oil lamp.



Trench H Situated over a ditch that ran south from the rectilinear anomaly for some distance and then ran west to a point below the pit like anomaly investigated by trench G. The trench was placed in the region of the change of direction of the ditch.

The excavation revealed a ditch measuring 2.5 metres wide; the definition of the eastern edge of the ditch was initially confused by the presence of a mole drain. This edge was subsequently located at a lower level to the west edge due to the presence of a mole drain. No dating evidence has been obtained from this trench, nor was the ditch fully excavated.

DEPOSITION

Where excavation was sufficiently deep the underlying natural was found to consist of orangey sandy gravel with iron stone inclusion.

The top fills of the ditches within trenches A, E, F & H consisted of a fine silty material containing flecks of charcoal and some potsherds.

The fill within the fully excavated ditches B and D consisted of typically three distinct layers. The top fill consisted of a fine silty material containing flecks of charcoal and some potsherd, the middle layer being a mix of sand and gravel, and the bottom layer a fill consisting of loose gravel. There were no finds within the lower two levels.

The natural within trench C consisted of brick earth type material and the fill within the ditch consisted of gravel with clay lenses, below which was a layer of compact gravel.

FINDS

The excavation at Burnham Wyke Farm produced one hundred and eleven (111) sherds (502g) of prehistoric pottery from nine (9) contexts. The material has been recorded using a system developed for prehistoric pottery in Essex (Brown 1988).

A full analysis of the pottery is set out in Appendix 2.

OBSERVATIONS & CONCLUSIONS

The observed anomaly examined by means of trenches A, B, D, E, and F is considered to be that of a rectilinear Iron Age defended enclosure, the arrangement and purpose of which will need to be defined by further survey and excavation. The enclosure itself measures some 72 metres wide (north / south) by 85 metres in 'visible' length (east / west) and is unusual in its size and regular shape. The actual east / west dimension has yet to be determined as it appears to continue under the adjacent modern track way and into the adjoining field.

The top fill layer within all of the ditches consisted of a fine silty material in which was found flecks of charcoal and all of the potsherds. This raises the question as to the possible existence of a defensive bank alongside the ditch which either weathered naturally, or was pushed back into the ditch.

Trench C, placed east-west across a north south linear anomaly has shown this to be a ditch providing a western boundary to a prehistoric track way (possibly of Bronze Age origin?).



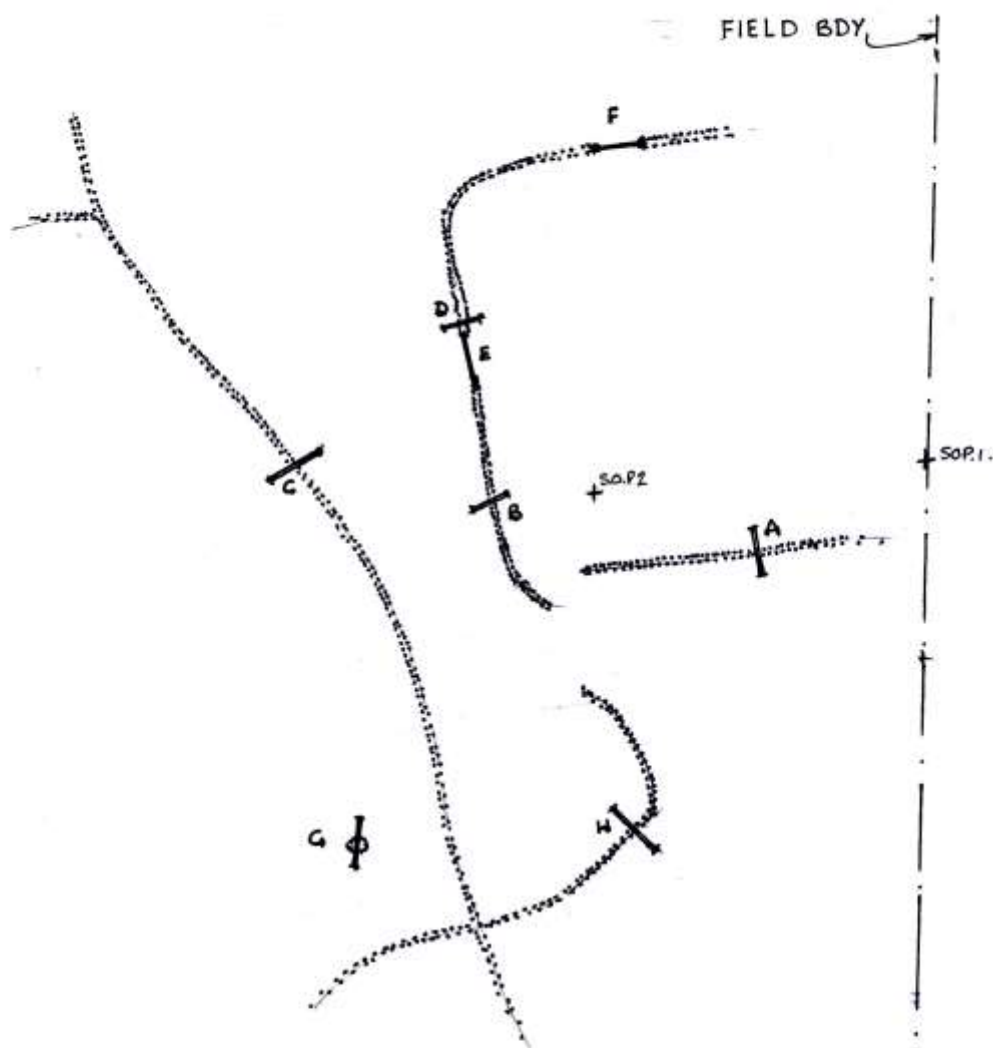
In trench E, the hardened surface between the ditch terminals at a depth of 800mm below the bottom of plough is curious and raises the question as to whether there was a hollow way leading into the enclosure.

Trench G, placed across a pit like anomaly, confirmed the presence of a waste pit. Surviving artefacts included lengths of barbed wire, the remains of timber posts (some with barbed wire still attached), and what appear to be the remains of a chain suspended oil lamp. With the proximity of the site of the 1930s Burnham-on-Sea airfield and its association with the First World War Royal Flying Corps, could this have been a waste pit associated with some military use, or defence, of this area?

Trench H, placed across a linear anomaly, produced evidence of a further ditch. The lack of finds makes this to be of uncertain date and at it is not known as to whether this particular ditch is related to the rectilinear enclosure, towards which it appears to lead, or the track like anomaly, which it appears to cross.



APPENDIX 1 - SITE PLAN & SURVEY DATA



BURNHAM WICK FARM.

EXCAVATIONS MAR-APR '06.

TRENCH LOCATION-SCALE 1/1000 ; CROPMARKS-NTS.

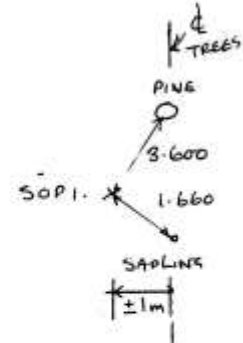


WICK FARM, BURNHAM, FIELD O.S. REF. PLOT 4 TQ9596 9625.

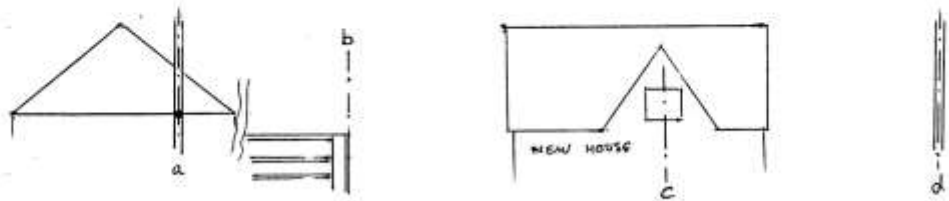
MAHG EXCAVATIONS MAR/APR 06

SURVEY 1:-

S.O.P. 1. (PERMANENT). STEEL TUBE CASED IN CONCRETE LOCATED IN LINE OF YOUNG TREES ON E. BOUNDARY. JUST S. OF PINE TREE.



REFERENCE BEARINGS FROM S.O.P. 1.



- a) TEL. POLE @ WHITE PAINTED GABLE.
- b) END OF DARK POST + RAIL FENCE.
- c) ϕ WINDOW TO DORMER ROOF GABLE.
- d) TEL POLE

BEARINGS

	0°
	2° 23'
	44° 14'
	47° 12'

SURVEY BEARINGS.

		BEARINGS	DIST (m)
TRENCH F.	E.	80° 40'	74.00
l = 7.6m	W.	75° 54'	78.28
TRENCH A.	N.	11° 20'	32.40
l = 8.35m	S.	357° 28'	34.60
S.O.P. 2.		27° 07'	57.95
	(NODEN S. 83° W)		

BEARINGS FROM S.O.P. 2 (ZERO = S.O.P. 1).

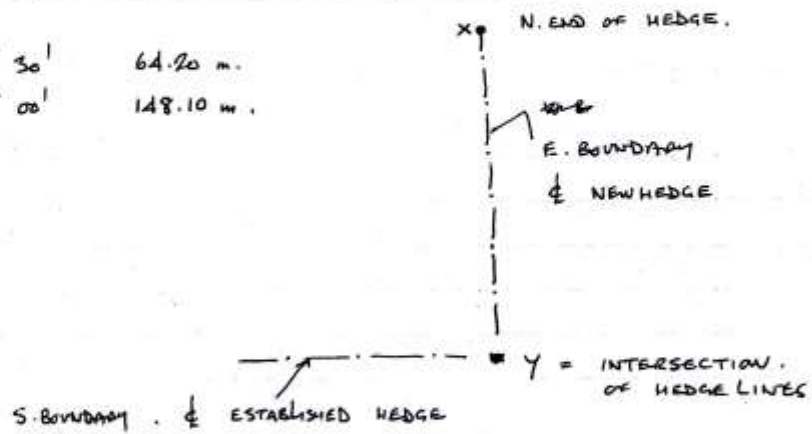
TRENCH B.	E.	183° 46'	15.00
l = 7.0m	W.	175° 53'	21.62
TRENCH C	E.	242° 56'	36.42
l = 7.70m	W.	232° 41'	39.45

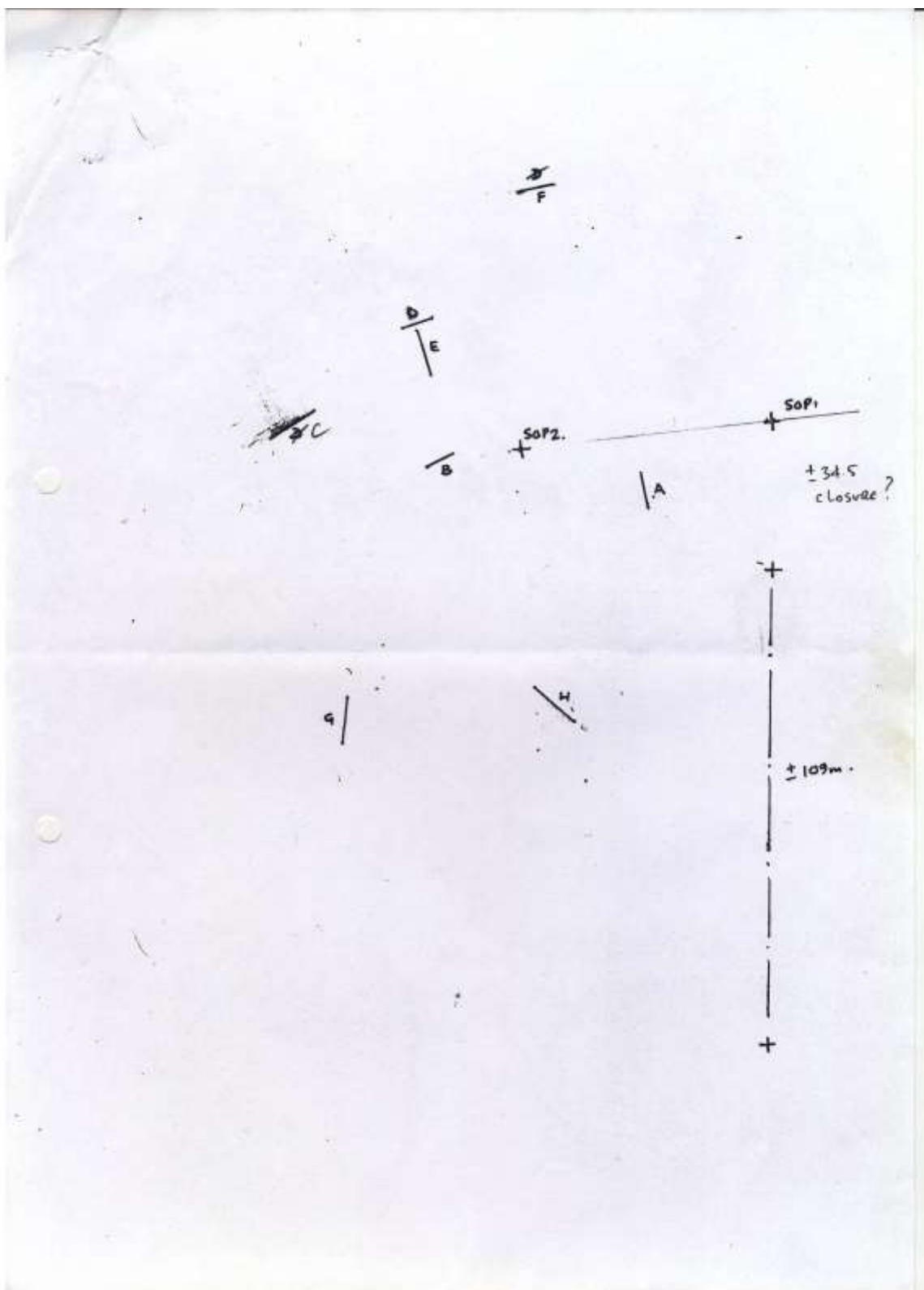


TRENCH D. l = 11.20 m.	E = 197° 26' W = 189° 16'	48.20 m 56.55
TRENCH E. l = 10.90.	N = 235° 46' S = 226° 07'	36.55 26.50
TRENCH F & G. l = 10.87.	N.S. 127° 28' N. 131° 42'	78.40 69.05
TRENCH H. l = 12 m.	N. 92° 30' S 85	54.32 m 63.49

BEARINGS FOR FIELD BOUNDARY. FROM S.O.P. 2

x = 32° 30' 64.20 m.
y = 74° 00' 148.10 m.







APPENDIX 2 - POTTERY ANALYSIS

BWF06 Burnham Wick Farm - Prehistoric pottery analysis by N. J. Lavender

The excavation at Burnham Wick Farm produced 111 sherds (502g) of prehistoric pottery from 9 contexts. The material has been recorded using a system developed for prehistoric pottery in Essex (Brown 1988. Details in archive, see below).

The fabrics present were:

Fabric	Description	Sherd	Weight	% sherd	% weight
B	Flint, S-M 2	6	23	5.5	4.5
C	Flint. S-M with occasional L 2	13	36	12	7
D	Flint, S-L 2, poorly sorted	77	395	69	79
E	Flint and sand, S-M 2	1	14	1	3
G	Sand, S 3	1	6	1	1
M	Grog, often with sand and occasional small voids	7	25	6	4.8
N	Vegetable temper	1	2	1	0.5
Z	Unclassifiable	5	1	4.5	0.2
		111	502	100	100

Where:

S = less than 1mm diameter.

M = 1 - 2mm diameter.

L = more than 2mm diameter.

1 = less than 6 per cm²

2 = 6 - 10 per cm²

3 = more than 10 per cm²

This tiny assemblage, although largely comprised of small sherds (average 4.5g), was surprisingly unabraded, only a few sherds from context D200 showing signs of wear.

Almost all of the pottery (87.5% by sherd count / 93.5% by weight) was in flint-tempered fabrics, which are not closely dateable within the prehistoric period. Two examples of rims were included among these sherds, and both were very simple, rounded and from unidentifiable vessels.

Only two sherds were made from more closely dateable fabrics, one in sand-tempered fabric G, and the other in vegetable-tempered fabric N. Both of these fabrics are common during the Middle Iron Age, and the sand-tempered sherd has a rounded and everted rim that can be paralleled in numerous MIA assemblages throughout the county, particularly Little Waltham (Drury 1978).

The presence of two small MIA sherds does not firmly establish a date for the whole assemblage, and much of the material could be earlier. The assemblage can only be classified as generally 'prehistoric'.

**Bibliography**

Brown, N.	1988	'A Late Bronze Age enclosure at Lofts Farm, Essex' <i>Proc. Prehist. Soc.</i> 54 . 249-302
Drury, P. J.	1978	<i>Excavations at Little Waltham 1970-71</i> . Counc. Brit. Archaeol. Res. Rep. 26



FIGURES



Fig 1; Trench B; plough soil, top stratigraphy & fill layer



Fig 2; Trench B; top stratigraphy and sandy / silt fill layer

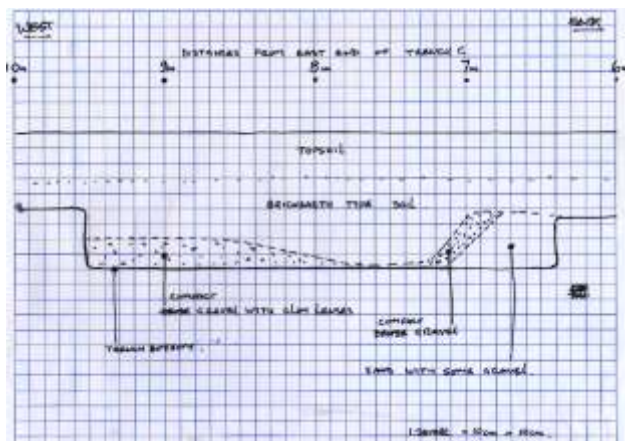


Fig 3; Trench C section showing profile / fills. All dimensions in metres.



Fig 4; Trench E fills

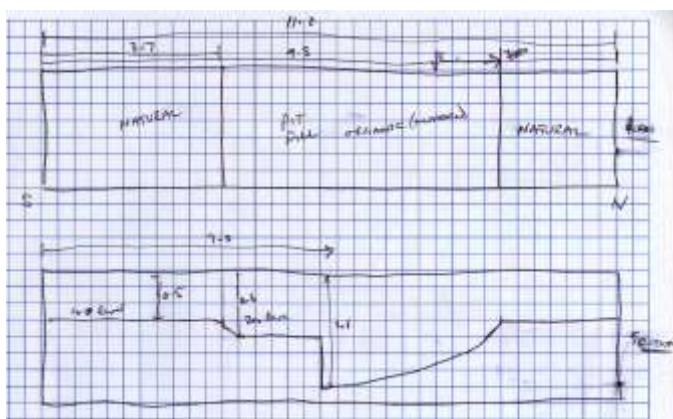


Fig 5; Trench G section showing profile / fills. All dimensions in metres.



Fig 6; Trench H general view & fills

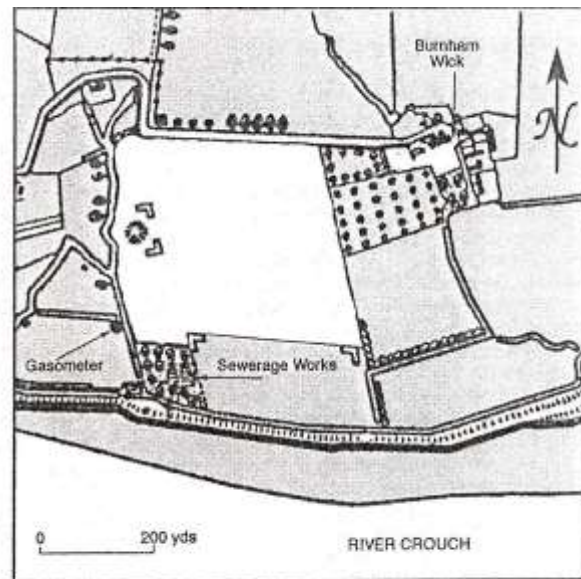


Fig. 7: In goes Trench E.

BURNHAM-ON-CROUCH

Essex: TQ960955

Owned and operated by the Royal Corinthian Yacht club as an AA LG, Burnham-on-Crouch airfield was opened on 28 August 1934 by Her Grace the Duchess of Bedford. The longest landing run was 1710 feet (520m.), and great care had to be exercised in landing and taking off due to the proximity of tall trees. Although a permit to use the airfield was not required, a landing fee of 5/- (25p.) was charged to visiting pilots.



FROM: *PEACEFUL FIELDS: VOL. I. THE SOUTH BY JOHN F. HAMLIN. 1996.*

Fig. 8: Location of the Burnham-on-Crouch airfield; 1934

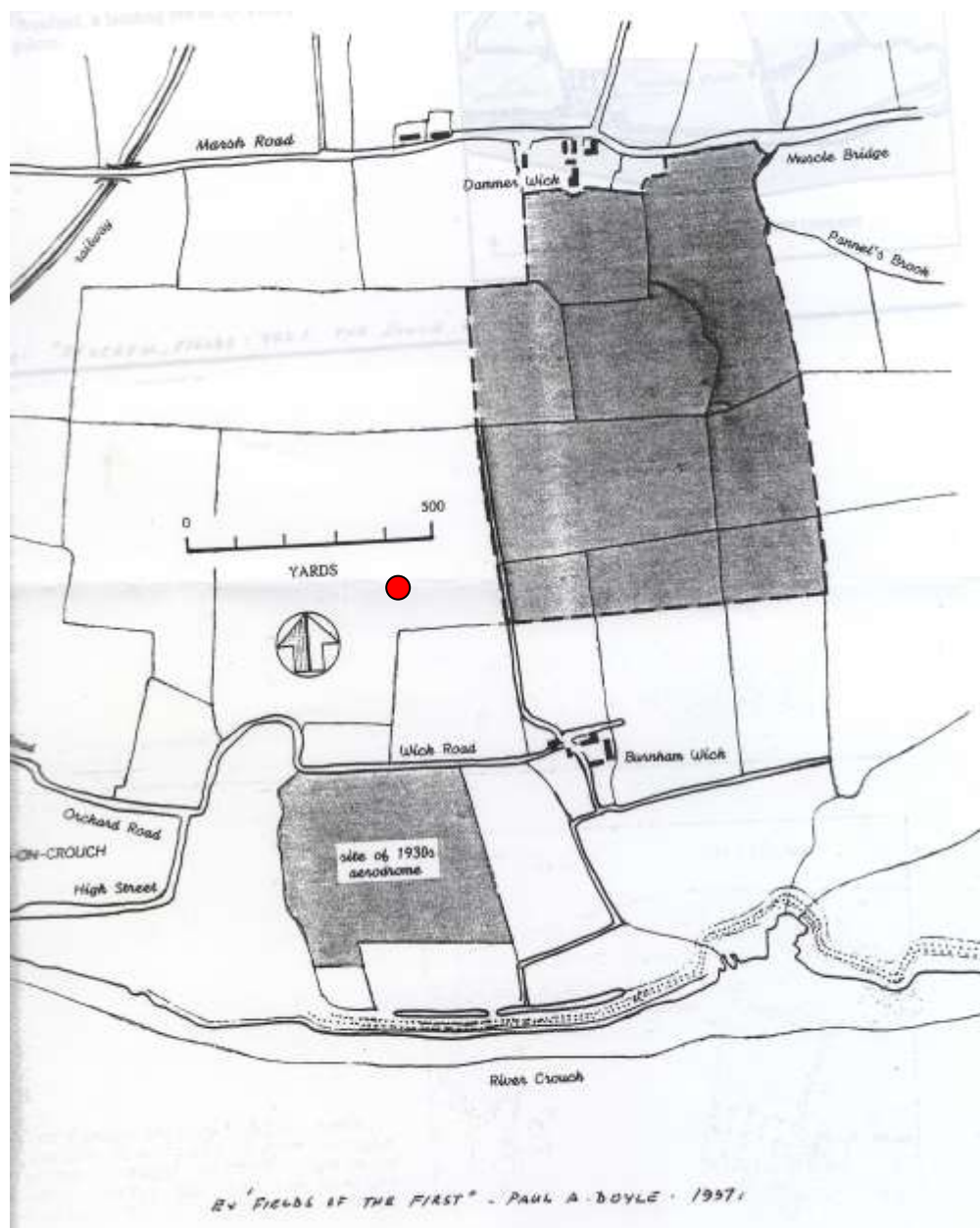


Fig. 9: Further map showing location of 1930s airfield. Red circle shows approximate position of excavated pit, Trench G, containing military waste (barbed wire, oil lamp).



APPENDIX 3 - HER Summary Sheet

Site name/Address: Burnham Wick Farm, 21 Wick Rd, Burnham-on-Crouch, Essex CM0 8LU	
Parish: Burnham-on-Crouch	District: Maldon
NGR: TQ 960962	Site Code: MAHG / WF
Type of Work: Investigation of satellite imagery anomalies by means of trial trenching	Site Manager/Group: Bernie Steel / MAHG (Maldon Archaeological & Historical Group)
Date of Work: Between Early March and 29 th April 2006 (9 days).	Size of Area Investigated: 8 trial trenches.
Location of Finds/Curating Museum: MAHG / Owners.	Funding source: None
Further Seasons Anticipated? No	Related HER Nos: 13593-4 and 1362
Final Report: This report.	
Periods Represented: Bronze Age/Prehistoric, MIA, Modern (C20).	
<p>SUMMARY OF FIELDWORK RESULTS:</p> <p>The observed anomaly examined by means of trenches A, B, D, E, and F is considered to be that of a rectilinear Iron Age defended enclosure. The enclosure itself measures some 72 metres wide (north / south) by 85 metres in 'visible' length (east / west) and is unusual in its size and regular shape. The actual east / west dimension has yet to be determined as it appears to continue under the adjacent modern track way and into the adjoining field.</p> <p>The top fill layer within all of the ditches consisted of a fine silty material in which was found flecks of charcoal and all of the potsherds.</p> <p>Trench C, placed east-west across a north south linear anomaly identified a ditch providing a western boundary to a prehistoric track way. In trench E, the hardened surface between the ditch terminals at a depth of 800mm below the bottom of plough is curious and raises the question as to whether there was a hollow way leading into the enclosure. Trench G, placed across a pit like anomaly, confirmed the presence of a waste pit. The finds appear to be detritus from the 1930s airfield associated with First World War Royal Flying Corps activities. Trench H, placed across a linear anomaly, produced evidence of a further ditch. The lack of finds prevented dating. It was not determines as to whether this particular ditch related to the rectilinear enclosure, towards which it appears to lead, or the track like anomaly, which it appears to cross.</p>	
Previous Summaries/Reports: None	
Author of Summary: Bernie Steel	Date of Summary: 23.02.2025