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LINDSEY ARCHAEOLOGICAL SERVICES

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**PROPOSAL FOR GRAVEL EXTRACTION
NEW PARK FARM
TATTERSHALL THORPE**

**NGR : TF 211609
Site Code : TTA 96
LCNCC Accession No. 18.96**

FIELDWALKING SURVEY

for

Oxford Archaeological Associates Ltd

on behalf of

Butterley Aggregates Ltd

March 1996.

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**New Park Farm
Tattershall Thorpe
Proposal for Gravel Extraction
Fieldwalking Evaluation Survey**

NGR : TF 211609
Site Code : TTA 96
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Summary

Nearly 49 hectares of the area under threat from gravel extraction was available for fieldwalking. Remarkably little material was produced, flint being the single category of artefact recovered, with a total of 101 pieces - a density of a little over two artefacts per hectare. The main concentration of this was in Area 8, whilst the southern parts of Areas 5 and 1 (both of which lay adjacent to Area 8) contained slightly lower densities. Together, these three concentrations seem to indicate a single focus of activity. Preliminary assessment of the flint assemblage suggests a date range between the Late Neolithic and the Early Bronze Age periods.

The results of the field evaluation appear to show that in the areas walked, one zone has the potential to reveal evidence for later prehistoric activity. This does not preclude, however, the possibility of there being buried archaeological remains in the areas which produced little or no artefacts, as some of these appear to have been disturbed during and after the land was used as an airfield.

Introduction

Lindsey Archaeological Services was commissioned in December 1995 by Oxford Archaeological Associates Ltd (OAA) (on behalf of Butterley Aggregates Ltd) to carry-out a fieldwalking survey of land at New Park Farm, Tattershall Thorpe, central Lincolnshire. The evaluation followed a Desk-Top Assessment, prepared by OAA for Butterley Aggregates Ltd in July 1994.

The fieldwork was undertaken in accordance with the requirements of the Brief prepared by OAA (December 1995). The purpose of the evaluatory work was to:

- establish the presence or absence of archaeological remains and their location within the survey area;
- determine the level of further archaeological investigation required prior to development.

Copies of the report have been sent to Oxford Archaeological Associates Ltd, Butterley Aggregates Ltd, the Archaeology Section of Lincolnshire County Council, and the City and County Museum, Lincoln. The paper archive and the artefacts will be lodged with the museum when the project is completed.

Background to the Site

The survey area lies within a proposed gravel extraction site, situated between the towns of Woodhall Spa and Tattershall Thorpe, immediately east of the B1192 Woodhall Spa to Tattershall road (Fig 1). The site, which covers about 100ha, occupies the southern part of former RAF Woodhall, a World War II airfield (Pl.1). Much of the land is now under arable cultivation, but extensive remains of the airfield survive, such as concrete runways, taxiways, dispersal areas and hangars.

For information regarding the physical setting of, and the archaeological background to the site, the reader is referred to the OAA Desk-Top Assessment (see reference, p.6).

Fieldwalking methodology

The brief prepared by OAA divided the proposed development area into eight separate blocks of land, Areas 1-8 (Fig 2). Three of these (Areas 4, 6 and 7) were unsuitable for walking, as they comprised grass, set-aside and runways/silt deposits respectively. The five remaining areas (1-3, 5 and 8) totalled c.54ha. During the fieldwork, it became apparent that substantial parts of two of these areas (2 and 3) were also unsuitable for walking, as they consisted of farm buildings, haystacks, spoilheaps and minor roadways. This further reduced the area that could be walked to 48.7ha. It also meant that Areas 2 and 3 each had to be split into four blocks; these are denoted by the letters A-D on Fig 3.

The five areas were investigated by three archaeologists (referred to here as Officers 1, 2 and 3) walking at 10m intervals, giving a 10% coverage of each piece of land. All finds were individually and two-dimensionally recorded using a Total Station geodimeter, supplied by Midland Surveying and Engineering (MSE) and operated by one of its staff. Each officer was supplied with pre-labelled finds bags, a surveying staff with prism, and a two-way radio. The position of each find was immediately recorded through radio contact with the MSE surveyor. This precluded the need to set out a grid. The use of the geodimeter also allowed the limits of each area walked, as well as permanent landscape features such as field boundaries, buildings and runways, to be accurately recorded (Fig 3).

In accordance with the OAA brief, the presence of 20th century material was noted but none was collected. Any post-medieval items were to be kept, whilst it was decided not to collect animal bone, as this cannot normally be assigned to any specific archaeological period.

Results

The survey produced surprisingly little cultural material. A total of 101 finds were made, all of them flint artefacts (Table 1; Fig 3). This amounts to a density of 2.07 finds per hectare. Officer 1 collected the greatest quantity, but with such a small overall assemblage, it would be unwise to suggest that recovery rates were affected by differences in identification ability between officers.

AREA NUMBER	AREA WALKED (ha)	Finds : Officer 1	Finds : Officer 2	Finds : Officer 3	TOTAL NUMBER OF ARTEFACTS
1A	10	10	10	4	24
1B	7.1	0	0	0	0
1(all)	17.1	10	10	4	24
2A	2.5	0	0	0	0
2B	1.8	0	0	0	0
2C	5	0	0	0	0
2D	0.5	0	0	0	0
2 (all)	9.8	0	0	0	0
3A	6.25	1	4	2	7
3B	0.4	2	0	0	2
3C	0.25	0	0	0	0
3D	0.1	0	0	0	0
3 (all)	7	3	4	2	9
5	11.1	11	5	10	26
8	3.7	25	8	9	42
TOTALS	48.7	49	27	25	101

Table 1 : Artefact retrieval

Less than 10 sherds of 20th century pottery were noted, and no animal bone was seen. Although the policy had been to collect post-medieval pottery, so little was noticed (c.8 sherds) that early on it was decided not to pick-up such material.

Conditions for finds retrieval were generally good, as much of the land had been recently harrowed, and for most of the five days on site the sky was overcast, providing good visibility (Table 2). Where overall retrieval conditions were lowered by the presence of surface vegetation or by poor weather, this did not appear to correlate with low recovery rates (see below).

It is probable that the low recovery rate largely reflects the real quantity of material present. However, it may to some degree have been affected by disturbance of the land associated with its use as an airfield. It appears, for example, that when parts of the concrete runways were dismantled, the resultant hollows were filled with fine, stone-free silt, and the area incorporated into the adjacent arable land (S.Harvey, *pers. comm.*). Evidence for such activities was seen in some of the areas walked (see below).

Area 5 covered 11.1ha (PI.2). The ploughsoil contained a low, fairly even scatter of natural flint pebbles, presumably derived from the underlying gravel. Despite favourable retrieval conditions, only 26 artefacts were recovered, an average of only 2.34 per hectare (Table 2). Most of these (22) were concentrated in the southernmost corner of the field; here the density being c.12.9 finds per hectare. This concentration lay adjacent to those in Areas 1 and 8 to the east (Fig 3).

The central-southern part of Area 5 possessed two large patches of stiff orange-brown sandy clay, each standing proud of the surrounding ploughsoil (Fig 3). They appear to coincide with two former airfield-related platforms (seen on Fig 2 in the angle formed by the north-west and north-east limits of Area 5), so may represent foundation material.

The other notable discovery in this area was a strip of ploughsoil (c.30m long by 10m wide) containing a dense concentration of limestone rubble (Fig 3). The material presumably derives from a wall, but why there should have been such a short stretch in this particular area is unclear.

AREA NO	AREA WALKED (ha)	STATE OF CROP	STATE OF SOIL	WEATHER	GROUND VISIBILITY	OVERALL RETRIEVAL CONDITIONS	TOTAL NO ARTEFACTS	ARTEFACTS PER Ha
1A	10	none	harrowed; damp	overcast	high	good	24	2.4
1B	7.1	none	harrowed; damp	overcast	high	good	0	0
1(all)	17.1						24	1.4
2A	2.5	none	harrowed; wet	rain/wind	high/low	moderate/poor	0	0
2B	1.8	none	harrowed; damp	overcast	high	good	0	0
2C	5	none	ploughed; damp	overcast	high	good	0	0
2D	0.5	harvested	damp	overcast	high	good	0	0
2 (all)	9.8						0	0
3A	6.25	harvested; sheep	compacted; wet	overcast/sun	moderate	moderate	7	1.12
3B	0.4	none	ploughed, damp	overcast/sun	high	good	2	5
3C	0.25	none	ploughed, damp	overcast/sun	high	good	0	0
3D	0.1	none	ploughed, damp	overcast/sun	high	good	0	0
3 (all)	7						9	1.29
5	11.1	none	harrowed; damp/frozen	overcast	high	good	26	2.34
8	3.7	harvested; sheep	compacted; wet	rain/wind	moderate	poor	42	11.35
TOTALS	48.7						101	2.07

Table 2 : Artefact retrieval in relation to weather and field conditions

Area 1 covered the largest area (17.1ha) (Pl.3). As with Area 5, despite good retrieval conditions, few artefacts were located: 24 in all, giving a density of 1.40 per hectare (Table 2; Fig 3). All were found in the south part of the area (1A), adjacent to the concentration in Area 5. Here, the ploughsoil was a sandy loam containing a low scatter of natural flint pebbles, whilst in that part which produced no artefacts (1B), the soil was almost stone-free and consisted of a finer, siltier loam (Fig 3). It is quite possible that this material was brought in for landscaping purposes (see earlier), and as such may well be sealing the original ploughsoil and any artefacts contained therein.

Area 8, at 3.7ha, was the smallest piece of land walked (Pl.4). It produced the highest concentration of flint artefacts: 42 pieces, giving a density of 11.35 per hectare (Table 2; Fig 3). Furthermore, these artefacts were recovered in poor conditions: ground visibility was between 40% and 80% because of the presence of vegetation from a harvested sugar beet crop, sheep had trampled and compacted the surface, and the area was walked during a day of wind and fairly

heavy rain. The ploughsoil contained a moderate, even scatter of natural flint pebbles, slightly greater in density than in the other areas.

Area 2 was divided into four blocks of land (2A-D), as shown in Fig 3 (Pl.5). All four, which totalled 9.8ha in area, yielded no material. With the exception of a broad strip of land obscured by recent manuring (2C), this complete lack of finds was surprising, particularly for block 2A which was situated directly opposite the greatest flint concentration in Area 8. The ploughsoil in Areas 2A, B and D contained a low, even scatter of natural flint pebbles, and there was no indication of land disturbance.

Area 3 was likewise divided into four separate units, 3A-D (Fig 3; Pls.6-7). Blocks 3A and B produced low numbers of flint (7 and 2 respectively), whilst 3C and D yielded none. Taken together, the whole area had a density of 1.29 artefacts per hectare. The ploughsoil contained a low, even scatter of natural flint pebbles, and with the exception of an area of more stony, clayey material at the northern edge of area 3A (again coinciding with a possible airfield platform - see Fig 2), there was nothing to indicate the land had been significantly disturbed.

Conclusions

Whilst the overall low quantities of artefacts might in part reflect recent, airfield-related disturbance, they must generally be seen as a real reflection of the quantities of material present. The complete lack of Roman material recovered is surprising as there is some evidence in the Tattershall Thorpe and Woodhall Spa areas of Late Iron Age/Roman activity, most significantly immediately adjacent to the south-east boundary of the proposed development area, where a complex of cropmark enclosures has been recorded (*cf.* OAA desk-top study). Failure to locate any hint of the 'substantial defended sites, possibly of the Late Iron Age or Roman period' (*ibid.*) indicates that the areas walked are now less likely to contain such earthworks and any evidence related to them.

The absence of artefacts relating to later periods is less startling: it was predicted by the OAA study, when it concluded 'the lack of topographic foci and less fertile soils make settlement in these periods less likely'.

The small amount of lithic material is also surprising, particularly as the surrounding land has in the past produced a considerable amount of prehistoric settlement evidence. The concentrations of artefacts in Areas 8 and the southern parts of Areas 5 and 1 suggest a single focus of prehistoric activity. The greatest densities of both natural and worked flint in Area 8 seem to indicate that the lithics were being manufactured where raw materials were most abundant.

Assessment of the assemblage shows it to comprise 73 flakes, 12 cores (one reused as a hammerstone), 9 struck nodules and 7 formal tools (including 2 scrapers and a possible knife). The material probably dates to the Late Neolithic/Early Bronze Age periods, though there are no particularly diagnostic pieces. Additional fieldwork in the area may well enable a more precise picture of what the assemblage represents to be obtained.

Acknowledgements

Lindsey Archaeological Services gratefully acknowledge Butterley Aggregates Ltd for their cooperation on site, and tenant farmer Mr Stuart Harvey for useful information. Thanks are also due to Elizabeth Healey who reported on the flint artefacts. The fieldwalking was carried out by the author along with Mick McDaid and Malcom Otter. The MSE surveyor was Mike Winterbottom.

References

Oxford Archaeological Associates Ltd : *Land at New Park Farm, Tattershall Thorpe, Lincolnshire. Archaeological Assessment, July 1994.*

C. Taylor

March 1996

The Lithics
Elizabeth Healey

In total 101 pieces of artefactual flint were recovered during field walking; a concentration was noted in Areas 1/5 and 8 and a light background scatter over the rest of the area (Fig .

Preliminary examination of the material suggests a Neolithic/Bronze Age date, but there is nothing particularly diagnostic. The artefacts are in a fresh, unpatinated condition but do show signs of plough or other mechanical damage and some have fractured along thermal flaws. The plough damage sometimes occurs as edge chipping and can be difficult to distinguish from deliberate retouch. The initial categorisation indicates that the following are present:

Cores	12 (1 re-used as a hammerstone)
Struck nodules	9
Flakes	73
Formal tools	7

A full catalogue has been deposited in the archive with the artefacts.

The flint used is for the most part translucent flint of good flaking quality with few inclusions. In colour it ranges through various shades of brown and brown grey, often with an ochre coloured tinge (? iron staining). Inclusions were present and are in the form of linear stripes or white blotches. Cortex varies from hard and weathered to a softer and thicker cortex. A few pieces have thin waxy cortex. Whether this indicates different origins is at this stage unclear.

The small size of the raw material is demonstrated by the cores, for example no. 137, which still shows the original form of the pebble; similarly the majority of the flakes are under 40 mm in length and a high proportion (68%) have some cortex on their dorsal surfaces.

The majority of the cores are indeterminate and appear to have fractured through thermal flaws, however, three single platform, two opposed platform and two changed orientation cores were separated out. All produced flakes and there is no indication of platform preparation. One of the changed orientation cores is flat. Four flakes also suggest that some cores were reduced on an anvil. The scarring on the dorsal surfaces of the flakes also testify to the use of changed orientation cores. Striking platforms are generally either a plain flake scar or cortex but four flakes with faceted platforms were noted. Although the flakes were not specifically investigated for hammer mode the presence of ring cracks, hinge terminations and pronounced ripples are consonant with the use of a hard hammer.

Amongst the formally retouched tools are two scrapers. One (no. 73) is a small flake with semi invasive acute retouch on the distal end of a small flake producing a slightly flattened contour; the other (no. 106) is on a much thicker trimming flake and has semi-convergent serial flaking around its distal end.

The denticulate (no 52) has four distinct 'notches' and is made on a thermal flake. Retouch in a concave area on one edge of no 82 may be deliberate and it may be compared to that on core no. 125. The knife (no 124) is uni-serially retouched with semi invasive flaking, but it is very rolled and worn and may have been re-deposited. Finally there is a large flake (no. 15) with a burin facet on one edge and retouch in a concave area beneath the facet. Whether the burin facet is deliberate or accidental remains to be determined.

All the tool forms could occur in Late Neolithic context and the use of changed orientation cores is not out of place. The practice of the re-orientating the core to produce a new flaking surface is a technique common in the later Neolithic (Holgate 1988, 60) and may be a way of maximising the potential of the small-sized raw material available (Saville 1980, 20); the prepared 'Levallois' cores found in later Neolithic where raw material is abundant and of good quality, for example at Grimes Graves (Saville 1981, 47-8), are not found.

Further investigation of the site may enable a fuller picture to be obtained but until such information is forthcoming the present collection does not warrant further analytical work

References

Holgate, R, 1988 *Neolithic Settlement of the Thames Basin*. BAR British Series 194. Oxford

Saville, A, 1980 'Five flint assemblages from excavated sites in Wiltshire', *Wiltshire Archaeological Magazine* 73-73, 1-27.

Saville, A, 1981 'The flint assemblage', *Grimes Graves Norfolk Excavations 1971-72*, Vol. II HMSO London (Department of the Environment Archaeological Reports No. 11).

Appendix 2 : Contents of Site Archive

1. Fieldwalking Survey Report
2. Fieldwalking day sheets x 5
3. Photographs (and list, with colour negatives):
 - LAS film number 96/10 (25-36)
4. Flint Report by Elizabeth Healey

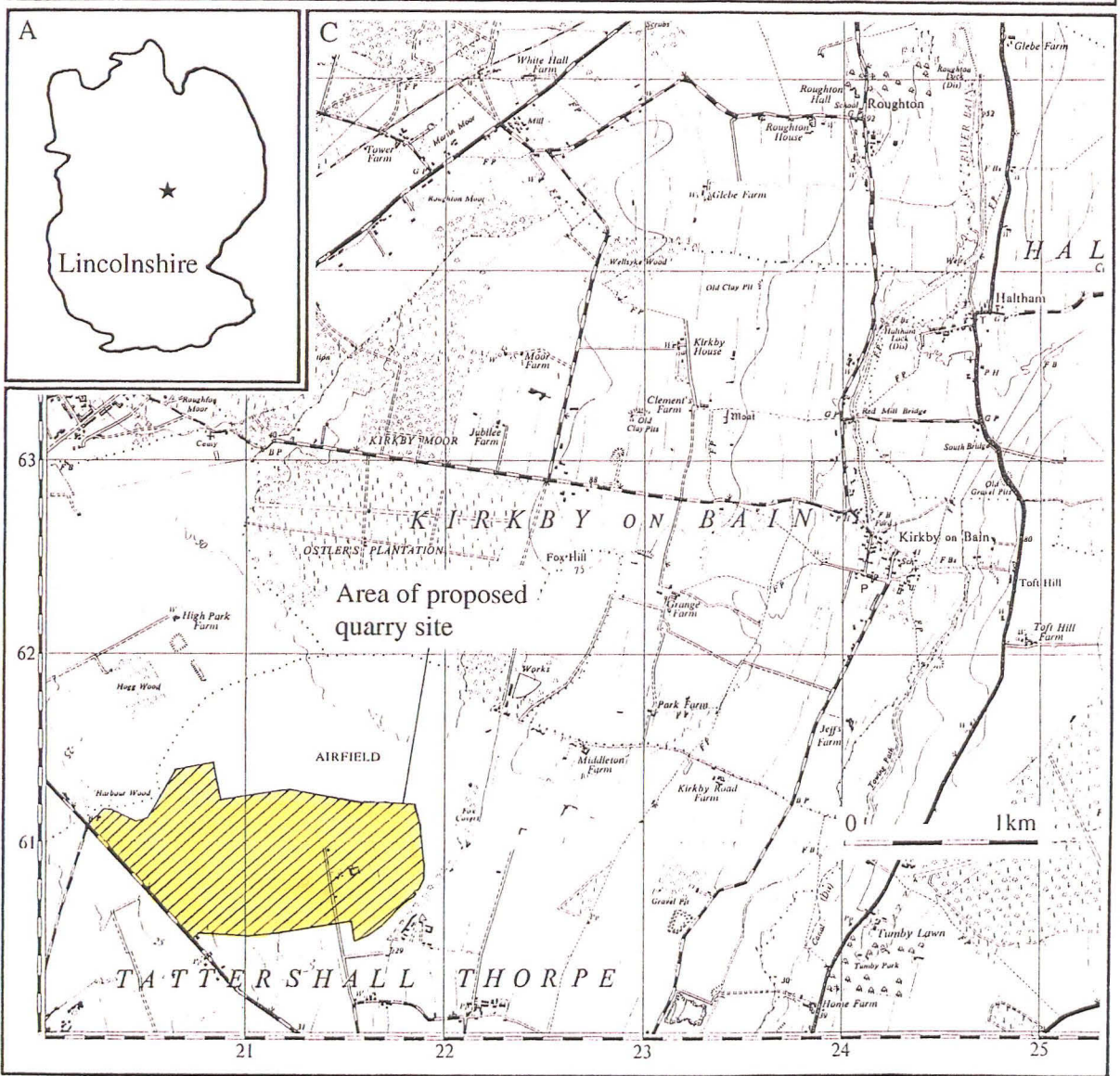
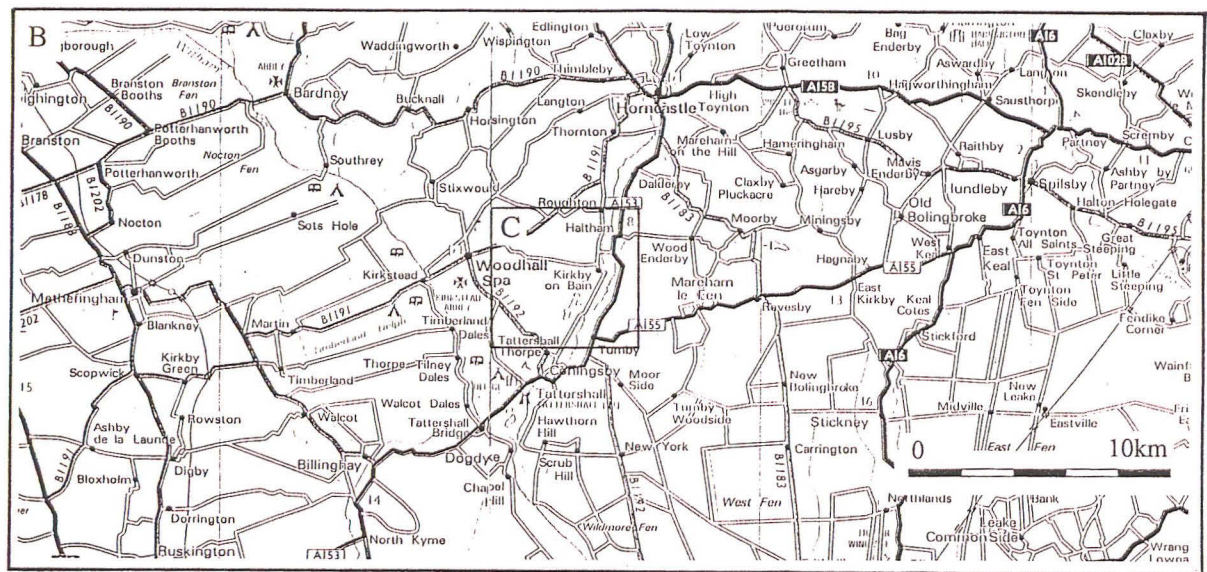


Fig 1 : Location of proposed quarry site. (Inset C based on O.S. 1:25,000, Sheet TF 26. Crown Copyright 1953. Reproduced with the permission of the controller of HMSO. LAS Licence No. AL 50424A).

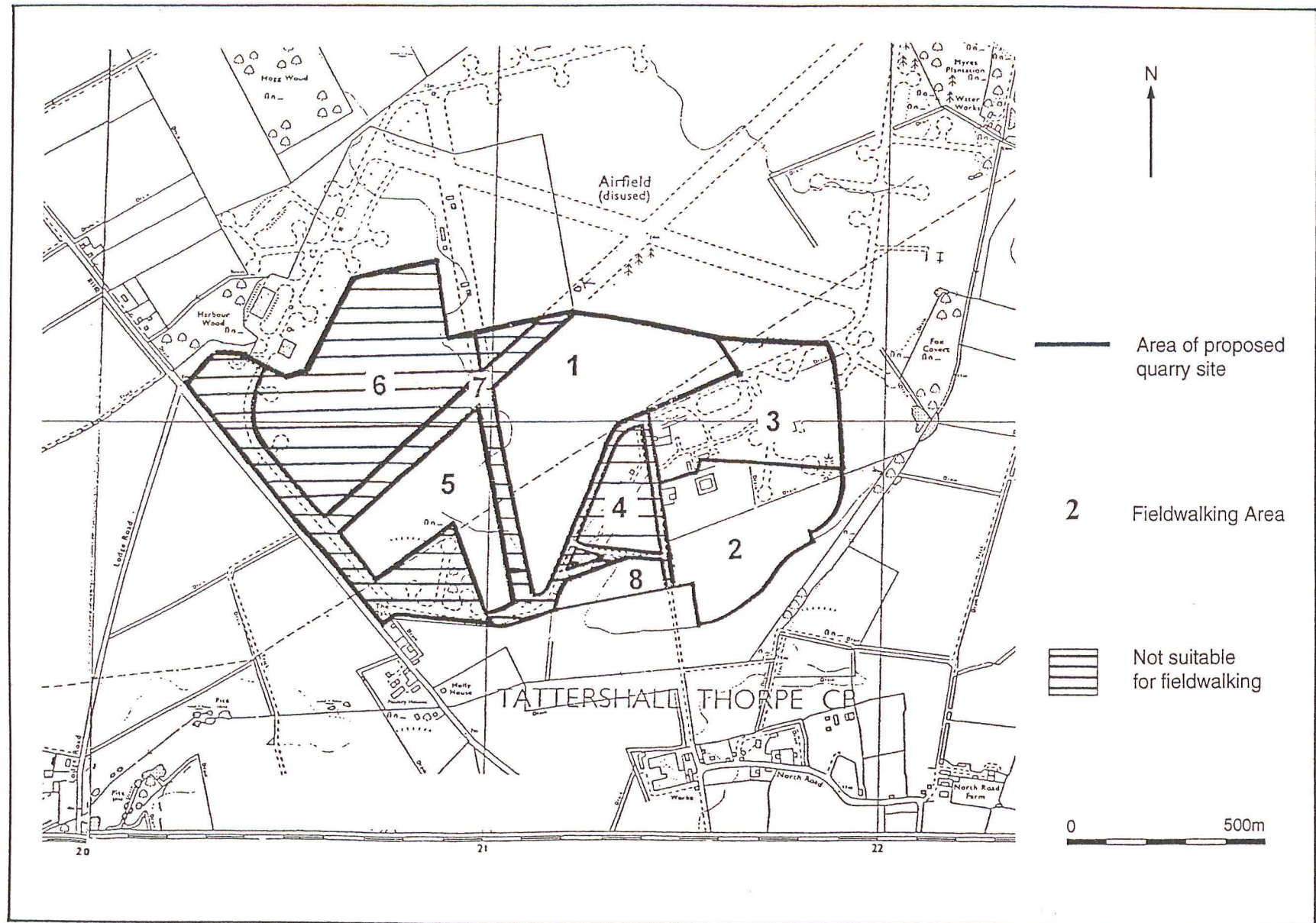
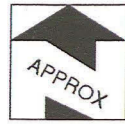


Fig 2 : Fieldwalking Areas 1-8 (based on plan from Oxford Archaeological Associates Ltd)



TF21206055

KEY

2A Walked Area

129 Flint Find (with number)

FIG 3
TATTERSHALL THORPE
AIRFIELD

DISTRIBUTION
 OF
 FIELDWALKING FINDS

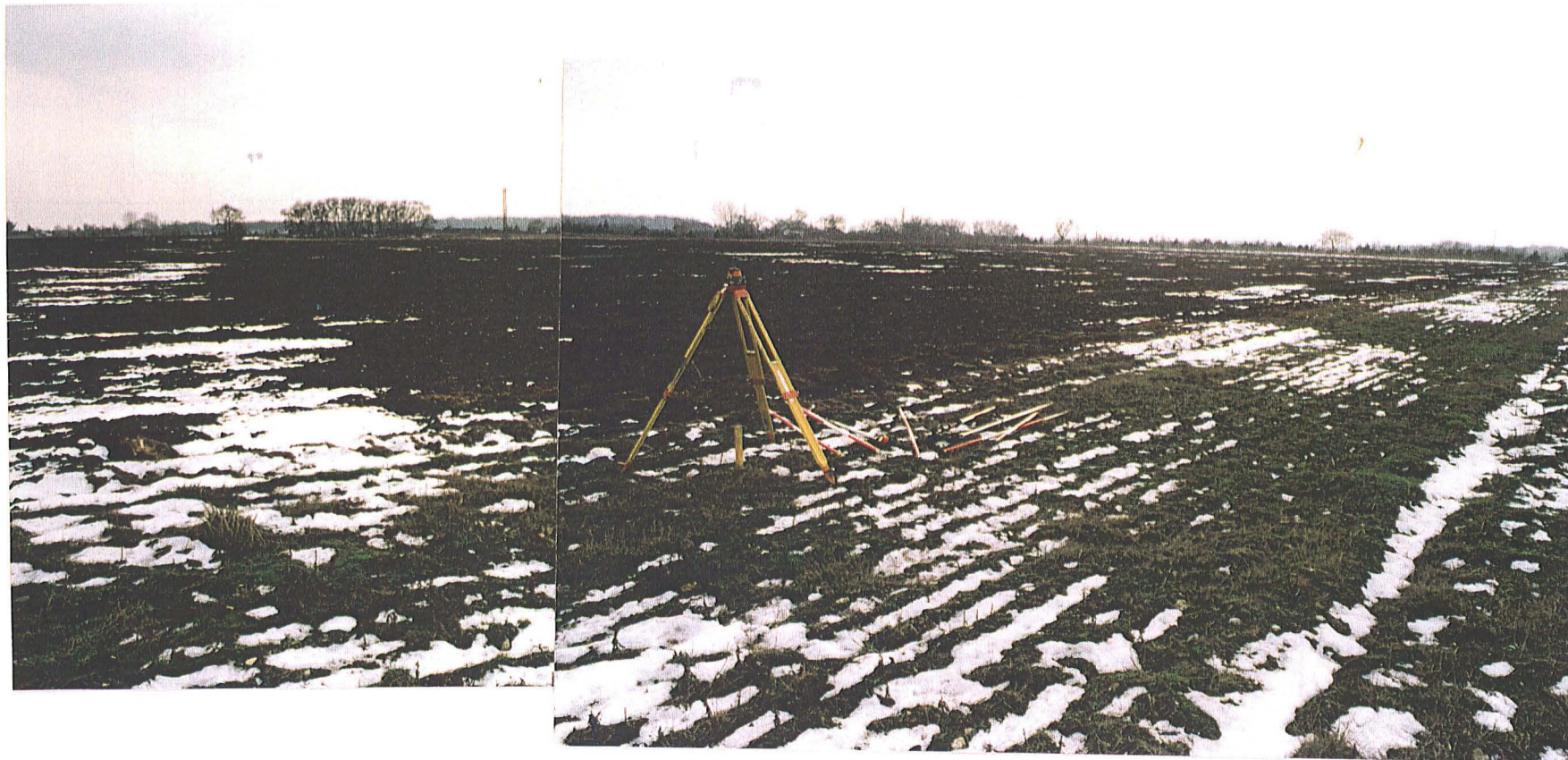
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 PLAN NUMBER: MSE / LIN / 420



Pl. 1 General view of site. Looking NE from quarry entrance on B1192.



Pl. 2 Area 5 prior to walking. Looking SE from main quarry road.



Pl. 3 Area 1 after walking. Looking N from S corner of field.

Pl. 4 Area 8 after walking. Looking SW from Area 2; setting up geodimeter in foreground.





Pl. 5 Area 2 after walking. Looking SE from NW corner of 2b.

Pl. 6 Area 3 after walking. Looking E from SW corner of 3a.





PI. 7 Surveying-in an artefact on edge of Area 3b. Looking SE.