Stage 1 - Footings

Luton Hoo
Hyde
Bedfordshire

Archaeological Evaluation Report

Oxford Archaeology

10th March 2003

Elite Hotels and Luton Hoo Park Limited

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OA Job N^{O}: 1645
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Proposed Golf Course, Luton Hoo, Hyde, Bedfordshire

NGR TL 1046 1847

STAGE I - FIELDWALKING

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SUMMARY

Oxford Archaeology (OA) carried out Stage I of an archaeological evaluation in advance of a proposed development at Luton Hoo, Hyde, Bedfordshire on behalf of Elite Hotels and Luton Hoo Park Limited. Stage I consisted of fieldwalking an area of approximately 60 ha. A high density prehistoric flint scatter was observed, which should be regarded as significant and indicative of prehistoric activity in the Study Area. Lower amounts of medieval, post-medieval and modern material were also recovered. The finds cannot confirm the presence of a Palladian gatehouse known to have existed in the vicinity, although the material probably derived from a nearby building. Extensive later disturbance associated with post-medieval landscaping and ploughing was apparent throughout the Study Area.

1 INTRODUCTION

1.1 Scope of work

1.1.1 In January 2003 Oxford Archaeology carried out a non-invasive archaeological field evaluation (Stage I) in advance of a proposed development at Luton Hoo, Hyde, Bedfordshire. The proposals include the conversion of the mansion and the construction of a golf course in the surrounding parkland. The site has already been the subject of an Archaeological Desk Based Assessment (DBA), undertaken by Bedfordshire County Archaeological Service (now Albion Archaeology) as part of a previous planning application (BCAS 1999). The DBA identified that the proposed development area has a high potential for archaeological remains and consequently Bedfordshire County Council required a programme of archaeological investigation to be undertaken in order to develop an appropriate mitigation strategy. This is in line with PPG16 and Local Plan policy.

1.1.2 The archaeological works are commissioned by Elite Hotels and Luton Hoo Park Limited and conform to a formal Written Scheme of Investigation (WSI) approved by Bedfordshire County Council (BCC) in response to a Design Brief (BCC, 2002).

1.1.3 The archaeological work to be carried out within the Study Area is being undertaken in a series of stages. This phased programme of works is being undertaken as defined below:

- **Stage I** - Non-invasive fieldwalking within an area of approximately 60 hectares of arable land south of Jackson's Hill. This work has been undertaken and is reported on in this document.
- **Stage II** - Non-invasive geophysical survey, undertaken in two phases. Firstly, a programme of magnetometer scanning, the results of which – together with the results from Stage I – will identify areas of archaeological potential and inform a subsequent programme of detailed survey of up to 30% of the Study Area.
- **Stage III** - Trenched evaluation, comprising the excavation of a series of trenches over the Study Area up to a maximum of 3% of the area to be evaluated. The location of the trenches will be informed by the results of Stages I and II and

will be positioned to define and characterise likely areas of archaeological sensitivity, and to confirm the absence of features where no positive results were obtained.

1.1.4 Stage I fieldwalking described in this report was undertaken in accordance with the WSI. The results provide a basis from which an informed decision can be made regarding the need for further archaeological works as defined in the phased strategy above.

1.2 Location, geology and topography

1.2.1 Luton Hoo is situated in the Chilterns on the west bank of the River Lea and immediately south of the town of Luton in southern Bedfordshire (Fig 1). The estate, which falls inside the administrative area of South Bedfordshire District, is centred at TL 1046 1847 and covers some 400 hectares. The site is bounded by the River Lea to the east, where the land rises westwards from a height of 100m OD to a plateau at 150m OD, before falling away again to the west.

1.2.2 The solid geology of the site is Upper Chalk and Middle Chalk; the drift which occupies the plateau is Clay-with-Flints and Brickearth deposits. Alluvial deposits exist in a series of dry river valleys to the north-east and south-west, and in the river valley to the east.

1.3 Archaeological and historical background

1.3.1 Extremely little is known of the archaeology of the Luton Hoo Estate. This is almost entirely due to a previous lack of opportunity for archaeological reconnaissance or fieldwork, rather than a true reflection of the distribution of archaeological sites in the area. The DBA (BCAS 1999) drew together available archaeological information from relevant sources within a 5 km radius of Luton Hoo, in order to achieve a better level of understanding of the archaeological potential of the proposed development area.

1.3.2 Information from both archaeological and geological sources indicates:

- high potential for the occurrence of Palaeolithic sites throughout the Luton Hoo Estate;
- high probability for sites of the Mesolithic period;
- moderate to high potential for evidence of the early farming communities of the Neolithic and Bronze Age;
- high incidence of sites and finds of the Iron Age and Roman periods within the area as a whole, and a similar level of survival for the Luton Hoo Estate;
- low incidence of Early to Middle Saxon archaeology;
- a limited archaeological record for medieval life. No physical remains were visible during the rapid reconnaissance survey. However, there are suggestions of possibly medieval earthworks in low relief in the vicinity of Stocking Wood. Additionally, a watching brief immediately south of the Study Area undertaken by Albion Archaeology (2002) revealed evidence for ridge-and-furrow.

- The area was transformed into parkland during the 17th century, and further landscaping was carried out by Capability Brown, the remains of which are believed to lie within the Study Area. Other parkland features include an earlier park boundary, and the Palladian gatehouse, whose location is unknown, but appearance is recorded on a watercolour of Paul Sandby (*c* 1765).

1.3.3 Luton Hoo was used as a military centre during World War II and the remains of numerous features are extant within the proposed development area. These include concrete platforms for barrage balloons, search-light or anti-aircraft guns, air-raid shelters and Nissen hut footprints.

1.3.4 Current landuse comprises woodland, parkland and land in cultivation.

1.4 Evaluation Aims

1.4.1 The aims of the evaluation are to determine the location, extent, date, character, and state of preservation of any archaeological remains surviving within the Study Area. Attention will be given to remains of all periods, including evidence for past environments, with provision for environmental sampling included.

1.4.2 This will be achieved through the implementation of a programme of archaeological investigation as outlined in the WSI.

1.4.3 To make available the results of the investigation.

2 FIELDWALKING METHODOLOGY

2.1 Scope of fieldwork

2.1.1 The fieldwalking was one of three stages of evaluation, along with geophysical survey and trenched evaluation.

2.1.2 As the only area of the Study Area currently under cultivation was the arable land south of Jackson's Hill, the programme of fieldwalking concentrated in this area to avoid any unnecessary ploughing of the historic grounds of Luton Hoo.

2.1.3 This area is approximately 60 hectares. Prior to walking, the field rolled, and sown with a cereal crop. Visibility at the time of the survey was good.

2.2 Fieldwork methods and recording

2.2.1 The programme of field walking was undertaken across the area to locate the position and extent of any concentrations of surface artefacts. The survey was undertaken using a 100m spaced grid, which was divided into transects of 20m lengths. The transects were walked and staff collected artefacts from a 1m wide strip either side of the transect. The grid axes were labelled A-Z (excluding I), with transects within labelled 1-4 each grid spacing.

2.2.2 The finds were washed, marked and sorted, and the results of the fieldwalking are presented as density distributions across the area for each artefact class present.

2.3 Finds

2.3.1 Finds were recovered by hand during the course of the exercise and bagged by transect and stint. Finds and bags were marked with grid co-ordinates.

2.4 Presentation of results

2.4.1 In the following sections the results of the fieldwalking are described. There are additional comments on the finds, including finds lists in Appendices, and the reliability of the results. A discussion regarding interpretation and conclusions of the results of the non-invasive evaluation then follows.

3 RESULTS

3.1 Fieldwalking Survey

3.1.1 The site is located on a silty clay soil that is situated on a gentle westerly sloping topography. The depth of soil naturally becomes thinner towards the top of the slope. Field conditions for fieldwalking within the area of cultivated land were good for finds visibility.

3.1.2 The Study Area was fieldwalked in the area of arable cultivation only (Figs 1-3). The major artefact categories collected and recorded were: pottery (medieval and post-medieval), worked flint, and ceramic building material.

3.1.3 The criteria which separate a definitive 'concentration' of material, implying a site, and a random scatter, implying material spread during later cultivation, are difficult to define. The results, therefore, involve an element of subjectivity dependent upon the type of material in question. Worked flint, for example, survives relatively well in ploughsoil, though it can become heavily abraded. Prehistoric pottery, however, being less well fired than Roman or medieval examples, will not survive well in disturbed ploughsoils and will appear, if at all, in very small quantities.

3.1.4 A high density of worked flint was recovered (Fig 2). A concentration was observed in the extreme eastern part of the site. The distribution was sparser towards the west and north, with blank areas noted in the southern and far western parts. The assemblage largely comprised debitage in the form of waste and preparatory flakes, clearly deriving from an area of manufacture. Much of the material had suffered from plough damage, though, and this, along with the limited recovery of cores perhaps argues for some movement of the flint away from the actual place of production. However, the density of the material overall should nevertheless be regarded as significant and indicative of prehistoric activity in the vicinity.

3.1.5 The pottery assemblage comprises sherds dating to the medieval, post medieval, and modern periods (Fig 3). There are no clear concentrations of material although the scatter of modern flowerpot sherds appears to be denser in the eastern part of the site.

Most of the pottery dates from the mid 18th century onwards. The medieval pottery was also recovered from the SE part, but with just three sherds collected, little can be interpreted from it, except for providing evidence of medieval activity in the area.

3.1.6 A representative selection of diagnostic, and mainly modern, ceramic building material was collected from surface scatters. These were concentrated in the SE part of the Study Area. The assemblage was consistent - the bricks, for example, appear to have been made to standard dimensions and fired in the same kilns on the estate. The material is likely to have derived from a building in the vicinity of the Study Area. Pottery found within the concentration may confirm a 19th or 20th century date for this material.

3.2 Finds

Pottery *by Paul Blinkhorn* (Appendix 1; Table 1)

3.2.1 The pottery assemblage comprised 15 sherds with a total weight of 354 g. The bulk of the material was modern, although three sherds of medieval wares were noted. Where appropriate, the codings and chronology of the Bedfordshire County Archaeology Service type-series were used, as follows:

- C03: Fine sandy ware, 12th – 13th C. 1 sherd, 11 g.
- C03A: Fine sand and flint, 12th – 13th C. 1 sherd, 8 g.
- EO1: Late Medieval Reduced ware, mid 14th – 16th century. 1 sherd, 13 g.
- P48: English Stoneware, 1750+. 3 sherds, 90 g.

3.2.2 In addition, the following, not included in the BCAS type-series, was noted:

- Horticultural Earthenwares. Fine, red, slightly sandy fabric. Flower pots, 19th – 20th century. 9 sherds, 232 g.

Lithics *by Kate Cramp* (Appendix 2; Tables 2-3)

3.2.3 A total of 40 struck flints (Table 2) were recovered from 32 fieldwalking squares, the majority of which produced a single piece (Table 3). Evidence of Neolithic activity is provided by the presence of an incomplete partially polished axe; it is possible that some of the scrapers are also of this date. The remaining assemblage probably dates mainly to the Neolithic and Bronze Age, although much of the material is chronologically undiagnostic.

3.2.4 In general, the assemblage is in a very poor condition. A total of 34 pieces were recorded as moderately or heavily damaged, and numerous pieces exhibit plough notches to their edges. Most flints are either uncorticated (29 pieces) or display a light, incipient cortication (seven pieces). A single flint (H1 G4) is densely corticated.

3.2.5 Gravel flint appears to have been the main source of raw material for the production of the debitage and tools within the assemblage. The flint is characterised by a thick but abraded cortex, which in most cases is stained a buff colour. The interior is fine-grained and homogeneous in composition; the colour varies through light browns and greys. Very few inclusions or irregularities were noted, suggesting that the flint was

of a good knapping quality. A single flake of light grey ?chalk flint was recovered from square H3 G0. The partially polished axe (H2 G0) is probably also of chalk flint manufacture.

3.2.6 The assemblage is composed mainly of unretouched flakes (24 pieces). The majority can be dated broadly to the Neolithic and Bronze Age on technological grounds. A single distal-trimming blade of probable Mesolithic or (?earlier) Neolithic date was recovered from square H4 G4. This piece exhibits blade-like dorsal flake scars and an abraded, punctiform butt. In general, the under-representation of blades in the assemblage supports a later Prehistoric date for the material (Pits and Jacobi 1979; Ford 1987, 79).

3.2.7 Two flake cores were recovered. The single platform flake core (94 g) exhibits several flake removals, which have been taken from around the perimeter of a simple platform. The multi-platform core (70 g) has been reduced from several different directions. A localised area of crushing to one surface suggests that it was used briefly as a hammerstone following reduction. A (?later) Neolithic or Bronze Age date is appropriate for both pieces.

3.2.8 The retouched component consists of seven pieces and is dominated by scrapers (five pieces). Two end and side scrapers were recovered (E1 G0 and E4 G3), both of which have been neatly retouched on tertiary flake blanks and probably date to the Neolithic or earlier Bronze Age. The end scraper from square H3 H4 may be of a similar date. The incomplete axe (H2 G0) has been bifacially retouched and exhibits a very partial polish to both faces; this piece can be dated broadly to the Neolithic and perhaps to the later Neolithic. The piercer (H0 K4) has been manufactured on a large secondary flake. Abrupt 'scraper'-style retouch has been applied to the distal end, with a robust spur retouched to the left-hand side. A possible hammerstone, consisting of a large (?non-local) flint cobble (308 g) with some battering to one end, was recovered from square E4 G4.

Ceramic Building Material *by Edward Biddulph*

3.2.9 A total of 20 fragments (4941 g) of ceramic building material (CBM) was recovered. This was a representative sample of diagnostic pieces collected from dense areas mapped in the field.

3.2.10 The assemblage comprised bricks and tiles and was of post-medieval or modern date. Bricks were commonly 50 mm thick and tempered with sand and crushed flint. Flat roof tiles were 10-20 mm thick, and sand-tempered with the occasional addition of crushed flint. The majority had peg holes made before firing. A fragment of a plain, sand-tempered floor tile, 30 mm thick, was present. A tile produced in a mould, marked with the maker's stamp, was also recovered.

3.2.11 Although found scattered, the assemblage, in particular the brick and roof tiles, is nevertheless coherent in terms of dimensions, fabric and manufacture. This suggests that the material derived largely from the same sources of production, and probably represents debris from a single building.

4 DISCUSSION AND INTERPRETATION

4.1 Reliability of field investigation

4.1.1 The results of the fieldwalking must be viewed in the context of factors that may undermine the reliability of perceived material concentrations. Ploughing and landscaping activity have resulted in the disturbance of upper levels, affecting the distribution artefacts. In addition, since the Study Area is situated on a hill, all but the most recent of archaeological deposits located at the bottom of the slope may be buried under thick colluvial deposits (*cf* Albion Archaeology 2002, 10), thus escaping the plough. This may well account for the thinning of the flint distribution towards the west.

4.2 Overall interpretation and significance

4.2.1 The artefact assemblage recovered within the study area during fieldwalking is predominantly prehistoric in date, with a low level scatter of post medieval/modern material recorded within the arable field. The presence of this material is indicative of activity of these periods occurring within the general environs of the site.

4.2.2 Taking into account the limitations of non-intrusive survey of this type the results appear to indicate high potential for archaeological remains within the study area, particularly for the prehistoric period. The Neolithic and Bronze Age should be the best represented, but Mesolithic material may also be encountered. Any remains located towards the bottom of the slope may well have escaped post-medieval/modern disturbance and are potentially well-preserved.

4.2.3 Despite the high incidence of Iron Age and Roman activity in the region, the Study Area has so far offered low potential for the recovery of material associated with those periods. It is possible, however, that remains exist below the level of modern disturbance. Intrusive survey would help to clarify this.

4.2.4 The low density of medieval finds serves to confirm the apparently poor distribution of medieval remains. Notably, some evidence for ridge-and-furrow was encountered during a watching brief to the south undertaken by Albion Archaeology (2002). Much of this type of evidence had been removed by later landscaping, but may form part of a more extensive system, the remnants of which might be found with the Study Area.

4.2.5 The post-medieval and modern assemblage is too small to draw strong conclusions. However, the material almost certainly derived from a building on the Luton Hoo Estate. The finds cannot confirm the presence of the Palladian gatehouse within the Study Area, although complete removal of the structure should not be precluded. This should be further investigated during the intrusive survey.

APPENDICES

APPENDIX 1 POTTERY

	CO3		CO3A		EO1		P48		Hortic E	
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
B0/F0									1	50
C2/E3							1	11		
C2/J1									1	6
C3/F2							1	18		
C4/F2									1	10
E3/J2							1	61		
E4/J1									1	45
F2/F3									1	32
F4/F2									1	21
F3/G1									1	9
F4/J2									1	54
G0/G1			1	8	1	13				
H0/L2	1	11								
H1/F4									1	5
Total	1	11	1	8	1	13	3	90	9	232

Table 1: Pottery by type and by transect.

APPENDIX 2 WORKED FLINT

Category:	Total:
Flake	24
Blade	1
Irregular waste	3
Single platform flake core	1
Multi-platform flake core	1
Retouched flake	2
End scraper	2
End and side scraper	2
Scraper on a non-flake blank	1
Piercer	1
Axe	1
Hammerstone	1
Total:	40

Table 2: Flint by type

		Category:												
X:	Y:	Flake	Blade	Irregular waste	Single platform flake core	Multi-platform flake core	Retouched flake	End scraper	End and side scraper	Scraper on a non-flake blank	Piercer	Axe	Hammerstone	Total:
C2	G3									1				1
D4	F2	1												1
E1	E2						1							1
	G0								1					1
E4	G3								1					1
	G4					1							1	2
F0	G2	1												1
	H4			1										1
F3	H0	1												1
	K3	1												1
F4	J3	1												1
G0	G4	1												1
	L1	1												1
G1	E3			1										1
	L1	1												1
H0	K4										1			1
H1	G4			1	1									2
H2	G0	1										1		2
	G1	2												2
	G3	2												2
	G4	1												1
	H2	1												1
	J0	1												1
H3	F4	2												2
	G0	1							1					2
	G2	1												1
	G3	2												2
	H4								1					1
	K4	1												1
H4	G4		1											1
	H3							1						1
	L3	1												1
Total:		24	1	3	1	1	2	2	2	1	1	1	1	40

Table 3: Flint by transect

APPENDIX 3 BIBLIOGRAPHY

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APPENDIX 4 SUMMARY OF SITE DETAILS

Site name: Luton Hoo, Hyde, Bedfordshire
Site code: LUHO03
Grid reference: Centred NGR TL 1046 1847
Type of evaluation: Fieldwalking
Date and duration of project: January 2002
Area of site: approximately 60 ha
Summary of results: Oxford Archaeology (OA) carried out Stage I of an archaeological evaluation in advance of a proposed development at Luton Hoo, Hyde, Bedfordshire on behalf of Elite Hotels and Luton Hoo Park Limited. Stage I consisted of fieldwalking an area of approximately 60 ha. A high density prehistoric flint scatter was observed, which should be regarded as significant and indicative of prehistoric activity in the Study Area. Lower amounts of medieval, post-medieval and modern material were also recovered. The finds cannot confirm the presence of a Palladian gatehouse known to have existed in the vicinity, although the material probably derived from a nearby building. Extensive later disturbance associated with post-medieval landscaping and ploughing was apparent throughout the Study Area.
Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will remain there until such time as Luton Museum is able to accept new archives.

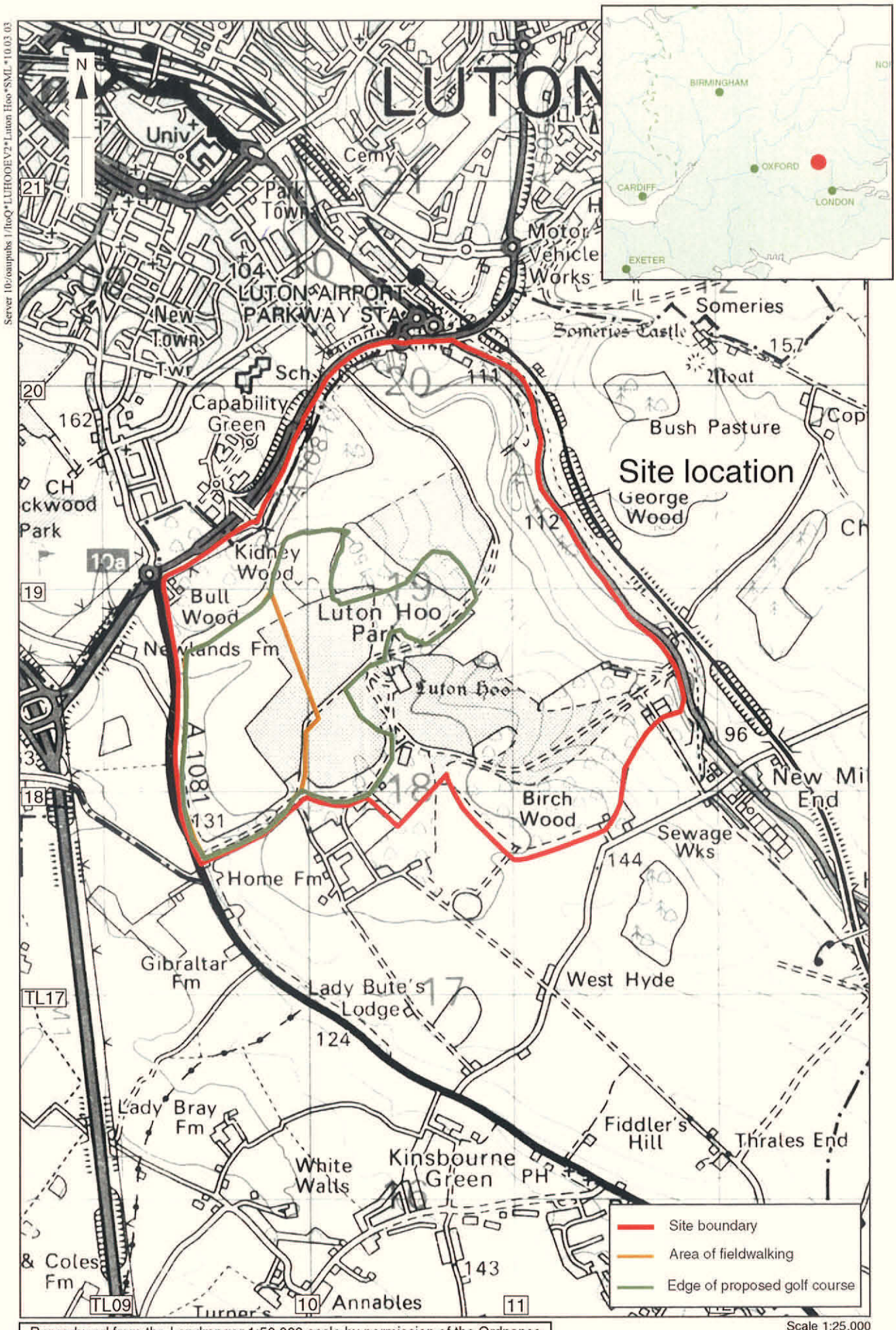

Figure 1: Site location

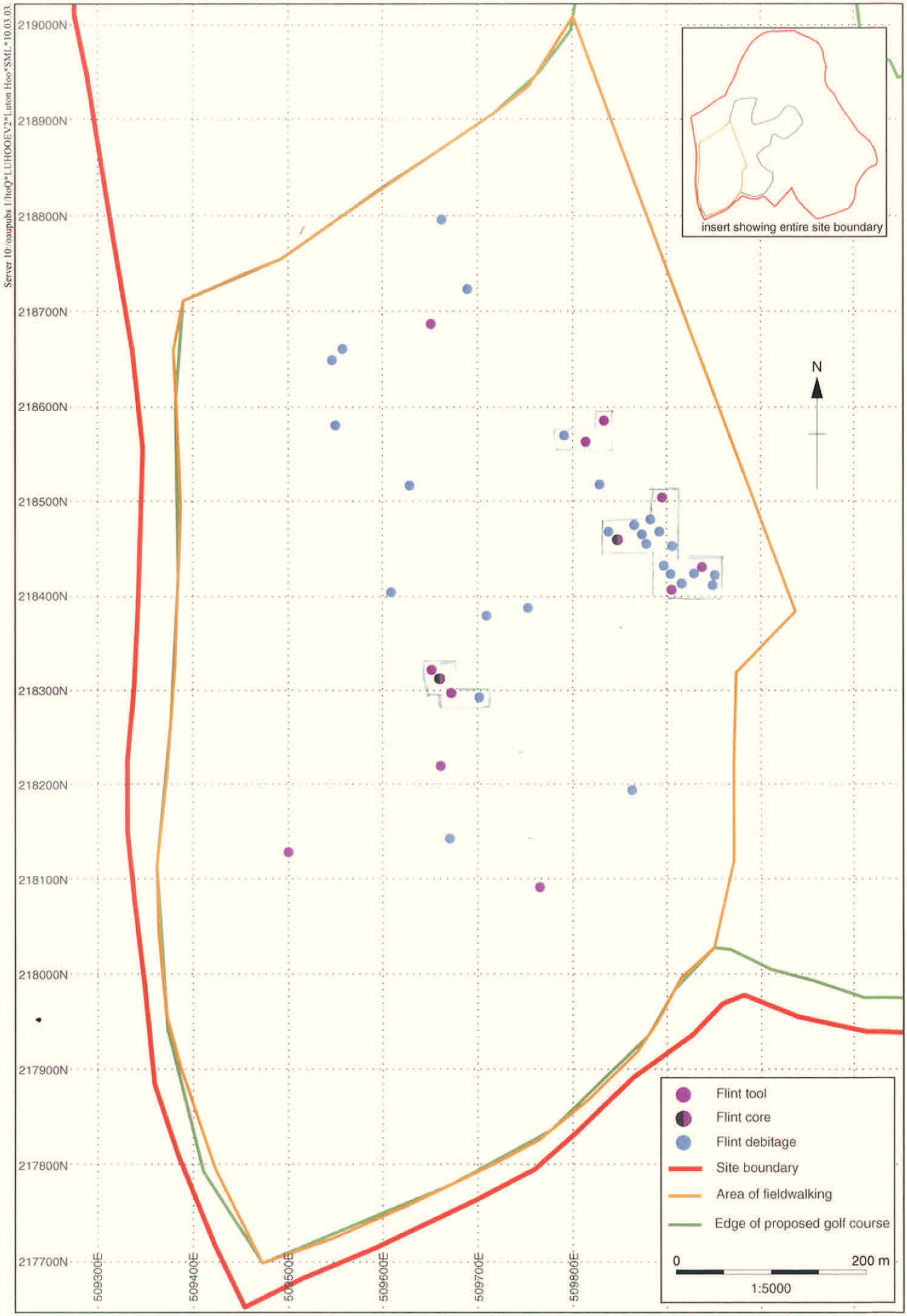

Figure 2: Distribution of flint artefacts

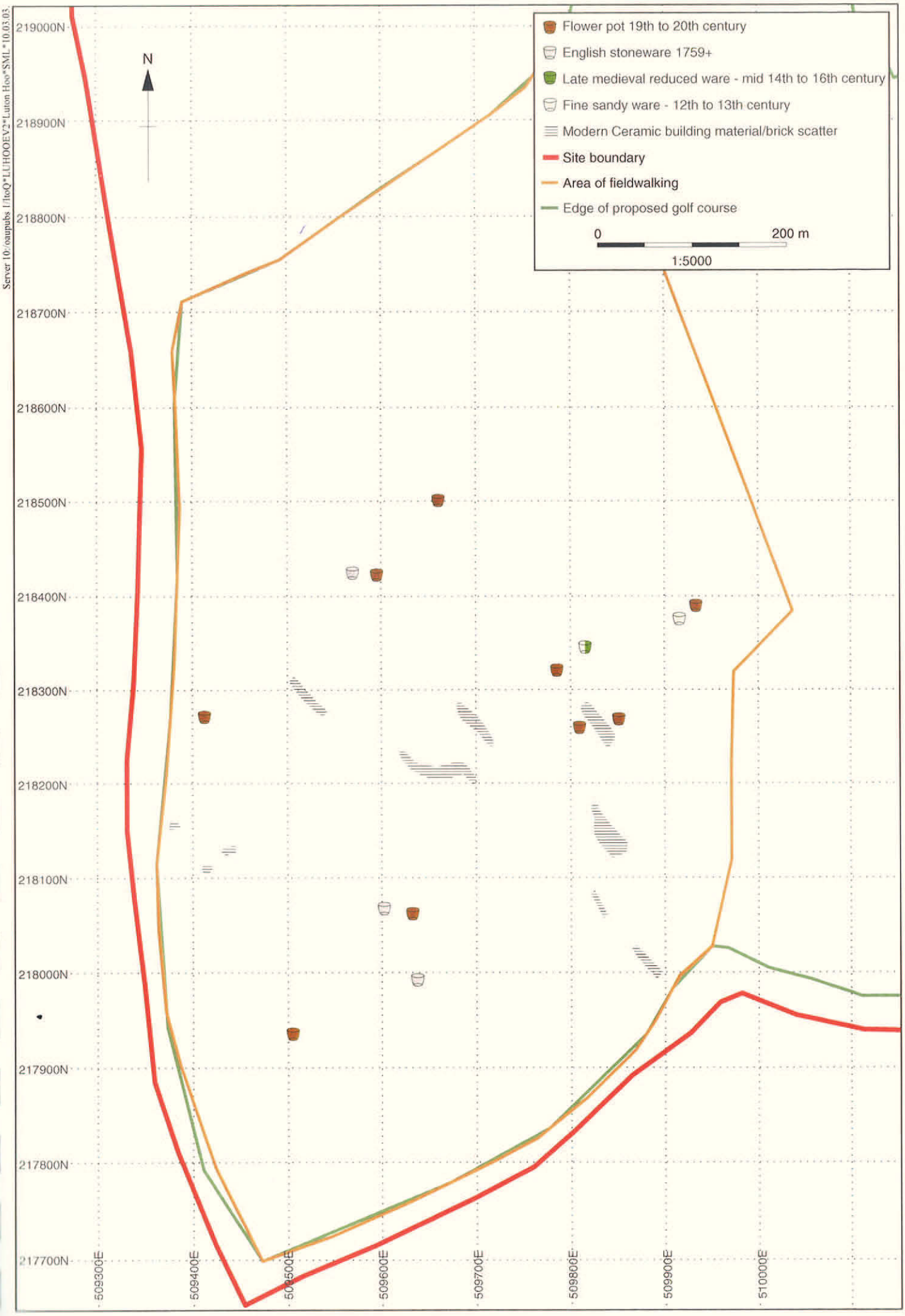

Figure 3: Distribution of ceramics

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