

Olney Link Road Milton Keynes



Archaeological Evaluation Report

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SUMMARY

In November and December 2005, Oxford Archaeology (OA) carried out a field evaluation at Olney, Milton Keynes on behalf of CgMs Consulting. The evaluation revealed surviving elements of post-medieval ridge and furrow.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 In November and December 2005, OA carried out a field evaluation at Olney, Milton Keynes on behalf of CgMs Consulting in respect of a planning application for the construction of a link road from the B5388 to the A509/B565. The site is centred on Grid reference SP 887 523 and is approximately 1.4 hectares in area.

1.2 Geology and topography

1.2.1 The proposed development is situated between the B5388 and the junction of the A509 and the B565 to the north of Olney. The topography of the site comprised a central elevated area which dropped away to the east reflecting the slope of the valley side. Additionally, there was a natural depression to the west of the site which also sloped off to the north and was reflected within the topography of the adjacent industrial estate. Geologically the bedrock consists of limestone overlain by drift deposits and boulder clay.

1.3 Archaeological [and historical] background

1.3.1 The site has not been the subject of a systematic survey.

1.3.2 The Roman settlement of Ashfurlong lies 0.6 km to the east of the development site. The settlement is scheduled and comprises a complex of rectangular enclosures and droveways in an east-west orientation. Large quantities of Roman materials have been recovered through fieldwalking and watching briefs.

1.3.3 Oxford archaeology carried out an excavation immediately to the west of the proposed site which revealed a pit alignment, one of which contained an inserted burial, dating to the Iron Age.

2 EVALUATION AIMS

2.1.1 The aims of the evaluation were to determine the location, extent, date, character, and state of preservation of any archaeological remains surviving on the site.

2.1.2 To determine or confirm the likely range, quality and quantity of any artefactual evidence present

2.1.3 To provide potential options for minimising or preventing damage to any remains.

- 2.1.4 To determine the degree of complexity of the horizontal and/or vertical stratigraphy present.
- 2.1.5 To determine the potential of the site to provide palaeoenvironmental and/or economic evidence, and the forms in which such evidence may be present.
- 2.1.6 To make available the results of the investigation.

3 EVALUATION METHODOLOGY

3.1 Scope of fieldwork

- 3.1.1 A total of 5% of the site was evaluated. The 5% sample consisted of nine 30 m x 1.6 m trenches (Fig.2). The trenches were excavated to the natural geology or the top of the first archaeological horizon by a JCB fitted with a toothless ditching/grading bucket.

3.2 Fieldwork methods and recording

- 3.2.1 The trenches were cleaned by hand and the revealed features were sampled to determine their extent and nature, and to retrieve finds and environmental samples. All archaeological features were planned and where excavated their sections drawn at scales of 1:20. All features were photographed using colour slide and black and white print film. Recording followed procedures laid down in the *OAU Fieldwork Manual* (ed D Wilkinson, 1992).

3.3 Finds

- 3.3.1 Finds were recovered by hand during the course of the excavation and bagged by context. Finds of special interest were given a unique small find number.

3.4 Palaeo-environmental evidence

- 3.4.1 No deposits suitable for environmental sampling were encountered during the evaluation.

4 RESULTS: DESCRIPTIONS

4.1 Description of deposits

Trench 1

- 4.1.1 Trench 1 was aligned E-W and was located at the western extent of the site. A geological deposit of mid grey brown clay (106) was encountered at the western end of the trench at 64.69 m OD and appeared to slope from west to east. This was cut by a land drain which had been laid within a c0.6 m deep cut, approximately 0.3 m wide at the top, the edges sloping at approximately 70° to a flat base. The ceramic pipe in the base of the Trench was semi-circular with a flat top. The slope of the edges

suggested that the trench had been hand, rather than machine dug, which together with the shape of the ceramic pipe suggested an early 20th century date for the drain.

- 4.1.2 A sondage was excavated at the eastern end of the trench. This revealed a geological deposit of blue grey clay (104) which was encountered at 64.04 m OD and was 'cut' by a number of geological features filled with degraded limestone (105). Deposits 104 and 105 were overlain by an alluvial or colluvial layer of reddish brown silty sand (103) which increased in depth to the east of the trench, reflecting the slope of the underlying natural deposits. The top of deposit 103 appeared to mark the archaeological horizon and as a result, the relationship between the clays (106 and 104) was uncertain as it was obscured by the overlying deposit.
- 4.1.3 Deposits 103 and 106 were overlain by a mid brownish-grey silty clay (102) which also increased in thickness from 0.22 m at the eastern end of the trench to 0.42 m to the west. This probably represented a buried topsoil, the increasing thickness of which again reflected the natural west-east slope.
- 4.1.4 Deposit 102 was overlain by a *c* 0.1m thick layer mixed material (101) which appeared to have originated from the re-deposition of the natural clays, limestone and the red brown alluvium. The origin of this deposit is discussed below. A 0.4 m thick layer of topsoil (100) overlay the re-deposited material.

Trench 2

- 4.1.5 Trench 2 was aligned E-W. A sondage was excavated to the west of the Trench which revealed a similar sequence of deposits to those seen in Trench 1, although the thickness of each deposit again reflected the location of the trench within the natural depression to the west of the site.
- 4.1.6 The blue grey clay (201) was encountered at 62.74 m OD, the top of the deposit also contained irregular spreads of degraded limestone (200). Both of these deposits were overlain by the reddish brown silty sand (202) seen in Trench 1 (103). Whilst this deposit was as much as 0.66 m thick within the sondage, it petered out approximately 10 m from the east end of the Trench. The top of deposit 202 appeared to mark the archaeological horizon and was cut by a land drain.
- 4.1.7 Deposit 202 was overlain by a mid brownish-grey silty clay (203), probably representing a buried topsoil and measuring *c*0.3 m thick to the west of the Trench and 0.2 m to the east. The varying thicknesses of these deposits appeared to reflect the natural east-west slope of the blue grey clay.
- 4.1.8 The buried topsoil was overlain by the mixed re-deposition of natural deposits (204) seen in Trench 1 (101), which was approximately 0.1 m thick and was overlain by 0.22 m of topsoil.

Trench 3

- 4.1.9 Trench 3 was on a WNW-ESE alignment. The blue grey clay (304) was encountered at 65.05 m OD to the east of the Trench and sloped from NW-SE to 63.65 m OD at

the western end. As with Trenches 1 and 2, this deposit had spreads of degraded limestone in the surface (306) which probably represented glacial features.

- 4.1.10 Whilst the reddish brown material (103/202) was not present as a distinct layer, there were irregular spreads of this deposit (303) in the top of the natural clay. The buried topsoil (102/203) was approximately 0.2 m thick to the west of the Trench but petered out c15 m from the eastern end.
- 4.1.11 A 0.2 m thick layer of the mixed deposit (101/204) was also present to the west of the Trench but petered out c12 m from the eastern end. The increased thickness of this deposit in comparison to its thickness in the Trenches to the south west reflects the south-north slope of the depression to the west of the site.
- 4.1.12 A 0.2 m thick layer of topsoil (300) overlay the mixed deposit to the west of the Trench and increased in thickness to 0.4 m at the eastern end where it directly overlay the blue grey clay.

Trench 4

- 4.1.13 Trench 4 was aligned NE-SW. The natural geology within this Trench comprised limestone fragments in a matrix of degraded limestone (401). This was encountered at 64.34 m OD to the north of the Trench, and at 65.64 m OD to the south and was directly overlain by c0.4 m of topsoil (400).
- 4.1.14 The natural was cut by four linear features on a SE-NW alignment. Three of these were excavated (402, 404 and 407) and proved to be very shallow and the bases relatively irregular. The fills comprised predominantly compact mid greyish brown loamy clay (403, 405 and 408). These features are almost certainly indicative of ridge and furrow cultivation and the small amount of artefactual evidence recovered suggests that they are 19th century in origin.

Trench 5

- 4.1.15 Trench 5 was aligned N-S. Natural limestone (506) was encountered at 64.77 m OD to the north of the Trench, and at 65.93 m OD to the south. The limestone was cut by 3 SE-NW aligned linear features, two of which were subject to sample excavation (501 and 503). These almost certainly represent the eastern continuation of the ridge and furrow seen in Trench 4.
- 4.1.16 The natural limestone and the furrow fills were overlain by a layer of topsoil (500) up to 0.25 m thick.

Trench 6

- 4.1.17 Trench 6 was aligned E-W. Natural limestone (600) was encountered at 64.38 m OD to the east of the Trench, and at 65.09 m OD to the west. The limestone was cut by 2 SE-NW aligned linear features which almost certainly represent part of the same system of ridge and furrow seen in Trenches 4 and 5.

- 4.1.18 The natural limestone and the furrow fills were overlain by a layer of topsoil (500) which was 0.36 m thick to the east of the Trench, and 0.2 m thick to the west

Trench 7

- 4.1.19 Trench 7 was aligned E-W. Natural limestone (700) was encountered at 64.62 m OD to the east of the Trench, and at 65.65 m OD to the west. The limestone was cut by a SE-NW aligned linear feature, which almost certainly represents part of the same system of ridge and furrow seen in Trenches 4, 5 and 6.
- 4.1.20 The natural limestone and the furrow fill were overlain by a layer of topsoil (700) which was approximately 0.3 m thick.

Trench 8

- 4.1.21 Trench 8 was aligned N-S. Natural limestone (800) was encountered at c63.26 m OD. The limestone was cut by four SE-NW aligned linear features which almost certainly represent part of the same system of ridge and furrow seen in Trenches 4-7.
- 4.1.22 The natural limestone and the furrow fills were overlain by a layer of topsoil (800) which was an average of 0.3 m thick.

Trench 9

- 4.1.23 Trench 9 was also aligned N-S. Natural limestone (902) was encountered at approximately 61.50 m OD. The limestone was cut by at least three SE-NW aligned linear features, two of which were subject to excavation (903 and 905). These features almost certainly represent part of the same system of ridge and furrow seen in Trenches 4-8.
- 4.1.24 The natural limestone and the furrow fills were overlain by a 0.1 m thick layer of mid grey brown loamy clay subsoil which was in turn overlain by 0.45 m of Topsoil.

4.2 Finds

Report Pending

4.3 Palaeo-environmental remains

- 4.3.1 No deposits deemed suitable for environmental sampling were encountered during the evaluation.

5 DISCUSSION AND INTERPRETATION

5.1 Geology (Fig. 3)

- 5.1.1 Interpreting the sequence of geological deposits on the site was problematic given the confines of the evaluation trenches, as the archaeological horizon appeared to encompass

a number of different geological deposits. A sketch of two possible models for the geological sequence and archaeological horizon is presented in Figure 3.

- 5.1.2 The topography of the site comprised a central elevated area which dropped away to the east reflecting the slope of the valley side. Additionally, there was a natural depression to the west of the site which also sloped off to the north and was reflected within the topography of the adjacent industrial estate.

Model 1 (Fig. 3a)

- 5.1.3 In the trenches located on and to the east of the elevated area (Trenches 4, 5, 6, 7, 8 and 9), the natural geology was limestone, and may reflect a stratified drift deposit of eroded bedrock. Possibly underlying this deposit, a blue grey clay was encountered in trenches to the west of the site (Trenches 2 and 3) which possibly overlay a deposit of grey brown clay observed in the western end of Trench 1 (106).
- 5.1.4 The natural depression to the west of the site was reflected by the relative depth of the blue grey clay, which sloped from east to west in Trench 3 and west to east in Trench 1 to reach its lowest point to the west of Trench 2. Within the depression, the top of the clay was cut by a number of probable glacial features which were filled by deposits of eroded limestone. Where the depression was deepest, the clay and glacial features were then overlain by a colluvial or alluvial deposit of red-brown silty sand, the top of which appeared to mark the archaeological horizon.
- 5.1.5 This may reflect the glacial erosion of the softer clay to the west of the limestone deposit and the subsequent deposition of colluvium/alluvium in the resulting depression.

Model 2 (Fig. 3b)

- 5.1.6 Alternatively, the limestone to the east of the site may represent the natural bedrock, with the blue grey clay indicative of an overlying deposit of boulder clay overlain by the grey brown clay. The overlying deposits may then reflect the sequence described above (4.1.4 and 4.1.5).

5.2 Archaeology (Fig. 2)

- 5.2.1 No evidence for Roman activity associated with the Ashfurlong site was encountered during the evaluation. The surviving elements of ridge and furrow from Trenches 4-9 produced relatively late artefactual evidence and may date to the early 19th century. The projected extent of the ridge and furrow, and the probable relationships between the furrows encountered within the Trenches is shown on figure 2.
- 5.2.2 A relatively late date for the furrows may also be inferred from their close spacing (an average of 5-6 m) and straight edges. These are characteristics of steam ploughed rigs, and it is feasible that the cultivation of the eastern part of the site reflects the utilisation of more marginal areas of land following the introduction of the steam plough in the early 19th century.

- 5.2.3 Indeed, a major innovator in the development of the steam plough was William Smith who farmed around the village of Little Woolstone to the south of Olney. Smith's innovation was to devise a system of winches and pulleys powered by a steam traction engine that could pull the plough back and forth across a field. The improvements in ploughing speed were significant and were a contributing factor in the growth in farm productivity during the 19th century. One of the main advantages of the Smith design over contemporary steam ploughing equipment was that a single steam engine was required when others required two.
- 5.2.4 The origin of the mixed material beneath the topsoil in Trenches 1-3 is uncertain, although it is possible that this may represent a phase of landscaping, possibly associated with the construction of the railway line to Bedford which formerly ran to the north of the site.

6 IMPACT OF THE DEVELOPMENT

- 6.1.1 Given the results of the evaluation, it is unlikely that significant archaeological features or deposits will be compromised by the development.

7 ARCHAEOLOGICAL POTENTIAL IN RELATION TO OUTLINE RESEARCH DESIGN

7.1 Periods represented

- 7.1.1 Nineteenth and twentieth century.

7.2 Character of archaeological remains

- 7.2.1 Evidence for 19th century ridge and furrow cultivation and 20th century land drains.

7.3 Complexity of deposits (spatial extent, density and stratigraphic complexity including natural or semi-natural colluvial and alluvial deposits etc)

- 7.3.1 The spatial relationships between the surviving elements of ridge and furrow suggest a relatively late date. Two models for the geological sequence are presented above.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Trench</i>	<i>Ctxt No</i>	<i>Type</i>	<i>Thickness (m)</i>		<i>Comment</i>	<i>Finds</i>	<i>No./ wt</i>	<i>Date</i>
001			<i>east end</i>	<i>west end</i>				
	100	Deposit	0.4	0.4	Topsoil			
	101	Deposit	0.1	0.1	Made Ground			
	102	Deposit	0.42	0.22	Buried Topsoil			
	103	Deposit	0.28 max	not present	Alluvium/Colluvium			
	104	Layer			Natural Blue-Grey Clay			
	105	Deposit			Glacial Deposit			
	106	Layer			Natural Grey-Brown Clay			
002			<i>east end</i>	<i>west end</i>				
	200	Deposit			Glacial Deposit			
	201	Layer			Natural Blue-Grey Clay			
	202	Deposit	not present	0.6 max	Alluvium/Colluvium			
	203	Deposit	0.18	0.3	Buried Topsoil			
	204	Deposit	0.1	0.1	Made Ground			
	205	Deposit	0.22	0.22	Topsoil			
003			<i>east end</i>	<i>west end</i>				
	300	Deposit	0.32	0.22	Topsoil			
	301	Deposit	not present	0.2	Made Ground			
	302	Deposit	not present	0.2	Buried Topsoil			
	303	Deposit			Alluvium/Colluvium			
	304	Layer			Natural Blue Grey Clay			
	305	Deposit			Residual Subsoil			
	306	Deposit			Glacial Deposit			

004								
			<i>north end</i>	<i>south end</i>				
	400	Deposit	0.4	0.4	Topsoil			
	401	Layer			Natural Limestone			
	402	Cut			Furrow			
	403	Fill			Fill of Furrow			?19 th
	404	Cut			Furrow			
	405	Fill			Fill of Furrow			?19 th
	406	Deposit			Modern Disturbance			
	407	Cut			Furrow			
	408	Fill			Fill of Furrow			?19 th
005								
			<i>north end</i>	<i>south end</i>				
	500	Deposit	0.25 max	0.25 max	Topsoil			
	501	Cut			Furrow			
	502	Fill			Fill of Furrow (Unexcavated)			
	503	Cut			Furrow			?19 th
	504	Fill			Fill of Furrow 501			
	505	Fill			Fill of Furrow 503			?19 th
	506	Layer			Natural Limestone			
006								
			<i>east end</i>	<i>west end</i>				
	600	Layer			Natural Limestone			
	601	Deposit	0.36	0.2	Topsoil			
	602	Fill			Fill of Furrow (Unexcavated)			?19 th
	603	Fill			Fill of Furrow (Unexcavated)			
007								
			<i>east end</i>	<i>west end</i>				
	700	Layer			Natural Limestone			
	701	Deposit	0.28	0.32	Topsoil			
	702	Fill			Fill of Furrow (Unexcavated)			?19 th
008								
			<i>north end</i>	<i>south end</i>				
	800	Layer			Natural Limestone			

	801	Deposit	0.3	0.3	Topsoil			
	802	Fill			Fill of Furrow (Unexcavated)			?19 th
	803	Fill			Fill of Furrow (Unexcavated)			
	804	Fill			Fill of Furrow (Unexcavated)			
	805	Fill			Fill of Furrow (Unexcavated)			
009			<i>north end</i>	<i>south end</i>				
	900	Deposit	0.45	0.45	Topsoil			
	901	Deposit	0.1	0.1	Subsoil			
	902	Layer			Natural Limestone			
	903	Cut			Furrow			
	904	Fill			Fill of Furrow			?19 th
	905	Cut			Furrow			
	906	Fill			Fill of Furrow			?19 th
	907	Cut			Furrow			
	908	Fill			Fill of Furrow			

APPENDIX 2 CBM ASSESSMENT/ SPOT DATING AND BONE REPORT**Ceramic Building Material from Olney Link Road (OLLINK05)****By Cynthia Poole**

CBM

(505) 1 fragment 14g flat roof tile 12 mm th sandy fabric

(904) 1 fragment 16g flat roof tile 13-14 mm th laminated silty clay fabric with red Fe oxide grains <1mm size

Both fragments are post-medieval in date most probably 18th-19th century.

Animal Bone from Olney Link Road (OLLINK05)**By Kristopher Poole**

4 refitted fragments of animal bone, weighing 35g, were recovered in total from Context 505. These were: a right-sided cattle ulna, 2 fragments of medium mammal-sized long bone and 1 unidentifiable fragment.

APPENDIX 3 SUMMARY OF SITE DETAILS**Site name:** Olney Link Road**Site code:** OLLINK05**Grid reference:** SP 887 523**Type of evaluation:** 9 trenches**Date and duration of project:** November and December 2005**Area of site:** 0.8 ha**Summary of results:** 9 trenches were excavated on the line of the proposed link road. Surviving elements of Post-medieval ridge and furrow were identified.**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Oxfordshire County Museums Service in due course, under the following accession number:

Illustrations

- Fig. 1 Site location map
- Fig. 2 Trench location and projected extent of ridge and furrow
- Fig. 3 Conjectured geological profiles

Servergo:\oapubsl_lthmQ*OLLINKK05*OLLINKEY*Olney Link Road*HRB*19.12.05

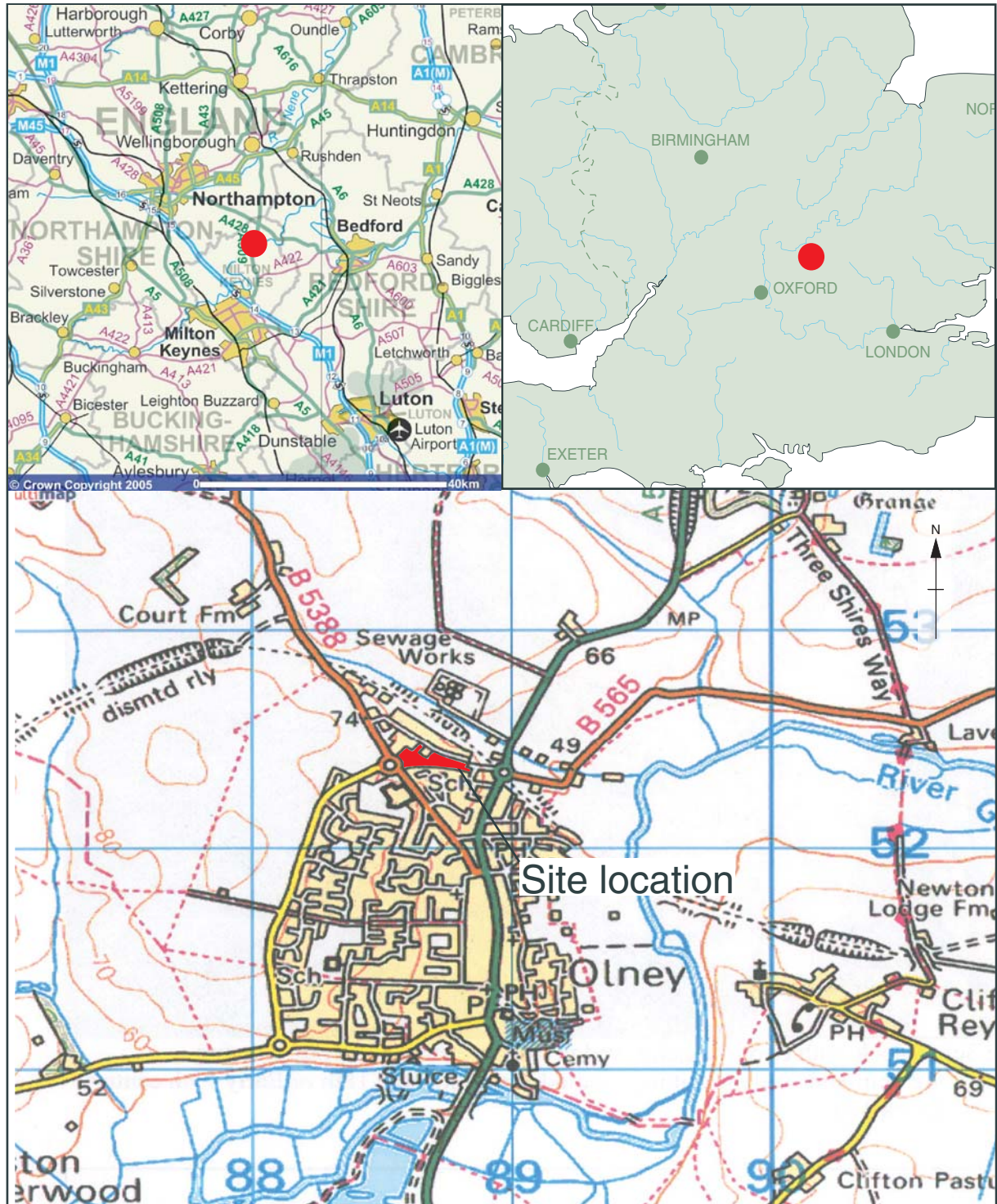


Figure 1: Site Location

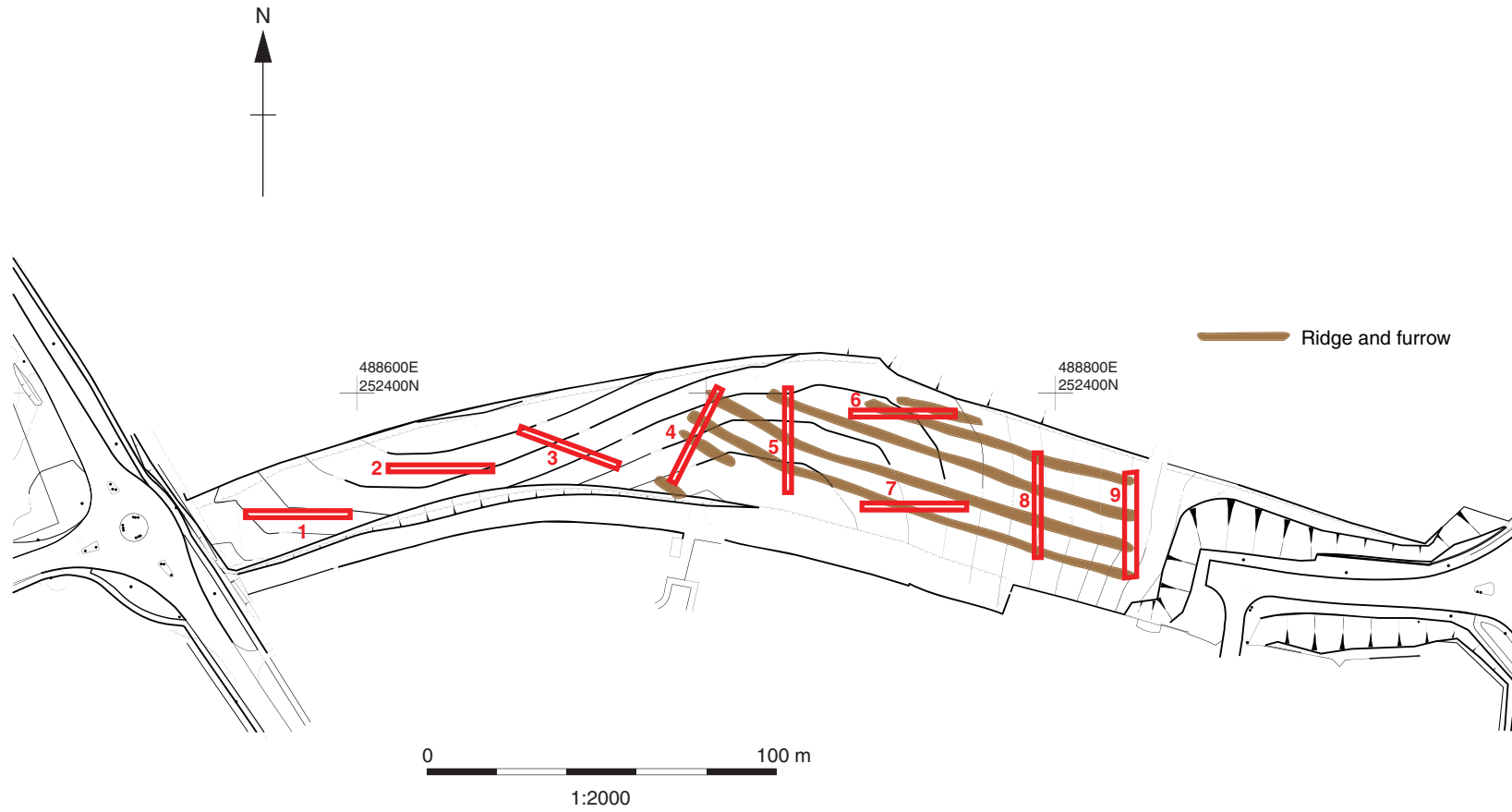


Figure 2: Trench layout and projected extent of ridge and furrow

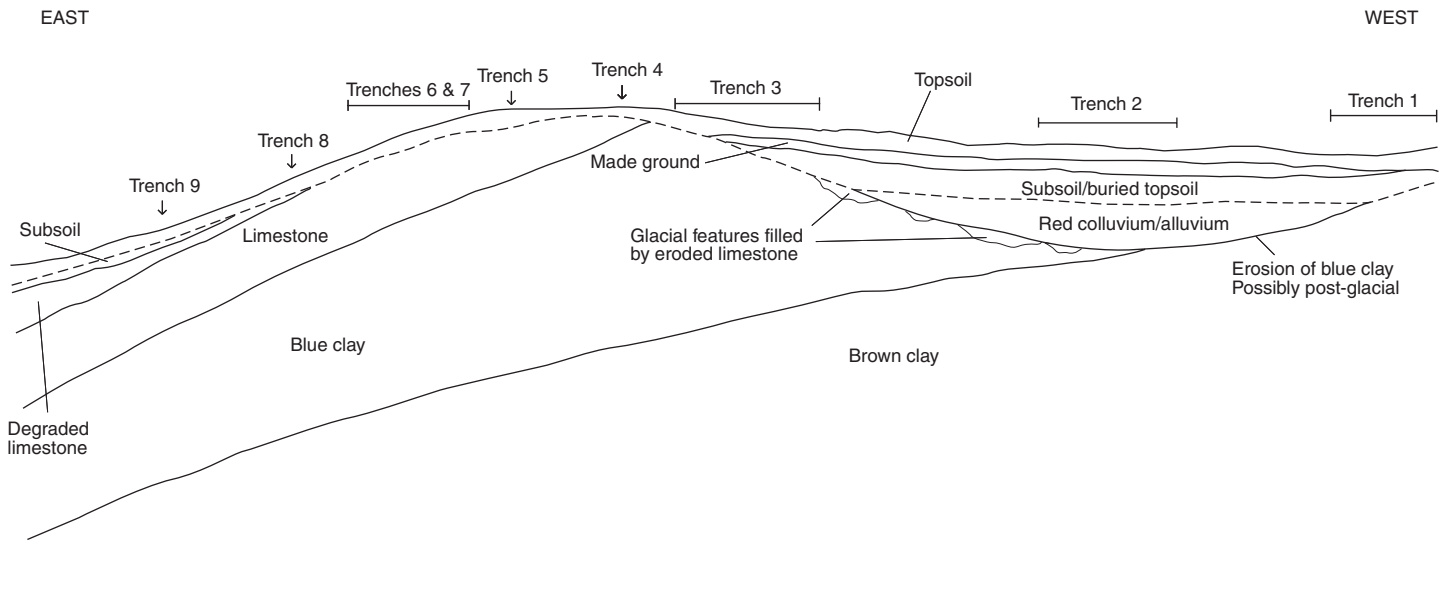


Figure 3a: Model 1

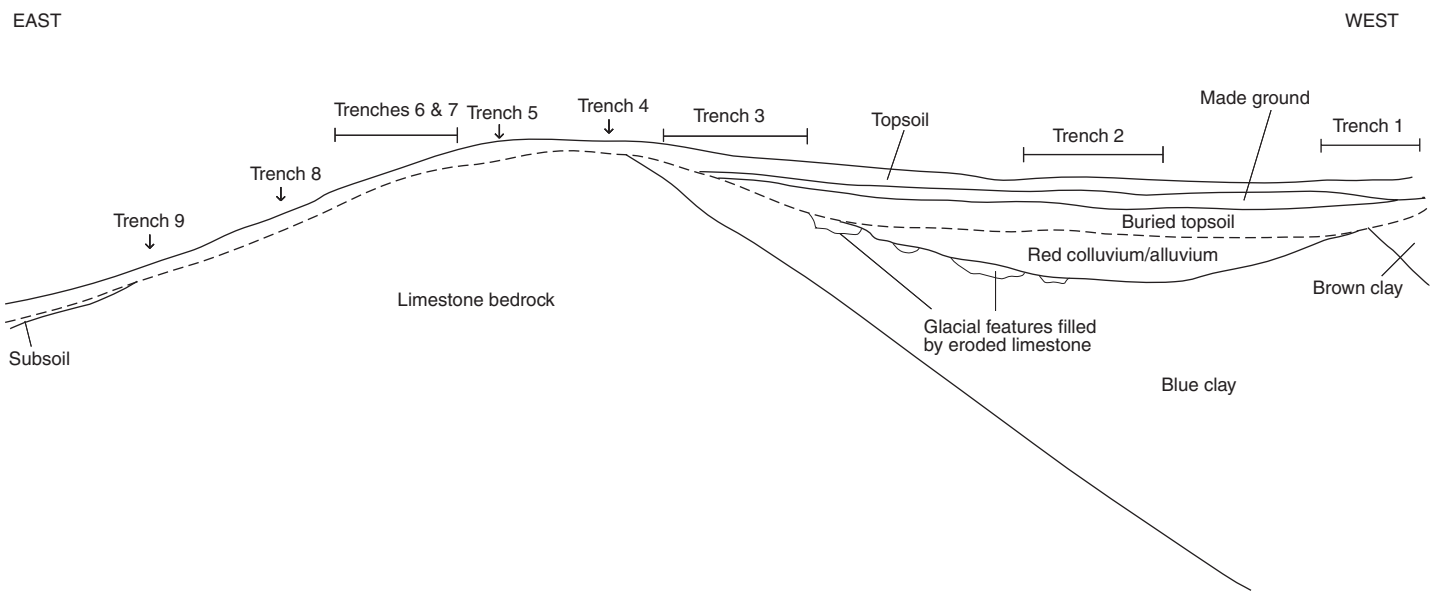


Figure 3b: Model 2

----- Archaeological horizon
NOT TO SCALE

Interpretive profile across site of geological sequence