

**LAND FRONTING DUNSTABLE ROAD,
CADDINGTON, BEDFORDSHIRE.**

NGR: TL 06080 19620, centred

ARCHAEOLOGICAL EVALUATION

August 2010
Report No. 704

Quality Assurance

This Document has been compiled and authorised in accordance with
AMS's Quality Procedures (BS EN ISO 9001: 2000)

Author: Diana King

Date: 13th April 2010

Approved: R. King

QA Checked: A. Hood

This report has been compiled with all reasonable skill care and attention to detail within the terms of the project as specified by the client and within the general terms and conditions of Archaeological Management Services Ltd trading as Foundations Archaeology but no explicit warranty is provided for information and opinions stated. AMS Ltd accepts no responsibility whatsoever to third parties to whom this report or any part thereof is made known. Any such party relies on this report at their own risk. Copyright of this document is retained by AMS Ltd, but unlimited licence to reproduce it in whole or part is granted to the client and/or their agents and/or assignees on payment of invoice.

CONTENTS

Summary

Glossary of Archaeological Terms and Abbreviations

1 INTRODUCTION

2 PROJECT BACKGROUND

3 AIMS

4 METHODOLOGY

5 RESULTS

Tables 1-7: Stratigraphy of Trenches 1-7 and Test-pits 1-6

6 CONCLUSIONS

7 BIBLIOGRAPHY

8 ACKNOWLEDGEMENTS

Appendix 1: The struck flint.

FIGURE LIST

Figure 1: Site Location

Figure 2: Trench and Test-pit Locations

Figure 3: Plans of Trenches 1, 2, 3 and 4

Figure 4: Plans of Trenches 5, 6 and 7

Figure 5: Sections of Test-pits 1-3

Figure 6: Sections of Test-pits 4-6

Figure 7: Annotated Photographs of Sections 001-003

Figure 8: Annotated Photographs of Sections 004-006

Dunstable Road, Caddington: Archaeological Evaluation

Site name: Land Fronting Dunstable Road, Caddington, Bedfordshire
Site code: DRC10
Grid reference: TL 06080 19620
Site activity: Archaeological Evaluation
Date of fieldwork: 2nd -10th August 2010
Site area: approximately 1.2 hectares
Project manager: Roy/Diana King
Site supervisor: Diana King
Archive location: Luton Museum
Accession code: LUTNM:2010.33

SUMMARY

In August 2010 Foundations Archaeology undertook a programme of archaeological evaluation and geo-archaeological test-pits on land fronting Dunstable Road, Caddington. The project was commissioned by Woodstock Estates Ltd.

A planning application (CB/09/06146/OUT) has been submitted to Central Bedfordshire Council for the erection of domestic dwellings, with access, on the land to the north of Dunstable Road in Caddington, Bedfordshire. This evaluation was undertaken prior to the determination of the planning application, following a request for further information on the archaeological potential of the site. The condition was attached to the planning application by Central Bedfordshire County Council in accordance with the general principles of PPS5 (Planning Policy Statement 5). The planning application was subsequently withdrawn with a view to resubmission.

Caddington is the location of nationally and internationally important Palaeolithic sites discovered by Worthington Smith in the mid 1800s. Caddington also has Roman, medieval and post-medieval archaeological remains. Therefore, in accordance with the general principles of PPS5 (Planning Policy Statement 5), a condition requiring a programme of archaeological evaluation works was attached to the planning application by Central Bedfordshire County Council.

A total of seven 30m by 1.8m trenches and six test-pits 2.5m by 2.5m, excavated within the confines of six of the trenches, were excavated across the study area.

No archaeological features were revealed during the course of the project, although prehistoric worked flints were recovered from possible brickearth layers in Trenches/Test-pits 1, 3 and 4. Natural deposits and intact subsoils were present in all trenches.

A total of four struck flints were present in Trenches/Test-pits 1, 3 and 4, all deriving from the possible brickearth layers. These may date to the Mesolithic or early Neolithic period but were unlikely to have been recovered from contemporary deposits.

Possible brickearth deposits were present in Trenches/Test-pits 1, 2, 3, 4 and 6. There was no clear evidence for the presence of dolines within the investigated areas. The Test-pits all revealed probable glacial movement of deposits underlying the possible brickearth.

GLOSSARY OF ARCHAEOLOGICAL TERMS AND ABBREVIATIONS

Archaeology

For the purpose of this project, archaeology is taken to mean the study of past human societies through their material remains from prehistoric times to the modern era. No rigid upper date limit has been set, but AD 1900 is used as a general cut-off point.

CBM

Ceramic Building Material.

Medieval

The period between AD1066 and AD1500.

Natural

In archaeological terms this refers to the undisturbed natural geology of a site.

NGR

National Grid Reference from the Ordnance Survey Grid.

OD

Ordnance datum; used to express a given height above sea-level. (AOD Above Ordnance Datum).

OS

Ordnance Survey.

Post-medieval

The period between AD1500 and AD1900.

Prehistoric

The period prior to the Roman invasion of AD 43. Traditionally sub divided into; *Palaeolithic* – c. 500,000 BC to c. 12,000 BC; *Mesolithic* – c. 12,000 BC to c. 4,500 BC; *Neolithic* – c. 4,500 BC to c. 2,000 BC; *Bronze Age* – c. 2,000 BC to c. 800 BC; *Iron Age* – c. 800 BC to AD 43.

Roman

The period traditionally dated AD 43 until AD 410.

Saxon

The period between AD 410 and AD 1066.

Sunken Featured Building

A type of archaeological feature commonly associated with Saxon settlement.

1 INTRODUCTION

- 1.1 This report presents the findings of a programme of archaeological evaluation and geo-archaeological test-pits undertaken by Foundations Archaeology between 2nd and 10th August 2010, on land fronting Dunstable Road, Caddington, Bedfordshire (NGR: TL 06080 19620, centred). The project was commissioned by Woodstock Estates Ltd.
- 1.2 The project was undertaken in accordance with the Written Scheme of Investigation (WSI) prepared by Foundations Archaeology (2010), approved by Central Bedfordshire Archaeologists. The WSI was based on a Brief (2010) supplied by Central Bedfordshire Council Archaeologists and took into account the various research frameworks for the Eastern Counties and Bedfordshire (Glazebrook, 1997; Brown and Glazebrook 2000; Oake et al, 2007; Medlycott and Brown, 2008). The fieldwork complied with IfA *Standards and Guidance on Archaeological Evaluation* (revision 2008) and Archaeological Guidance Paper: *Archaeological Evaluation: (guidelines)* issued by English Heritage (London Region). The project was undertaken in accordance with the principles of *Planning Policy Statement 5* (PPS5, 2010).
- 1.3 This report constitutes the results of the archaeological works.

2 PROJECT BACKGROUND

- 2.1 A planning application (CB/09/06146/OUT) has been submitted to Central Bedfordshire Council for the erection of domestic dwellings, with access, on the land to the north of Dunstable Road in Caddington, Bedfordshire. This evaluation was undertaken prior to the determination of the planning application, following a request for further information on the archaeological potential of the site. The condition was attached to the planning application by Central Bedfordshire County Council in accordance with the general principles of PPS5 (Planning Policy Statement 5). The planning application was subsequently withdrawn with a view to resubmission.
- 2.2 The site is approximately 1.2 hectares and is located on a south facing slope, at approximately 160m AOD, immediately north of Dunstable Road and approximately 300m to the west of the centre of Caddington (Figure 1). The study area currently comprises a mixture of former agricultural land, scrub, woodland and a small lake. Much of the scrub and smaller trees were cleared in advance of the evaluation.
- 2.3 The underlying geology consists of Upper Chalk, overlain by a series of deposits, which include Clay-with-flints and Head. There are also local deposits of brickearth, which particularly occur in dolines: hollows in the chalk formed by water action (White, 1997; Catt and Hagen, 1978). (BGS 1946, 2000).
- 2.4 The Central Bedfordshire Historic Environment Record (HER) was consulted for archaeological background on 30th June 2010. A total of 29 records appear

within 500m of the site. Worthington Smith's Palaeolithic Cottages Site (HER No 605) lies just outside the 500m radius around the site, but sources for this site were also examined.

- 2.5 A number of 19th and early 20th century Antiquarian investigations have recorded a total of six Palaeolithic activity areas within 1km of the current study area (HER No's: 605, 2036, 2037, 2042, 13557 and 13559). Between 1887 and 1914, Worthington Smith closely monitored seven clay and brickearth extraction pits around Caddington. The sites comprised Palaeolithic flint artefacts, which were recovered from brickearth deposits. His most important site, Pit C or the Cottages Site (HER No 605), produced at least 500 razor sharp Palaeolithic worked flints of almost a complete range of types: handaxes, flakes, unfinished implements, hammerstones, punches and raw material, which he believed to lie *in-situ*. Over the years he was able to conjoin the 500 flakes and broken tools and even to recreate the flints from which the tools were originally knapped. Smith believed that he had many fine examples of the Levalloisian industry, although later research (Sampson, 1978) suggests that all the flints from the Cottages Site came from the Acheulian industry.
- 2.6 The layer of worked flints from the Caddington pits was originally interpreted by Smith (1894) as the remains of roughly contemporary *in-situ* floor surfaces; an earlier major floor containing grey or indigo variegated implements and a lesser, later floor with white patinated implements, situated in the brickearth. He believed that the brickearth formed an undulating layer across the entire Chiltern Hills which provided a dry and stable 'living-surface' for hominids, which he called the 'Palaeolithic floor'. Above the floor of *in-situ* struck flints, he found further Palaeolithic and Neolithic worked flints, which derived from his 'contorted drift', which he believed were not *in-situ*. Excavation in 1971 (Sampson and Roe), which failed to locate Smith's 'Palaeolithic floor' at the Cottages site, but did locate limited Palaeolithic activity at the nearby Rackley Site (HER No 605), and more recent research work (Scott Jackson, 2000) has suggested that the finds are more likely to have been located on slopes at the edge of dolines and, therefore, probably represent small-scale Palaeolithic activity around ponds or lakes that formed in the dolines (Sampson, 1978; White, 1997).
- 2.7 Palaeoenvironmental evidence has also played a key part in story of these early hominids. Pollen samples from the brickearth at the Caddington sites, particularly the Rackley doline, show that humans did not exploit sites at the start of the brickearth formation when the Chilterns was densely wooded. Later, when the area became more open and the woods around the water basins had thinned, hominids began to make excursions into the area (White, 1997). This human occupation was most likely 'restricted to brief single-phase events towards the top of the brick-earth sequence, when cooler and/or open conditions prevailed.'*(ibid)*.
- 2.8 Recent research has suggested that there was not a continuous brickearth floor across the Chilterns, but that there actually existed dolines in-filled with brickearth, which formed ponds or lakes, whilst the land surfaces between

were predominantly missing, truncated by later weathering activity. The abraded artefacts from the 'contorted drift' may have been discarded on the original Palaeolithic land surface, later being incorporated into the solifluction deposit (White, 1997). Smith also believed that the razor-sharp flints on the 'Palaeolithic floor' were all *in-situ*, found where they originally fell after being struck. It is unlikely that they had not been displaced at all; the conjoining pieces of broken implements were sometimes found years apart, indicating probable relocation (White, 1997). Smith's second 'lesser floor' containing the white patinated implements probably did not exist; Bradley and Sampson (1978) were able to prove that much of the white material came from the brickearth, not the 'contorted drift'.

- 2.9 Despite some incorrect conclusions by Smith, there is no doubt that his Palaeolithic finds are of extreme importance. The occurrence of this number of Palaeolithic sites in relative proximity is exceptionally rare and represents a nationally and internationally important resource. A further site at Littlegreen Farm Monument produced Palaeolithic remains (Smith 1903, HER 13559) which were included in Smith's list of implements found in the area. There is, unfortunately, no further information on these finds.
- 2.10 Recent work has demonstrated that *in-situ* Palaeolithic remains can be located within Clay-with-flints deposits, which are potentially located less than a metre from the modern ground surface (Scott-Jackson, 2000).
- 2.11 Neolithic and Bronze Age worked flints (HER No's: 16065 and 16070), which were recovered from two sites in the vicinity of the proposed development area, attest to later Prehistoric activity in this locale.
- 2.12 Roman artefactual material, including pottery and tile, has been recovered within the general vicinity of the current study area (HER No's: 16070 and 86). The probable course of a Roman road running for Cheshunt to Dunstable is defined by stretches of probable agger, particularly visible between Caddington and Slip End (HER 2801). Investigations beside Folly Wood immediately north of Caddington revealed the much ploughed-out remains of a metallised surface.
- 2.13 The centre of the Medieval settlement of Caddington (HER No: 16966) is situated approximately 300m to the northeast of the proposed development site. All Saints Church, situated within 500m of the site, is a Grade II* listed building of 12th century origin (HER 1168), with an associated 17th century churchyard (HER 9021). A manor house probably dating to the 15th century, but possibly of earlier origin, lay northeast of the site until its demolition in the 19th century (HER 13590). Scatters of Medieval pottery were found within the Medieval settlement on two separate sites (HER 16966).
- 2.14 A total of six post-medieval brickworks were located around the study area dating to between *c.* 1889 and 1940 (HER No's 6695, 6697, 6696, 66997202, 8376, 14094) associated with four brickmakers cottages (HER 10055). A total of nine 18th-early 20th century sites exist within close proximity to the site which attest to activity in Caddington throughout this period. These include an

Dunstable Road, Caddington: Archaeological Evaluation

18th century poor house (HER 13588), a Victorian vicarage (HER 13587), four cottages demolished in the 19th century (HER 13795), a Victorian farm (HER 13796), a 19th century school demolished in the 1960s (HER 13840), three 19th century public houses (HER No's 13853, 13895 and 8043) and the village green which was reputedly used by the Home Guard who dug defensive ditches in it during world war two (HER 11253).

- 2.15 The study area therefore contains the potential for archaeological finds, predominantly dating to the Prehistoric, Roman, Medieval and Post-medieval periods, but with particular scope for deposits, finds and ecofactual of the Palaeolithic period. This will not prejudice the archaeological works against the recovery of data relating to other periods.

3 AIMS

- 3.1 The aims of the archaeological works were to gather high quality data from the direct observation of archaeological deposits, in order to provide sufficient information to establish the nature, extent, preservation and potential of any surviving archaeological remains. In turn this would allow reasonable planning decisions to be taken regarding the archaeological provision for the areas affected by the proposed development.
- 3.2 Given the potential for the presence of Palaeolithic remains within the site, and particularly in accordance with the research themes identified in the *Revision of the Regional Research Framework for the Eastern Region* issued by East Anglian Archaeology (Medlycott and Brown, 2008; p. 13 – 15), it is a specific aim of the project to provide information relating to deposits which could potentially contain Palaeolithic material.
- 3.3 These aims will be achieved through pursuit of the following specific objectives:
- i) to define and identify the nature of archaeological deposits on site, and date these where possible;
 - ii) to attempt to characterise the nature and preservation of the archaeological sequence and recover as much information as possible about the spatial patterning and extent of features present on the site;
 - iii) to recover a well dated stratigraphic sequence which will attempt to determine the complexity of the horizontal and vertical stratigraphy present, and to recover coherent artefact, ecofact and environmental samples;
 - iv) to determine the potential of the site to provide palaeoenvironmental and/or economic evidence and the forms in which such evidence may be present;
 - v) to identify the presence of Palaeolithic material within brickearth or clay-with-flints deposits.

4 METHODOLOGY

- 4.1 A total of seven 30m by 2m **evaluation trenches**, which constituted a total investigation area of 420m², were excavated. All of the trenches except Trench 4 were slightly relocated due to the presence of trees and tree stumps, with the approval of Central Bedfordshire Council Archaeologists (Figure 2).
- 4.2 Non-significant overburden was removed to the top of archaeological deposits or natural substrates, whichever was encountered first. This was achieved through use of a 360° mechanical excavator equipped with a toothless grading bucket, working under constant archaeological supervision.
- 4.3 Six **geo-archaeological test-pits** measuring at least 2.5m by 2m were excavated within the confines of Trenches 1-6. Test-pits 2, 3 and 4 were excavated within in areas of possible brickearth deposits. Test-pits 1, 5 and 6 were located at the possible junction of brickearth and clay with flints deposits. The location of the test-pits was agreed with Central Bedfordshire Council Archaeologists.
- 4.4 The test-pits were excavated into undisturbed natural deposits, to the base of the geo-archaeological sequence or the mechanical excavator's maximum working depth, whichever was encountered first. This was achieved with the use of a 360° mechanical excavator equipped with a toothless grading bucket, working under constant archaeological supervision.
- 4.5 Thereafter cleaning and excavation was conducted by hand. Spoil tips were scanned for finds.
- 4.6 All excavation and recording work was undertaken in accordance with the WSI and the Foundations Archaeology Technical Manual 3: Excavation Manual.

5 RESULTS

- 5.1 For ease of discussion the results of each trench and test-pit are summarised here and supported in Tables 1-7.
- 5.2 **Trench 1**, Figure 3, (30m x 1.8m, northeast-southwest aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised clay with flints (103) at the southwest end of the trench (extending for 11m) and at the extreme northeast end of the trench and possible brickearth (104) in the rest of the trench. The top of natural deposits were encountered at a depth of 0.29m (165.24m OD at the southwest end of the trench and 165.73m OD at the northeast end of the trench) on average from the existing ground level. The natural was overlain by a thin subsoil layer (102) which was overlain by a thin topsoil layer (101). No archaeological features were present within the trench.

5.3 **Test-Pit 1**, Figure 3, (3m x 3m, 2.46m deep, with a 0.70m wide step on the southwest side) was positioned in order to sample the possible brickearth deposit (104). The excavation revealed (104) to be up to 0.52m thick and to contain few flints, suggesting that it could be classified as brickearth. Two worked flints of possible Mesolithic/early Neolithic date were recovered from this layer. Deposit (104) overlay a series of three layers of clay with flint (105, 106, 107), which overlay a thin layer of iron-panned sand clay (108). The basal deposit reached (109) was a layer in excess of 0.60m thick which consisted of a heavy clay and chalk mix, suggesting that chalk bedrock lay not far below the base of the test-pit.

Table 1: Stratigraphy of Trench 1 and Test Pit 1. Section 001, Figures 5 & 7.

Context	Type	Description	Relationships	Depth	Finds	TPQ
101	Topsoil	Dark brown firm, friable sand clay, occ. small flint nodules.	Overlies 102	0.15m	None	Modern
102	Subsoil	Light yellow brown hard, firm, friable sand clay, occ. small flint nodules, few CBM and charcoal flecks.	Overlain by 101, overlies 103	0.14m	2 fragments CBM and 1 fragment slate	Post-medieval
103	Natural. Clay with flint.	Orange firm, plastic clay with occasional medium, sub-angular flint nodule inclusions.	Overlain by 102.	?	None	-
104	Natural. Possible brickearth	Light brown orange firm, hard sand clay with a few small flint nodule inclusions with a higher clay content at the northeast end of the trench.	Overlain by 102. Overlies 105.	0.26m-0.52m	1 flake core and 1 flake.	Early Neolithic-Mesolithic?
105	Natural. Clay with flint.	Mid orange brown clay with patches of flint gravel.	Overlain by 104. Overlies 106 and 107.	0.20m - 0.56m	None	-
106	Natural. Clay with flint.	Brown yellow firm, plastic clay with patches of sub-angular, medium flint nodules.	Overlain by 105. Overlies 107.	0.23m-0.42m	None	-
107	Natural. Sand clay.	Yellow sand clay with iron-panning	Overlain by 105 and 106. Overlies 108.	0.20m-0.40m	None	-
108	Natural. Clay.	Dark grey brown plastic clay.	Overlain by 107. Overlies 109.	0.18m	None	-
109	Natural. Clay.	Dark orange brown clay and chalk mix with very rare large flint nodules.	Overlain by 108.	0.60m+	None	-

- 5.4 **Trench 2**, Figure 3, (30m x 1.8m, east northeast-west southwest aligned, turning north at the eastern end for 6m) was excavated to the top of natural deposits across the length of the trench. The natural comprised possible brickearth deposits (203) in the western half of the trench and the extreme east end of the trench. East of the centre of the trench the natural comprised a soft sandy clay (204). In the western half of the trench two areas of root disturbance were present in the top of deposit (203). The top of natural deposits were encountered at a depth of 0.26m-0.35m (164.20m OD) from the existing ground level. The natural was overlain by a subsoil layer (202) which was overlain by a thin topsoil layer (201), which was absent for 8m at the west end. No archaeological features were present within the trench.
- 5.5 **Test-Pit 2**, Figure 3, (2.9m x 3.2m, 2.02m deep, with a 0.70m wide step on the west side) was positioned in order to sample the clay with flint deposit (203) and possible brickearth deposit (204). The excavation revealed that both deposits were little more than a thin skim of sandy clay over a layer of gravelly clay (205). Beneath (205) were a series of deposits of clay with flint. Deposits (206), (208), (209) and (211) sloped steeply down to the north, indicating movement of these deposits during glacial periods. Deposit (209) was a fairly horizontal layer of clay with flint. The basal deposits (210) and (212) consisted of clay with sand patches and clay respectively.

Table 2: Stratigraphy of Trench 2 and Test Pit 2. Section 002, Figures 5 & 7

Context	Type	Description	Relationships	Depth	Finds	TPQ
201	Topsoil	Mid grey brown friable sand clay, occ. small flint nodules and root disturbance.	Overlies 202	Up to 0.18m	None	Modern
202	Subsoil	Light yellow grey brown friable sand clay, few-occ. small and medium sub-angular flint nodules, occ. CBM and charcoal or clinker flecks. Root disturbed.	Overlain by 201. Overlies 203.	0.15m-0.27m	7 fragments CBM	Post-medieval
203	Natural. Possible brickearth.	Light brown yellow firm, friable sand clay with occ. small and medium sub-rounded, well-sorted flint nodule inclusions.	Overlain by 202. Overlies 205 and 207.	0.16m	None	-
204	Natural. Clay with flint.	Mid orange brown soft, plastic sand 20% clay 80% with patches of flint gravels.	Overlain by 202.	?	None	-
205	Natural. Clay with flint.	Yellow brown gritty clay with frequent small flint nodules.	Overlain by 203. Overlies 206 and 207.	Up to 0.38m	None	-
206	Natural.	Yellow plastic clay with	Overlain by	0.53m	None	-

Dunstable Road, Caddington: Archaeological Evaluation

	Clay with flint.	patches of red pink clay with occasional medium flint nodule inclusions.	205 and 207. Overlies 208 and 209.			
207	Natural. Clay with flint.	Mottled grey brown clay with yellow sand patches and frequent medium and large flint nodules.	Overlain by 203 and 205. Overlies 206, 208, 209, 210, 211.	1.25m	None	-
208	Natural. Clay with flint.	Yellow clay with occ. medium flint nodules and frequent flecks of organic matter.	Overlain by 206 and 207. Overlies 209.	0.30m	None	-
209	Natural. Clay with flint.	Gritty beige brown clay with frequent small flint nodule inclusions.	Overlain by 206, 207, 208 and 211. Overlies 210.	0.60m	None	-
210	Natural. Clay and sand.	Mid orange brown clay with patches of yellow sand with frequent dark flecks, possibly organic.	Overlain by 209 and 211.	0.46m+	None	-
211	Natural. Clay with flint.	Firm yellow clay with patches of yellow sand and occ. small and medium flint nodules and pebbles.	Overlain by 207. Overlies 209 and 210.	0.40m+	None	-
212	Natural. W facing section only. Clay.	Mid orange brown clay with chalk patches towards the base with frequent dark flecks of possible organic matter.	Overlain by 205, 206, 207.	1.30m+	None	-

5.6 **Trench 3**, Figure 3, (30m x 1.8m, northeast-southwest aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised possible brickearth deposits (303), which contained a higher flint content at the southwest end of the trench, rare flints at the centre of the trench and a higher clay content at the northeast end of the trench. The top of natural deposits were encountered at a depth of 0.26m-0.39m (164.53m OD) from the existing ground level. The natural was overlain by a subsoil layer (302) which was in turn overlain by a topsoil layer (301). No archaeological features were present within the trench.

5.7 **Test-Pit 3**, Figure 3, (2.9m x 3.0m, 2.25m deep, with a 0.70m wide step on the northeast side) was positioned in order to sample the possible brickearth deposit (303). The excavation revealed a fairly thick layer of possible brickearth which measured up to 0.80m deep. Although the deposit was significantly thicker than possible brickearth deposits noted in other trenches, it was not thick enough to have been the fill of a doline. Deposit (303) overlay layers of gravelly clay and clay with a high content of flint nodules, (304, 306 and 307). Some evidence for glacial movement was represented in the northwest facing section where deposits (304), (306) and (307) sloped down to the northeast. These deposits overlay the basal deposit of clay with patches of chalk (305) which was at least 1.10m thick.

Table 3: Stratigraphy of Trench 3 and Test Pit 3. Section 003, Figures 5 & 7

Context	Type	Description	Relationships	Depth	Finds	TPQ
301	Topsoil	Light grey brown loose, hard, friable sand clay, occ. small flint nodules and significant root disturbance.	Overlies 302	0.16m-0.22m	None	Modern
302	Subsoil	Light yellow brown hard, friable sand clay, occ. flecks and small fragments of clinker, occ. small and medium sub-angular flint nodules, few degraded CBM fragments.	Overlain by 301. Overlies 303	0.14m	4 fragments CBM	Post-medieval
303	Natural. Possible brickearth.	Mid yellow brown firm, friable sand clay with rare medium sub-angular flint nodules.	Overlain by 302. Overlies 304, 306 and 307.	0.80m	1 flake	Early Neolithic-Mesolithic?
304	Natural. Clayey flint gravels.	Orange brown grey clayey flint gravels.	Overlain by 303. Overlies 305 and 306.	0.65m max.	None	-
305	Natural. Clay with chalk patches.	Dark brown yellow firm, plastic clay with patches of chalk and few-occ. small flint chips.	Overlain by 304 and 307.	1.10m+	None	-
306	Natural. NW facing section only. Clay with flint.	Grey orange firm, plastic clay with a few small flint nodules.	Overlain by 303 and 304. Overlies 307.	0.20m	None	-
307	Natural. NW facing section only. Gravelly clay.	Mottled orange sand clay and dark brown clay with 50% flint gravels comprising medium sub-angular flint nodules. Frequent dark flecks, possibly organic matter.	Overlain by 303 and 306. Overlies 305.	1.0m	None	-

5.8 **Trench 4**, Figure 3, (30.90m x 1.8m, northwest-southeast aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised possible brickearth deposits (404), which contained increasing numbers of flint nodules towards the southeast end of the trench. Towards the northwest end of the trench was a 4m length of darker more clay-rich sand clay (405). The top of natural deposits were encountered at a depth of 0.35m (163.65m OD) from the existing ground level at the northwest end of

the trench and at a depth of 0.70m (163.91m OD) at the southeast end of the trench. The natural was overlain by a subsoil layer (202) at the northwest end of the trench and for a length of 23m. At the southeast end of the trench the natural was overlain by modern make-up layer (403). Make-up layer (403) cut away the subsoil and built up the land, probably to level it, but did not appear to have truncated the natural deposits. Layers (402) and (403) were overlain by topsoil (401) except at the extreme northwest end of the trench where the topsoil was truncated, probably during the recent clearing of the trees and scrub. No archaeological features were present within the trench.

- 5.9 **Test-Pit 4**, Figure 3, (2.8m x 2.9m, 2.06m deep, with a 0.70m wide step on the southwest side) was positioned in order to sample the possible brickearth deposit (404). The excavation revealed (405) to be just a thin skim, 0.20m, of sand clay over a layer of clayey flint gravels (406). Gravel deposit (406) overlay a series of deposits of clay with flints and gravelly clays (407, 408, 412, 414) interspersed with deposits of clay (409, 410, 411, 413, 415). Deposits indicated that a possible north-south aligned channel was present within the test-pit which contained all deposits below (406), with the exception of (415). This possible channel indicates glacial movement.

Table 4: Stratigraphy of Trench 4 and Test Pit 4. Section 004, Figures 6 & 8

Context	Type	Description	Relationships	Depth	Findings	TPQ
401	Topsoil	Dark brown hard, friable clay sand, root disturbed.	Overlies 402 and 403.	0.10m-0.43m	Modern rubbish, such as plastic and glass.	Modern
402	Subsoil	Light yellow brown hard, friable sand clay, occ. small and medium sub-angular flint nodules, occ. flecks and small fragments of clinker and a few degraded fragments of CBM.	Overlain by 401. Cut by 403. Overlies 404 and 405.	Up to 0.35m	None.	Post-medieval
403	Make-up	Re-deposited natural orange clay with chalk and brick fragments.	Overlain by 401. Cuts 402. Overlies 404.	Up to 0.60m	1 fragment CBM, 2 slate fragments.	Modern
404	Natural. Possible brickearth.	Light yellow brown firm sand clay with rare small and medium flint nodules.	Overlain by 402 and 403. Overlies 406.	0.20m	None	-
405	Natural. Sand clay with flint.	Mid brown sand clay with a few flints.	Overlain by 402.	?	None	-
406	Natural. Clayey flint	Mid brown flint gravels in a clay matrix.	Overlain by 405. Overlies 407, 411 and 414.	0.32m	None	-

Dunstable Road, Caddington: Archaeological Evaluation

	gravels.					
407	Natural. Clay with flint.	Orange firm, heavy, plastic clay with rare large flint nodules.	Overlain by 406. Overlies 408.	0.40m	None	-
408	Natural. Clayey flint gravels.	Flint gravels of large and medium nodules in a brown orange clay with patches of brown black mottled coarse sand.	Overlain by 407 and 413. Overlies 409.	0.95m	None	-
409	Natural. Clay.	Firm, compact orange clay.	Overlain by 408.	0.70m	None	-
410	Natural. Clay.	Plastic orange yellow clay.	Overlain by 414. Overlies 411 and 412.	0.12m	None	-
411	Natural. Clay.	Mid brown orange plastic clay with rare chalk fragment inclusions and a few medium flint nodules.	Overlain by 406, 410, 414. Overlies 412.	0.50m	None	-
412	Natural. Clay with flint.	Mid grey with brown iron-panning gravelly firm, plastic clay.	Overlain by 410 and 411. Overlies 413 and 415.	0.37m	None	-
413	Natural. Clay.	Beige soft, plastic clay.	Overlain by 412. Overlies 408 and 415.	0.22m+	None	-
414	Natural. Clayey flint gravels.	Flint gravels of large and medium nodules in a brown orange clay with patches of brown black mottled coarse sand.	Overlain by 406. Overlies 410 and 411.	0.68m	None	-
415	Natural. Clay.	Orange clay with dark flecks of organic matter.	Overlain by 412.	0.20m+	None	-

5.10 **Trench 5**, Figure 4, (30.50m x 1.8m, east-west aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised a deposit of orange clay with flint (503), which became sandier 5m before the west end of the trench. The top of natural deposits was encountered at a depth of 0.20m (167.01m OD) from the existing ground level at the east end of the trench and at a depth of 0.49m (164.83m OD) at the west end of the trench. The natural ground sloped down to the east. The natural was overlain by a subsoil layer (502) which was in turn overlain by topsoil (501), which was deeper at the base of the slope (east end). No archaeological features were present within the trench, although two extant, modern brick walls crossed the

trench. The top of the natural deposits was also disturbed in places by tree stumps and their root systems.

- 5.11 **Test-Pit 5**, Figure 4, (2.6m x 2.7m, 1.90m deep, with a 0.80m wide step on the north side) was positioned in order to sample the sandier clay with flint deposit (503). The excavation revealed (503) to be a thin layer, 0.15m, of sand clay with flint, which was probably not a brickearth deposit. Layer (503) overlay a heavy clay with patches of chalk, (504). Beneath (504) was a mix of clay and chalk (505) which became chalk bedrock at a depth of 1.50m from the existing ground level on the south side of the test-pit and at 1.80m on the north side of the test-pit.

Table 5: Stratigraphy of Trench 5 and Test Pit 5. Section 005, Figures 6 & 8

Context	Type	Description	Relationships	Depth	Finds	TPQ
501	Topsoil	Dark grey brown hard, friable, loose clay sand, root disturbed.	Overlies 502.	0.06m-0.38m	Areas of brick rubble, 2 modern glass shards, 1 fragment of CBM.	Modern
502	Subsoil	Light yellow brown hard, friable sand clay, frequent CBM and clinker flecks, occ. small sub-angular flint nodules, and a few degraded fragments of CBM pressed into the top of (503).	Overlain by 501. Overlies 503.	0.15m on average	6 fragments of CBM.	Post-medieval
503	Natural. Clay with flint.	Brown yellow orange clay with patches of flint gravel. Root disturbed,	Overlain by 502. Overlies 504.	0.15m	None.	-
504	Natural. Clay with chalk patches.	Mid brown orange hard, plastic clay with a few chalk flecks and occasional patches of degraded chalk.	Overlain by 503. Overlies 505.	0.40m SSW facing section, 1.0m NNE facing section	None	-
505	Natural. Chalk with patches of clay.	Mix of degraded chalk with patches of mid brown orange clay.	Overlain by 504. Overlies (506).	0.70m	None	-
506	Natural.	Chalk bedrock.	Overlain by 505.	0.35m+	None	-

Dunstable Road, Caddington: Archaeological Evaluation

	Chalk.				
--	--------	--	--	--	--

5.12 **Trench 6**, Figure 4, (30m x 1.8m, northwest-southeast aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised a deposit of orange clay with flint (605) which contained patches and areas of possible brickearth (603). The top of natural deposits was encountered at a depth of 0.60m (167.74m OD) from the existing ground level at the southeast end of the trench and at a depth of 0.19m (165.77m OD) at the northwest end of the trench. The natural ground sloped down to the northwest. Natural deposits (604) and (605) were overlain by subsoil layer (603). The subsoil was overlain by modern make-up at the extreme southeast end of the trench. The subsoil and the make-up were sealed by topsoil (601) except at the extreme northwest end of the trench where it was truncated. No archaeological features were present within the trench.

5.13 **Test-Pit 6**, Figure 4, (3.6m x 2.8m, 2.40m deep, with a 0.90m wide step on the southeast side) was positioned in order to sample the clay with flint deposits (605) and patches of possible brickearth (604). The excavation revealed a thin, intermittent layer of possible brickearth which in-filled shallow hollows in the top of the clay with flint deposit (605). Deposit (604) overlay a 0.40m thick layer of orange clay with flint (605). Beneath the clay with flint deposit were thick layers of flint gravels (607) and (608), which appeared to in-fill a channel, indicating some glacial movement. The gravels overlay a thick layer of clay (609), which overlay the basal deposit of lighter orange clay (601).

Table 6: Stratigraphy of Trench 6 and Test Pit 6. Section 006, Figures 6 & 8

Context	Type	Description	Relationships	Depth	Finds	TPQ
601	Topsoil	Black to grey brown firm friable clay sand.	Overlies 602	0.10m	None	Modern
602	Make-up	Re-deposited natural yellow clay mottled with dark brown clay sand.	Overlain by 601. Overlies 603.	0.39m	Concrete blocks and brick fragments.	Modern
603	Subsoil.	Light yellow grey brown firm, friable clay sand with frequent flecks of CBM and clinker at the southeast end and occ. small sub-rounded, well-sorted flint nodule inclusions.	Overlain by 602. Overlies 603.	0.18m	None	Post-medieval
604	Natural. Possible brickearth.	Light yellow orange sand clay with occ. medium sub-rounded flint nodules.	Overlain by 603. Overlies 605.	Up to 0.38m	None	-
605	Natural. Clay with flint.	Orange red firm plastic clay with occ. ill-sorted, sub-rounded small and medium flint nodules, occ. charcoal flecks and small	Overlain by 604. Overlies 606, 607 and 608.	0.45m	None	-

Dunstable Road, Caddington: Archaeological Evaluation

		fragments of degraded chalk.				
606	Natural. Clay.	Mid orange yellow clay with frequent dark flecks of organic matter and rare small flint nodule inclusions.	Overlain by 605. Overlies 608.	0.55m	None	-
607	Natural. Clayey flint gravels.	Small and medium flint pebbles in a yellow clay.	Overlain by 605. Overlies 608 and 609.	0.55m	None	-
608	Natural. Clayey flint gravels.	Small and medium flint pebbles in a pink red clay.	Overlain by 605 and 606. Overlies 609.	1.25m+	None	-
609	Natural. Clay with flint.	Orange red sand 10% clay 90% with grey mottling with a few large flint nodule inclusions and a few dark flecks of possible organic material.	Overlain by 607 and 608. Overlies 610.	1.10m+	None	-
610	Natural. Clay.	Mid orange clay hard, friable sand 10% clay 90% with rare large flint nodules and some organic content.	Overlain by 609.	0.15m+	None	-

5.14 **Trench 7**, Figure 4, (30m x 1.8m, northeast-southwest aligned) was excavated to the top of natural deposits across the length of the trench. The natural comprised a deposit of orange clay with flint (709). The top of natural deposits was encountered at a depth of 0.80m (169.99m OD) from the existing ground level.

5.15 The natural deposits were overlain by subsoil layer (702), which remained intact in the southwest half of the trench, but was much truncated by modern activity in the northeast half of the trench. The subsoil was overlain by a thick layer of topsoil (701) in the southwest half of the trench, but which was little more than vegetation cover over the modern layers in the northeast half of the trench. A modern cut measuring 27m in width and at least 0.74m in depth, containing concrete blocks etc. was present in the northeast half of the trench and cut through the subsoil and natural deposits. The cut appeared to overlie two levelling layers (706) and (707), which acted as bedding for a concrete floor (708). No archaeological features were present within the trench, although the natural deposits were disturbed by three modern root bowls and a modern service trench.

Table 7: Stratigraphy of Trench 7.

Context	Type	Description	Relationships	Depth	Finds	TPQ
---------	------	-------------	---------------	-------	-------	-----

Dunstable Road, Caddington: Archaeological Evaluation

701	Topsoil	Grey black soft, plastic silt clay with frequent CBM and charcoal flecks and root disturbance.	Overlies 702.	0.37m SW end, 0.05m NE end	Red glazed earthenware rimsherd, 17 th -19 th century. Residual.	Modern
702	Subsoil	Grey yellow brown soft, plastic sand clay with rare small, degraded CBM fragments.	Overlain by 701. Cut by [703]. Overlain by 707.	0.18m on average	None.	Post-medieval
[703]	Cut.	Vertical SW edge, gradually sloping NE edge, base not reached.	Overlain by 701. Cuts 702 and natural deposits.	0.74m+	None.	Modern
704	Fill of [703].	Mix of re-deposited yellow clay natural and black topsoil.	Overlain by 701.	0.74m+	Concrete blocks, bricks, tarmac fragments modern chinaware.	Modern
705 void	-	-	-	-	-	-
706	Levelling layer for concrete floor.	Black fine sand.	Overlain by 708. Overlies 707.	0.08m	None	Modern
707	Levelling layer for concrete floor.	Re-deposited chalk.	Overlain by 706. Overlies 702.	Up to 0.13m	None	Modern
708	Concrete floor.	Concrete, broken up in places. Only seen in northwest facing section.	Overlain by [703]. Overlies 706.	0.10m	None	Modern
709	Natural. Clay with flints.	Orange firm, plastic clay with occasional patches of small sub-angular flint nodules.	Overlain by 702. Cut by [703].	?	None	-

6 CONCLUSIONS

6.1 No archaeological features were revealed during the course of the project, although prehistoric worked flints were recovered from possible brickearth layers in Trenches/Test-pits 1, 3 and 4. Natural deposits and intact subsoils were present in all trenches. Modern activity was present in Trench 4 in the form of a thick make-up layer and in Trench 7, in the form of a large pit and concrete flooring associated with bedding layers. This modern activity did not significantly impact upon the subsoils and natural deposits.

6.2 Struck flints were present in Trenches/Test-pits 1, 3 and 4, all deriving from the possible brickearth layers. A core of possible Mesolithic or early Neolithic

date was present in Trench 1 context (104), along with a flake from the same context. A flake was also recovered from context (303) and a waste flake from Trench 4 was found, but remained unstratified. The flakes had sustained significant edge-damage and were unlikely to have been recovered from contemporary deposit, as it likely to be the case for the exhausted core. The flakes may derive from a similar date range as that of the core. No worked flints of Palaeolithic date were recovered.

- 6.3 Deposits of sand clay with a few flint nodule inclusions were present overlying deposits of clay with flint in Trenches/Test-pits 1, 2, 3, 4 and 6, although they were only thin, 0.20m, layers in Trenches/Test-pits 2 and 4. These deposits were tentatively interpreted as brickearth. There does not appear to be an identifiable correlation between the presence of brickearth and the present topography of the site. There was no evidence for the presence of dolines within the investigated areas. The Test-pits all revealed probable glacial movement of deposits underlying the possible brickearth.
- 6.4 The archaeological and geo-archaeological investigation did not reveal any *in-situ* Palaeolithic flint working sites or any clear evidence for dolines within the study area, although only a limited sample of the site was investigated. The worked flints recovered from the site were of Mesolithic or early Neolithic date and probably did not derive from contemporary deposits. The specific aim of the project, as guided by the various research frameworks for the Eastern Counties and Bedfordshire (Glazebrook, 1997; Brown and Glazebrook 2000; Oake et al, 2007; Medlycott and Brown, 2008), was to provide information relating to deposits which could potentially contain Palaeolithic material. The project failed to identify any definitive Palaeolithic finds or deposits.
- 6.5 The archive is currently held at the offices of Foundations Archaeology, but will be deposited within 12 months with Luton Museum under accession code LUTNM:2010.33. A short note will be submitted for publication in the relevant local archaeological journal and an OASIS form will also be submitted to ADS.

7 BIBLIOGRAPHY

Brown, N. and Glazebrook, J., 2000, *Research and Archaeology: A Framework for the Eastern Counties- 2 Research Agenda and Strategy*, East Anglian Archaeology Occasional Paper 8.

Catt J. A. and Hagen R. E., 1978, "Geological Background" in Sampson 1978, 17-27.

Central Bedfordshire Council, 2010, *Brief for the Archaeological Field Evaluation of Land Fronting Dunstable Road, Caddington, Bedfordshire*. Unpublished.

Foundations Archaeology, 2010, *Land Fronting Dunstable Road, Caddington, Bedfordshire: Written Scheme of Investigation for an Archaeological Evaluation*. Unpublished.

Dunstable Road, Caddington: Archaeological Evaluation

Glazebrook, J., 1997, *Research and Archaeology: A Framework for the Eastern Counties – 1 Resource Assessment*, East Anglian Archaeology Occasional Paper 3.

Institute for Archaeologists. 1994 (revised 2008). *Standard and Guidance for Archaeological Evaluation*. Unpublished.

Medleycott, M. and Brown N., 2008, *Revision of the Regional Archaeological Framework for the Eastern Region*, ALGAO East of England.

Oake, M. et al, 2007, *Bedfordshire Archaeology – Research and Archaeology: Resource Assessment, Research Agenda and Strategy*, Bedfordshire Archaeology Monograph 9.

Sampson C. G. (Ed), 1978, *Palaeoecology and Archaeology of an Acheulian Site at Caddington, England*, Southern Methodist University.

Scott -Jackson J. E., 2000, *Lower and Middle Palaeolithic artefacts from deposits mapped as Clay-with-flints*, Oxbow.

Smith, W. G., 1894, *Man the Primeval Savage*.

White M. J., 1997, *The earlier Palaeolithic occupation of the Chilterns (southern England): re-assessing the sites of Worthington G Smith*, *Antiquity*, 71, 912-931.

8 ACKNOWLEDGEMENTS

Foundations Archaeology would like to thank Andre Ross-Skinner of Woodstock Estates Ltd and Hannah Firth of Central Bedfordshire Council Archaeologists for their help during the course of this project.

APPENDIX 1: The struck flint

By Hugo Lamdin-Whymark

Four struck flints were recovered from the evaluation. These comprise a flake and a core from the brick-earth (104) in Trench 1, a flake from brick-earth (303) in Trench 3 and an unstratified piece of irregular waste from Trench 4. The flakes from the brick-earth both exhibit edge-damage and are unlikely to have been recovered from contemporary deposits. The opposed platform core has a flat back and opposed, acutely angled, platforms. The core has been exhausted and was abandoned when the final flake removals hinged and rendered the core unworkable. The regular form of the core and traces of a couple of narrow flake scars indicate that it may have produced blades earlier in the reduction sequence. The form of this core and reduction techniques employed indicate that it probably dates from the Mesolithic or early Neolithic. The flakes are not closely datable, but they may be broadly contemporary with the core.

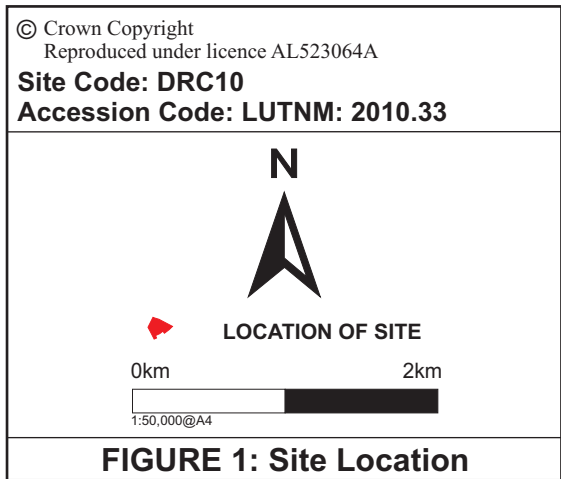
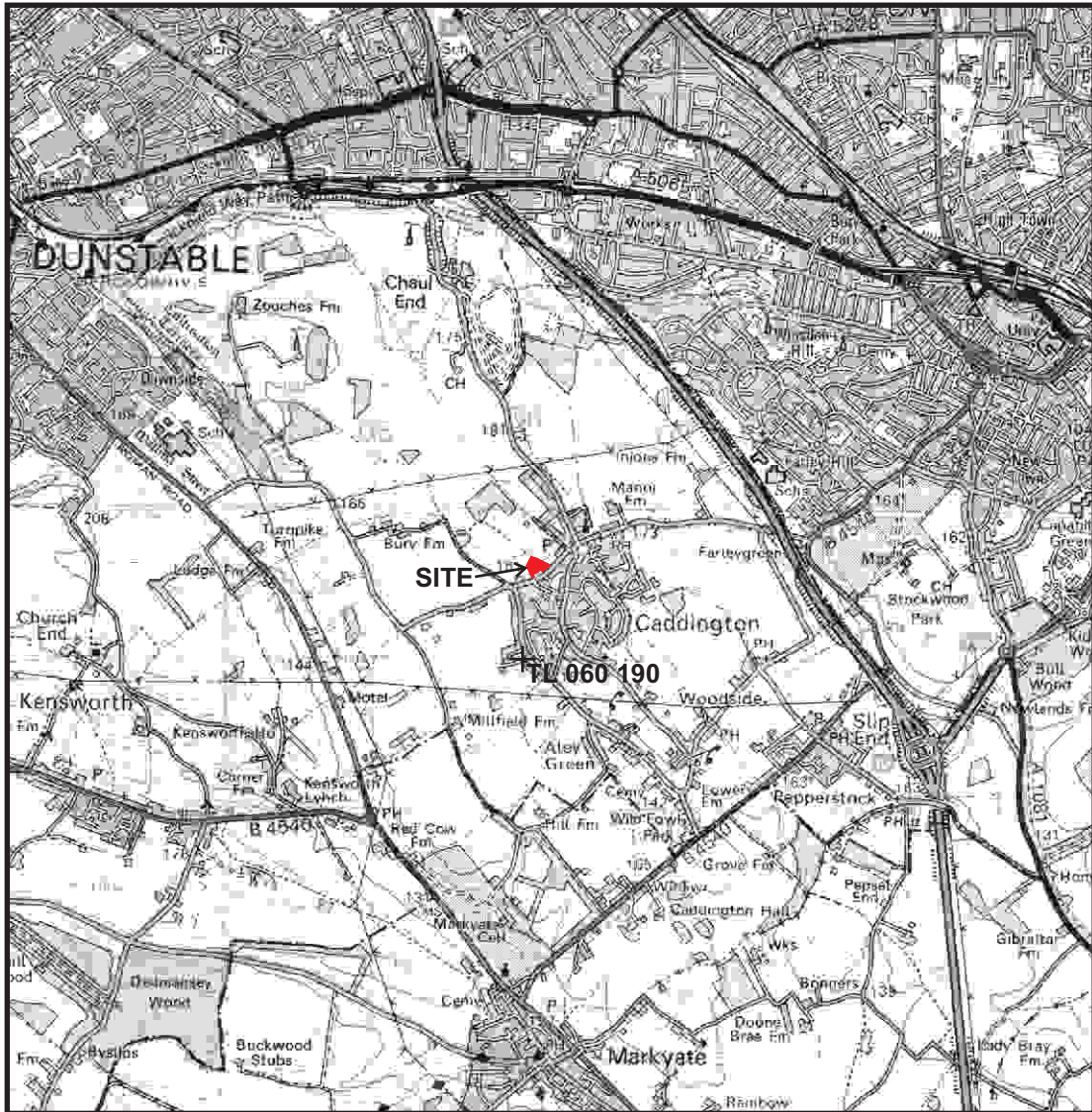
Catalogue

Tr. 1. Context 104. Opposed platform flake core, weighing 54 g, that was probably a blade core earlier in the reduction sequence. An area of modern damage has removed one platform. Light bluish-white cortication. Mesolithic or Early Neolithic

Tr. 1. Context 104. Thin and regular flake with slight edge-damage. Light white cortication.

Tr. 3. Context 303. Flake with some edge-damage.


Tr 4. Unstratified. Irregular waste. Extensive edge-damage.












Site Code: DRC10
Accession Code: LUTNM: 2010.33

N



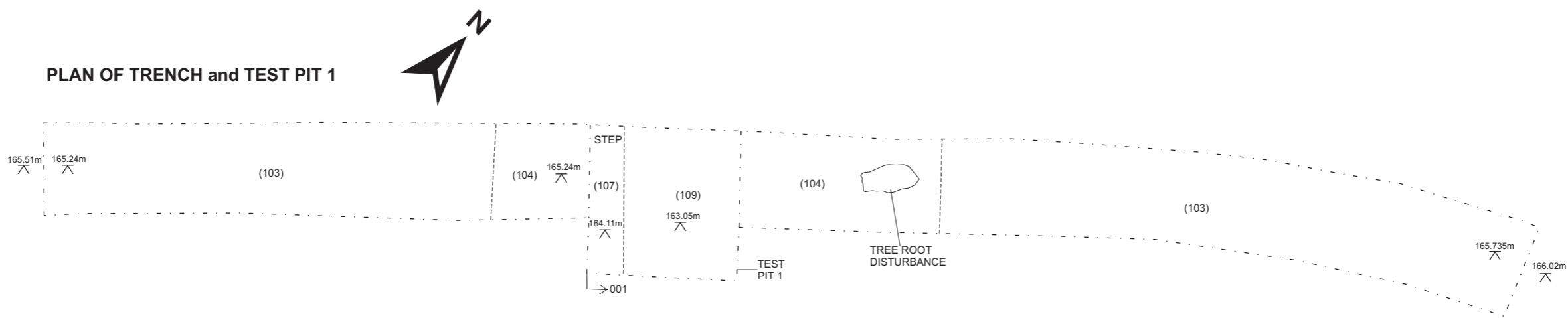
-  **PROTECTED TREE**
-  **PARTLY CLEARED WOODLAND**
-  **INTRODUCED SCRUB (KNOTWEED)**
-  **POND**
-  **EVALUATION TRENCH**
-  **ORIGINAL TRENCH LOCATION**
-  **TEST-PIT LOCATION**

0m 40m

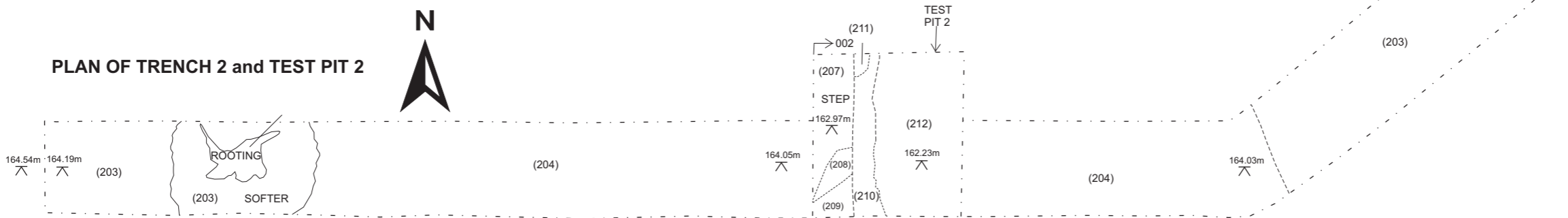
1:1000@A4

FIGURE 2: Trench Locations

PLAN OF TRENCH and TEST PIT 1



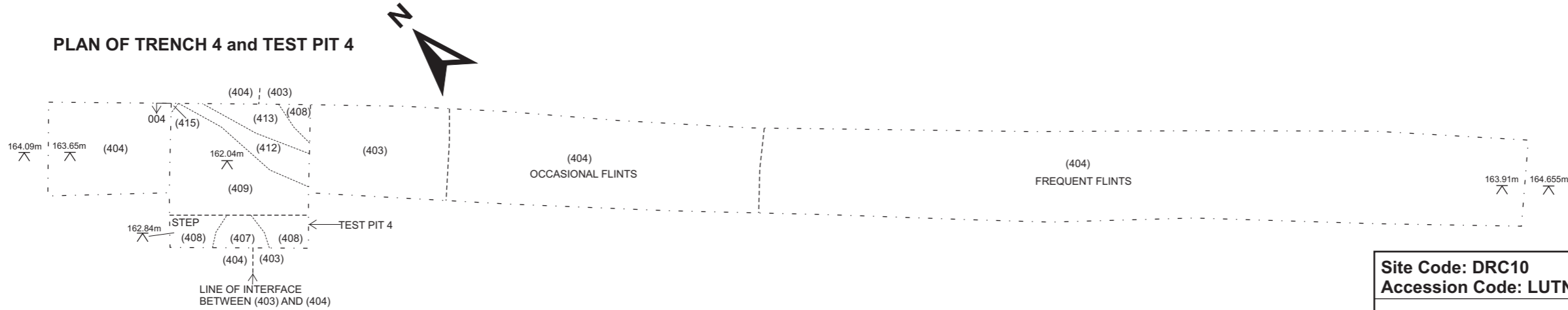
PLAN OF TRENCH 2 and TEST PIT 2



PLAN OF TRENCH 3 and TEST PIT 3

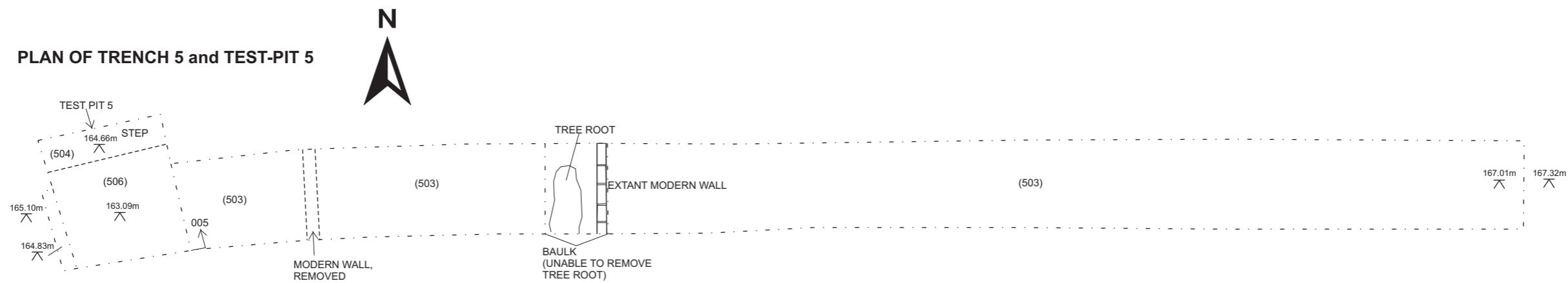


PLAN OF TRENCH 4 and TEST PIT 4

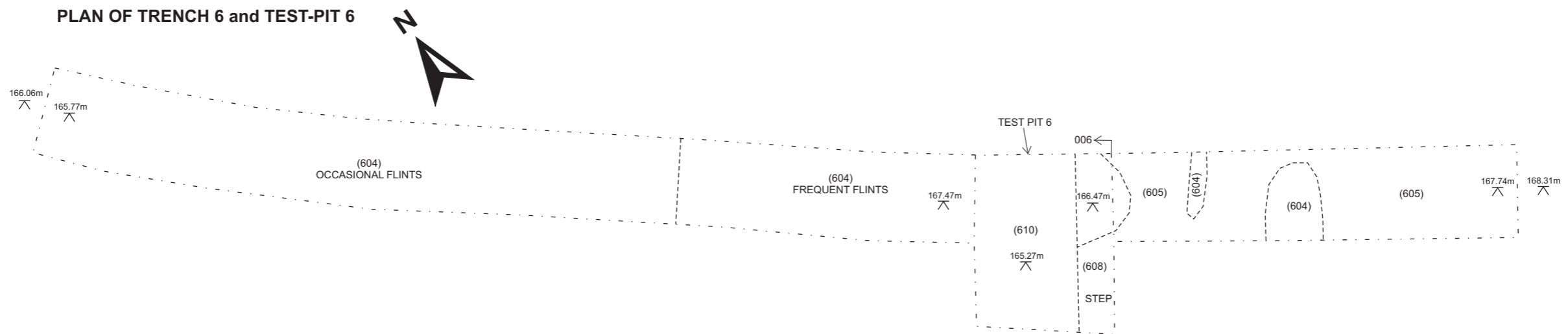


Site Code: DRC10	
Accession Code: LUTNM: 2010.33	
1:100@A3	
FIGURE 3: Plans of Trenches 1, 2, 3 and 4	

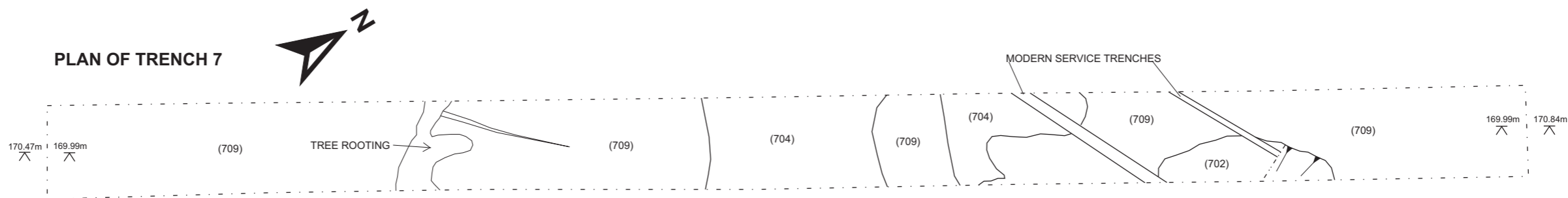
PLAN OF TRENCH 5 and TEST-PIT 5



PLAN OF TRENCH 6 and TEST-PIT 6

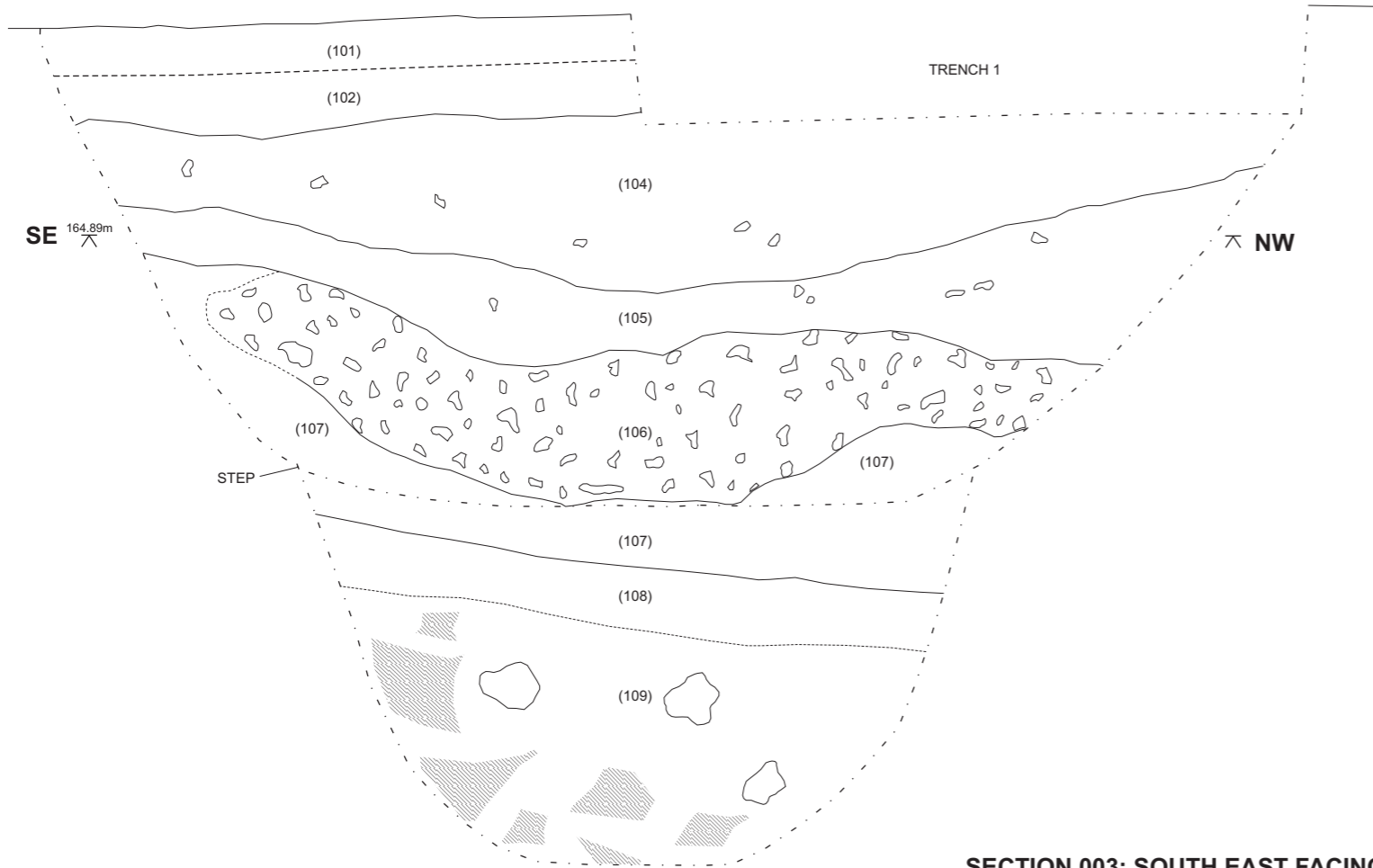


PLAN OF TRENCH 7

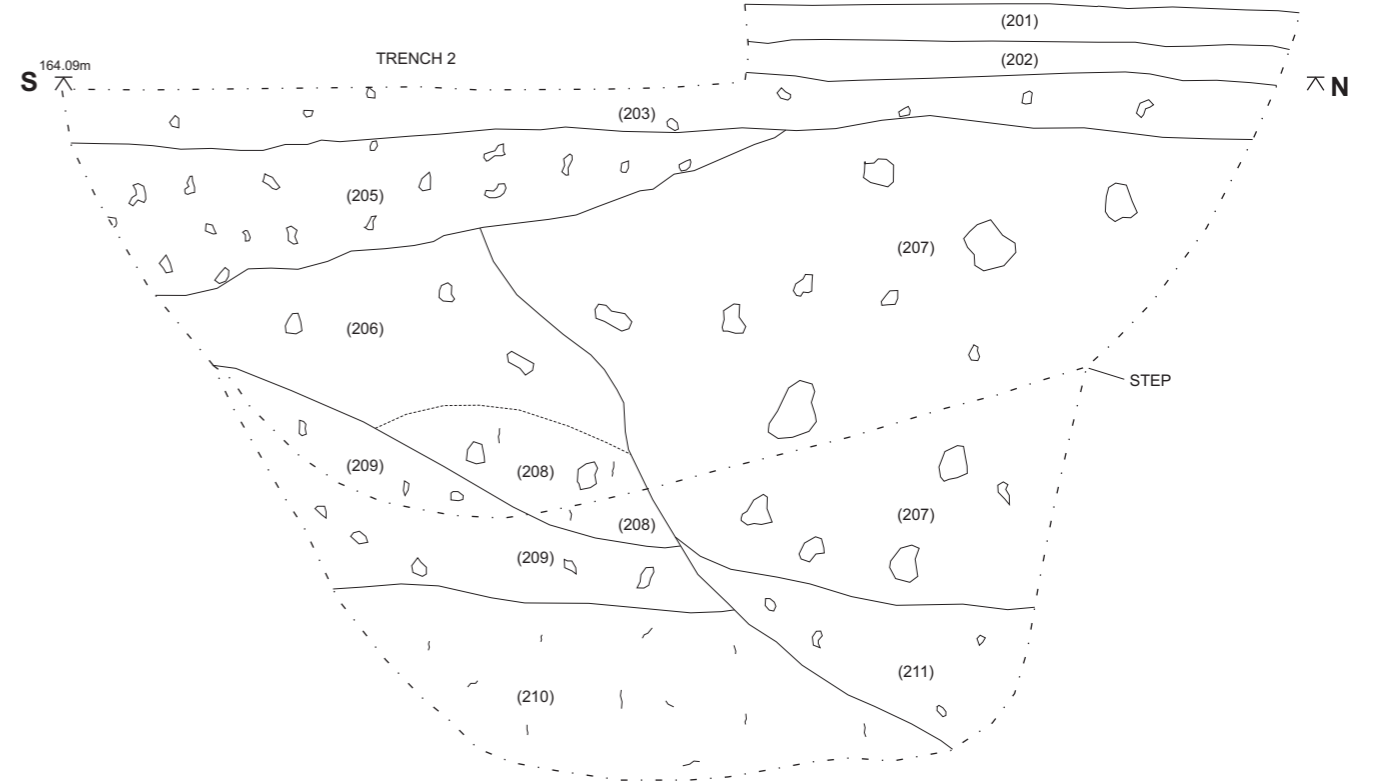


<p>Site Code: DRC10 Accession Code: LUTNM: 2010.33</p>
<p>0m 4m</p> <p>1:100@A3</p>
<p>FIGURE 4: Plans of Trenches 5, 6 and 7</p>

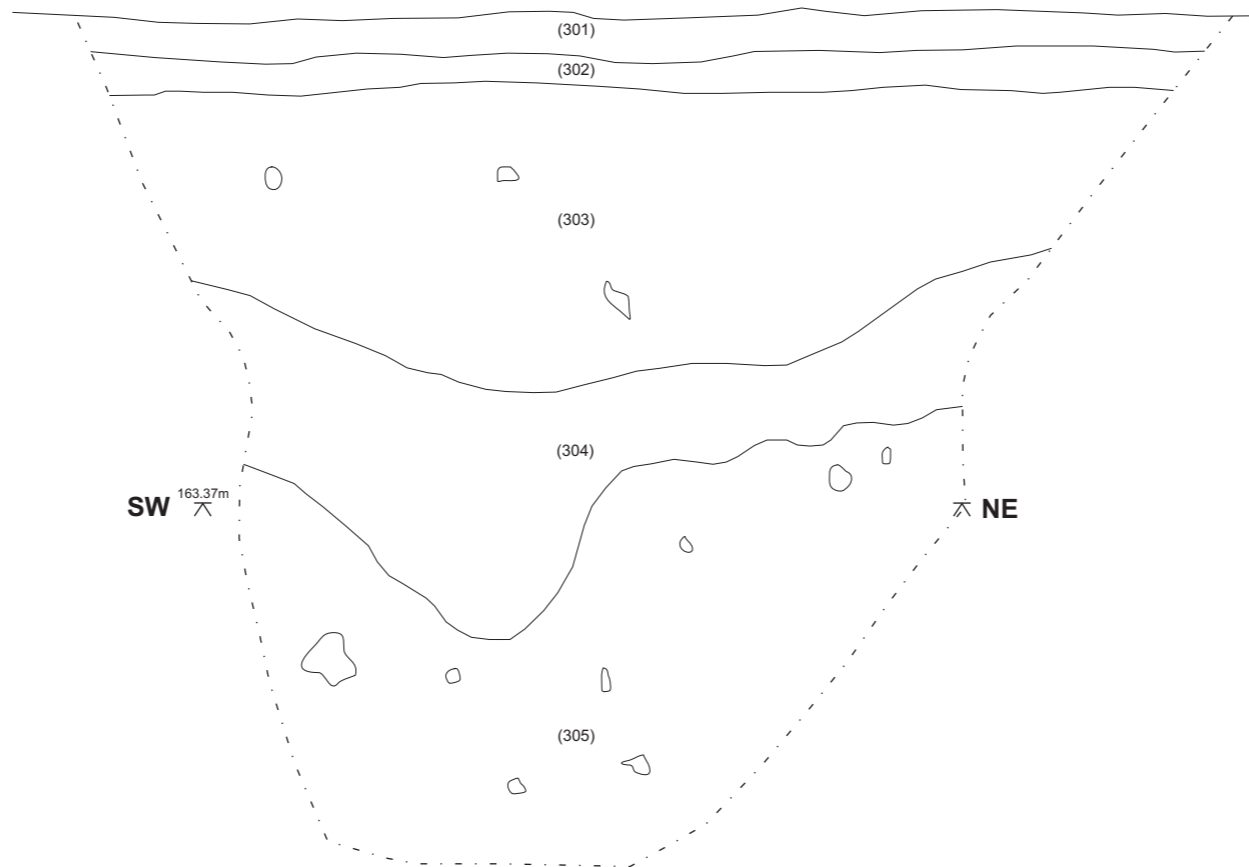
SECTION 001: NORTH EAST FACING SECTION TEST-PIT 1








SECTION 002: EAST FACING SECTION TEST-PIT 2

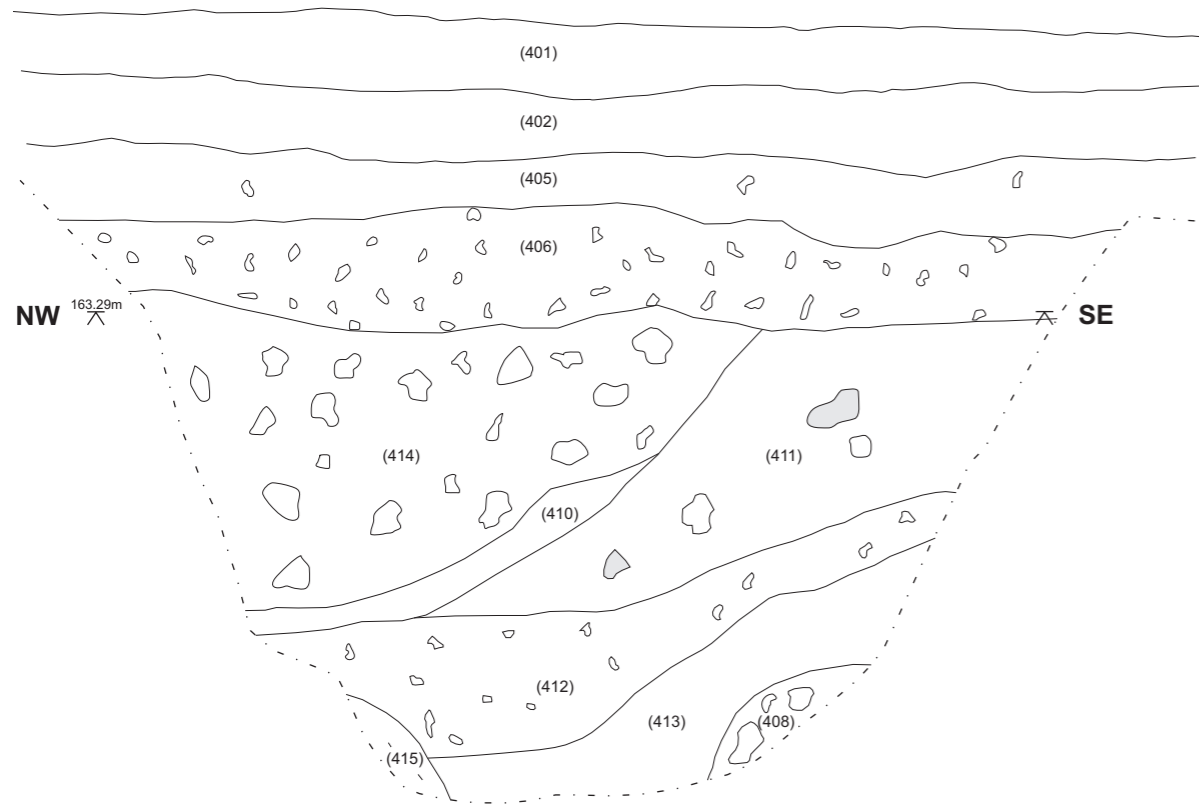


SECTION 003: SOUTH EAST FACING SECTION TEST-PIT 3

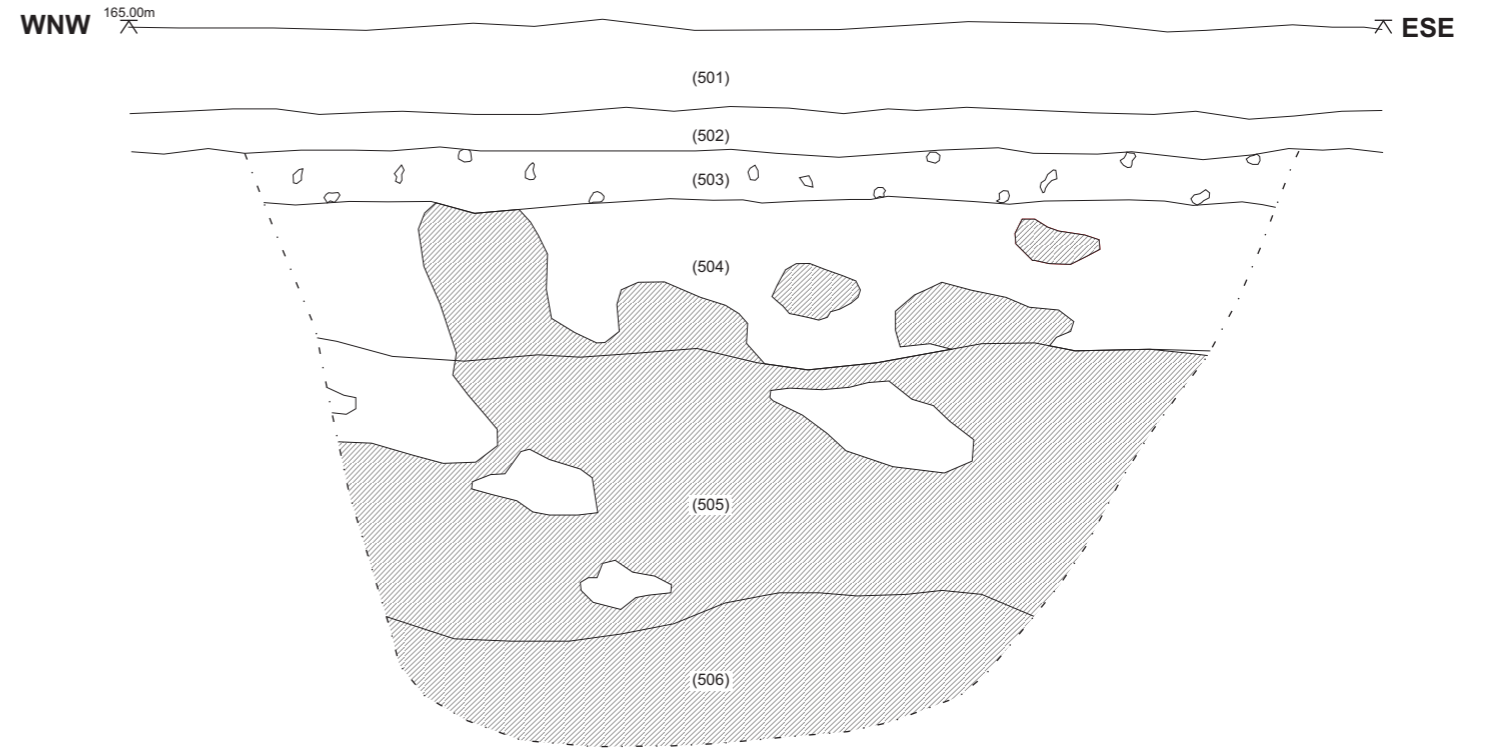


Site Code: DRC10	
Accession Code: LUTNM: 2010.33	
	CHALK FRAGMENT
	FLINT
	CHALK DEPOSIT
	POSSIBLE ORGANIC MATTER FLECKS
 0m 1m 1:20@A3	
FIGURE 5: Sections 001, 002 and 003	

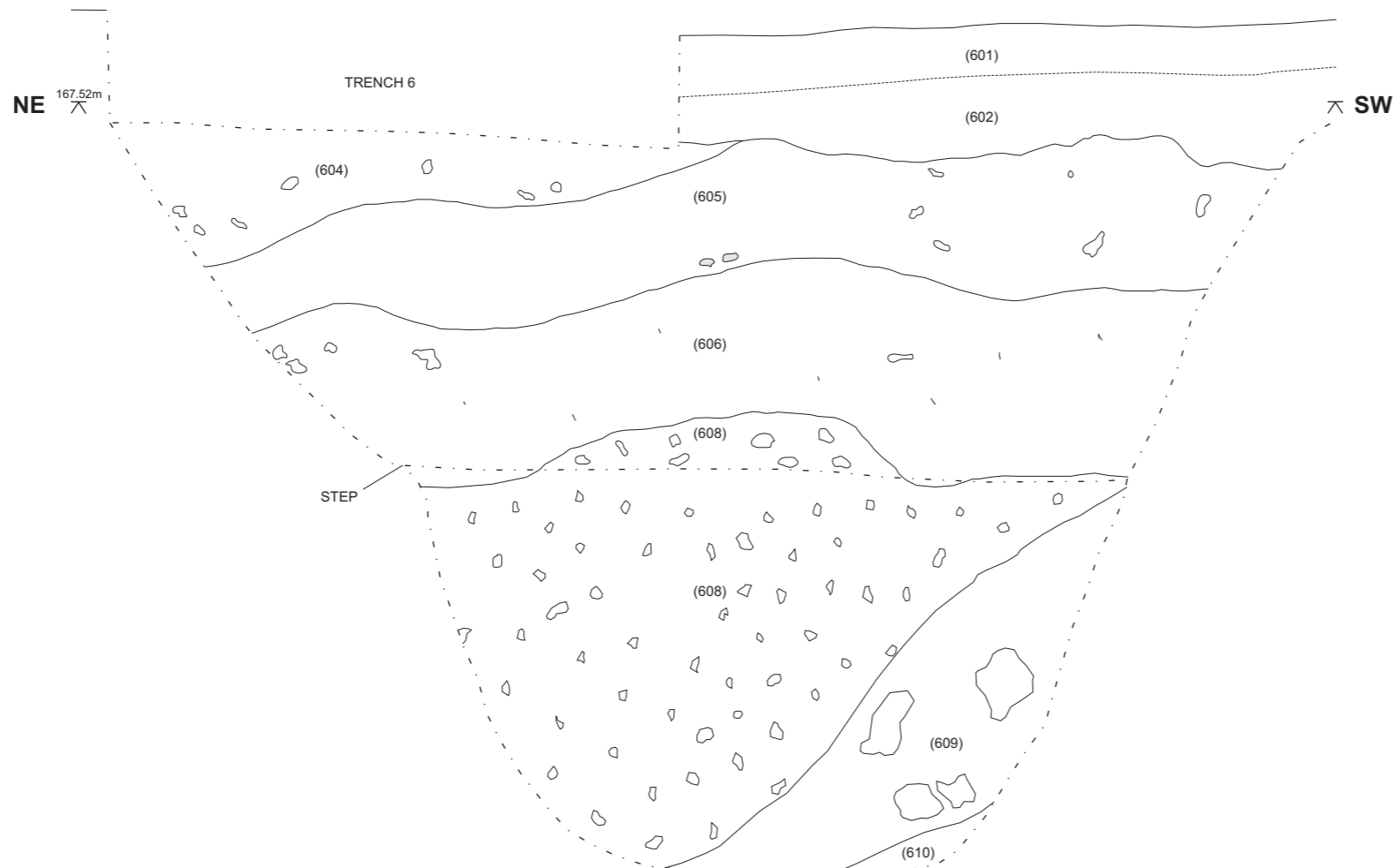
SECTION 004: SOUTH WEST FACING SECTION TEST-PIT 4



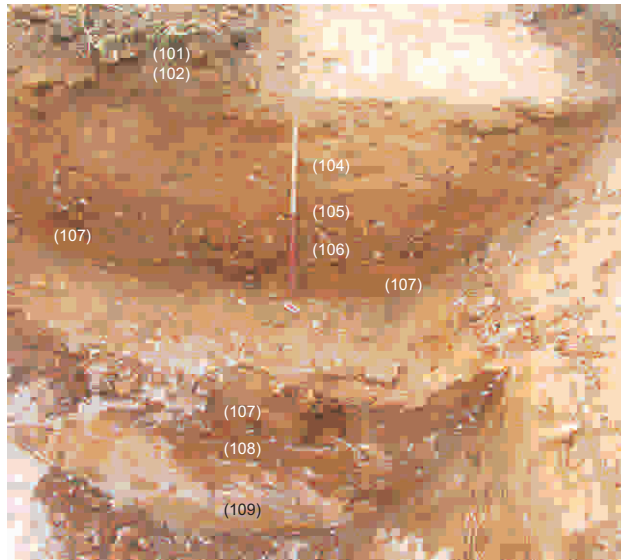
SECTION 005: SOUTH SOUTH WEST FACING SECTION TEST-PIT 5



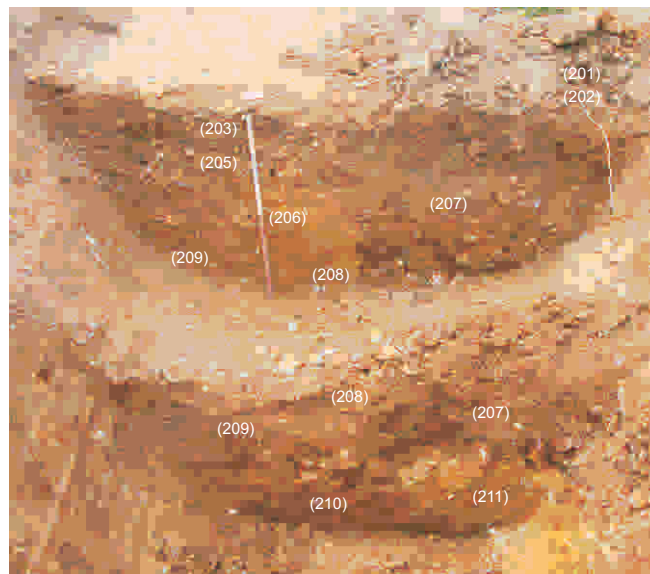
SECTION 006: NORTH WEST FACING SECTION TEST-PIT 6



Site Code: DRC10	
Accession Code: LUTNM: 2010.33	
	CHALK FRAGMENT
	FLINT
	CHALK DEPOSIT
	POSSIBLE ORGANIC MATTER FLECKS
 0m 1m 1:20@A3	
FIGURE 6: Sections 004, 005 and 006	



001: North east facing section Test-Pit 1



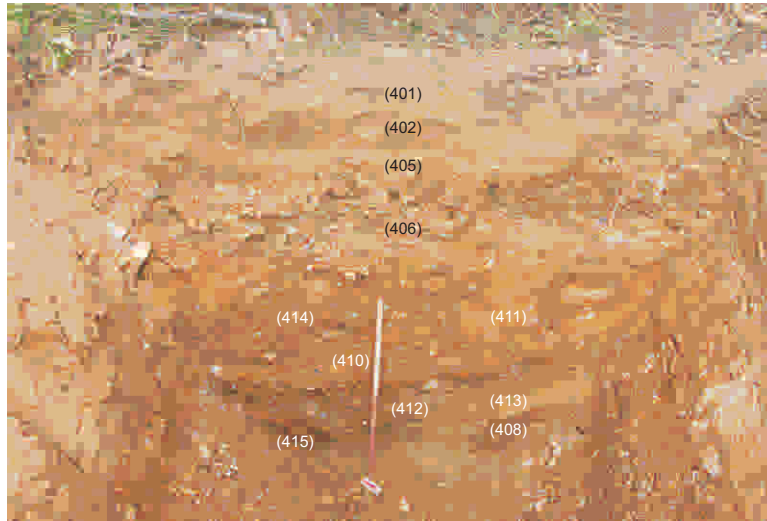
002: East facing section, Test-Pit 2



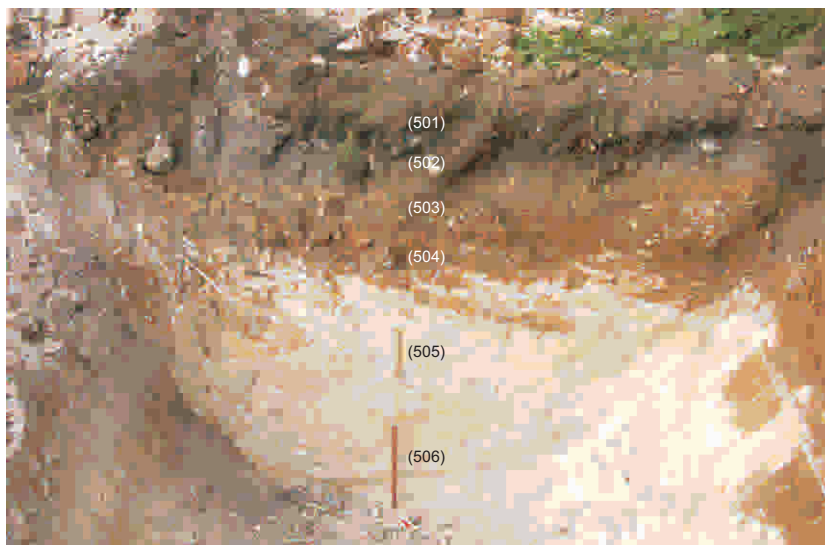
003: South east facing section, Test-Pit 3

Site Code: DRC10
Accession Code: LUTNM: 2010.33

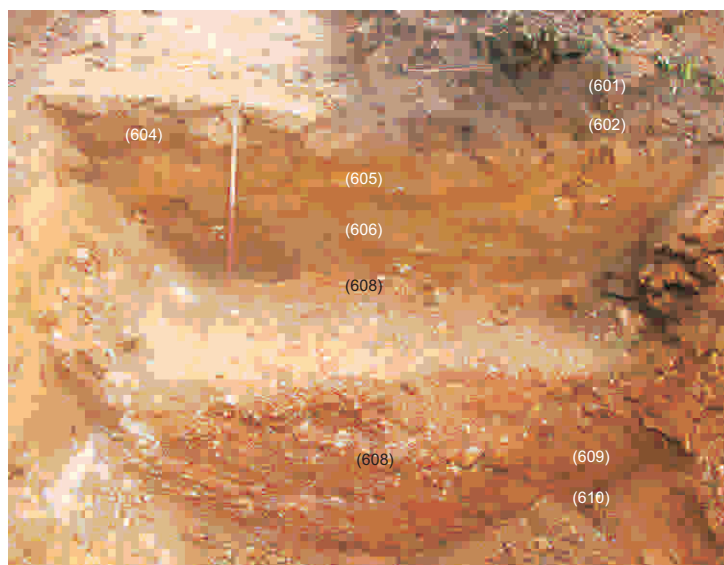
FIGURE 7: Annotated photographs of Sections 001, 002 and 003



004: South west facing section, Test-Pit 4



005: South south west facing section, Test-Pit 5



006: North west facing section, Test-Pit 6

Site Code: DRC10
Accession Code: LUTNM: 2010.33

FIGURE 8: Annotated photographs of Sections 004, 005 and 006