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ROUND COPSE NORTH EXTENSION (PHASE 1), BRICKWORTH QUARRY, WHITEPARISH, WILTSHIRE

Archaeological Observations and Recording

Report No. 53324/3/1

December 2010

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Archaeological Observations & Recording, Sept-Oct 2010

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CONTENTS

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SUMMARY

An archaeological watching was carried out by Terrain Archaeology in September and October 2010, during stump-clearance and soil-stripping works undertaken in advance of sand quarrying at Round Copse North Extension, Brickworth Quarry, Whiteparish, Wiltshire (centred on OS NGR SU SU227225).

Low densities of Neolithic and Bronze Age struck flint were recovered across the entire area, with a slight but perceptible increase in the quantity of lithic artefacts toward the southern end of the site. Two infilled ditches were identified: The later of these was probably of comparatively recent date, post-dating formation of a site-wide relict ploughsoil and perhaps related to use of the site as a conifer plantation during the second half of the 20th century. The earlier ditch was sealed below the former ploughsoil, and contained extensively demineralised fill, along with small amounts of struck flint and burnt flint. Although potentially prehistoric in origin, this feature remains undated.

INTRODUCTION

Terrain Archaeology was commissioned by White Young Green Environment Planning Transport Ltd, acting on behalf or Raymond Brown Minerals and Recycling Ltd, to undertake a programme of archaeological observations and recording during ground clearance and soil-stripping prior to expansion of sand quarrying works at Round Copse North, Brickworth Quarry, Whiteparish, Wiltshire (Figure 1, hereafter referred to as 'the site').

Archaeological Observations and Recording, also known as an archaeological watching brief, is defined by the Institute of Field Archaeologists as "*a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons, within a specified area or site where there is a possibility that archaeological deposits may be disturbed or destroyed*" (IfA 2008).

Fieldwork was carried out in two stages - from the 1^{sT}-8^{tH} September 2010, and from the 22nd -26th October 2010, by Mike Trevarthen (BA (Hons.), AIFA. The Project was managed for Terrain Archaeology by Peter S. Bellamy (BSc, MIFA).

Terrain Archaeology would like to acknowledge the help and cooperation of the following during this project: Stuart Austin and Charlotte Bell (WYG), Mark Renault (RMBR Quarry Manager) and Clare King (Wiltshire Council Archaeology Service).

THE SITE

Brickworth quarry lies to the southeast of the A36(T) and the A27 Brickworth Corner junction, about 2km SSW of Whiteparish. Round Copse North is situated immediately south of the existing extraction site at Brickworth, centred on Ordnance Survey NGR SU227225 (Figure 1). The proposed Round Copse North extraction site as a whole is approximately 5ha in extent, and until recently lay under artificial plantation of conifer with some birch. Along the eastern side of the area was a low ridge running roughly N-S (Plate 1).

Works subject to archaeological observation comprised mechanical removal of tree stumps and mechanical stripping of the site's superficial subsoil/former ploughsoil onto the upper exposure of

'natural' strata. The Phase 1 site clearance extended over very approximately 0.8ha, although further proposed clearance west of this area was postponed pending additional environmental survey, after discovery of a Great Crested Newt (a species afforded statutory protected under EU legislation). The area ultimately stripped of subsoil for sand extraction encompassed *c.* 0.6ha.

No drift deposits were present within the stripped areas, and the site is mapped as Tertiary Reading Beds over Upper Chalk (British Geological Survey Sheet 298).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological and historical background to the site has previously been synthesised in detail in Chapter 10 of the Environmental Impact Assessment Report prepared by White Young Green Environment Planning Transport Ltd. A summary of this background data is presented below.

There has been little previous archaeological work on or in the close vicinity of the Site. A watching brief during topsoil stripping of Brickworth Quarry (immediately north of the Site) revealed small amounts of prehistoric, Roman and later finds (Cave Penney 2006). An archaeological evaluation in Brickworth Park (about 400m west of the Site) in 1997 recovered Bronze Age and Late Medieval Pottery (Wiltshire SMR Ref: SU 22 SW 150 and Wiltshire SMR Ref: SU 22 SW 472). A sparse surface scatter of prehistoric worked flint and a scatter of burnt unworked flint was found immediately north of the Site at SU 2282 2272 (Cave Penney 2006).

A post-medieval or earlier trackway called Sandland Drove runs along the western side of Round Copse. The copse itself is defined by an earthen bank of post-medieval date.

AIMS AND OBJECTIVES

The objective of the archaeological observations, as established in the Written Scheme of Investigation (Terrain Archaeology 2010, 3), was to establish and make available information about the archaeological resource existing on the site.

The archaeological works aimed to observe and record all the *in situ* archaeological deposits and features revealed during the groundworks to an appropriate professional standard.

METHODS

All archaeological fieldwork was undertaken in accordance with a Written Scheme of Investigation (Terrain Archaeology 2010) and with the Institute for Archaeologists *Code of Conduct* and *Standard and guidance for archaeological watching briefs* (IfA 2008). The initial stages of mechanical site clearance (the stump-clearance works and removal of the recent superficial humic 'plantation soils') were carried out under archaeological observation, but following methodologies agreed by WYG, and under the primary direction of a WYG Ecologist. Two principal methods of clearance were attempted: Across the eastern half of the site stumps were pulled prior to clearance of the plantation soil whilst, to the west, this soil was stripped between stumps prior to their extraction revealing a greater area of subsoil/ploughsoil for inspection (Plates 2-4).

Stumps were removed by tracked mechanical excavator fitted with a variety of tined- and toothed buckets (see front cover and Plates 3-4), depending upon operational breakage and availability of replacements. The removals created irregular voids up to 1.5m deep (Plate 4), and some of the larger conifer stumps required additional trenching around their circumference to sever the boles from their extensive root systems. The stumps and surrounding areas were then inspected for wildlife before being shaken vigorously in the machine bucket to dislodge loose soil (Plate 3).

Following initial clearance, the underlying subsoil/relict ploughsoil was stripped to an appropriate level and standard under archaeological supervision.

All features and deposits, regardless of their perceived date and archaeological significance, were recorded using components of the Terrain Archaeology's system of complementary written, drawn and photographic records. These have been compiled in a stable, cross-referenced and fully indexed archive in accordance with current UKIC guidelines and the requirements of the receiving museum.

A photographic record of the works, including aspects of its conduct and general setting, as well as of specific technical detail, was maintained in 35mm black-and-white print and digital format.

In the absence of fixed, mapped and measurable landscape points, Ordnance Survey NGR compliant locations along the edge of the subsoil-stripped area, on archaeological features and on manually excavated segments of features were recorded using a Garmin Geko 201 handheld GPS, providing an average accuracy of ±5m. These points were manually plotted at a scale of 1:1000, providing the basis of Figure 2. The GPS measurements were augmented with hand-drawn plans and sections at scales of 1:20 and 1:10 respectively.

RESULTS

Site-wide deposits

Prior to its recent clear felling, the entirety of the site lay beneath artificial plantation. Superficial examination of stumps suggests this plantation was established in the 1950s or early 1960s.

Humic plantation soil 100

Layer 100 was ubiquitous across the site, comprising very woody- and humic 'mulch', giving way at its base to decayed organic material and very dark, fine sandy humus. The total depth of layer 100 varied significantly, but on average the deposit was *c.* 0.10 - 0.15m thick. It is likely that layer 100 represents accumulation and decay of organic material during the life span of the modern plantation (perhaps 60 or 70 years). The presence of occasional artefacts within the deposit is almost certainly a result of burrowing, uprooting of tree-boles and other mechanical upcast of underlying soils.

Soil layer 101

Layer 101 was also ubiquitous, lying directly beneath 100 and comprising *c.* 0.20–0.30m of relatively homogenous, loose mid greyish-brown slightly silty loam, usually containing moderate to common small pebbles (depending upon the nature of the underlying geological parent material).

Moderate amounts of struck, worked and burnt flint were recovered from layer 101, which is most plausibly interpreted as a former ploughsoil/agricultural soil, pre-dating imposition of the 20th century plantation.

Natural deposits 102

Natural deposits represented upper weathered and re-worked exposure of Tertiary Reading Beds. As such they varied considerably in their appearance across the site, and exposures included tracts of loose pale grey sand and silty sand, yellow, orange and red-brown sands (sometimes with poorly formed sheets of harder 'carstone') and patches/areas of pale yellow-brown silty clay. The crest of the site's broad central north-south ridge was capped with a moderately well sorted deposit of small-medium pebbles in a sparse, loose sandy matrix.

Archaeological features

Ditch 107

Ditch 107 (Figure 2) was sealed beneath subsoil layer 101, and was traced on a slightly irregular NNE-SSW alignment for a distance of some 90m, following quite closely the central crest of the stripped area. Three sample-segments were manually excavated, each above a different facet of the underlying natural strata.

Segment 109 (Figure 3, Plate 7) was placed at the southern end of the ditch, at a point where the feature became truncated, or opened onto slightly more steeply sloping ground. The underlying natural stratum comprised unconsolidated pebble gravel. Here the ditch was up to 0.7m wide with a broad, concave profile, and was 0.17m deep. Its single fill (110) comprised loose, unconsolidated mid-dark greyish-brown sand with very abundant pebbles up to 0.10m across. Two small struck flint flakes were recovered, one inconclusively bearing slight retouch or post-depositional/excavation edge damage.

Segment 111 (Figure 3, Plate 8) was positioned at the northernmost edge of the site, in an area where the ditch cut through firm yellow-brown silty clay. The segment was again 0.70m wide with sides sloping at c45° to a narrow, concave base. It was 0.20m deep, and contained a single fill deposit (112) of firm, mottled, mid-light yellow and greyish brown clayish sandy loam with occasional small pebbles and remains of decaying roots. No finds were recovered.

Segment 113 (Figure 3, Plate 9) was excavated to investigate the ditch where it cut a tract of loose, pale grey sand. Here the ditch was about one metre wide with blurred, poorly defined edges sloping at *c.* 40° from horizontal to a narrow concave base. The ditch was 0.35m deep, and contained a single fill deposit (113) of loose, unconsolidated light yellowish-brown silty sand with paler yellow-brown mottles and occasional small pebbles. Small quantities of calcined flint and a single struck flint (the proximal end of a small blade?) were recovered.

Ditch 103

Ditch 103 (Figure 2, Plate 6) cut subsoil layer 101, and was traced on a NNE-SSW alignment for a distance of *c.* 30m, shallowing and ultimately becoming truncated at its SSW end. A single segment (105) was excavated showing the ditch to have even sides sloping at *c.* 45° to a narrow concave base. The surviving depth (after removal of layer 101) was *c.* 0.25m. Its single fill deposit (106) was of very dark grey/black humic silty sand with common pebbles. The uppermost surviving parts of the fill were more humic with occasional fibrous woody fragments. No finds were recovered.

Finds

The only finds recovered were flint; both struck flint and burnt unworked flint.

Worked Flint

A total of sixty-five pieces of struck flint (1015g) and nine pieces of burnt (unworked) flint (327g) totalling 1342g, were recovered during the watching brief (Table 2). Although ubiquitous, the greater part of this flint was recovered from the southern half of the site. There was no recognisable patterning amongst the distribution of tools. A localised scatter of burnt (unworked) flint was also noted west of the Phase 1 extraction area, on an area stripped for use as a haul route, but this material was not systematically recovered and has not been included in Table 2.

Most of the assemblage comprises flakes and broken flakes (*c.* 62.16% by count), although within this, a significant elongate- and blade-like flake component is present. Blades (defined for the

purposes of this report as deliberately elongate flakes with a length-to-width ratio exceeding 3:1) comprised about 2.7% of the assemblage, and broken blades about 5.4%. Unclassifiable debitage was scarce, with only two pieces (*c.* 2.7%), and only one core (a small, worked-out multi-platform type) was found. Average weight per piece (excluding the burnt unworked flint) is 15.61g.

Context	Total	Flake/ broken flake	Blade	Broken blade	Core	Misc debitage	Tool	Burnt flint
100	11/212.3g	9/131g	0	1/5.3g	0	1/76g	0	
101	60/1121g	35/487g	2/8.8g	2/9.3g	1/39.8g	2/15.2g	9/233.2g	9/327g
110	2/7.2g	2/2.7g	0	0	0	0	0	
114	1/1.6g		0	1/1.6g				
TOTAL	74/1342g	46/625.2g	2/8.8g	4/16.2g	1/39.8g	2/91.2g	9/233.2g	9/327g

Table 2: Quantification struck flint by context

Condition

The assemblage is of mixed character, suggesting deposition in more than one phase, or over a long span of time. Much of the flint is sharp or only slightly worn, with occasional evidence for minor post-depositional edge abrasion and damage, probably from past ploughing. The assemblage is almost entirely unpatinated but two burnt flakes have crazed and pitted white surfaces.

Raw material

Much of the flaked stone is likely to have been sourced locally. Whilst the pebble flint available from the weathered Reading Beds is of no practical use for flint knapping, the site did yield occasional small, worn and often irregularly shaped nodules of relatively good quality flint with good flaking properties. The lithic assemblage also included some flakes and tools (SF1, SF2, SF8) in coarser, sometimes opaque grey flint with thicker chalky cortex. No parallel for this material was found during the site stripping and it may originally have been brought to the site from sources closer to the Chalk downs.

Technology

Where it was possible to ascertain, most of the flint recovered was produced by hard-hammer flaking. Soft hammer or indirect percussion may have been employed to produce the blades (particularly the broken prismatic blade from ditch fill 114) and some blade-like flakes.

Tools

Some 12.16% of the site's lithic assemblage can be classified as tools. All came from layer 101. Amongst these are two scrapers – a small horseshoe type made on a thick flake (SF8) and a larger coarse scraper (SF1) made on a large flake and bearing well-defined narrow notch on its right dorsal margin. An awl or piercer (SF3) was made on the distal end of a thick, incurving blade, and another broken triangular-section blade (SF2) showed either deliberate microdenticulation or use damage along much of its cutting edge. A small, well-executed knife (SF9) was made on an elongate flake with a crescent of semi-invasive retouch along the whole of its left dorsal margin and with the sharp, straight right margin left unmodified.

The remainder of the tools (SF5, SF6, SF7 and SF10) were all otherwise unclassifiable retouched flakes: amongst these, SF7 may be concave end-scraper made on a stout, steep-ended flake. The ventral edge of its distal end bears wear/blunting and small-scale fracturing perhaps consistent with use as a shave for wood, antler or bone.

Date

The limited size of the lithic assemblage means that few firm conclusions can be drawn about its date and significance. No Palaeolithic or conclusively Mesolithic material was found, but the small blade- and blade-like component amongst the assemblage, the worked-out core, and the deliberate thinness of many flakes suggests Early Neolithic activity, perhaps exploiting the light, sandy local soils for agriculture and utilising occasional nodules of good quality local flint bearing thin, worn rind. The assemblage also contains flakes (sometimes larger and heavier) struck from flint with a thicker chalky cortex. This may have been brought to the site (see above) at a later date – perhaps the Late Neolithic or Bronze Age.

DISCUSSION

Methodology

The watching brief methodology was largely successful, allowing rapid characterisation of the site's archaeological potential and, subsequently, ensuring an appropriate level of archaeological monitoring during archaeologically sensitive soil stripping. It has shown that larger buried archaeological features such as ditches can retain a considerable degree of legibility when viewed over a wide area, despite apparently intense localised ground impacts. However, several observations are worth recording in respect of this.

The stump-removal programme was designed by and carried-out under the primary site supervision of an ecologist. Whilst a site-working method was developed to satisfy both ecological and archaeological needs, the window available for archaeological observation during each extraction was small. Had significant remains been identified, the method would have afforded little possibility for safe- or accurate recording of exposed deposits without recourse to temporary delays and significant remedial cleaning.

The prevailing soil- and subsoil conditions within the site presented particular difficulties. Whilst monitoring of the stump removals indicated the presence of struck flint across the site, it did not reveal either of the site's two ditches: in fact it is unlikely that archaeological features would be recognised at all in soils of this type unless they were particularly rich in artefacts, or contained highly-contrasting fill deposits.

Despite their initial severity of impact (and entirely counter to expectations) very many of the infilled stump-holes were difficult, if not impossible, to re-locate and define following secondary (archaeological) stripping: thus it was not always possible to satisfactorily distinguish disturbed, redeposited natural sands from undisturbed ground.

Archaeological Results

The discovery within Phase 1 of the Round Copse North extension of a significant background scatter of struck- and worked flint adds to otherwise scarce evidence for local Neolithic and/or Bronze Age activity. The precise form of this activity is unclear given the small quantities of worked flint recovered and no direct evidence for settlement. However, there does appear to be some differences in the concentration of the flint across the area with greater quantities found in the southern part of the stripped area. Examination of the topsoil stripping in later phases of quarrying may provide additional evidence to determine whether this distribution pattern is archaeologically significant.

The undated (but pre-modern) boundary ditch 107 provides evidence of past land division, perhaps deliberately exploiting a topographic ridge to separate land-blocks, but there is as yet no

other evidence from the site for any subsidiary dividing ditches, or for ditched field systems of any complexity.

Peripheral observations west of the Phase 1 strip (on an area topsoil-stripped for use as a haul route) have confirmed that a previously known surface scatter of burnt flint (Cave Penney (2006) extends southwards into the northwestern part of the proposed Round Copse North extraction area. Although not intrinsically dateable, surface-concentrations of burnt flint can be indicative of prehistoric (and later) settlement- or occupation sites.

ARCHIVE

The project archive, comprising all physical, stratigraphic, written, graphic and photographic records, along with appropriate background documentation, is currently stored by Terrain Archaeology under the project code 53324. In due course, and subject to the legal agreement of the landowner to full transfer of title, it is anticipated that the archive will be accessioned for long-term curation and storage by the Salisbury and South Wiltshire Museum, Salisbury.

REFERENCES

IfA (Institute for Archaeologists)	2008	*Standard and guidance for archaeological watching briefs.* (Revised Edition).
Terrain Archaeology	2010	Round Copse North Extension, Brickworth Quarry, Whiteparish, Wiltshire: Written Scheme of Investigation for Archaeological Observations and recording. Terrain Archaeology Document No. 3324/0/1, revision 1, July 2010.
Cave Penney, H.	2006	'Brickworth Quarry, Moor Farm, Whiteparish, Wiltshire. Archaeological Watching Brief'. Unpublished report by Wiltshire Archaeology Service, dated February 2006 (but with later additions).

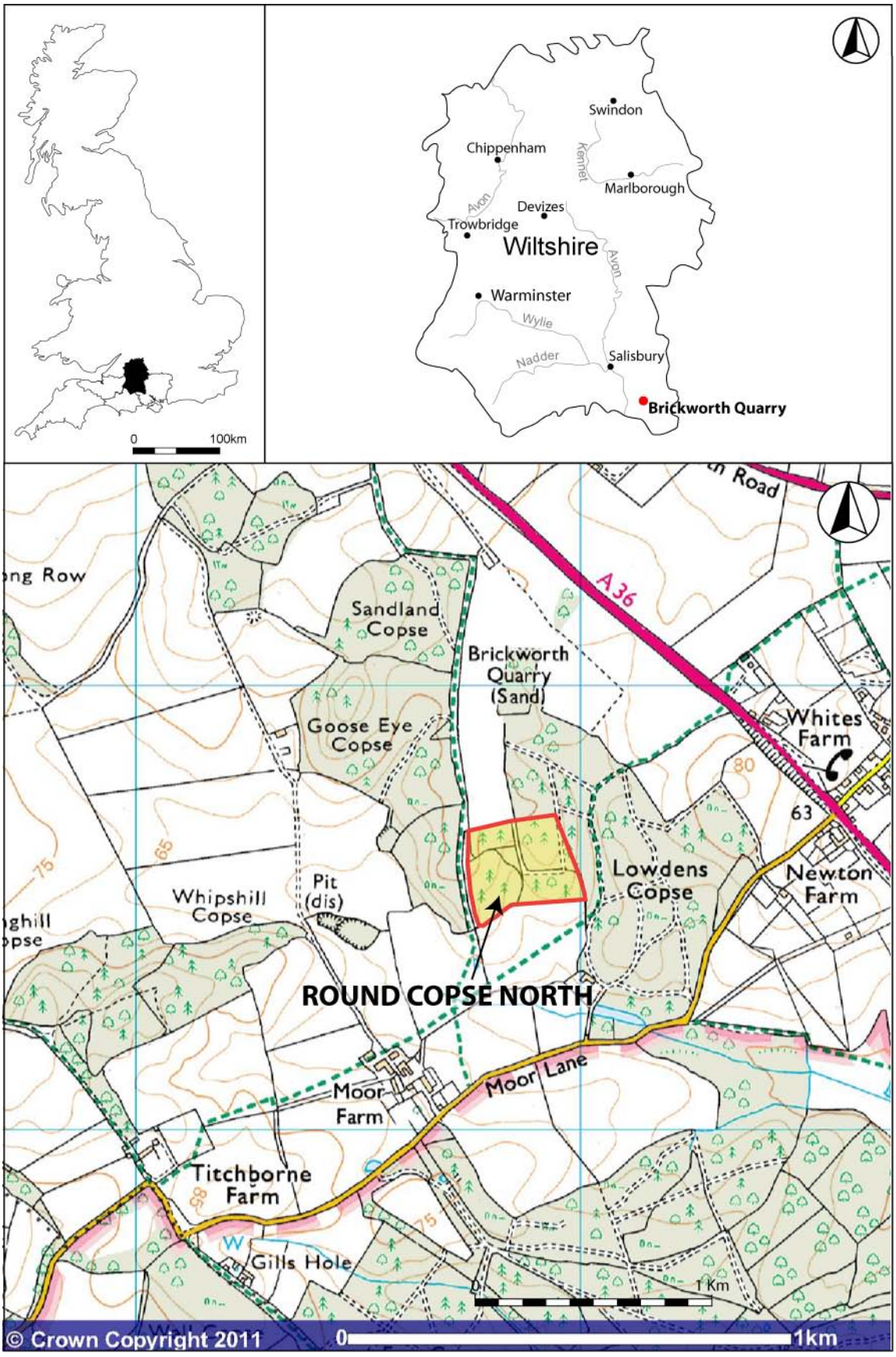

Figure 1: Location map.

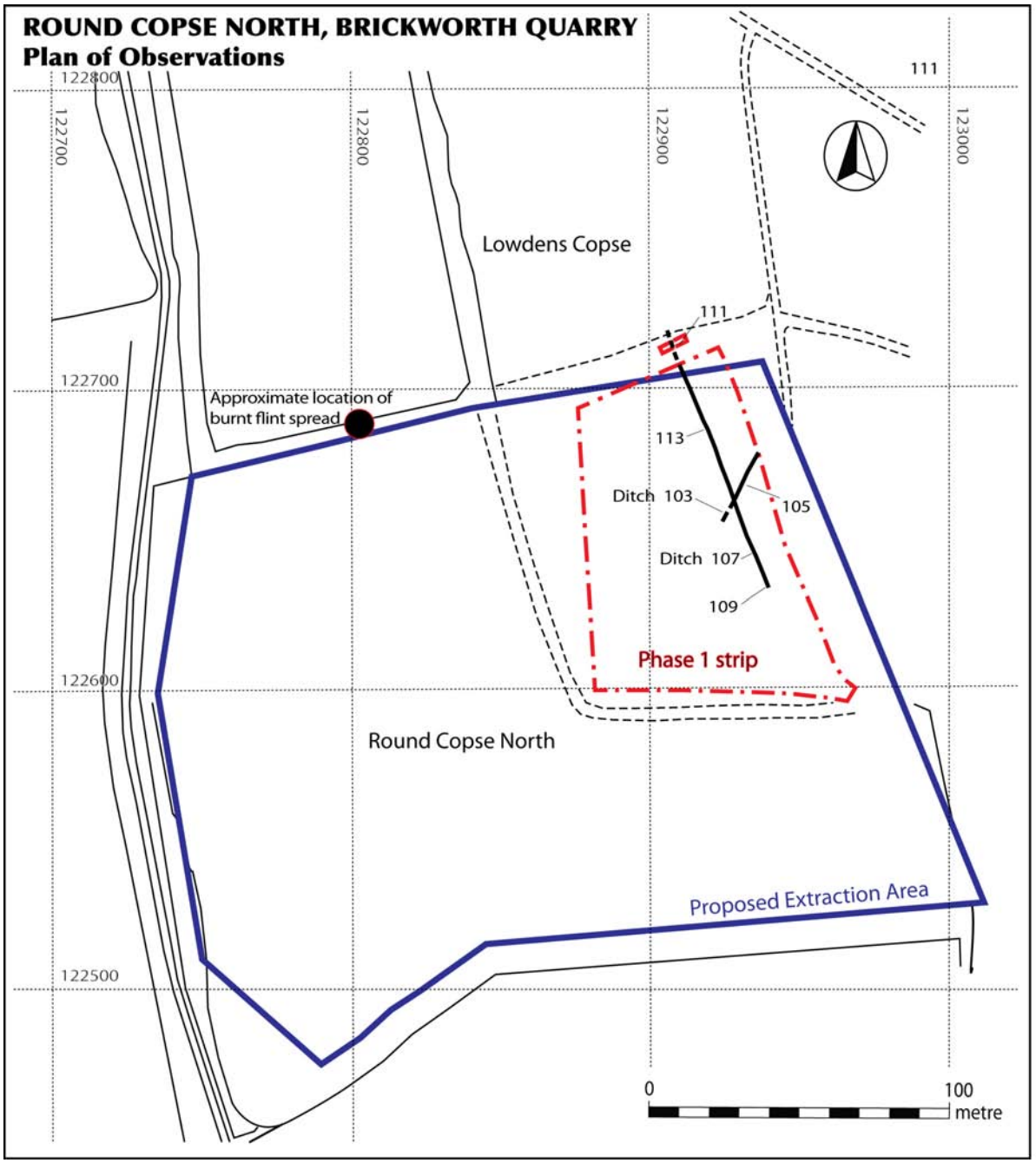

Figure 2: Site plan indicating extent of archaeologically mitigated groundworks and archaeological features.

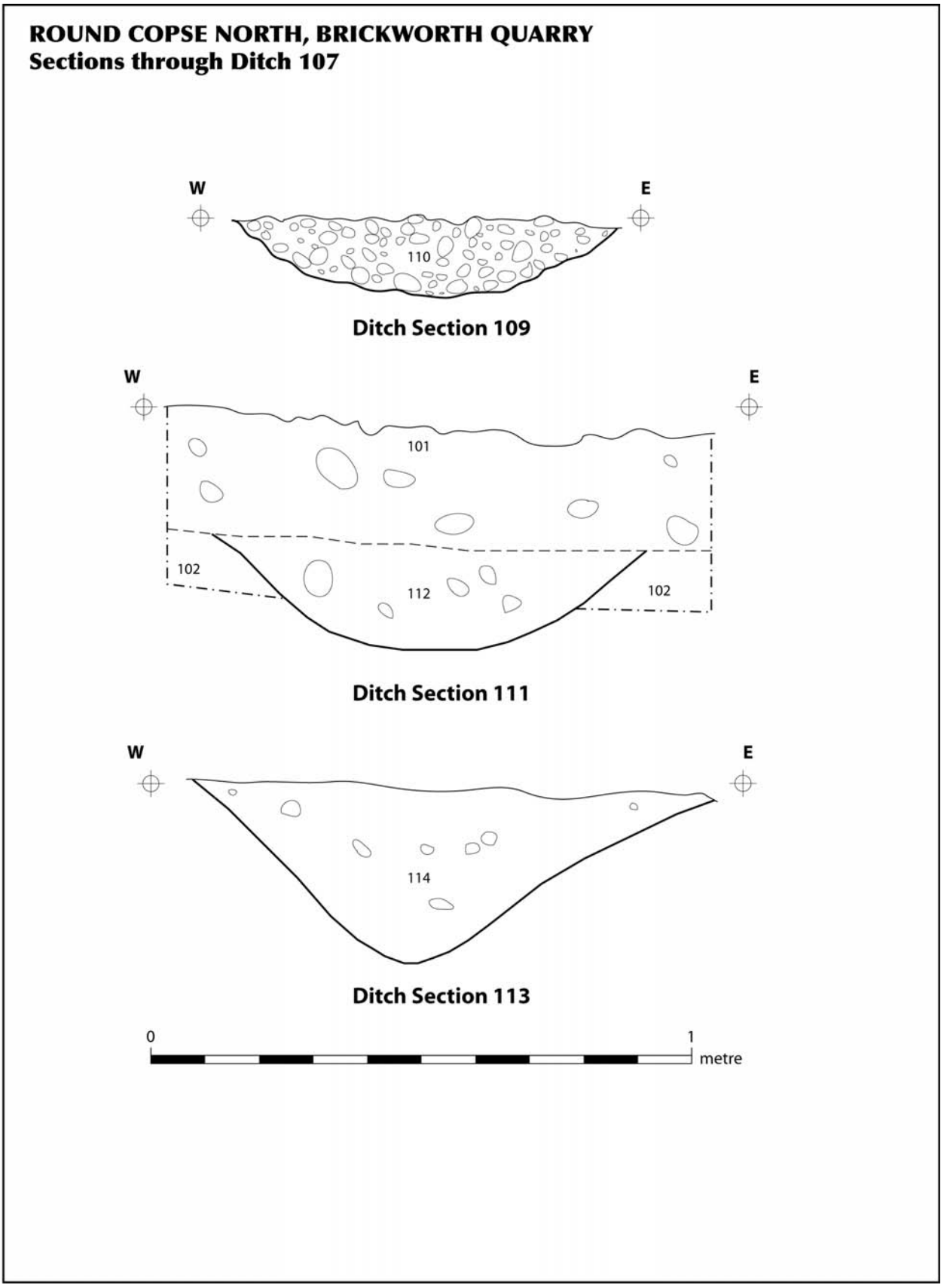

Figure 3: Sections through Ditch 107

Plate 1: General view of area after felling and prior to stump removal, showing topographic ridge.

Plate 2: Stripping humic layer from around stumps.

Plate 3: Removal of tree stump – shaking soil from the roots.

Plate 4: Detail of typical medium-sized tree stump being extracted.

Plate 5: Exposure of natural deposits 102 during removal of former ploughsoil layer 101.

Plate 6: Ditch 103 (dark fill) and ditch 107, indicating topographic prominence of the latter.

Plate 7: South-facing section of ditch segment 109. 0.10m scale.

Plate 8: South-facing section of ditch segment 111. 0.10m scale.

Plate 9: South-facing section of ditch segment 113. 0.10m scale.