

RESULTS OF AN ARCHAEOLOGICAL WATCHING BRIEF ON LAND ADJACENT TO WARNFORD ROAD, CORHAMPTON, HAMPSHIRE

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ABSTRACT

An archaeological watching brief undertaken during the redevelopment of land adjacent to Warnford Road, Corhampton, Hampshire revealed Early Holocene stratigraphic sequences including a palaeosol within which molluscs and pollen were preserved. A radiocarbon date of 9160–8790 cal BC was obtained on charcoal from the palaeosol. A Middle Iron Age ditch into which an apparently in situ inhumation burial, radiocarbon dated to 400–230 cal BC, had been placed at its base, was also found.

Age date was recorded (Wessex Archaeology 2005). Given these limited results, a watching brief was considered an appropriate response for the next phase of work, and a written scheme of investigation was agreed with Winchester City Council prior to commencement (Wessex Archaeology 2007).

Monitoring was carried out during the machine excavation of foundation trenches, which were up to 3m in depth and very narrow at only 0.5m wide (Fig.1). Despite the restrictive nature of the excavations, the importance of the sequences was recognised enabling it to be sampled for further investigation.

INTRODUCTION

Between 2 May 2007 and 20 February 2009, Wessex Archaeology undertook an archaeological watching brief on land adjacent to Warnford Road (A32), Corhampton, Hampshire (NGR 461070, 120520, Fig. 1) during redevelopment of the site. The work followed a desk-based assessment and machine trench evaluation conducted in 2005 which had demonstrated low potential for archaeological remains. This report represents an integrated summary of the watching brief results; further details can be found in the site archive.

The site, occupying part of the River Meon floodplain, slopes east to west towards the Meon Rill from 62.40 m above Ordnance Datum (aOD) in the east to 59.20 m aOD in the west. The underlying geology is mapped as Middle Chalk, overlain by alluvium within the narrow floodplain of the River Meon (Geological Survey of Great Britain England and Wales Drift Sheet 316).

The 2005 evaluation consisted of seven trenches, in which a single ditch of Middle Iron

SEDIMENTARY OVERVIEW

The deposits across the site were quite consistent, with a similar sequence being observed across the entire area. At the base of the observed sequence was coombe deposit, the upper surface of which varied between c.1.6 to 2.4m below ground level. This material, consisting of chalk pieces and angular flint in a calcareous silt matrix, is of Pleistocene date and is formed by freeze–thaw and slope processes under periglacial conditions. It is commonly found in chalkland valleys.

The coombe deposit was overlain by a pale highly calcareous fine silt (marl) up to 1m in depth. This marl was deposited alluvially, although probably by overbank flooding rather than within an active channel. In the top of this marl a buried soil was recorded. This relatively thin (between 0.1 and 0.2m), highly calcareous immature azonal palaeosol represents a relatively stable, vegetated land surface which would have formed over a period of decades. It was rich in mollusc fauna and also contained pollen and

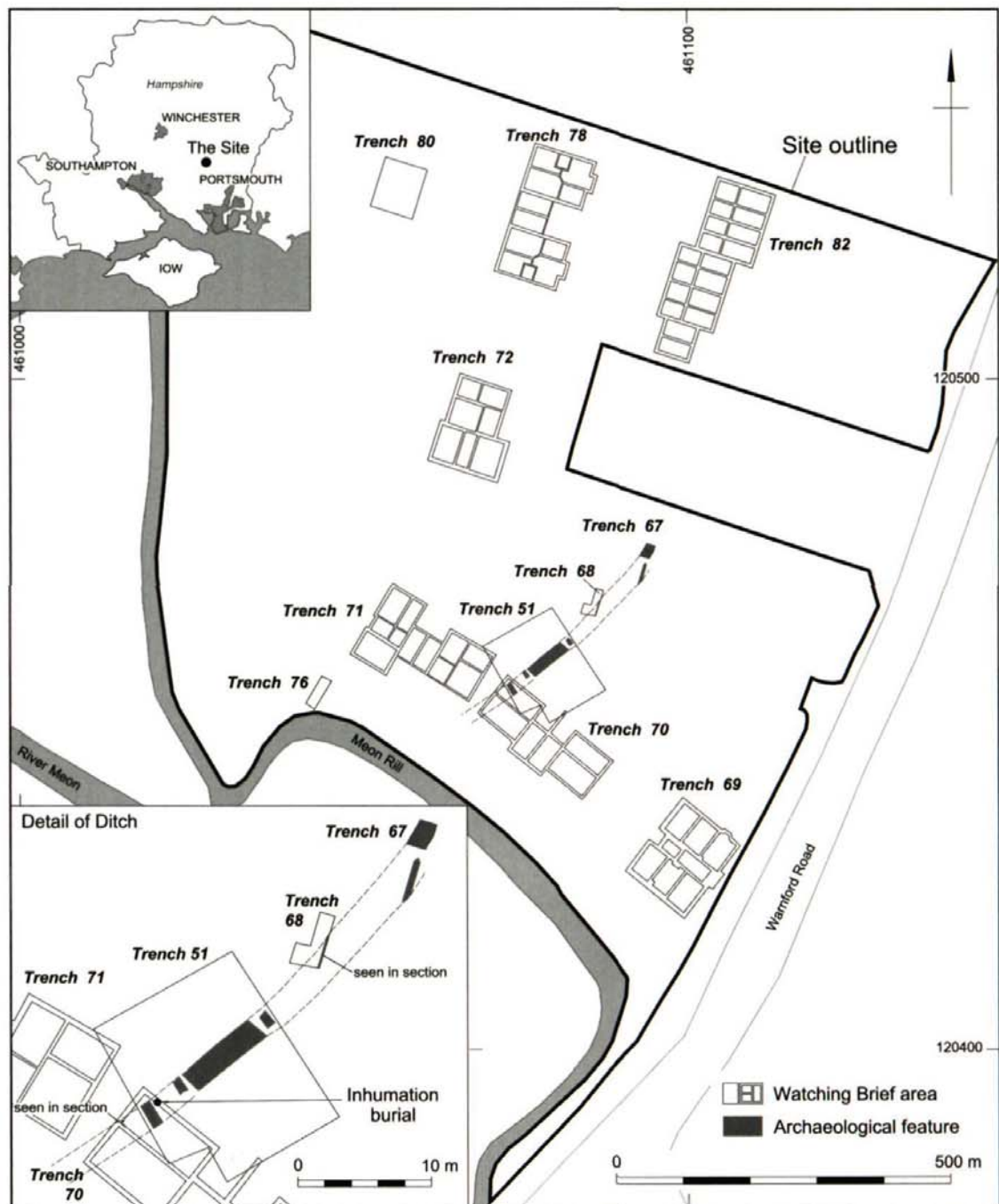


Fig 1 Site location showing excavated areas

Table 1 Description of the sedimentary sequence through Trench 71. Top of the monolith is 58.74m aOD

Depth (m below top of monolith)	Context	Sediment description	Interpretation
0–0.06	7100	10YR 8/2 very pale brown tufaceous material, highly calcareous nodular concretions from 0.5 to 10mm, most rounded but many elongated rootlet casts. No molluscs observed in monolith. Base slightly darker above sharp boundary.	Tufaceous material
0.06–0.15	7102	10YR 6/2 light brownish grey silt loam, well sorted, occasional molluscs observed (terrestrial), also rare small charcoal flecks (<i>c.</i> 1mm). <i>c.</i> 0.5% fine macropores, fairly weak medium blocky structure, lots of small arthropod burrows / rootlet holes at ped boundaries. Occasional rootlet with strong localised iron staining. Clear boundary	Immature highly calcareous azonal soil
0.15–0.26	7103	10YR 8/1 white (creamy) highly calcareous silt loam, very well sorted, massive, occasional very fine (likely mod) rootlet. Clear boundary. Probably washed from coombe deposit and water sorted/ deposited as alluvium (as opposed to precipitated)	Marl
0.26–0.43	7104	10YR 8/1 white (creamy) silt loam with very common rounded chalk pieces 1–10mm and very common flints 20–60mm (angular or nodular, not waterworn). Some iron staining poss around rootholes. Typical coombe deposit	Periglacial chalk / coombe deposit

small charcoal fragments, which were sampled for radiocarbon dating in Trench 70 (Fig. 1).

The palaeosol was capped by tufaceous deposits, which in some areas were bedded and interleaved with resumed overbank marl deposition. The tufaceous material would have been deposited by shallow active channels containing calcium carbonate-rich spring water.

A suite of mollusc bulk samples were taken from Trench 70, and monolith samples were taken through the sequence in Trench 71 for pollen and geoarchaeological description (Table 1). The results are summarised below.

MOLLUSCS OVERVIEW

The mollusc assemblage (Table 2), from the palaeosol (7002) is indicative of areas of open woodland with relatively large expanses of open grassland, with a small patch of wetter marshy

environment in the vicinity. The shade-loving element was mainly represented by *Vitrea* spp., *Limacidae* and *Carychium tridentatum*. The open-country component of this assemblage mainly comprised *Vallonia costata*, *Vallonia excentrica* and *Pupilla muscorum*. Three species of particular significance from this assemblage were *Vertigo pusilla*, *Abida secale* and *Discus ruderratus*. *Vertigo pusilla* is relatively rare today, but was common in the Early Holocene. *Abida secale* was a common snail on the chalk of southern England in the Late Glacial and Early Holocene. The presence of *Discus ruderratus* within the assemblage is noteworthy as this species is thought to have become extinct during the mid-Holocene, replaced by *Discus rotundatus* (Kerney 1999, 117). A radiocarbon date on charcoal, taken from within the buried soil (7002), sealed beneath the marl (7001), gives an Early Holocene date, with a calibrated 2 σ range of 9160–8790 cal BC (9580 $\pm$ 35BP; $\delta^{13}\text{C}$ –29.2‰; SUERC–30782).

Table 2 Table of mollusc data from the stratified sequence in Trench 70. Assessed bulk sample data from context 7002 is shown in italics and included for additional information

<i>Context</i>	<i>7002</i>	<i>7002</i>	<i>7001</i>	<i>7000</i>
<i>Sediment type</i>	<i>Palaeosol</i>	<i>Palaeosol</i>	<i>Marl</i>	<i>Tufa</i>
<i>Depth below surface (m)</i>	<i>2.10 - 2.30</i>	<i>2.10 - 2.30</i>	<i>1.30 - 2.10</i>	<i>0.50 - 1.30</i>
<i>Volume (L)</i>	<i>15</i>	<i>1</i>	<i>1</i>	<i>1.5</i>
Land snails				
<i>Carychium</i> cf. <i>minimum</i> Müller	<i>B</i>	<i>3</i>	<i>4</i>	<i>–</i>
<i>Carychium tridentatum</i> (Risso)	<i>A</i>	<i>43</i>	<i>6</i>	<i>1</i>
<i>Carychium</i> spp.	<i>–</i>	<i>15</i>	<i>7</i>	<i>2</i>
<i>Cochlicopa lubrica</i> (Müller)	<i>A</i>	<i>2</i>	<i>–</i>	<i>–</i>
<i>Cochlicopa lubricella</i> (Porro)	<i>B</i>	<i>–</i>	<i>–</i>	<i>–</i>
<i>Cochlicopa</i> spp.	<i>–</i>	<i>11</i>	<i>3</i>	<i>–</i>
<i>Columella</i> cf. <i>edentula</i> (Draparnaud)	<i>B</i>	<i>–</i>	<i>–</i>	<i>–</i>
<i>Vertigo</i> cf. <i>pusilla</i> Müller	<i>–</i>	<i>3</i>	<i>–</i>	<i>1</i>
<i>Vertigo</i> spp.	<i>A</i>	<i>8</i>	<i>–</i>	<i>2</i>
<i>Vertigo</i> spp. (sinestral)	<i>A</i>	<i>4</i>	<i>1</i>	<i>–</i>
<i>Abida secale</i> (Draparnaud)	<i>A</i>	<i>19</i>	<i>1</i>	<i>–</i>
<i>Pupilla muscorum</i> (Linnaeus)	<i>A</i>	<i>39</i>	<i>1</i>	<i>–</i>
<i>Lauria cylindracea</i> (Da Costa)	<i>A</i>	<i>–</i>	<i>–</i>	<i>–</i>
<i>Vallonia costata</i> (Müller)	<i>A</i>	<i>57</i>	<i>2</i>	<i>1</i>
<i>Vallonia excentrica</i> Sterki	<i>A</i>	<i>49</i>	<i>12</i>	<i>–</i>
<i>Vallonia</i> spp.	<i>–</i>	<i>4</i>	<i>–</i>	<i>–</i>
<i>Acanthinula aculeata</i> (Müller)	<i>B</i>	<i>3</i>	<i>–</i>	<i>–</i>
<i>Ena</i> sp.	<i>C</i>	<i>–</i>	<i>–</i>	<i>–</i>
<i>Punctum pygmaeum</i> (Draparnaud)	<i>A</i>	<i>7</i>	<i>4</i>	<i>1</i>
<i>Discus ruderatus</i> (Férrusac)	<i>C</i>	<i>–</i>	<i>–</i>	<i>–</i>
<i>Discus rotundatus</i> (Müller)	<i>C</i>	<i>1</i>	<i>–</i>	<i>1</i>
<i>Vitrina pellucida</i> (Müller)	<i>C</i>	<i>1</i>	<i>–</i>	<i>–</i>
<i>Vitrea</i> spp.	<i>A</i>	<i>50</i>	<i>2</i>	<i>–</i>
<i>Aegopinella pura</i> (Alder)	<i>A</i>	<i>10</i>	<i>–</i>	<i>–</i>
<i>Aegopinella nitidula</i> (Draparnaud)	<i>A</i>	<i>19</i>	<i>–</i>	<i>1</i>
<i>Oxychilus cellarius</i> (Müller)	<i>C</i>	<i>1</i>	<i>1</i>	<i>–</i>
Limacidae	<i>–</i>	<i>39</i>	<i>1</i>	<i>–</i>
<i>Euconulus fulvus</i> (Müller)	<i>B</i>	<i>1</i>	<i>1</i>	<i>–</i>

Table 2 (cont.) Table of mollusc data from the stratified sequence in Trench 70. Assessed bulk sample data from context 7002 is shown in *italics* and included for additional information

Context	7002	7002	7001	7000
Sediment type	<i>Palaeosol</i>	<i>Palaeosol</i>	Marl	Tufa
Depth below surface (m)	2.10 - 2.30	2.10 - 2.30	1.30 - 2.10	0.50 - 1.30
Volume (L)	15	1	1	1.5
<i>Cecilioides acicula</i> (Müller)	C	1	–	1
<i>Clausilia bidentata</i> (Ström)	B	+	1	–
<i>Helicella itala</i> (Linnaeus)	B	5	–	–
<i>Trichia hispida</i> (Linnaeus)	A	8	–	1
Freshwater snails				
<i>Lymnaea</i> spp.	C	1	1	2
<i>Pisidium</i> spp.	–	–	–	1
Total number of shells	100+	403	48	14
Number of recorded taxa	–	21	15	9

Key: A = 10+, B = 5-9, C = 1-4

The use of small charcoal fragments for radiocarbon dating is not ideal, due to their uncertain provenance and the unknown age of the wood at the time of burning. However the dating does provide a useful limiting date on the palaeosol and mollusc sequence. In addition the Warnford Road radiocarbon date and mollusc assemblage are comparable with the dated sequence from Holywell Coombe (Preece & Bridgland 1999) for Mollusc Zone b scheme (Kerney 1977). This zone is characterised by the expansion of *Carychium* and *Aegopinella*, together with the occurrence of *Discus ruderratus*. This implies that the radiocarbon date from the mollusc sequence at Warnford Road is broadly reliable. The open nature of the local vegetation implied by the molluscs is in contrast to the closed woodland Mesolithic environment shown by sequences such as at Cherhill, north Wiltshire (Evans & Smith 1983) and further demonstrates the spatial variability in woodland cover and landscape openness across the chalk downlands during the Mesolithic (French 2009).

A moderate number of snail shells were recovered from the overlying calcareous marl

deposit (7001), showing a significant increase within the freshwater and marsh loving species, represented by a rise in the numbers of *Carychium minimum*. This may be an artefact of the alluvial deposition of allocthonous molluscs, or alternatively, the assemblage may be reflecting an area of open woodland and open grassland but with an increased amount of wetter marshy environments within the vicinity. It is possible that the woodland has become a little more closed than that indicated by the molluscs recovered from the underlying palaeosol.

The small mollusc assemblage recovered from tufaceous layer (7000) contains a freshwater element as well as a shady component, represented in particular by *Carychium tridentatum*, and an open country component, mainly comprising *Vertigo pygmaea*. Although snail numbers are too low to provide a detailed indication of the local landscape, this assemblage could be compatible with one reflecting shallow channels within a marshy open woodland and grassland environment. Similarly at Bossington, Hampshire, analysis on molluscs from contemporary tufa deposits also indicated an open

marsh or open woodland environment (Davies 2008; Davies & Griffiths 2005) though periods of higher woodland cover were also recorded.

POLLEN

In the samples from Trench 71, pollen was only found to be present in the palaeosol (7102) (Fig. 2). Stratified pollen sequences exhibiting good preservation and within close proximity of the chalk still remain rare within the Hampshire area. Waton (1983) found there was often only minimal pollen preservation within the Hampshire chalkland river valleys (notably the Rivers Test and Itchen), with the exception of the more expansive deposits at Winnall Moors, Winchester (also see Champness *et al.* 2012). Detailed pollen records are emerging from areas such as Cranborne Chase, Dorset (French *et al.* 2007) and Caburn, East Sussex (Waller & Hamilton 2000), but information relating to the chalk landscape of eastern Hampshire is still limited. The short sequence from Warnford Road therefore provides an important insight into the vegetation of the surrounding chalk landscape during the Mesolithic. The pollen assemblage is dominated by *Corylus avellana*, suggesting a largely open woodland environment, supported by the presence of *Quercus*, *Ilex aquifolium* and *Poaceae*. These suggest areas of open ground with some low levels of disturbance, which the presence of charcoal fragments within the palaeosol indicate may be the product of human intervention. A local presence of *Alnus glutinosa* is implied, probably located along the banks of the spring or upon the floodplain. The presence of the deciduous woodland taxa, including low amounts of *Tilia cordata* and *Fraxinus excelsior*, are at odds with the radiocarbon date from context 7002 in Trench 70. The expansion of *Alnus glutinosa* in southern England often ranges between 7500–4000 cal BC and that of *Quercus* 8500–7500 cal BC (Grant 2005). This implies that the stratigraphic sequence in Trench 71, although very similar to that from Trench 70 and apparently continuous in the field, may be later in origin rather than contemporary with the dated charcoal fragments

and mollusc assemblage from Trench 70. The open nature of the local woodland vegetation, although only offering a brief glimpse, may be a reflection of the sites proximity to the open floodplain vegetation or the result of local human activity. However it could equally imply a more open downland environment as suggested by the mollusc sequence in Trench 70 and postulated for similar chalk downland areas further to the west (French *et al.* 2007).

MIDDLE IRON AGE DITCH

A c.50 m length of a north-north-east to south-south-west orientated ditch (7007) previously identified in the evaluation was recorded during the watching brief (Trenches 51, 67, 68, 70) (Fig. 1). The ditch was broadly aligned along the edge of the River Meon floodplain and measured c. 2 m wide and 1.6 m deep. It had moderately sloping sides and a narrow, rounded base. A primary fill of light grey slightly chalky clay with chalk inclusions and lenses of washed-in chalky material was overlain by a secondary or tertiary fill of homogeneous grey silty clay. A small quantity of Middle Iron Age pottery, animal bone and burnt flint was recovered. The pottery comprises sherds in sandy, flint-tempered and sandy/flint-tempered fabrics, including one rim sherd, probably from a straight-sided 'saucepan pot', characteristic of the Middle Iron Age (400–100 BC) in central southern England. Other sherds are less distinctive but would not be out of place within a similar date range. The animal bone (unidentifiable to species, one fragment burnt) and the burnt, unworked flint are not closely dateable, but are assumed to be of similar date to the pottery.

During the digging of a house foundation trench the lower part of an articulated *in situ* inhumation burial was discovered in the base of the ditch where it bisected Trench 70 (Fig. 1). Foot and lower leg bones, exposed in the trench section, indicated that one knee lay against the east side of the ditch with the feet to the west and the head likely to be to the south. The bone was in good condition and consisted of a right femur and left tibia of an adult male c. 18–23 years old. The left tibia was radiocarbon dated and provides a calibrated

2 σ range of 400–230 cal BC (2275 $\pm$ 20 BP; $\delta^{13}\text{C}$ –20.4‰; NZA–32572), confirming the Middle Iron Age date inferred from the pottery. The remainder of the skeleton lay outside the area of impact and as such was left *in situ*, therefore little more may be said of the individual.

CONCLUSIONS

This work has demonstrated the presence of extensive Early Holocene stratigraphic sequences which contain buried landsurfaces, within which local human activity is hinted at by the presence of charcoal. The mollusc assemblage and radiocarbon date from the palaeosol of Trench 70 indicates an area of open woodland and grassland, prior to the resumption of alluviation and channel activity. The pollen evidence, from the palaeosol in Trench 71, suggests that it may be later in date, but is again associated with an open woodland environment during the Early to Middle Holocene. These two sequences provide a rare glimpse into the nature of the surrounding landscape during the Mesolithic and may imply a largely open environment as has been postulated elsewhere upon the chalk to the west.

No records of Mesolithic activity were known from the immediate area of the site; however Mesolithic flint assemblages were documented (Wymer 1977) from the Chalk uplands at Meonstoke and Droxford and from the Bracklesham and Bagshot Beds further south at Shedfield. Field survey in the Meon Valley has identified Mesolithic activity (Schofield 1995). Though no artefacts of Mesolithic date were found on the site, the discovery of the well-preserved palaeosol, containing evidence for burning, may indicate that Mesolithic occupation sites are preserved in the River Meon floodplain. A key result of this work is that the potential for such sites locally is demonstrated, along with the presence of an extensive context in which they may be preserved. It is possible that Mesolithic activity exploiting the resources both of the uplands and the river valley may be one reason for the apparently open vegetation types identified within the palaeoenvironmental analyses.

A prehistoric ditch of probable Middle Iron

Age date is the only other significant archaeological feature on the site. The extent and location of this ditch, along or just above the eastern edge of the River Meon floodplain, together with the limited artefact assemblage, suggests that it may have marked a landscape boundary rather than forming part of a settlement enclosure. The presence of a burial within this ditch may also support the idea of a boundary ditch. Nevertheless, the presence of the small quantity of pottery within the ditch hints at settlement in the vicinity and provides the first evidence for (Middle) Iron Age activity in or around Warnford; previous investigations and find-spots having been mainly of Romano-British, early-mid-Saxon and medieval date. However the limited nature of evidence precludes any further discussion.

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