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Excavations at a Neolithic Enclosure on The Peak, near Birdlip, Gloucestershire

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Surveys and excavations in 1980–1 confirmed Peak Camp as a Neolithic enclosure on a flat promontory of the Cotswold escarpment overlooking the Severn Valley just 1 km south of Crickley Hill. Although heavily eroded by quarrying the site can be reconstructed as having two concentric arcs of boundary earthworks forming an oval plan which was probably open to the north where a steep natural slope defined the edge of the site. A section through the outer boundary showed four main phases of ditch construction, at least one causewayed. An extensive series of radiocarbon dates shows construction began in the late 37th century cal BC *and probably continued through successive remodellings into the 33rd century cal* BC *or beyond. An internal ditch or elongated pit situated in the area between the inner and outer boundary earthworks had a similar history. Where sampled, the ditch and internal feature were rich in material culture, including a substantial assemblage of plain bowl pottery; flint implements and working waste; animal remains dominated by cattle but including also the remains of a cat; human foot bones; slight traces of cereal production; a fragment of a Group VI axe; part of a sandstone disc; and a highly unusual shale arc pendant of continental type. It is suggested that the ditch fills represent selectively redeposited midden material from within the site that started to accumulate in the late 5th or early 4th millennium cal* BC*. The construction and use of Peak Camp is contemporary with activity on Crickley Hill, and the two sites probably formed components of a single complex. Its use was also contemporary with the deposition of burials at local long barrows in the Cotswold-Severn tradition which are linked by common ceramic traditions and the selective deposition of human body parts.*

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INTRODUCTION

The presence of an earthwork enclosure or camp on the flat top of a westward projecting promontory of the Cotswold escarpment north of Birdlip village in the parish of Cowley, Cotswold District, Gloucestershire (Fig. 1) has been known for more than three centuries. Philip Sheppard (1631–1713), Lord of the manors of Avening and Minchinhampton and Justice of the Peace for Gloucestershire, provided the noted antiquary John Aubrey with information allowing mention of the site in the *Monumenta Britannica* compiled between 1665 and 1695 (Aubrey 1982, 22 and 1250), one of about ten forts and camps listed for Gloucestershire. At that time the earthworks were presumably fully visible but, between the late 17th and early 19th centuries, the land was variously

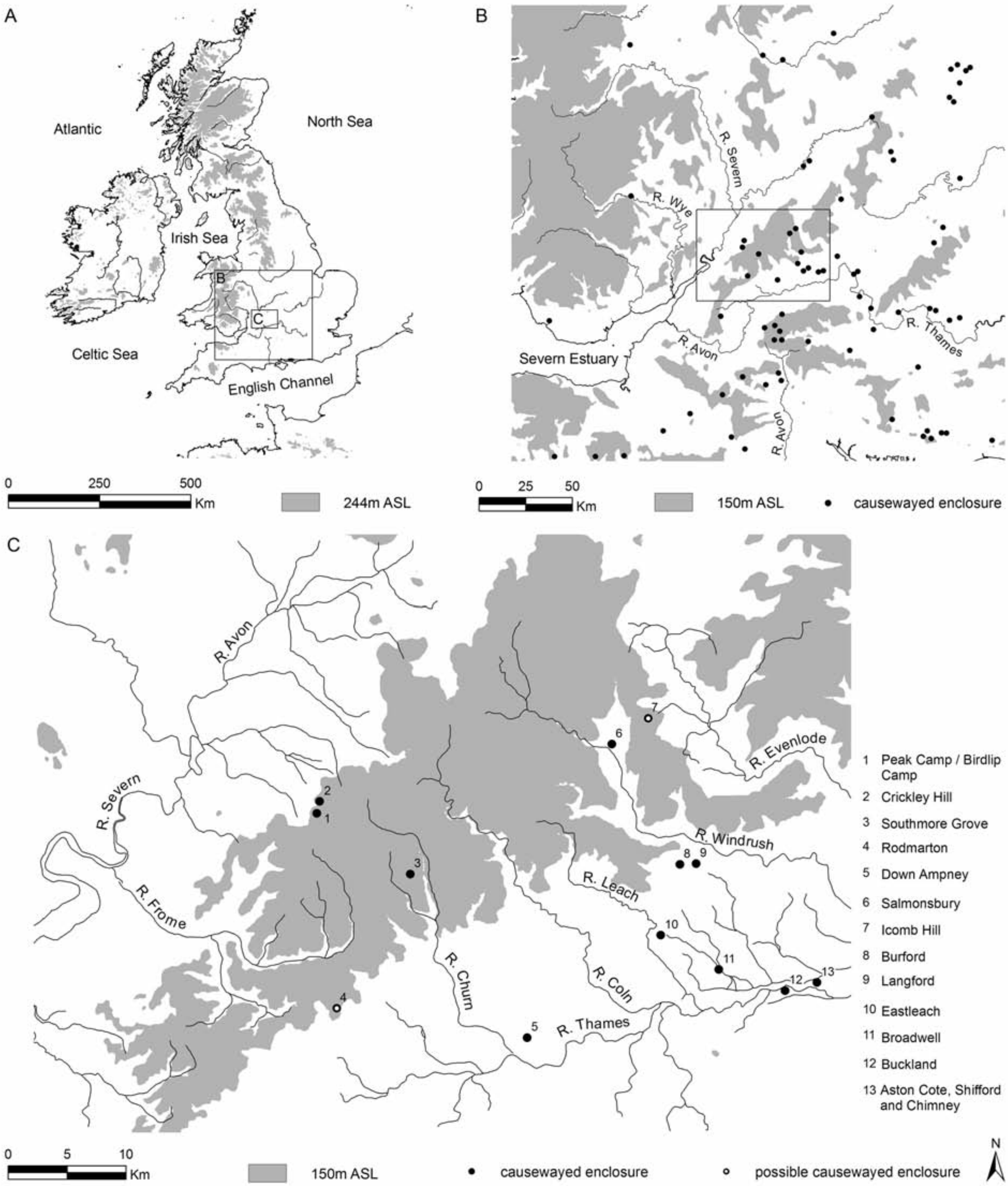

Fig. 1.
Location of Peak Camp in relation to causewayed enclosures in the Cotswold region and beyond.
(Drawing by Vanessa Constant)

under pasture and cultivation as open-field (Juřica 1981, 195–6). Quarrying along the south side of the hill may have begun in Roman times, was almost certainly the source of a white shelly peagrit used in the 12th century AD at Gloucester Cathedral (Price 2001, 186), and was a prolific source through the 18th and 19th centuries (Price 2007, 13–14). The Cowley Tithe Map and Apportionment dating to 1841 lists the area as Shearman's Peak, and indicates its use as rough grazing (GRO PC 1812/59). Thirty-five years later G F Playne (1876, 210: no. 15) found the site nearly levelled by cultivation and suffering from the effects of quarrying, a view confirmed by George Witts (1880, 206) who subsequently recorded that 'a great number of flint arrowheads have been found in the immediate neighbourhood' (Witts 1883, 5: no. 11). Quarrying seems to have ceased in the early 1890s, and between 1882 and 1900 The Peak Plantation was established as an area of mixed woodland. E. J. Burrow (1919, 42–3) speaks of a 'coppice of trees that crowns the headland' although his drawing made in 1913 shows an open hilltop. The first accurate depiction of the earthwork is found on the 25-inch Ordnance Survey (OS) sheets Glos XXXIV.6 and XXXIV.10 surveyed in 1900 and published in 1902; they show woodland across the site. Neolithic finds continued to be made in the area during the early 20th century. St Clair Baddeley (1923, 294) records that Mr D'Arcy Bearup, landlord of the George Inn at Birdlip, amassed a collection of arrowheads and flints from The Peak, including two leaf-shaped arrowheads recorded on the OS Archaeological Record (NMR SO 91 NW 9) as having been found by Bearup towards the western tip in 1919. Little attention was paid to the site between 1920 and 1980, although it was regularly listed as an Iron Age hillfort (eg, Forde-Johnston 1976, 36–8) and continued to be depicted as an earthwork on OS maps. In 1972 OS field surveyors noted that the remains comprised 'a minor and unclassifiable bank – dubious promontory fort' (NMR SO 91 NW10). This sceptical view was expanded by the RCHME (1976, xxxii) who included the earthwork on a list of discredited hillforts because the outer bank was considered 'wholly or partly natural' even though their typically thorough inspections suggested for the first time the presence of a second, inner, bank (*ibid*., xxxiii).

A visit to the site by the late Wilfred Cox and the present author in January 1980 revealed numerous worked flints in the root-plate and adjacent throw-pit of a fallen tree near the western end. This, taken together with the earlier records of Neolithic finds and the discovery in 1971 that the low-relief earthwork inside the Iron Age hillfort on Crickley Hill just 1 km to the north was of Neolithic date (Dixon 1979; 1988, 75), suggested that the remains on The Peak merited further evaluation. This was duly carried out with the aims of: a) determining its authenticity as a Neolithic enclosure; b) recovering datable material and establishing a chronology for the site; c) determining the state of preservation and the extent and variability of the archaeological deposits present; d) recovering cultural material that would shed light on the nature, purpose, and relationships of the site, especially with regard to the broadly contemporary Cotswold-Severn long barrows scattered across the Cotswold uplands. The initial aim was met in November 1980 with the excavation of small cuttings through the boundary earthwork (Trench I) at the east end of the promontory and within the interior adjacent to disturbed ground where flints had been found (Trench II). As a result the site was tentatively classified as a 'causewayed enclosure', a term generically and rather loosely applied here as elsewhere to a heterogeneous range of large circular or oval Neolithic enclosures bounded by one or more circuits of more or less discontinuous earthworks (cf. Darvill & Thomas 2001, 10). A second season in July 1981 addressed aims b) to d) and completed the investigation of both trenches (see Darvill 1981 & 1982 for interim reports). Topographic surveys were successfully carried out at this time; experiments with geophysical surveys proved unsuccessful because of the tree-cover and underground root systems. Post-excavation analysis on the material recovered has been carried out episodically between 1982 and 2009. Since 1981 the site has remained in private hands under managed woodland and has continued to yield Neolithic worked flint and pottery from tree-throws and erosion scars.

The site was resurveyed by the RCHME in March 1986 as part of a national study of causewayed enclosures, confirming and further documenting the presence of two concentric earthworks (Pattison 1986; Oswald *et al*. 2001, 151 & fig. 4.14). It is listed on the National Monuments Record as SO 91 NW 10 and on the Gloucestershire County Council Sites and Monument Record as area 4754. The Cotswold Way, a National Long Distance Footpath established by the

Countryside Commission in 1970 and upgraded to the status of National Trail in May 2007, runs through the site (NT 2008).

PEAK CAMP AND ITS ARCHAEOLOGICAL CONTEXT

The enclosure – variously known as Peak Camp (Cox 1972, 10) or Birdlip Camp (Playne 1876, 210; Witts 1883, 5; RCHME 1976, 39); the former being preferred here as a toponym – occupies a relatively flat triangular promontory projecting westwards from the main Cotswold escarpment at a height of about 270 m OD, centred on NGR SO 92421493 (Fig. 2). The underlying bedrock is limestone of the Lower Inferior Oolite series (Firman 1994, 19), elements of which have been much sought after for building stone since the 11th century AD. Although now covered in fairly dense woodland (Fig. 3), Peak Camp occupies one of the highest points on the Cotswold escarpment and affords spectacular views along and across the Severn Valley, southwards to the Bristol Channel, northwards to Bredon Hill and the Midland Plain, and westwards to the Malvern Hills, May Hill, the Brecon Beacons, and the Black Mountains of Wales. On a clear day landmarks more than 50 km distant can be seen with the naked eye. Locally, the site stands on the ecotone between the rich clay lands of the Severn Valley which it overlooks to the west and the dry Cotswold uplands to the east.

The area around Birdlip is rich in prehistoric sites (Fig. 2). Crickley Hill lies *c*.1 km to the north and is intervisible with Peak Camp. Here excavations between 1969 and 1993 established a long sequence of enclosures of 4th millennium cal BC date and an Iron Age hillfort occupied in the 8th–6th centuries cal BC and again in the 1st century AD (Dixon 1988; Dixon *et al.* 2011). The West Tump long barrow (GLO 8) lies 2.2 km south of Peak Camp; excavations in 1881 revealed the presence of a single lateral chamber containing multiple disarticulated inhumations representing at least 14 individuals (Witts 1881; Darvill 2004a, 245; Brickley & Thomas 2004; Smith & Brickley 2006, 340–3), two of which have been dated to 3770–3630 cal BC (Wk-17196: 4897±38 BP) and 3630–3350 cal BC (Wk-17195: 4656±41 BP; all radiocarbon dates cited in the text have been calibrated using OxCal 3.10 at the 95% confidence interval with the Intcal 04 dataset) while a further seven burials lay around the edge of the mound, four of which have been dated to the period 3640–3370 cal BC (Wk-17198: 4710±37 BP) to 3370–3090 cal BC (Wk-17201: 4527±42 BP) suggesting continued use of this monument into the second half of the 4th millennium cal BC. A second long barrow, The Crippets (GLO 7), lies 1.5 km north of Crickley Hill but has not been systematically examined (Crawford 1925, 93; Darvill 2004a, 245). Less than 3 km south-west of Peak Camp is the Hungerfield Barrow, considered by Ian Kinnes to be an early Neolithic round barrow with a central crematorium on the basis of excavations in 1880 (Kinnes 1979, 9; Dorrington & Rolleston 1880, 133–6; Darvill 2010; Roberts 2010). Fieldwalking in advance of the construction of the Birdlip Bypass in 1983–4 revealed four flint scatters east of Peak Camp, one with a Mesolithic component to the assemblage (Darvill 1984a, 25), but subsequent excavations in 1987–8 added little to the picture and failed to find any features or deposits earlier than the second millennium cal BC (Parry 1998). Small-scale fieldwalking has revealed concentrations of worked flints dating to the 4th and 3rd millennium cal BC south of Blacklains Farm, north-east of The Peak, west of Shab Hill Farm, and south of The Crippets. A handful of flint and stone axes are known as stray finds from the area, most notably a complete Group VI axe from Birdlip (Evens *et al.* 1972, 270).

A standing stone in the garden of Knap House is probably a medieval or later marker-stone beside a trackway leading to the quarries on the south side of The Peak, but the placename ‘knap’ is interesting and may hint at the former existence of a prehistoric monument (cf. O’Neil & Grinsell 1960, 46–7). Several certain and probable round barrows of the 3rd or 2nd millennia cal BC are known along the edge of the Cotswold escarpment north of Birdlip, including a small cemetery of four mounds in and around Emma’s Grove east of Crickley Hill (O’Neil & Grinsell 1960, 109). Middle and Late Iron Age occupation of the 5th–1st centuries cal BC has been found at Stockwell to the east of Birdlip (Parry 1998), and at Knap House (Saville 1984b, 169). The rich Late Iron Age mirror burial found in 1879 at Barrow Wake (Bellows 1881) seems to be part of a more extensive cemetery (Staelens 1982), but its exact position in the landscape is not known. It may be contemporary with a small-scale reoccupation of Crickley Hill in the early 1st century AD; a gold Dobunnic coin of Bodvoc was found at Birdlip in the mid-19th century (RCHME 1976, 39).

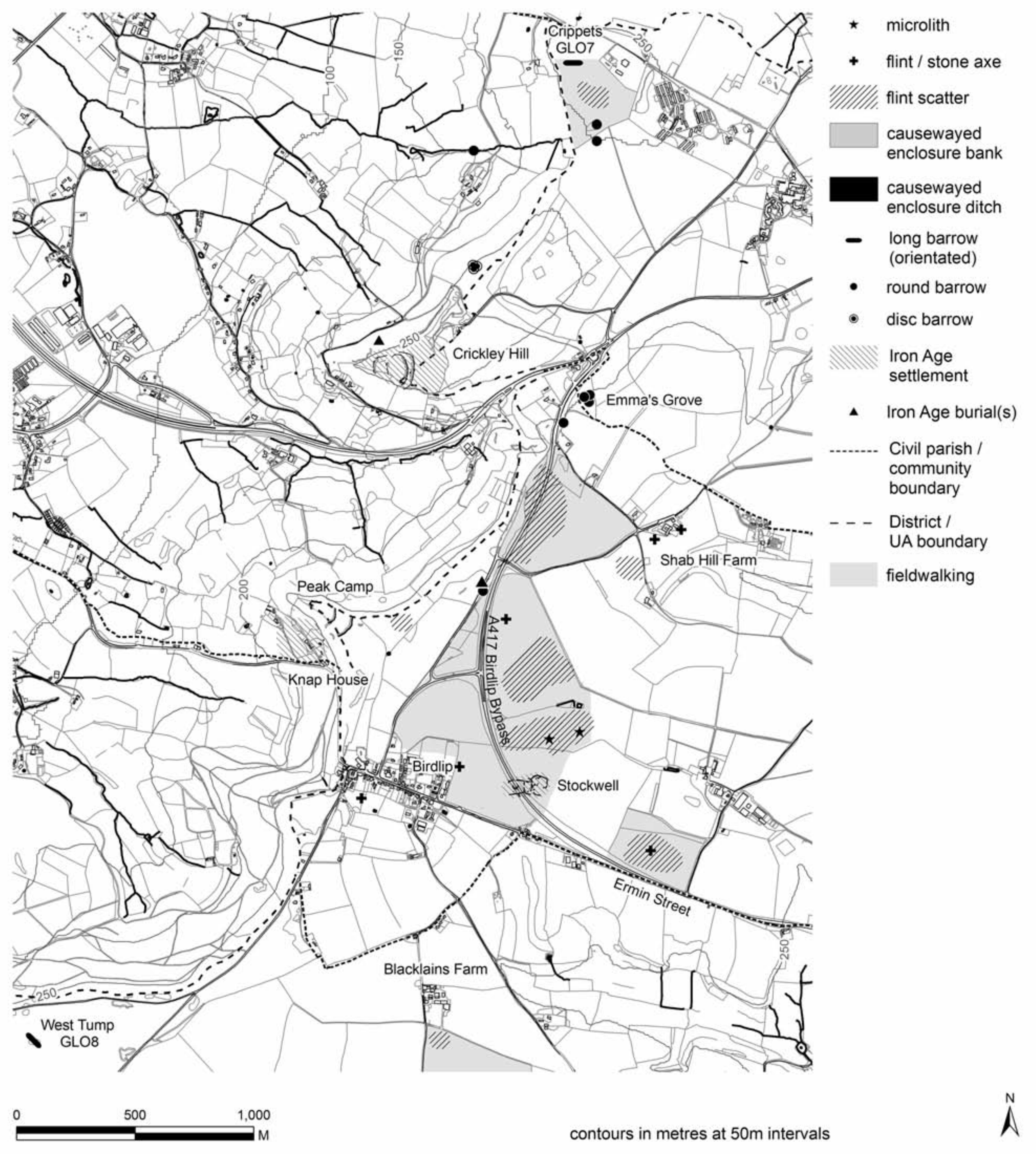

Fig. 2.
Archaeological sites in the Birdlip area, Gloucestershire. (Drawing by Vanessa Constant)

Fig. 3.
Peak Camp, Gloucestershire, view looking south from Crickley Hill. (Photograph by Timothy Darvill)

Visible archaeological remains at The Peak comprise two roughly concentric eroded earthworks running across the neck of the promontory towards the east end and traces of a third very eroded earthwork at the west end. All are difficult to see under the present woodland canopy, but were revealed by close interval topographic surveys made manually in 1980–1 and later digitised for the creation of a contour plot and digital terrain model (Fig. 4). The outer or eastern earthwork follows an irregular arc in plan, and comprises a low bank and outer ditch (Fig. 5). The bank, spread by cultivation, is about 8 m wide and stands 0.5 m high where best preserved. Elements of its stone construction are visible where footpath erosion has reduced topsoil depth. The ditch can be traced on the ground across the hill, and is again most clear where intersected by footpaths. It is about 3 m wide and survives as a surface earthwork up to about 0.3 m deep. Given the loss of land to quarrying on the south side of the spur it is possible that the outer earthwork once continued westwards of its current preserved limit before turning north again to return as far as the natural scarp slope, thereby creating an earthwork of semi-circular plan. An inner earthwork runs across the spur about 60 m west of the main outer earthwork already described. It is smaller and less well preserved, but follows a generally concentric course across the hill. The bank is about 7 m wide, while the very slight traces of an outer ditch measure about 2.5 m across. Quarrying has again destroyed part of the original circuit on the south side, but slight traces of a return earthwork can be seen as various undulations in the ground surface towards the western end of the promontory.

Although there is evidence of slumping and landslip along the steep northern side of The Peak there are no certain signs of quarrying here and it may safely be assumed that both ditch circuits terminated on the edge of a natural slope. By contrast, the south side has been very heavily quarried and in places 50 m or more of original hilltop has been lost. The western end of the promontory has also been heavily quarried with even greater loss. As suggested above, both boundary

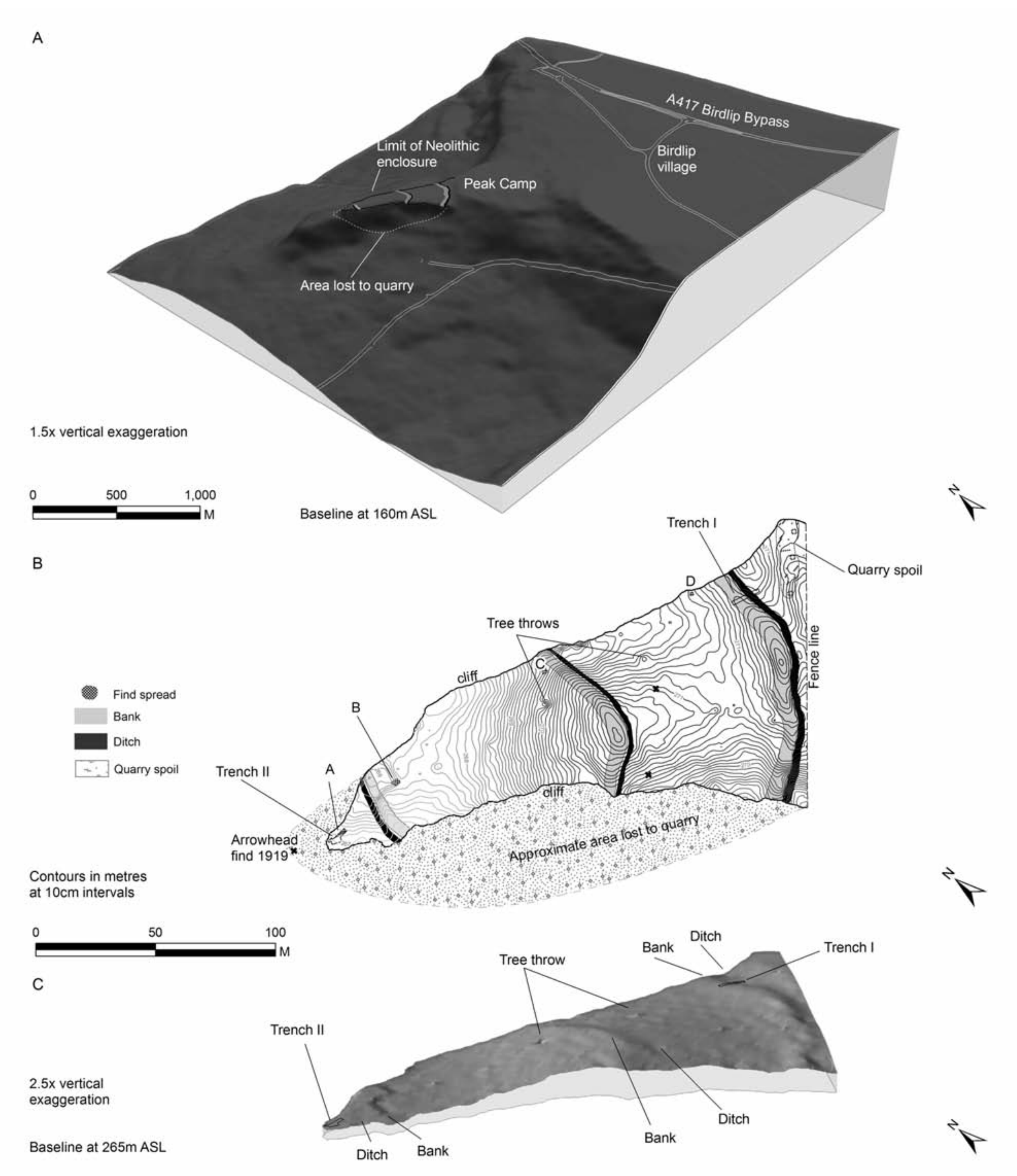

Fig. 4.
Peak Camp, Gloucestershire. A: Relief model showing its position on the Cotswold escarpment. B: Contour plot of the hilltop showing recorded features and the approximate extent of quarrying. C: Digital terrain model of the preserved hilltop. (Drawing by Vanessa Constant)

Fig. 5.
Outer earthwork at Peak Camp, Gloucestershire, looking south-westwards from outside the enclosure. Scale totals 2 m. (Photograph by Timothy Darvill)

earthworks may originally each have formed a continuous loop. Reconstructed in this way the inner enclosure would have been about 90 m east to west and 60 m north to south, the outer about 250 x 100 m.

As already noted, stray finds have been recovered across The Peak, especially struck flints, and those from visits between 1980 and 1987 are included in Snashall's analysis below. The two leaf-shaped arrowheads discovered in 1919 come from the heavily quarried area at the west end, but their current whereabouts is not known. Other finds include the collection of flints found by the author and Wilf Cox in 1981 and various later occasions around a tree-throw at the western end (Fig. 4B, Point A). Various finds by Mrs Margo Partridge include: worked flints and bone recovered in June 1985 from a tree-throw in the north-west sector (Fig. 4B, Point B); worked flint from footpath erosion on the north side near the inner earthwork recovered in June 1985 (Fig. 4B, Point C); and pottery, flint, and bone from a tree-throw just west of the outer earthwork recorded in July 1985 (Fig. 4B, Point D).

1980–81 EXCAVATIONS

Two excavation trenches (I and II) were opened in November 1980 and continued to completion in July 1981. A single-context recording system was used throughout, with a separate context series for each trench (C1, C2, etc). Where appropriate, contexts were grouped into event- or structure-related sets here called features; a single sequence of feature-numbers was used across both trenches (F1, F2, etc.). Contexts and Features have been phased within each trench on the basis of stratigraphic and dating evidence, the phases being numbered sequentially by trench from early to late (I.1, I.2 etc). All contexts were hand-excavated, usually by trowelling. Bulk soil-samples were taken for subsequent off-site processing and the recovery of palaeobotanical remains where appropriate. Regrettably, no environmental sequences were taken.

Trench I

Placed across the outer earthwork on the eastern side of the enclosure (Fig. 4B), Trench I was 12.5 x 1.5 m

(18.75 m^2). It was positioned to avoid tree-roots while providing a profile of the extant earthwork. Below a thin layer of leaf-mould (C1) a dark-brown topsoil (C2) up to 60 mm thick covered the whole area. C2 contained worked flints and burnt stones together with modern material including an oyster shell and an iron horseshoe embedded in the top of C3. The rich stratigraphic sequence below resolved itself into five phases of activity, summarised on Figure 6 as reconstructions of cut features in plan on the right with interpretative sections on the left.

Phase I.1 is represented by a rock-cut ditch (F7), better preserved on the north side of the trench than the south where it is truncated by the terminal of the later ditch recut (F9) in Phase I.3. Originally, more than 5.75 m wide and up to 1.50 m deep this substantial ditch had a slack U-shaped profile. The primary fill (C22/C23) was a brown clayey soil 20–100 mm thick with abundant finds including pots P1–P6. Bone from this context contributes to the dating model which suggests a construction date for F7 in the late 37th or early 36th century cal BC. A loose rubble fill (C21) up to 0.60 m thick directly overlies the primary layers (Fig. 7). It contains limestone blocks 40–35 mm across whose natural angle of rest suggests derivation from the west. This context is interpreted as the collapsed remains of an internal rampart or bank. Finds were few, but include P7 and a sandstone disc (see below). Sealing this deposit was a stabilisation horizon marked by a brown clayey soil (C20) up to 50 mm thick with an ash-rich area (C19) containing a variety of wood species on the south side. Tight against the eastern wall of the ditch on the north side was a dump of hearth-like material (C10) including reddened stones and an ash-rich soil. Charcoal from this deposit is dominated by short-life oak sapwood. Radiocarbon dates on charcoal from C19 suggest it is older than the ditch fill by as much as a century, while material in C10 may be older still and derive from activities in the 39th century cal BC. The upper ditch fills (C27, C27a/C9) comprise yellow-brown fairly stony deposits with darker red-brown lenses and occasional large blocks of limestone with varied angles of rest. This set of fills suggests a period of continued bank-erosion or demolition to the point where the ditch was more or less levelled. Sedge seeds from C27a are consistent with the first phase of monument building in a relatively natural environment. Very few finds were recorded in the upper fills of F7. No trace of a bank associated with F7 was found as anything remaining of it would have been cut away by later remodelling of the ditch or incorporated into later banks.

Phase I.2 involved the construction of a realigned ditch, F6, immediately west of the Phase I.1 ditch, and the creation of an internal stony bank, F4 (Fig. 6). F6 was fairly slight, about 2.6 m across and 0.75 m deep, with a flat bottom and near-vertical sides. It was slightly better preserved and more substantial on the south side of the trench, perhaps suggesting that the section examined was near a causeway outside the trench to the north. The eastern edge of F6 cut into the west side of the infilled ditch F7; F6 was open sufficiently long for the sides to have eroded to the point of becoming slightly undercut on the north side (the overall relationship between F6 (later) and F7 (earliest) is clearly seen in the south side (Fig. 7)). The primary fill of F6 (C26) was recognised only on the south of the trench (Fig. 7) and comprised a yellow-brown stony matrix that looks to have entered from the west; it contained no cultural material. The middle and upper fills (C18 and C24) are brown clayey deposits with abundant angular limestone fragments, some burnt stones, and, again, no cultural material. On the south side, C18 and C24 sandwiched a substantial stony layer (C25) with abundant angular limestone fragments bound together with yellow clay. A small unidentifiable piece of bone recovered from soil sample SF793 taken from C24 at the top of this sequence of fills in the Phase I.2 ditch provided a date of 3100–2670 cal BC (OxA-638: 4290±80 BP). A stony layer (C4) to the west of F6 is interpreted as the remains of a highly eroded associated bank (F4).

Phase I.3 represents the remodelling of the boundary through the construction of a new segmented ditch, F9, and associated bank, F12, slightly east of the Phase I.2 earthwork and therefore partly cutting into the original Phase I.1 ditch. F9 is represented by a round-ended ditch terminal, the main body of the ditch extending beyond the trench southwards. The available profile (Fig. 7) shows a rather ragged cut with a stepped slack U-form and a flat bottom, overall at least 4.6 m wide and 1.5 m deep. Its fills are the most complicated of all the ditches in this sequence. The primary deposit (C16 and C16a) comprises an admixture of rounded and angular limestone fragments bound in a matrix of yellow clay which is sealed by a stabilisation horizon

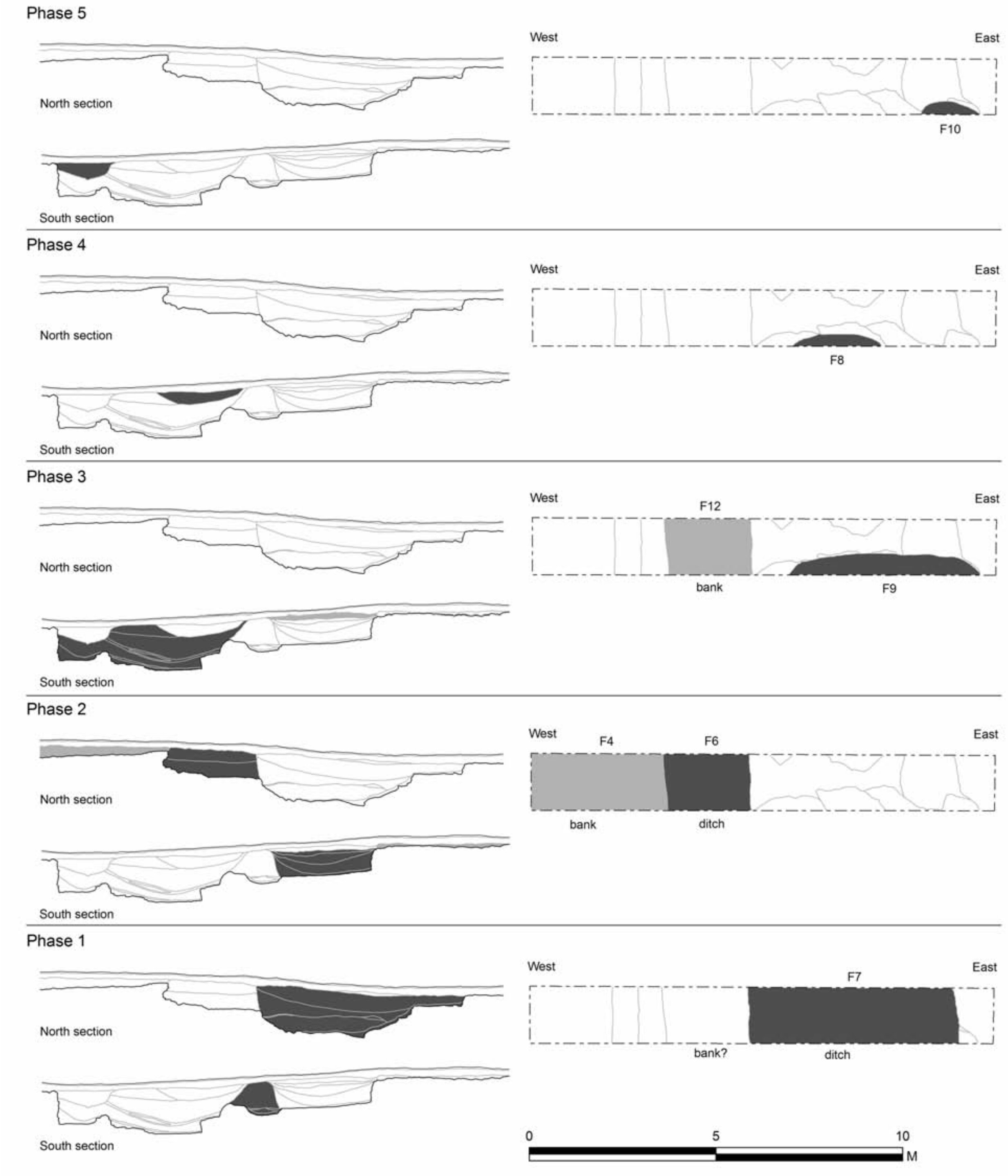

Fig. 6.
Interpretative phase plots of the main features recorded in Trench I. (Drawing by Vanessa Constant)

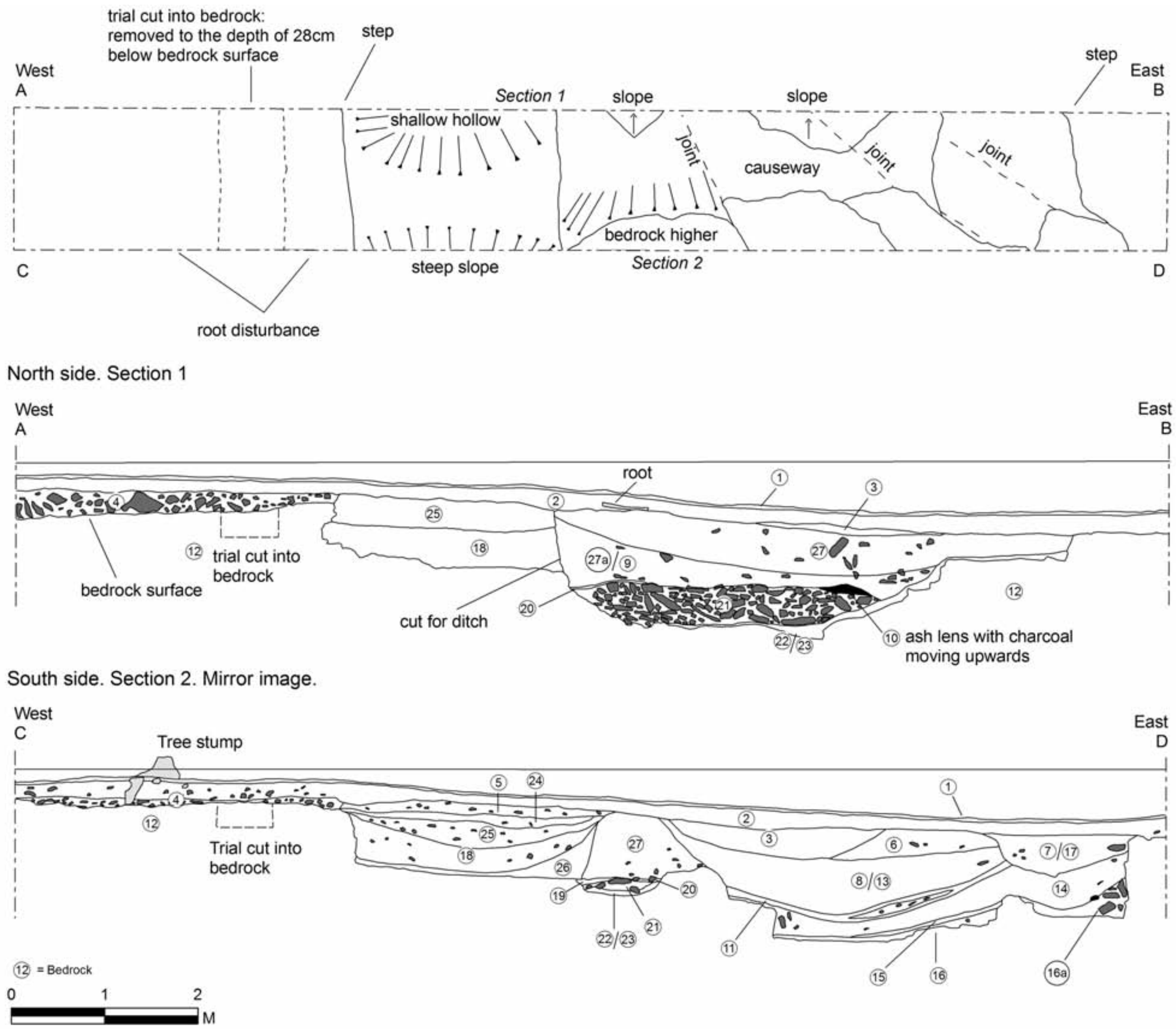

Fig. 7.
Plan and sections of Trench I. (Drawing by Vanessa Constant)

(C15) visible as a brown loamy clay with occasional burnt stones. This was followed by another stony fill with a yellow matrix (C14), and a second stabilisation horizon (C11) dark brown in colour but incorporating a lens of yellow stony clay. The middle fill (C8/C13) is a yellow silty clay with occasional stones that may be the in-washed remains of an adjacent bank, sealed by a dark brown humic deposit (C6) forming the upper fill and again suggesting a period of stabilisation. C5, a stony deposit sealing the top of F6 is interpreted as the remains of an internal bank associated with F12. Few finds were associated with these fills but included ceramic vessels P9–P13, together with small quantities of worked flint and animal bone.

Phase I.4 represents a westerly recut of the Phase I.3 ditch, visible as a ditch terminal in the south section (Figs 6 & 7), F8, extending only 0.5 m or so into the trench. There was a single homogeneous fill (C3), a light brown soil with abundant stones, many burnt, as well as moderate quantities of cultural material including ceramic vessels P14–P18, worked flint, and animal bone.

Phase I.5 represents an easterly recut of the Phase I.3 ditch, F10, visible as a pit or ditch terminal in the south side of the trench near the eastern end; stratigraphically it may therefore be contemporary with, or earlier or later than, the Phase I.4 recut. The fill (C7/C17) comprised a brown soil identical with the topsoil (C2); apart from occasional burnt stones there was no cultural material present suggesting that it might be modern.

The cumulative effect of constructing and then remodelling the outer earthwork as represented in Trench I was a considerable land-cut (Fig. 8). In detail, however, the evidence suggests a period of boundary construction (Phase I.1) starting at about 3600 cal BC, followed by the gradual infilling of the ditch and decay of an associated internal rampart. That was followed by the remodelling of the earthwork immediately to the west (Phase I.2), a work of more modest scale and with some encroachment over the infilled earlier ditch. This can tentatively be dated to the 33rd century cal BC. A second major remodelling was then undertaken (Phase 1.3) with the boundary shifting eastwards to encroach again on the Phase I.1 boundary, substantially removing the original fills on the south side. The Phase I.3 ditch was recut once or twice with shallow pits or ditch segments. Phase 1.4 is undated, but Phase I.5 is possibly recent and quite unassociated with the prehistoric use of the boundary earthwork. Trench I was too small to determine whether the ditch was interrupted or causewayed in all its phases or not, but there is a strong sense that it straddles or lies near a junction in the way the ditches were dug; in Phase I.3 at least there is a terminal that almost certainly formed the southern edge of a causeway or entranceway to the north.

Trench II

Initially placed adjacent to a tree-throw yielding abundant worked flints at the western end of the plateau (Fig. 4B), Trench II was extended northwards in 1981 to create an excavation area with maximum dimensions of 8.5 x 3 m but shaped to avoid tree-roots and the line of an adjacent footpath (Fig. 9); the total area excavated was 16.75 m^2. Below a thin layer of leaf-mould (C1) a dark brown homogenised topsoil (C2) up to 200 mm thick covered the whole area. C2 contained worked flints, prehistoric pottery, bone, two or three highly abraded sherds of Romano-British pottery, and modern material including an 1892 penny coin, a button inlay, and the bowl of a clay pipe. Cleaning the peneplained bedrock surface exposed by the removal of C2 revealed a series of rock-cut features and related deposits that resolved into four phases of activity, summarised in plan on Figure 10.

Phase II.1 comprises a rock-cut ditch or elongated pit orientated roughly north-west to south-east, F4 (Fig. 11). Seemingly U-shaped in cross-section (Fig. 9) the gently sloping sides and slightly flattened bottom gave a feature 2.25 m across and 0.65 m deep. Towards the eastern end of the excavated area was a spread of stones, C18, across the floor. About half of the limestone blocks in the deposit had been burnt and gave the impression of being the remains of a hearth (F17), but probably redeposited rather than fired *in situ*. Sealing C18 and providing the primary fill was C13, an orange-coloured limestone gravel, very homogeneous, with occasional burnt pieces and incorporating lens C13a which was the same material but burnt to a bright reddish-orange. Finds were few, only two pieces of flint and one piece of bone. Sealing C13/C13a, where not removed by later recuts, was C17, a fine black very ashy soil, thickest over F17, and again seemingly redeposited material from a hearth. Finds were not especially numerous but included three pieces of flint, one piece of pottery, 11 pieces of bone, and, most significantly, a shale arc pendant. Analysis of a bulk soil sample revealed more than 40 fragments of carbonised hazelnut shell as well as the only carbonised cereal grains from the site.

Phase II.2 comprises a middle fill probably representing the recutting of F4 on more or less the same alignment to create a land-cut of about the same width but less than half the depth. In profile it is shallow-sided. The original fill is heavily truncated by a subsequent recut (Phase II.3) which effectively separates C15 on the north side from C12 on the south side, although both were originally the same deposit. C12/C15 contains abundant rock fragments within a brown humic soil matrix. They contain numerous finds including flint, pottery (P19–P22), animal bone, and parts of the left and right foot of an adult human. Two radiocarbon dates on animal bone span the first seven centuries of the 4th millennium cal BC.

Phase II.3 comprises the upper fill of the ditch/pit which is again best interpreted as a second and rather

Fig. 8.
General view of Trench I showing the land-cut made by successive remodellings of the enclosure boundary. Vertical scale totals 2 m; horizontal scale totals 1 m. (Photograph by Timothy Darvill)

limited recutting of F4, seemingly as a slot about 1 m wide and 0.3 m deep running along the centre with a terminal towards the eastern end of the trench. The fill of this recut (C7) comprises a black humic soil, with abundant finds including worked flint, the largest group of pottery from the site (P24–P35), and animal bone that included part of the mandible of a cat. It is sealed by C14 along the whole length investigated, a hard compact stony layer up to 200 mm thick with little soil matrix and a few finds of flint, pottery (P23), animal bone, and a flake from a Group VI stone axe. C14 looks to be deliberate infill effectively levelling the area. A small area of hard-packed stone, C3, seals the edge of F4 on the south side, extending onto an area of natural bedrock. Some of the stones had been burnt and finds included only prehistoric pottery (P36), worked flint, and animal bone; this is probably the remains of a cobbled stone surface, the full extent and date of which is unknown. Two radiocarbon dates on material from C7 include one suggesting the presence of residual 5th millennium cal BC animal bone incorporated into the matrix of the fill, while the other is slightly later than those relating to Phase II.2. Sherds from P34, a vessel decorated with impressed cord, probably a piece of Beaker, also came from C7 emphasizing its mixed character.

Phase II.4 is represented by two pairs of modern postholes F1 and F2 and F15 and F16 that probably mark the former line of a boundary fence, F5 which appears to be a borehole drilled into the limestone bedrock with a roughly square area of disturbance around about, and F3 in the form of a shallow scoop representing a small disturbance extending into the top of the bedrock. All these features are presumably associated with modern quarrying.

Given the alignment of F4 within Trench II it is unlikely to be the western return of either the inner or outer earthwork boundary; more likely it is a pit or short ditch in the area between the two circuits of earthwork. Its original construction was broadly contemporary with the digging of the outer earthwork represented in Trench I, perhaps around 3600 cal BC, and like the boundary earthwork it was redug on several later occasions when a range of cultural debris was introduced into the ditch fills. Some of that material significantly pre-dated the activities directly associated with digging the ditch itself, and may have been derived from adjacent middens or debris from earlier construction works.

POTTERY
(TIMOTHY DARVILL)

An assemblage comprising 707 sherds weighing a total of 2.6 kg and representing a minimum of 38 vessels was recovered from the excavations, with an additional 103 sherds (0.54 kg) representing a single vessel from surface collection (Table 1). Approximately 16% of the assemblage by sherd count derived from Trench I, the remainder from Trench II

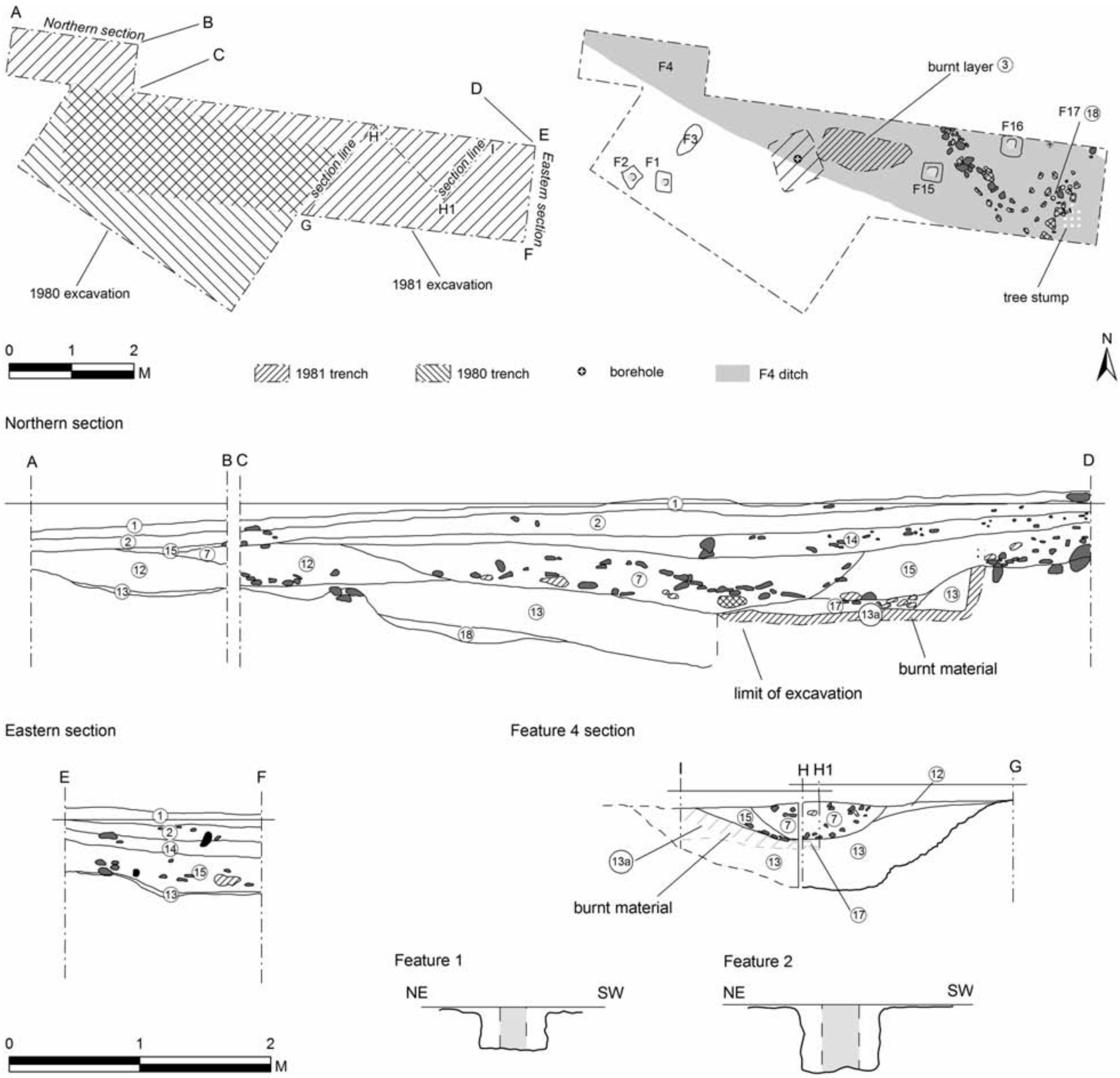

Fig. 9.
Plans and sections of Trench II. (Drawing by Vanessa Constant)

(71%), and stray finds collected at Point D on Figure 4B (13%). The assemblage was initially sorted into 16 macroscopically determined fabrics, representative samples of which were then thin-sectioned. Analysis of the thin-sections reduced the number of fabric groups to nine, facilitated comparison with other sites in the area, and provided information on clay type and likely sources. The pottery assemblage was then resorted by context and putative vessel groups established on the basis of joining sherds, related feature sherds, and similarities in fabric, colour, texture, and sherd thickness. A minimum of 39 vessels

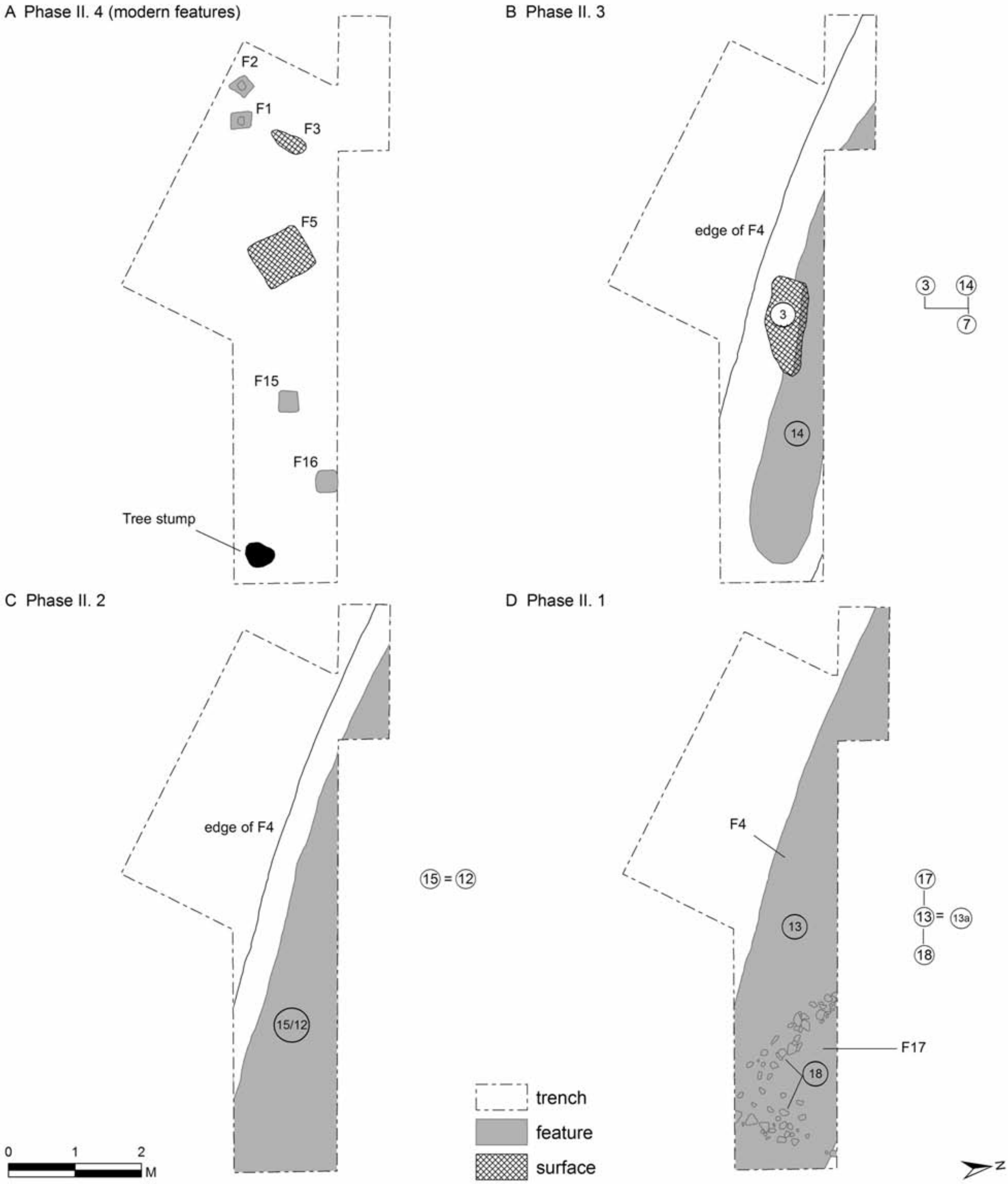

Fig. 10.
Interpretative phase plots of the main features recorded in Trench II. (Drawing by Vanessa Constant)

Fig. 11.
General view of Trench II under excavation in 1981.
(Photograph by Timothy Darvill)

was defined where sherds could be grouped with a reasonable degree of confidence; the remaining sherds (58% by weight, 65% by number) could not be confidently assigned to putative vessels, but this unassigned material is included in the quantitative analyses summarised below. Refitting analysis was undertaken on vessel groups and attempts were made to match unassigned sherds to vessel groups wherever possible. All sherds were measured and grouped into five size categories following Barclay and Case (2007, 263: Size A: <100 mm^2; B: 101–400 mm^2; C: 401–1600 mm^2; D: 1601–6400 mm^2; E: >6401 mm^2). The thickness of all sherds with both faces extant was measured and used to grade vessel wall size into three broad categories: thin <6 mm; medium 6.1–10 mm; and thick >10.1 mm. Table 1 provides a quantification of the assemblage by weight and sherd count in relation to the defined fabric groups and site phasing.

The Peak Camp assemblage is the first substantial collection not related to a long barrow to be published from the Cotswold region and accordingly is described here in some detail. In general, the material is in good condition, and except for two vessels of later date (P34 Beaker and P39 a jar of early 1st millennium cal BC date discussed separately below) is a coherent plain bowl assemblage of the mid-4th millennium cal BC.

Fabrics

The assemblage was sub-divided into nine fabric groups on the basis of the main visible inclusions, macroscopic variations in the clay matrix, and the examination of thin-sections of representative sample sherds (Table 2). The thin-sections were prepared by the author following conventional methods for prehistoric pottery obtaining in the early 1980s when the work was carried out (Tite 1972; Darvill 1983, 552–5). The following fabric groups were defined and characterised:

Fabric 1: Limestone tempered micaceous ware. Dense slightly greasy-feeling fabric; mica-plates visible in surface and fracture; occasional fragments limestone. Mainly dark red-brown. Thin-section N413 shows fine grained anisotropic groundmass with fine rounded quartz, flecks of muscovite mica, and infrequent fragments of plagioclase feldspar. Occasional rounded fragments of limestone <1 mm across, iron-rich clay pellets, one possible piece grog or dried clay.

Fabric 2: Grog tempered micaceous ware. Dense slightly greasy-feeling fabric; mica-plates visible on surface and in fracture, similar to Fabric 1 but with light scatter of rounded grog pellets <1 mm across, very occasional fragments limestone. Thin-section N414 shows fine grained anisotropic groundmass with fine rounded quartz and abundant long flecks muscovite mica. Grog pellets are same fabric as matrix in which they lie and are most clear where firing conditions differ to produce sharp edges.

Fabric 3: Vesicular micaceous ware. Dense slightly greasy-feeling fabric; mica-plates visible on surface and in fracture, similar to Fabrics 1 and 2 but with abundant voids within core of fabric and on surface that probably result from use of an organic tempering (eg. chaff or dung) with very occasional visible fragments of limestone and calcite. Thin-section N415 shows fine grained anisotropic groundmass with rounded quartz of slightly greater size and in greater abundance than in Fabrics 1 and 2, and abundant long flecks muscovite mica. Fragments of calcite and limestone are angular and rarely exceed 0.5 mm across.

Fabric 4: Fossil shell and calcite tempered micaceous ware. Dense slightly greasy-feeling fabric; mica-plates visible on surface and in fracture, similar to Fabrics 1–3 but with medium scatter well crushed fossil shell, calcite, and occasional voids all <1.1 mm across. Thin-section N416 shows fine grained anisotropic groundmass with fine rounded quartz and abundant long flecks muscovite mica. Non-plastic inclusions angular in form, commonly <0.5 mm across but occasionally larger.

Fabric 5: Flint and fossil shell tempered sandy ware. Compact coarse-textured fabric; occasional fragments angular flint and sub-angular fossil shell <1.2 mm across. Thin-section N417 shows fine groundmass with short flecks muscovite mica and medium–dense scatter angular and sub-angular quartz grains <0.4 mm across. Iron staining visible across section.

Fabric 6: Fossil shell tempered calcareous ware. Slightly laminar medium-textured fabric; varying amounts fragmented fossil shell (mainly small ?bivalve shells) unevenly distributed through matrix as light, medium, or heavy concentrations. Thin-section N418 represents sherd with heavy tempering. Groundmass slightly micaceous with sparse small quartz generally <0.2 mm across. Tiny fragments of calcareous material visible within groundmass alongside very fine short muscovite mica flecks generally <0.08 mm long. Non-plastic additives appear as angular fragments of shell <3 mm long. Amongst shell are occasional oolites and very occasional rounded fragments oolitic limestone <4 mm across. N419 represents sherd with medium shell. Matrix and groundmass similar to N418, but shell more finely crushed, generally <2 mm across and while oolites slightly more abundant; there are no rock fragments present. Lighter still is amount of non-plastic tempering agent in N420 and N422. In both, groundmass is more calcareous than either N418 or N419. Shell mostly <1 mm across and there are occasional rounded fragments of shelly limestone but no oolites.

Fabric 7: Oolite and fossil shell tempered calcareous ware. Slightly laminar medium-textured fabric macroscopically similar to Fabric 6 except that for abundant scatter of oolites, alongside fossil shell and occasional fragments of limestone unevenly distributed through matrix. Thin-sections N421 and N429 show slightly micaceous groundmass with sparse small quartz generally <0.2 mm across. Tiny fragments of calcareous material visible within groundmass alongside very fine short muscovite mica flecks generally <0.08 mm long. Non-plastic additives dominated by oolites which are all detached from parent rock and appear singly. Accompanying shell is coarse and <4 mm long; little sign of calcareous cement adhering to fragments.

Fabric 8: Limestone tempered calcareous ware. Slightly laminar medium-textured fabric macroscopically similar to Fabric 6 except that principal tempering agent comprises rounded and sub-angular fragments limestone <4 mm across. Thin-section N423 shows slightly micaceous groundmass with sparse small quartz generally <0.2 mm across. Tiny fragments calcareous material visible within groundmass alongside very fine short muscovite mica flecks generally <0.08 mm long. Limestone fragments are fine-grained with heavy calcitic cement and few visible microfossils comprising small oolites and shell. Occasional small detached fragments of shell but all have liberal coatings of calcitic cement.

Fabric 9: Calcite tempered calcareous ware. Slightly laminar medium-textured fabric macroscopically similar to Fabrics 6–8 except that principal tempering agent comprises angular fragments calcite. Marked variations exist in size distribution. and density of non-plastic additives even within single vessel. Thin-sections N424, N425, N428, and N430 provide views of fairly heavily tempered sherd where calcite fragments are <1.5 mm across. Groundmass slightly micaceous with sparse small quartz generally <0.2 mm across. Tiny fragments calcareous material visible within groundmass alongside very fine short muscovite mica flecks generally < 0.08 mm long. As well as calcite there are also abundant fragments of finely crushed limestone, fossil shell, and occasional oolites. One larger rounded fragment of limestone *c.* 5 mm across also present and includes crushed shell and oolites. N425 very similar but with smaller fragments of limestone and no visible rock fragments; N430 has no visible fossil shell or oolites. N426 and N427 represent sherds with lighter scatter of calcite and under the microscope these are clearly smaller and more finely crushed (typically 0.5 mm across). Some small rounded rock fragments that include oolites are also present.

Table 1 summarises the distribution of fabrics by stratigraphic phase, quantified by sherd count, weight, and identified vessels. Fabrics 1–6 and 9 are represented in both trenches, Fabric 7 only being present in Trench II, and Fabric 8 being mainly represented by the late Bronze Age vessel from surface collection and four sherds from Trench II whose size

TABLE 1. REPRESENTATION OF POTTERY FABRICS BY PHASE

Phases		*Fabrics*									*Totals*
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	
Trench I											
I.5	Wt (gr)	–	–	–	–	–	14.86	–	–	21.62	36.48
	Sh (no)	–	–	–	–	–	11	–	–	5	16
	Pots	–	–	–	–	–	–	–	–	–	0
I.4	Wt (gr)	–	–	–	–	–	59.17	–	–	74.33	133.5
	Sh (no)	–	–	–	–	–	16	–	–	16	32
	Pots	–	–	–	–	–	2	–	–	2	4
I.3	Wt (gr)	6.49	5.13	3.81	8.89	43.48	–	–	–	106.24	174.04
	Sh (no)	2	2	1	2	9	–	–	–	28	44
	Pots	–	–	–	–	2	–	–	–	3	5
I.2	Wt (gr)	–	–	–	–	–	–	–	–	–	0
	Sh (no)	–	–	–	–	–	–	–	–	–	0
	Pots	–	–	–	–	–	–	–	–	–	0
I.1	Wt (gr)	7.99	2.67	–	44.1	–	86.84	–	–	203.87	345.47
	Sh (no)	2	1	–	9	–	9	–	–	14	35
	Pots	–	–	–	1	–	3	–	–	4	8
Trench I Totals	*Wt (gr)*	*14.48*	*7.8*	*3.81*	*52.99*	*43.48*	*160.87*	*0*	*0*	*406.06*	*689.49*
	Wt (%)	*2.1*	*1.1*	*0.6*	*7.7*	*6.3*	*23.3*	*0.0*	*0.0*	*58.9*	*100%*
	Sh (no)	*4*	*3*	*1*	*11*	*9*	*36*	*0*	*0*	*63*	*127*
	Sh (%)	*3.1*	*2.4*	*0.8*	*8.7*	*7.1*	*28.3*	*0.0*	*0.0*	*49.6*	*100%*
	Pots	*0*	*0*	*0*	*1*	*0*	*8*	*0*	*0*	*9*	*18*
	Pots (%)	*0.0*	*0.0*	*0.0*	*5.6*	*0.0*	*44.4*	*0.0*	*0.0*	*50.0*	*100%*
Trench 2											
II.4	Wt (gr)	11.18	–	11.13	91.91	6.46	15.95	34.33	2.47	51.3	224.73
	Sh (no)	5	–	2	20	1	7	6	1	17	59
	Pots	–	–	–	–	–	–	–	–	–	0
II.3	Wt (gr)	16.09	34.9	23.56	260.86	12	312.92	9.73	12.34	916.06	1598.46
	Sh (no)	6	7	6	46	1	108	2	2	268	446
	Pots	–	1	–	4	–	1	–	–	8	14
II.2	Wt (gr)	–	10.9	9.84	29.13	–	28.69	10.98	1.74	71.37	162.65
	Sh (no)	–	3	3	12	–	19	2	1	34	74
	Pots	–	–	–	–	–	–	1	–	1	2
II.1	Wt (gr)	–	–	–	–	–	–	–	–	1.88	1.88
	Sh (no)	–	–	–	–	–	–	–	–	1	1
	Pots	–	–	–	–	–	–	–	–	–	0

TABLE 1 CONTINUED. REPRESENTATION OF POTTERY FABRICS BY PHASE

Phases		*Fabrics*									*Totals*
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	
Trench II Totals	*Wt (gr)*	*27.27*	*45.8*	*44.53*	*381.9*	*18.46*	*357.56*	*55.04*	*16.55*	*1040.61*	*1987.72*
	Wt (%)	*1.4*	*2.3*	*2.2*	*19.2*	*0.9*	*18.0*	*2.8*	*0.8*	*52.4*	*100%*
	Sh (no)	*11*	*10*	*11*	*78*	*2*	*134*	*10*	*4*	*320*	*580*
	Sh (%)	*1.9*	*1.7*	*1.9*	*13.4*	*0.3*	*23.1*	*1.7*	*0.7*	*55.2*	*100%*
	Pots	*0*	*1*	*0*	*4*	*0*	*3*	*3*	*0*	*9*	*20*
	Pots (%)	*0.0*	*5.0*	*0.0*	*20.0*	*0.0*	*15.0*	*15.0*	*0.0*	*45.0*	*100%*
Surface Collection											
Findspot D	Wt (gr)	–	–	–	–	–	–	–	548.33	–	548.33
	Sh (no)	–	–	–	–	–	–	–	103	–	103
	Pots	–	–	–	–	–	–	–	1	–	1
Site Totals	*Wt (gr)*	*41.75*	*53.6*	*48.34*	*434.89*	*61.94*	*518.43*	*55.04*	*564.88*	*1446.67*	*3225.54*
	Wt (%)	*1.3*	*1.7*	*1.5*	*13.5*	*1.9*	*16.1*	*1.7*	*17.5*	*44.9*	*100%*
	Sh (no)	*15*	*13*	*12*	*89*	*11*	*170*	*10*	*107*	*383*	*810*
	Sh (%)	*1.9*	*1.6*	*1.5*	*11.0*	*1.4*	*21.0*	*1.2*	*13.2*	*47.3*	*100%*
	Pots	*0*	*1*	*0*	*5*	*0*	*11*	*3*	*1*	*18*	*39*
	Pots (%)	*0.0*	*2.6*	*0.0*	*12.8*	*0.0*	*28.2*	*7.7*	*2.6*	*46.2*	*100%*

TABLE 2. FABRICS, CLAY SOURCES, AND SAMPLE SHERDS.

Fabric Number	*Fabric type*	*Clay source*	*Thin sections and details of sample sherds*
1	Limestone tempered micaceous ware	A	N413: II, C7, F4, 4912 [Phase II.3]
2	Grog tempered micaceous ware	A	N414: II, C3, F4, 231 [Phase II.3]
3	Vesicular micaceous ware	A	N415: II, C7, F4, 4841 [Phase II.3]
4	Fossil shell and calcite tempered micaceous ware	A	N416: II, C3, F4, 226 [Phase II.3]
5	Flint and fossil shell tempered sandy ware	B	N417: II, C2, 1067 [Unphased]
6	Fossil shell tempered calcareous ware	C	N418: I, C3, F8, 112 [Phase I.4] N419: II, C3, F8, 4872 [Phase II.3] N420: II, C7, F4, 4857 [Phase II.3] N422: II, C7, F4, 4897 [Phase II.3]
7	Oolite and fossil shell tempered calcareous ware	C	N421: II, C7, F4, 4902 [Phase II.3] N429: II, C2, 984 [Unphased]
8	Limestone tempered calcareous ware	C	N423: II, C2, 1404 [Unphased]
9	Calcite tempered calcareous ware	C	N424: I, C8, F9, 723 [Phase I.3] N428: II, C2, 1165 [Unphased] N425:II, C3, F4, 229 [Phase II.3] N426: II, C3, F4, 369 [Phase II.3] N427: II, C7, F4, 4895 [Phase II.3] N430: II, C3, F4, 236 [Phase II.3]

is so small that their fabric attribution must be considered tentative. Fabric 9 with calcite tempering is the dominant fabric in both trenches and accounts for 45% by weight, 46% by vessel count, or 47% by sherd count. Notably, this was also the dominant fabric in the pre-cairn assemblage from Hazleton North, Gloucestershire, where it accounted for *c*. 49% of the material by weight (Smith & Darvill 1990, 141), and also the pre-cairn assemblage from Ascott-under-Wychwood, Oxfordshire, where alone or with oolitic limestone it accounted for *c*. 61% of the assemblage by weight (Barclay & Case 2007, 264). Fossil shell was also the dominant fabric used for the manufacture of vessels recovered from pits at Horcott Pit near Fairford, Gloucestershire (Lamdin-Whymark *et al*. 2009, 81). The finest quality ware is Fabric 2, a grog-tempered micaceous ware, which accounts for only about 2.5% of the overall assemblage and is represented in both trenches.

Clay sources

Three main types of clay are represented amongst the nine fabric groups: (A) micaceous clay (Fabrics 1–4); (B) sandy clay (Fabric 5); and (C) calcareous clay (Fabrics 6–9). The main characteristics of each are evident from the descriptions of the respective fabric groups given above. The thin-sections made from the pottery fabrics were compared with samples of clay taken from central Gloucestershire. To facilitate comparison raw clays dug from surface outcrops were lightly wedged to expel air and homogenise the matrix, made into small briquettes, fired at about 800°C for about and hour in a small muffle furnace, and then thin-sectioned in the same way as the pottery.

Clay type A has a micaceous groundmass and matches very closely available samples of Lower Lias clay obtained from the floor of the Severn Valley west of Peak Camp, especially a sample from Sudbrook to the east of Gloucester which includes very occasional naturally occurring fragments of limestone within the body of the clay itself. However, the Lower Lias outcrops extensively along the Severn Valley so that while suitable clays exist within a short distance of Peak Camp more distant sources cannot be precluded.

Clay type B has a sandy groundmass showing marked similarities with the sandy clays sometimes referred to as Fuller's Earth from within the Great Oolite series. A sample from near Stockwell, 1.5 km east of Peak Camp, compares well, but the quartz fractions are generally slightly smaller in the clay sample. A better match is from outcrops near Woodchester, 15 km to the south-west, but there is considerable variation within individual deposits. Again, a fairly local source is likely but more distant origins cannot be ruled out.

Clay type C has a calcareous slightly micaceous groundmass that does not match any sampled local clays very well, although this is a large group with considerable inter-sample variation; a source somewhere in the Cotswolds to the east or south of Peak Camp seems likely. There are marked similarities between Fabrics 6 and 7 with fossil shell, crushed limestone, and oolite inclusions and Fabric 4 at Hazleton North (Smith & Darvill 1990, 145) where it accounted for about 5% of the assemblage and was thought to derive from one of the numerous pockets of calcareous clay scattered across the Cotswolds. There are also strong similarities with shell-gritted wares from Windmill Hill, Wiltshire (Smith 1965, 46), that Cornwall and Hodges (1964, 32) considered had a source north and west of Windmill Hill; they constituted *c*. 30% of the assemblage. Similarly, shell-tempered pottery from Cherhill, Wiltshire, (Evans & Smith 1983, 97–8) was considered to have a similar source and there represented 65% of the Early Neolithic assemblage. The popularity of shell-tempered wares is also borne out by the material from the enclosure at Abingdon, Oxfordshire, where this fabric made up 95% of the assemblage and was there considered to be made from local Kimmeridge clays (Avery 1982, 27).

The main clay sources used in the production of pottery deposited at Peak Camp therefore appears to derive from three source areas of varying distances away. By far the greatest proportion, more than 80%, was made from materials whose origin is the least well-defined, most likely to the east of the site, while the remainder derives from the Severn Vale to the west.

Catalogue of identified vessels

P1. Simple open bowl, probably uncarinated, externally thickened rim (3 sherds, 84.4 g, Phase I.1, C22). Refitting rim and upper body sherds. Estimated rim diameter *c*. 280 mm, *c*. 8% of rim represented. Inner face slightly burnished; rim has slight traces of pie-crust finger-marks on upper face; outer face shows slight traces of sooting. Condition: good. Fabric 9. Colour: dark grey surfaces; core dark grey with some dark red lenses below outer surface. (Fig. 12.1)

P2. Inflected neutral bowl, plain flat-topped rim (2 sherds, 22.6 g, Phase I.1, C22). Refitting rim and upper body sherds. Est. diam. *c*.120 mm, *c*. 10% rim represented. Inner face rough; rim has traces incised line near outer lip; outer face smoothed. Condition: good. Fabric 6 (medium). Colour: black outer face; red-brown inner face. (Fig. 12.2)

P3. Lower body sherds from thin-walled vessel (3 sherds, 42.9 g, Phase I.1, C22). Condition: good. Fabric 6 (medium). Colour: red-orange outer face; dark grey inner face and core. (Not illus.)

P4. Body sherds from thin-walled vessel (4 sherds, 19.3 g, Phase I.1, C22). Condition: good. Fabric 9. Colour: red-orange outer face; black inner face and core. (Not illus.)

P5. Body sherds from thin-walled vessel (7 sherds, 30.1 g, Phase I.1, C22). Condition: good. Fabric 4. Colour: red-brown outer face; dark grey inner face and core. Slight traces burnishing on outer face some sherds. (Not illus.)

P6. Body sherds from thin-walled vessel (2 sherds, 11.4 g, Phase I.1, C22). Condition: fair. Fabric 6 (medium). Colour: red-orange outer and inner faces; black core. (Not illus.)

P7. Body sherds from lower part of thick-walled vessel (2 sherds, 66.3 g, Phase I.1, C21). Condition: good. Fabric 9. Colour: red-pink outer face; black inner face and core. (Not illus.)

P8. Body sherd from upper part of thick-walled vessel (1 sherd, 18.5 g, Phase I.1, C19). Condition: abraded. Fabric 9. Colour: red-orange throughout. Possible attachment for lug on outer face. (Not illus.)

P9. Body sherd from shoulder of thin-walled cup or bowl (1 sherd, 16.2 g, Phase I.3, C16). Condition: good. Fabric 9. Colour: dark grey throughout. Slight traces sooting on inside. (Not illus.)

P10. Simple open bowl, probably uncarinated, rolled over rim (2 sherds, 11.4 g, Phase I.3, C11). Rim and upper body sherd with traces of hand-smoothing on outer face and scored line on underside of outer face of rim. Est. rim diam. *c*. 240 mm, *c*. 4% rim represented. Condition: good. Fabric 6 (fine). Colour: red-brown outer surface; core and inner surface dark red. (Fig. 12.10)

P11. Inflected neutral bowl , rolled over rim (1 sherd, 4.0 g, Phase I.3, C8). Est. rim diam. *c*. 120 mm, *c*. 4% rim represented. Condition: good. Fabric 9. Colour: dark grey throughout. (Fig. 12.11)

P12. Simple neutral bowl, probably uncarinated, plain round-topped rim (9 sherds, 34.0 g, Phase I.3, C6). Rim sherds seem to have broken off along uppermost coil join. Est. rim diam. *c*. 200 mm, *c*. 5% rim represented. Condition: fair. Fabric 9. Colour: dark grey surfaces; core locally dark red. (Fig. 12.12)

P13. Body sherds from medium-walled bowl or jar (3 sherds, 26.7 g, Phase I.3, C6). Condition: fair. Fabric 6. Colour: dark grey throughout. Slight evidence of smoothing on outer face. (Not illus.)

P14. Simple neutral bowl, probably uncarinated, externally thickened rim (1 sherd, 21.8 g, Phase I.4, C3). Rim with traces of hand-smoothing on outer face clay, pellets pressed into surface on inside. Est. rim diam. *c*. 180 mm, *c*. 10% rim represented. Condition: good. Fabric 6 (fine). Colour: red-brown throughout. (Fig. 12.14)

P15. Simple neutral bowl, probably uncarinated, externally thickened rim (2 sherds, 11.2 g, Phase I.4, C3). Rim-top fragments broken off along uppermost coil join in wall of vessel. Est. rim diam. *c*. 180 mm, *c*. 4% rim represented. Condition: fair. Fabric 9. Colour: red-brown throughout. (Fig. 12.15)

P16. Simple neutral bowl, probably uncarinated, externally thickened rim (1 sherd, 6.3 g, Phase I.4, C3). Rim-top fragment broken off along uppermost coil join in wall of vessel. Condition: fair. Fabric 6. Colour: dark grey throughout. (Fig. 12.16)

P17. Simple neutral bowl or jar, plain everted rim (1 sherd, 4.15 g, Phase I.4, C3). Est. rim diam. *c*. 160 mm, *c*. 4% rim represented. Condition: fair. Fabric 9. Colour: dark grey throughout. (Fig. 12.17)

P18. Carinated bowl, probably classic neutral form, rolled over rim (14 sherds, 30.9 g, Phase I.4, C3 and unstrat. Fabric sample TS418). Condition: fair. Fabric 6. Colour: dark grey throughout. (Fig. 12.18)

P19. Simple neutral cup, plain round-topped rim (1 rim sherd, 4.6 g, Phase II.2, C15). Est. rim diam. *c*. 80 mm, *c*. 12.5% rim represented. Condition: poor. Fabric 9. Colour: red-brown exterior and interior surface, grey core. (Fig. 12.19)

P20. Simple open bowl, rolled-over rim (1 rim sherd, 2.72 g, Phase II.2, C15). Est. rim diam. *c*. 280 mm, *c*. 3% rim represented. Condition: poor. Fabric 6. Colour: red-brown exterior and interior surface, grey core. (Fig. 12.20)

P21. Simple neutral bowl or jar , externally thickened rim (1 rim sherd, 7.72 g, Phase II.2, C15). Est. rim diam. *c*. 260 mm, *c*. 4% rim represented. Condition: fair. Fabric 7. Colour: red-brown inner and outer surfaces, grey core. (Fig. 12.21)

P22. Simple open bowl, plain round-topped everted rim (1 rim sherd, 3.26 g, Phase II.2, C12). Est. rim diam. *c*. 200 mm, *c*. 4% rim represented. Condition: fair. Fabric 7. Colour: grey-black throughout. (Fig. 12.22)

P23. Simple open bowl, probably not carinated, externally thickened slightly flat-topped rim (1 rim sherd, 8.89 g, Phase II.3, C14). Est. rim diam. *c*. 220 mm, *c*. 5% rim represented. Condition: fair. Fabric 9. Colour: red-pink/red-brown throughout. (Fig. 12.23)

P24. Carinated bowl, deep-bodied form, rolled over rim (1 rim sherd and 3 non-joining body sherds, 30.1 g, Phase II.3, C7). Est. rim diam. *c*. 260 mm, *c*. 5% rim represented. Condition: good. Fabric 2 with distinctive red grog pellets. Colour: dark-grey/black red-pink inner and outer faces, red-brown core. (Fig. 12.24)

P25. Simple neutral bowl or jar, T-section rim (2 non-joining rims herds, 1 non-joining body sherd, 26 g, Phase II.3, C7). Est. rim diam. *c*. 300 mm, *c*. 6% rim represented. Condition: good. Fabric 9. Colour: red-brown, localised brown and grey colouration on inner and outer faces with grey core. (Fig. 12.25)

P26. Simple neutral bowl, externally thickened flat-topped rim (1 rim sherd, 1 non-joining body sherd, 29.7 g, Phase II.3, C7). Est. rim diam. *c*. 260 mm, *c*. 4% rim represented. Condition: good. Fabric 9. Colour: red-pink outer face, grey inner face and core. (Fig. 12.26)

P27. Simple open bowl, externally thickened rim and thick walls (1 rim sherd, 7 non-joining body sherds, 114.3 g, Phase II.3, C7 and unstrat.). Est. rim diam. *c*. 260 mm, *c*. 3.5% rim represented. Condition: fair to good. Fabric 9 with limestone fragments <4 mm across. Colour: red-brown outer face, generally grey inner face and core. One body sherd from low down on wall of vessel shows slight traces of smoothing or burnishing. (Fig. 13.27)

P28. Carinated bowl, deep-bodied form, rolled over rim (1 rim sherd, 6 non-joining body sherds, 65.4 g, Phase II.3, C7). Est. rim diam. *c*. 240 mm, *c*. 7% rim represented. Condition: fair to good. Fabric 9. Colour: red-pink outer faces, mainly grey inner faces and core. (Fig. 13.28)

P29. Simple open bowl, thin walled, rolled over rim (9 non-joining rim sherds, 56 non-joining body sherds, 205.8 g, Phase II.3, C7). Est. rim diam. *c*. 200 mm, *c*. 25% rim represented. Condition: good. Fabric 6. Colour: dark grey throughout. (Fig. 13.29)

P30. Simple open bowl, probably not carinated, thick-walled, plain everted rim (2 non-joining rim sherds, 3 non-joining body sherds, 37.4 g, Phase II.3, C7). Est. rim diam. *c*. 220 mm, *c*. 10% rim represented. Condition: fair to good. Fabric 9. Colour: red-pink throughout. (Fig. 13.30)

P31. Simple open bowl, probably not carinated, plain everted rim (2 non-joining rim sherds, 1 non-joining body sherd, 15.7 g, Phase II.3, C7). Est. rim diam. *c*. 180 mm, *c*. 6% rim represented. Condition: good. Fabric 9. Colour: black slightly glossy outer surface with traces of polishing or burnishing, red-brown inner face and core. (Fig. 13.31)

P32. Simple open bowl, probably not carinated, plain everted rim (1 rim sherd 7.3 g, Phase II.3, C7). Est. rim diam. *c*. 200 mm, *c*. 4% rim represented. Condition: good. Fabric 4. Colour: red-brown throughout, slightly glossy inner surface. (Fig. 13.32)

P33. Small simple open bowl, very thin walled, rolled over rim (1 rim sherd, 4 non-joining body sherds 9.1 g, Phase II.3, C7). Est. rim diam. *c*. 160 mm, *c*. 4% rim represented. Condition: good. Fabric 9. Colour: red-pink throughout, slight traces lighter slurry/wash on both inner and outer faces. (Fig. 13.33)

P34. Non-joining body sherds from possible Beaker pot, slight traces horizontally set cord-impressed line (8 body sherds 45.9 g, Phase II.3, C7). Condition: fair to good. Fabric 4 with erosion of surface inclusions. Colour: red-brown throughout. (Fig. 13.34)

P35. Simple open bowl, probably not carinated, thin-walled, Slightly rolled over rim (1 rim sherd,1 non-joining body sherd 19.4 g, Phase II.3, C7). Est. rim diam. *c*. 220 mm, *c*. 4% rim represented. Condition: fair to good. Fabric 4. Colour: grey throughout, some areas buff/red-pink on both inner and outer surfaces. (Fig. 13.35)

P36. Carinated bowl, probably classic neutral form, represented by body sherd from shoulder region with traces of 2 lines of fingernail impressed decoration along and above shoulder. (1 body sherd 8.2 g, Phase II.3, C3). Condition: good. Fabric 4. Colour: dark grey throughout. (Fig. 13.36)

P37. Carinated bowl, probably deep-bodied form, thick walls, plain everted rim, coarse fabric (2 non-joining rim sherds, 23.3 g, Phase II.4, C2). Diam. cannot be estimated. Condition: poor to fair. Fabric 7 with heavy tempering. Colour: dark grey throughout. (Fig. 13.37)

P38. Simple open cup or bowl, thin-walled, slightly rolled over rim (1 rim sherd 3.0 g, Phase II.4, C2). Diam. cannot be estimated. Condition: fair to good. Fabric 6. Colour: red-pink interior surface, grey core and outer surface. (Fig. 13.38)

P39. Plain *situla* style jar, simple rounded rim, high shoulder, flat base, probably early 1st millennium cal BC date (2 rim sherds, 1 base sherd, 100 body sherds including shouldered pieces, 548.3 g, unstratified from surface collection area D). Diam. cannot be estimated. Condition: fair to good. Fabric 8. Colour: red-orange exterior surface, grey core, red-brown interior surface. (Fig. 13.39)

Forms and typology

Although the number of vessels represented in the assemblage is substantial for such a small excavation, most are very fragmentary and incomplete. With the exception of the Beaker (P34) and the Late Bronze Age jar (P39) discussed separately below, all vessels appear to have been round-based. Table 3 shows an analysis of vessel form based on the classification system set out by Ros Cleal (1992, fig. 21.2; 2004, fig. 5) with slight modifications. Cups, conventionally defined as having a mouth diameter of less than 120 mm (Smith 1965, 49), occur in open and neutral forms and account for 5% of the overall assemblage. Simple bowls, again in open and neutral forms, represent the largest proportion of the assemblage at 55%. Inflected and carinated forms are present, collectively accounting for 18% of the assemblage. Compared with other assemblages for which the range of vessel forms can be similarly quantified it is clear that the Peak Camp material stands apart from those preserved beneath long barrows at Hazleton North

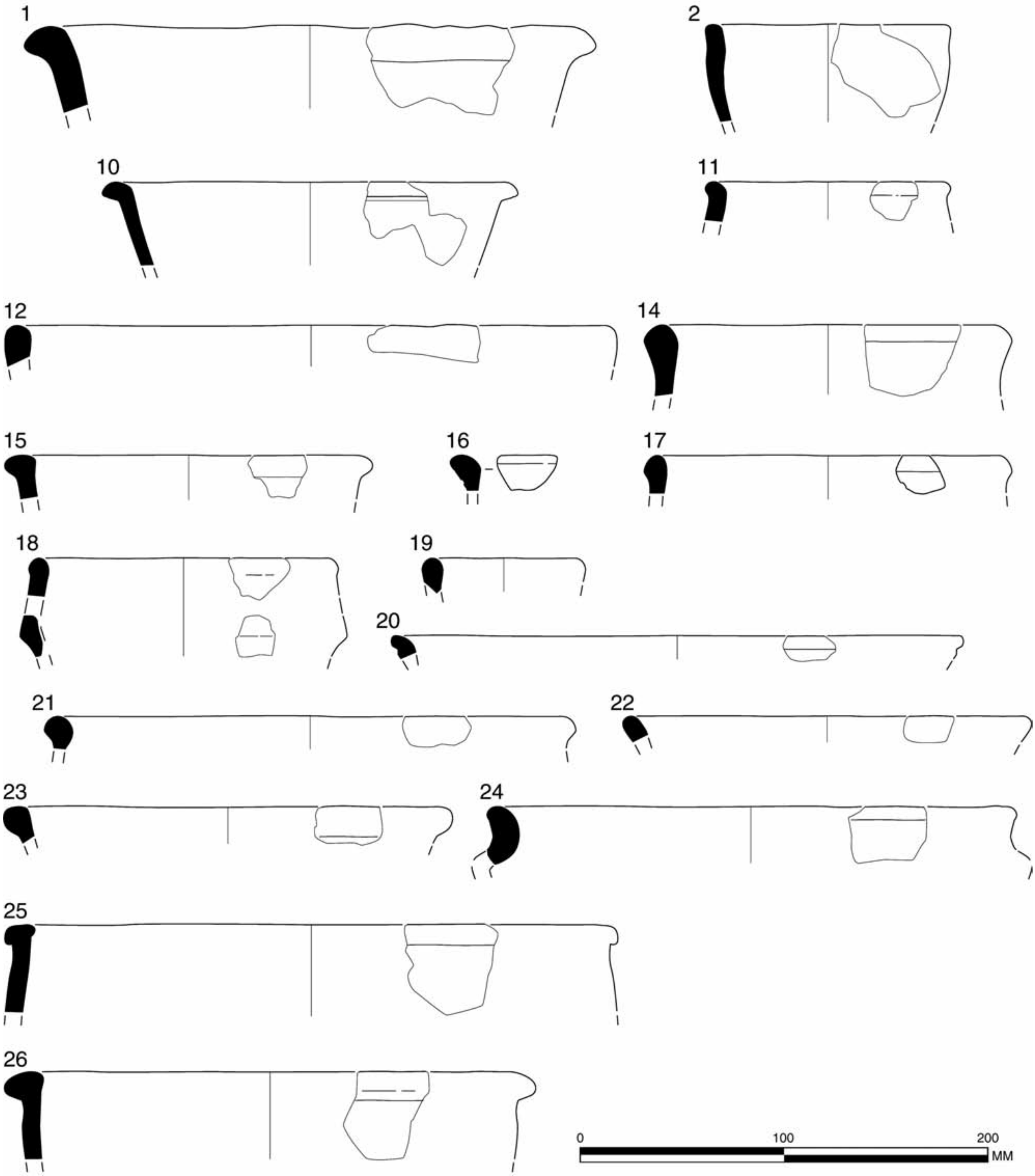

Fig. 12.
Neolithic pottery from Peak Camp. (Drawing by Lorna Gray)

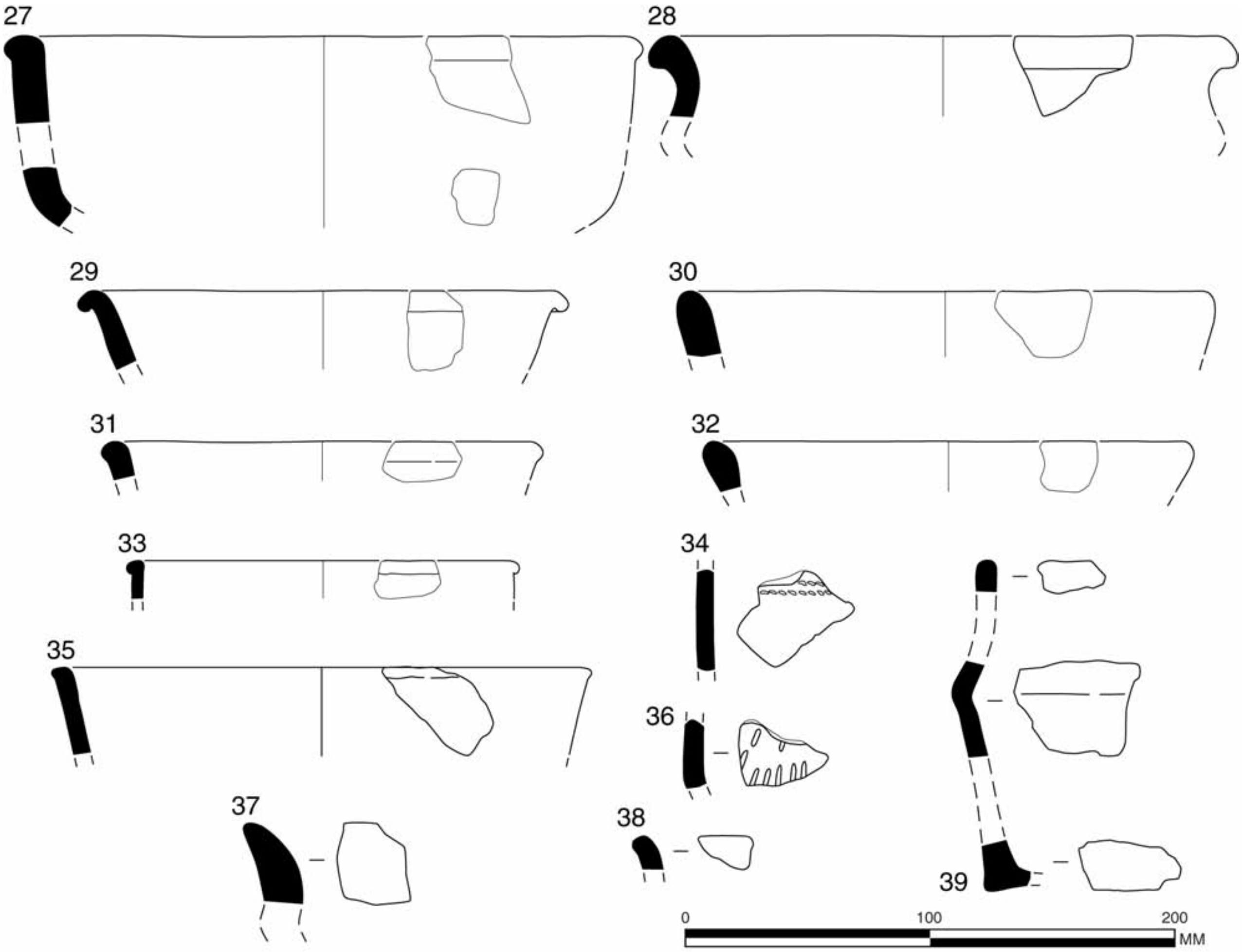

Fig. 13.
Neolithic, Beaker (P34), and Late Bronze Age (P39) pottery from Peak Camp. (Drawing by Lorna Gray)

(Smith & Darvill 1990), and Ascott-under-Wychwood (Barclay & Case 2007), which are dominated by carinated vessels, but shows a marked similarity with the distribution of forms from the causewayed enclosure on Windmill Hill (Smith 1965, 43–73).

In general, the main fabric types relating to clay Source C (cf. Table 2) are well distributed amongst the different forms suggesting that a wide range of vessels originated from a generally easterly direction. A deep bodied carinated vessel (P24) is the only recognisable form from clay Source A as there are no reconstructable vessels in Fabrics 1 and 3. The same applies to clay Source B as there are no reconstructable vessels in Fabric 5. This may in part be a function of the fragmentation patterns that apply to vessels in Fabrics 1, 3, and 5 causing poor representation. Fabric 2 is important as it is vesicular as a result of organic tempering agents such as straw or dung burning out during firing. I have suggested elsewhere (Darvill 2004b) that such pots would be ideal for storing liquids to keep them cool for short periods, and it is notable that Fabric 2 is best represented by the deep-bodied carinated bowl P24 with a source in Severn Valley where dairying might well have formed a component of the local economy.

Rim forms were classified according to the scheme

TABLE 3. DISTRIBUTION OF VESSEL FORMS FROM PEAK CAMP IN RELATION TO OTHER QUANTIFIED ASSEMBLAGES

	Vessel form	*Vessels*	*Fabrics*	*Trench I No*	*Trench II No*	*Total No (%)*	*Hazleton[1] No (%)*	*Ascott[2] No (%)*	*W'Hill [3] No (%)*
Simple	1a Open (cup)	38	6	0	1	1 (2.5)	2 (6)	0 (0)	10 (6)
	1b Open (bowl)	1, 10, 20, 22, 23, 27, 29, 30, 31, 32, 33, 35	4, 6, 7,9	2	10	12 (33)	1 (3)	0 (0)	31 (19)
	2a Neutral (cup)	19	9	0	1	1 (2.5)	2 (6)	6 (17)	12 (7)
	2b Neutral (bowl)	12, 14, 15, 16, 17, 21, 25, 26	6, 7, 9	5	3	8 (22)	0 (0)	0 (0)	41 (24.5)
Inflected	3 Open			0	0	0 (0)	0 (0)	0 (0)	4 (2.5)
	4 Neutral	2, 11	6, 9	2	0	2 (5)	3 (10)	4 (10.5)	4 (2.5)
	5 Closed			0	0	0 (0)	2 (6)	0 (0)	2 (1.5)
Carinated	6 Classic (Open)			0	0	0 (0)	3 (10)	3 (8)	0 (0)
	7 Classic (Neutral)	18, 36	6, 4	1	1	2 (5)	5 (17)	9 (24)	9 (5)
	8 Deep bodied	24, 28, 37	2, 7, 9	0	3	3 (8)	3 (10)	1 (2.5)	3 (2)
	9 Straight-necked carinated (Open)			0	0	0 (0)	0 (0)	2 (5)	0 (0)
	10 Straight-necked carinated (Neutral)			0	0	0 (0)	0 (0)	0 (0)	0 (0)
	11 Pseudo-carinated		0	0	0 (0)	3 (10)	2 (5)	0 (0)	
	Indeterminate	3, 4, 5, 6, 7, 8, 9, 13	4, 6, 9	8	0	8 (22)	7 (22)	10 (28)	50 (30)
Totals				18	20	37	31	37	166

1 Hazleton North, Gloucestershire. Pre-barrow occupation. Quantification based on Saville (1990, fig. 156).
2 Ascott-under-Wychwood, Oxfordshire. Pre-barrow occupation. Quantification based on Benson & Whittle (2007, fig. 10.1–10.3).
3 Windmill Hill, Wiltshire. Causewayed enclosure ditch fills. Quantification based on Smith (1965, figs 15–27).

proposed by Reay Robertson-Mackay (1987, 74). Rolled and thickened forms predominated (Table 4), features of the Peak Camp assemblage which again separate it from the pre-barrow assemblages at Hazleton North and Ascott-under-Wychwood where simple rounded, square, and everted rims dominate (Smith & Darvill 1990, fig. 156; Barclay and Case 2007, table 10.2). There are also slight differences with two Thames Valley enclosures for which rim-form data is available: Abingdon, Oxfordshire (Avery 1982, 28), and Staines, Surrey (Robertson-Mackay 1987, 73). Although rolled rims were the single most popular style at Peak Camp and both the Thames Valley enclosures, simple round or square forms and externally thickened forms were more popular on the Cotswolds than at the enclosures to the east. At Windmill Hill simple round or square rim-forms predominated (44% of all rims), especially in the locally made flint-gritted ware. Amongst the shell-gritted ware they accounted for 27% of recorded rims (Smith 1965, 45) which compares well with 31% in similar fabrics at Peak Camp. The range of rim-forms represented in the published sample of Neolithic pottery from Crickley Hill (Dixon 1971, fig. 8) provide good matches for vessels from Peak Camp, and the same applies to the group of about seven vessels recovered as fragmentary remains from half a dozen pits excavated in 2002–3 at Horcott Pit near Fairford, Gloucestershire (Lamdin-Whymark *et al.* 2009, 81).

TABLE 4. DISTRIBUTION OF RIM FORMS FROM PEAK CAMP IN RELATION TO OTHER QUANTIFIED ASSEMBLAGES

	Rim type	*Vessels*	*Trench I*	*Trench II*	*Total*	*Hazleton*[1]	*Ascott*[2]	*Abingdon*[3]	*Staines*[4]
			No	No	No (%)	No (%)	No (%)	No (%)	No (%)
Simple / Plain	1 Rounded or square	2, 12, 19, 22	2	2	4 (14)	5 (22)	20 (55)	44 (7)	156 (30)
	2 Everted	17, 30, 31, 32, 37	1	4	5 (17)	11 (50)	3 (8)	56 (8)	44 (8)
	3 Pointed		0	0	0 (0)	2 (10)	3 (8)	14 (2)	41 (8)
Rolled	4 Rolled over	11, 18, 20, 24, 28, 29, 33, 35, 38	2	7	9 (32)	2 (10)	4 (11)	162 (24)	183 (34)
	5 Bead / bulbous		0	0	0 (0)	0 (0)	1 (3)	60 (9)	13 (2)
Heavy	6 Externally thickened	1, 14, 15, 16, 21, 23, 26, 27	4	4	8 (28)	1 (5)	2 (6)	27 (4)	66 (13)
	7 Out-turned	10	1	0	1 (4)	0 (0)	1 (3)	53 (8)	4 (1)
	8 In-turned		0	0	0 (0)	0 (0)	0 (0)	99 (15)	6 (1)
	9 Expanded		0	0	0 (0)	1 (5)	0 (0)	27 (4)	9 (1)
	10 T-Shaped	25	0	1	1 (4)	0 (0)	0 (0)	73 (11)	11(2)
	Indeter-minate		0	0	0 (0)	0 (0)	2 (6)	55 (8)	0 (0)
Totals			10	18	28	22	36	670	533

1 Hazleton North, Gloucestershire. Pre-barrow occupation. Quantification based on Saville 1990, fig. 156.
2 Ascott-under-Wychwood, Oxfordshire. Pre-barrow occupation. Quantification based on Benson and Whittle 2007, figs 10.1–10.3.
3 Abingdon, Oxfordshire. Causewayed enclosure. Quantification based on Avery 1982, table 3.
4 Staines, Surrey. Causewayed enclosure. Quantification based on Robertson-Mackay 1987, table 9.

Vessel size is always difficult to calculate from fragmentary material but Figure 14 shows an analysis of reconstructed rim diameters for the Peak Camp pots in relation to other recorded assemblages. All three enclosure sites on the chart are rather similar, although Hambledon Hill, Dorset, has an unusually high proportion of small vessels while Abingdon has a higher proportion of medium-sized vessels with rim diameters in the range 180–240 mm. The profile for the pre-cairn assemblage from Ascot-under-Wychwood is rather different and is heavily skewed towards the smaller end of the size-range as it mainly comprises small bowls.

One rather exceptional vessel from Peak Camp is P33 (Fig. 13.33), a small simple open bowl with very thin walls (<5 mm). This must have been a fragile vessel and perhaps served some special purpose. It was not the only very thin-walled vessel as a total of 35 sherds less than 5 mm thick were recorded. Similar thin-walled vessels have been noted at Windmill Hill (Smith 1965, fig. 17: P67).

Manufacture, colour, decoration, and surface deposits

Coil-building was the main construction technique represented right across the assemblage. As so often with Neolithic ceramics, the joins were not always very well bonded which leads to numerous breakages along coil-junctions. Hand-smoothing of vessel surfaces was common (eg, P10, P13, P27, and P33), light burnishing is represented on P5 and P31, and some of the heavier and more pronounced rims show traces of scoring just

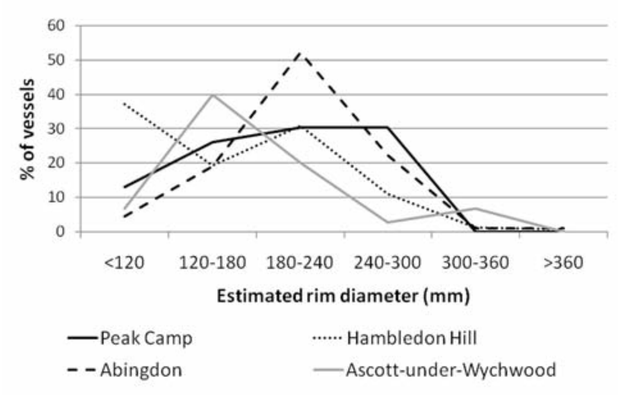

Fig. 14.
Line-graph showing the distribution of vessel sizes represented in a selection of 4th millennium cal BC ceramic assemblages. (Graph by Timothy Darvill)

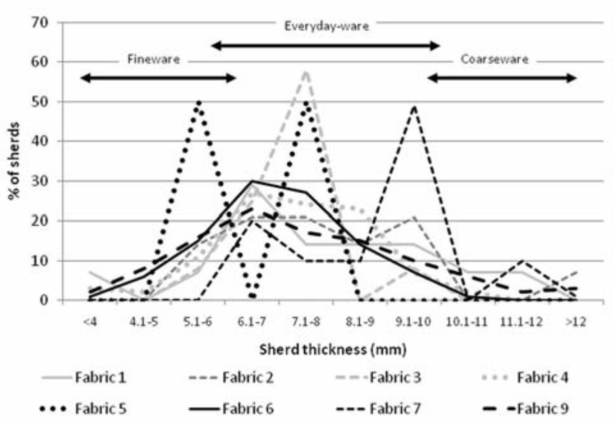

Fig. 15.
Line-graph showing the distribution of sherd thicknesses by fabric group from Peak Camp.
(Graph by Timothy Darvill)

below the outward protrusion as if to emphasise the shape of the rim (eg, P2 and P10). P8 has the remains of an attachment for a horizontal lug.

Wall thickness of pots from Peak Camp varies from *c*. 3.5 mm up to 17 mm, but the distribution between these extremes is not even, and in a general way reflects the quality and usage of the assemblage. Three main groups can be recognised: fineware represented by sherds less than 6 mm thick; everyday-wares with walls typically 6–10 mm thick; and coarsewares with wall thickness of more than 10 mm. Figure 15 shows an analysis of the distribution of sherds by wall thickness in relation to fabric types represented in the Neolithic assemblage. The tripartite nature of the assemblage can be clearly seen, with most fabrics being well-represented in at least two of the three groups. Thus Fabric 5 was used for fineware and everyday-ware, while Fabrics 3 and 7 were used for everyday-ware and coarseware. Fabrics 1, 6, and 9 contribute to all three groups. No residue analysis was undertaken on sherds from Peak Camp but, in the light of this analysis, it can be suggested that the assemblage comprises vessels used in a range of activities that included the serving, preparation, and storage of food and raw foodstuffs.

The pots were generally well-fired in both oxidising and unoxidising atmospheres. The control of vessel colour, especially on the exterior surface, was presumably one of the factors in the mind of Neolithic potters when selecting clays and firing arrangements. Indeed, Isobel Smith has suggested that at Carn Brea, Cornwall, a black surface coating was used to re-colour naturally red/brown wares. At Peak Camp there was little colour variation evident across the surface of individual sherds or conjoining groups of sherds: about 57% of the assemblage had a red/brown/orange exterior surface, the rest were dark-coloured, black or grey. An overall dominance of red/brown colouration can be seen at other sites in southern and western Britain (Fig. 16), although the balance varies and there are some assemblages such as that from the Coneybury Anomaly, Wiltshire, where the two colours had equal weighting. Given recent interest in the use of colour in prehistoric architecture and material culture (eg, Jones & MacGregor 2002) it is a characteristic of assemblages that deserves further attention and it may well be that the less prevalent black-coloured vessels were somehow special.

The Peak Camp assemblage is essentially plain ware. Rim-top and internal decoration is absent, although P1 has slight traces of pie-crust finger-marks on the top surface similar to that seen occasionally at Abingdon (Avery 1982, fig. 18), and Windmill Hill (Smith 1965, fig. 25, P149). The only vessel with decoration on the exterior is P36 from Phase II.3 (Fig. 13.36). This single sherd is from the shoulder of a carinated vessel and carries fingernail impressions along the angle of the carination and in the area

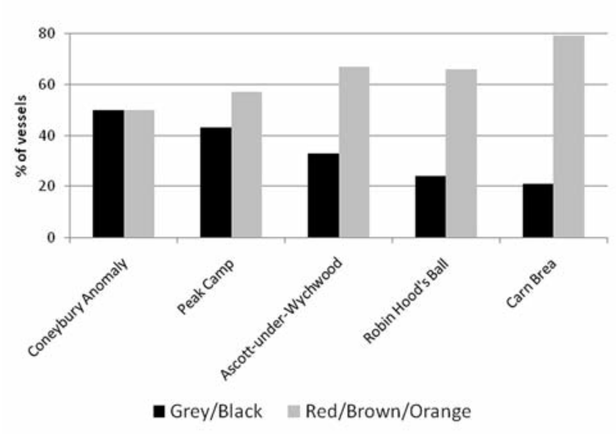

Fig. 16.
Bar-chart showing the ratio of pottery in different colours from selected 4th millennium cal BC ceramic assemblages in southern Britain. (Graph by Timothy Darvill)

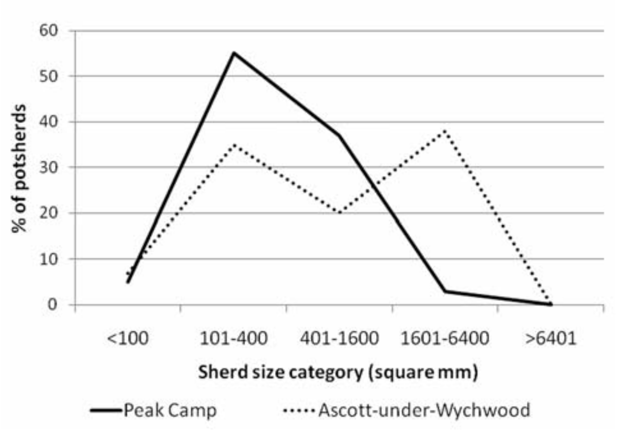

Fig. 17.
Line-graph comparing the distribution of sherd sizes from Peak Camp and Ascott-under-Wychwood, Oxfordfordshire. (Graph by Timothy Darvill)

immediately above. Comparable decoration in terms of position and execution occurs at Abingdon (Avery 1982, fig. 15.12) and Windmill Hill (Smith 1965, 52 and fig. 27, P194) but in both cases fingernail impressions represent very sparingly applied components of the decorative repertoire (less than 1% of vessels).

Surface deposits are rare on vessels from Peak Camp with only P1, a simple open bowl, having slight traces of sooting on the external surface.

Fragmentation

The whole Peak Camp assemblage is heavily broken into relatively small pieces. Individual vessels are poorly represented, and no joins between contexts were noted. Many of the sherds show breaks along coil-joins with the result that many are generally wider than they are tall. Taking the sherd size categories noted above, the majority of the Peak Camp sherds are of category 2 (101–400 mm^2) and the distribution unimodal (Fig. 17). By contrast, the assemblage from pre-long barrow contexts believed to be a midden deposit at Ascott-under-Wychwood (Barclay & Case 2007, 280) has a bimodal distribution with a high proportion of category 4 sherds (1601–6400 mm^2). Barclay and Case (2007, 276) considered this pattern to represent the accumulation of material that was already in a fragmentary state as a result of breakage elsewhere and, on this basis, it can be suggested that the Peak Camp assemblage is not a midden deposit as such but at least one step further removed, perhaps as material taken from middens for deposition in pits and ditches, a process that caused further fragmentation and sherd-size reduction.

Discussion of the Neolithic pottery assemblage

Typologically and stylistically the pottery from Peak Camp fits comfortably with developments in the ceramic repertoire of Neolithic communities around 3600 cal BC when a wide range of vessel forms characterised by open, closed, slack sided, and S-shaped profiles became common in southern Britain (Cleal 2004, 165). There are few similarities between the Peak Camp assemblage and material from middens and occupation below long barrows in the Cotswold-Severn region, most of which date to the early centuries of the 4th millennium cal BC and are dominated by carinated bowls: Hazleton North (Smith & Darvill 1990); Ascott-under-Wychwood (Barclay & Case 2007); Gwernvale, Powys (Britnell 1984, 97–105); Cow Common Long (Darvill 1984b, fig. 2); and Sale's Lot, Gloucestershire (Darvill 1987, 36). By contrast, marked similarities can be seen with assemblages from other enclosures and pit clusters in north Wessex and the upper Thames Valley, especially Abingdon (Case 1956; 1982; Avery 1982), Windmill Hill (Smith 1965), and Horcott Pit, Gloucestershire (Lamdin-Whymark *et al.* 2009, 81) in terms of vessel forms, assemblage structure, and the use of decorative motifs. The adjacent enclosure on Crickley Hill, is known to have yielded a substantial Neolithic ceramic assemblage but it has not yet been analysed in detail; published vessel forms and fabrics (Dixon 1971, fig. 9) match those from Peak Camp as might be expected from their overlapping chronologies.

Individual vessels from Peak Camp, especially finewares and everyday-wares, are well paralleled by the pots recovered in various states of completeness from the chambers and other contexts related to the use of long barrows in the Cotswolds (Darvill 2004a, figs 55, 68, and 69). As at Peak Camp, most of these pots are tempered with fossil shell or limestone and shell. Cups have been recorded from Pole's Wood East (Clifford 1950, fig. 4a) and Hazleton North (Smith & Darvill 1990, fig. 157.33); open and neutral bowls from Eyford Hill (Crawford 1925, 96), Hazleton North (Smith & Darvill 1990, fig. 157.32), Notgrove (Clifford 1936, fig. 7), Bown Hill (Crawford 1925, 85), Belas Knap (Berry 1930, 295–7), Randwick (Crawford 1925, 131), Rodmarton (Piggott 1931, 138), and Ascott-under-Wychwood (Barclay & Case 2007, fig. 10.4); and closed inflected jars are known from Nympsfield (Clifford 1938, fig. 3 right) and Burn Ground (Grimes 1960, fig. 30 upper). Unfortunately, West Tump produced only 'two pieces of British pottery' (Witts 1883, 205) seemingly from the blocking of the chamber, one of which Stuart Piggott (1931, 138) likens to shell-tempered material from Notgrove. Small collections of comparable pottery have also been recovered from two pits in the area: an open bowl with a rolled rim from Berkley Street near the River Severn in Gloucester (Hurst 1972, 38), and a possible cup from Vineyards Farm near Cheltenham (Rawes 1991, fig. 26.1).

As an assemblage, the Peak Camp pottery can be associated with the broad family of mid-4th millennium cal BC plain bowl ceramics known as Southern Decorated Wares (Whittle 1977, 85–94). Nested within this broad grouping are a series of regional style-zones characterised by assemblages from particular sites – Windmill Hill; Abingdon; Whitehawk; Mildenhall; Ebbsfleet (Kinnes 1978, fig. 38) – although not all commentators find such geographically determined sub-divisions either useful or meaningful (Zienkiewicz 1999, 288–9), preferring instead a more fluid approach in which the manufacture, use, selection, and deposition of particular kinds of pottery was part of an individual's conceptualisation and ordering of the world. In the case of the Peak Camp assemblage it is clear that its main features can be paralleled not only at the nearby site of Crickley Hill, but also with pottery from the use-phase of long barrows in the area. A sense of cultural identity shared by communities occupying the Cotswold uplands and its immediate surroundings may well be reflected in the pottery, with components drawn from sources to the east and west. As such, some of the subtleties of design and decoration may comprise a non-verbal discourse that set these communities apart from peoples living on the Wessex Downlands to the south and the upper Thames Valley to the east, while at the same time perpetuating common world views and cosmologies. In the evolving scheme of style-zones within the territory defined by the occurrence of Southern Decorated Ware assemblages, it can be suggested that the Peak Camp/Crickley Hill assemblages can be seen as the locus of a distinct Cotswold style-zone characterised as much as anything by the scarcity of decoration.

The wide range of fabrics represented in the Peak Camp assemblage, together with the broad spectrum of vessel forms and sizes present, suggests derivation from a collection of pots (the 'life assemblage') such as might be expected in a sizable settlement. Small personal cups and bowls as well as larger vessels in fine- and everyday-ware are represented, together with larger everyday-ware and heavy-duty pots that could have been used for food preparation and the storage of foodstuffs. Since pots are inherently transportable, albeit with care, the life assemblage does not necessarily have to have been within Peak Camp itself; they could for example have been brought across from Crickley Hill and vice versa. Whether the occupation from which the pots derive was permanent, seasonal, or short-lived as part of a system of tethered mobility cannot be determined from the pottery alone. What is clear, however, is that it was not used in direct association with the contexts in which it was found. The fragmentation pattern suggests second- or third-step derivation from a midden or similar deposit, quantities of material being taken from such sources and placed or dumped into the open pits and ditches within and bounding the site. Much other cultural debris was moved with the pottery in this way, including animal bone, worked flint, hearth debris, and, occasionally, rather more exotic items of stone. Assuming the excavated sections of rock-cut features are representative, then the overall quantities of cultural material that must be present is very considerable and points to the accumulation and circulation of debris on the hilltop itself prior to deposition. There are two main views out from Peak Camp, westwards across the Severn Valley and eastwards into parts of the Cotswold uplands; pottery made from clays available in both these areas is represented in the assemblage and it seems reasonable to assume that both areas were connected through the activities that took place on the hilltop and the personal connections of those who visited or lived at Peak Camp.

Beaker (P34)

Eight non-joining body sherds of probable Beaker (P34) were found in the upper fill of the ditch/pit in Trench II C7 (II.3). Two close-set lines of impressed-cord decoration run around the body of the vessel (Fig. 13.34). Insufficient remains to determine the type or form of pot represented. A small amount of Beaker was found beneath the Iron Age ramparts at Crickley Hill, much of it with cord-impressed decoration (Dixon 1994, 220).

Late Bronze Age/Early Iron Age jar (P39)

A substantial collection of more than 100 sherds was found in July 1985 in the upcast of a tree-throw pit on the north side of the hill near Trench I (see Fig. 4B, Point D). They all appear to derive from a single vessel and are made in Fabric 8 which is very poorly represented elsewhere on the site. The profile of the vessel can be partially reconstructed, although its overall size cannot be determined (Fig. 13.39). It appears to be a *situla* jar typical of Late Bronze Age post-Deverel-Rimbury (cf. Barrett 1980, fig. 6.12) and Early Iron Age assemblages (cf. Harding 1972, pl. 43). On the Cotswolds examples are known at Castleton Camp, Oxfordshire (cf. *ibid*., pl. 43.B) and Cleeve Cloud, Gloucestershire (Saville 1984b fig. 3 nos 23 & 24). It is the style of pottery contemporary with the earliest Iron Age occupation at Crickley Hill (cf. Dixon 1994, 217–19).

FLINT ASSEMBLAGE
(NICOLA SNASHALL)

A total of 1918 pieces of struck flint and chert was recovered from the excavations and fieldwork carried out within and around Peak Camp between 1979 and 1987. These are reported below as two assemblages, the first comprising excavated material and the second derived from surface collection.

Excavated assemblage

The excavated lithic assemblage contains a total of 1518 flint and chert artefacts, the majority of which (87.2%) were entirely patinated with deep white patination.

Raw materials

The pattern of raw material exploitation paints a mixed picture. Derived flint (from river gravels) and chalk flint are both present, with chert being represented by a single flake. It should be recognised, however, that the incidence of chert within the assemblage may be under-recorded because of the level of patination present. Less than 1% of the material was visually characterisable to source type. Of this 75% is derived flint. Much of the cortex is very thin but it was not always possible to characterise as definitely coming from a derived source. Overall, the pattern of raw material exploitation suggests there were connections with chalk flint sources to the south but the strongest connections were with the river gravels of the Thames Valley to the east.

Core reduction techniques

Though the core assemblage is small, a range of core types is represented (Table 5). A single A1 blade core may be of Late Mesolithic origin. At least three of the cores can be securely dated to the Early Neolithic on typological grounds. A keeled and a Levallois core are also present. The average weight of cores at 27.7 g is within the upper end of the range for examples within the northern Cotswolds (Snashall 2002) suggesting the supply of raw materials to the site was sufficient to ensure that not all cores were worked to exhaustion.

The presence of core rejuvenation flakes, together with ridge trimming and trimming flakes (Table 6) suggests a concern with the careful working of flint indicative of Early Neolithic and Late Mesolithic traditions of stone working. This is supported by the significant proportion of debitage with evidence for platform trimming (26.3%) and the dominance of single direction dorsal scarring (33.7%; Tables 7 and 8). A much smaller proportion of flakes carry evidence for facetted, and trimmed and facetted, platforms. This concurs with the evidence for the working traditions suggested by the presence of a keeled and a Levallois core as a minor component within the assemblage. This dichotomy in working practice may also account for the significantly higher percentage of hinged and step fractures within the flake element of the assemblage; it hints at the presence of less meticulous working practices.

Chronometric analysis of debitage

In the Cotswolds, a region where the majority of raw materials employed in flintworking were by necessity imported from outside the area, and core sizes are

TABLE 5. CORE SCARS BY CORE TYPE (EXCAVATED ASSEMBLAGE)

Core Scars	*Blade*	*Flake*	*Blade & flake*	*Total*
Core A1	1	0	1	2
Core B1	0	0	1	1
Core B3	0	0	1	1
Core D	0	0	1	1
Core Levallois	0	0	1	1
Totals (excl. frags)	1	0	5	6

TABLE 6. DEBITAGE BY CONTEXT (EXCAVATED ASSEMBLAGE)

	Context (Phase)	*Flake*	*Narrow Flake*	*Blade*	*Flake /Narrow Flake /Blade*	*Chunk*	*Chip*	*Ridge-trimmed flake*	*Trimming flake*	*Retouch flake*	*Core rejuvenation tablet*	*Plunging core rejuvenation flake*	*Totals*
Trench I	C2 (I.5)	3	2	2	3	0	0	0	0	0	0	0	10
	C3 (I.4)	5	1	4	10	0	0	0	0	0	0	0	20
	C5 (I.3)	0	1	0	0	0	0	0	0	0	0	0	1
	C6 (I.3)	2	2	1	3	0	0	1	0	0	0	0	9
	C7 (I.5)	1	0	0	0	0	0	0	0	0	0	0	1
	C8 (I.3)	0	0	0	4	0	0	0	1	0	0	0	5
	C15 (I.3)	0	0	0	1	0	0	0	0	0	0	0	1
Trench II	C2 (II.4)	48	32	14	338	5	2	9	25	17	0	1	491
	C3 (II.3)	3	5	4	20	0	0	0	0	0	0	0	32
	C7 (II.3)	57	72	24	262	2	1	12	29	3	1	0	463
	C12 (II.2)	4	7	4	36	0	0	0	0	0	1	0	55
	C13 (II.1)	0	1	1	0	0	0	0	0	0	0	0	2
	C14 (II.3)	11	4	2	35	0	0	0	1	1	0	0	54
	C15 (II.2)	8	4	10	73	3	0	2	4	0	0	0	104
	C17 (II.2)	0	1	1	1	0	0	0	0	0	0	0	3
Unstrat		12	6	2	101	3	0	0	2	3	0	0	129
Totals		154	138	69	887	13	3	24	65	24	2	1	1380

significantly smaller than those from 'flint-rich' regions, a degree of parsimony seems to have been exercised in the curation of raw materials (Snashall 2002). Waste material is often commensurately smaller than in other regions. If, as is usual practice in chronometric analyses, blades, narrow flakes, and flakes of less than 20 mm were to be excluded from the metric analysis the population size would be decreased to the extent where a distortion is likely to result in the recognition of trends within the assemblage.

Ford (1987) has highlighted the fact that broken flakes frequently account for 30–70% of an assemblage. To overcome this problem he suggested a methodology of recording all broken and unbroken debitage falling into the categories of flake, narrow flake, and blade where their proportions can be securely established; this was adopted for the present study. The proportion of all recognisable flakes (42.7%): narrow flakes (38.2%): blades (19.1%) (broken and unbroken) within the assemblage reveals a concern with the production of narrow flake and blades (Table 6). The combined percentage of narrow flakes and blades (57.3%) falls within the range of variation that might be expected from analysis of Early Neolithic assemblages in other regions (Pitts 1978) and is consistent with assemblages of a similar date from within the rest of the Cotswolds (Snashall 2002).

TABLE 7. PLATFORM PREPARATION (EXCAVATED ASSEMBLAGE)

	Platform preparation					
	No platform	*No preparation*	*Trimmed*	*Facetted*	*Trimmed & facetted*	*Total*
Flakes no/%	35/22.7	25/16.2	62/40.3	9/5.8	23/14.9	154
Narrow flakes no/%	57/41.3	8/5.8	61/44.2	1/0.7	11/8.0	138
Blades no/%	20/29.0	1/1.4	46/66.7	0	2/2.9	69
Other no/%	738/72.4	43/4.2	194/19.0	14/1.4	30/2.9	1019
Total debitage no/%	850/61.6	77/5.6	363/26.3	24/1.7	66/4.8	1380

TABLE 8. DORSAL SCAR DIRECTION (EXCAVATED ASSEMBLAGE)

	Scar direction				
	None Visible	*1*	*2*	*3*	*Total*
Flakes no/%	28/18.2	91/59.1	23/14.9	12/7.8	154
Narrow flakes no/%	41/29.7	69/50.0	21/15.2	7/5.1	138
Blades no/%	14/20.3	53/76.8	2/2.9	0	69
Others no/%	711/69.8	252/24.7	39/3.8	17/1.7	1019
Total debitage no/%	794/57.5	465/33.7	85/6.2	36/2.6	1380

Balance of assemblage

Less than 1% of the assemblage is made up of entirely cortical (primary) material, with 78.2% carrying no cortex at all. At 1:138 the core to waste ratio is low. Taken together this suggests that the preliminary dressing of flint was carried out away from the site with the majority of subsequent working being carried out at the enclosure. The extremely low total tools component (classifiable tools plus miscellaneous retouched plus trimmed/worn items: Table 9) in the assemblage (1.9%) suggests that the majority of tools produced were removed for use at other locations. However, it should be remembered that the assemblage derives from two spatially restricted areas within the site. So it remains a possibility that the locations to which tools were removed lie elsewhere within the site itself.

TABLE 9. BALANCE OF ASSEMBLAGE (EXCAVATED ASSEMBLAGE)

Balance of assemblage	*No.*	*% of total*
Debitage/prep.	1380	90.9
Cores	10	0.7
Unclassified burnt	94	6.2
Trimmed/worn	5	0.3
Misc. retouched	6	0.5
Tools (classifiable)	23	1.4
Total	1518	

Tool assemblage

Leaf-shaped arrowheads form the largest component within the tool assemblage (Table 10). The dominance of leaf-shaped arrowheads (9 examples) coupled with the presence of serrated pieces, a flake from a polished flint axe or adze, and at least one laurel leaf are all consistent with an Early Neolithic date. The presence of a single miscellaneously retouched bladelet with wear to its distal end that may originally have functioned as some form of borer allows the possibility of a minor Mesolithic presence within the tool assemblage. The diverse nature of the tool assemblage testifies to the presence of a significant range of productive activities taking place on the site (Table 11). Several items show signs of significant wear demonstrating the sustained use, as well as the production, of tools on site. A full summary of formal tools, utilised flakes, and pieces with miscellaneous retouch from the excavated assemblage can be found in Table 10.

Catalogue of illustrated flints

(Figs 18–21)

1. Serrated narrow flake (I C19. Phase I.1)
2. Serrated blade (II C7. Phase I.5)
3. Edge trimmed blade (II C2. Phase II.4)
4. Serrated blade (II C2. Phase II.4)
5. Edge trimmed blade (II C7. Phase II.3)
6. Edge trimmed narrow flake (II C7. Phase II.3)
7. Serrated piece (broken) (II C12. Phase II.2)

TABLE 10. TOOLS BY CONTEXT (EXCAVATED ASSEMBLAGE)

		Edge-trimmed flake	*Edge-trimmed narrow flake*	*Edge trimmed blade*	*Miscellaneous retouched*	*Bifacially worked miscellaneous retouched*	*End scraper*	*Side scraper*	*Scraper without a bulb on a flake segment or broken flake*	*Serrated piece*	*Awl*	*Leaf-shaped arrowhead (2A)*	*Leaf-shapded arrowhead (2C)*	*Leaf-shaped arrowhead (3B)*	*Leafshaped arrowhead (4A)*	*Leaf-shaped arrowhead (4B)*	*Leaf-shaped arrowhead (fragmentary)*	*Edge retouched knife*	*Flake from a polished implement (?axe / adze)*	*Laurel leaf*	*Total*
Trench I	C2 (I.5)	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
	C3 (I.4)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	C19 (I.1)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Trench II	C2 (II.4)	0	0	1	1	0	1	0	0	1	1	0	0	1	1	0	0	0	1	0	8
	C7 (II.3)	1	1	1	2	1	0	0	1	1	1	1	0	0	1	1	0	1	0	1	14
	C12 (II.2)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	C14 (II.3)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	C15 (II.2)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
Unstrat.		0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	3
Totals		1	2	2	5	3	1	1	1	4	2	1	1	2	2	1	2	1	1	1	34

8. Edge trimmed narrow flake (I C3. Phase II.3)
9. Edge trimmed flake (II C7. Phase II.3)
10. Leaf-shaped arrowhead. Green (1980) type 4A (II C7. Phase II.3)
11. Leaf-shaped arrowhead. Ogival lost-base Green (1980) type 2C (II C15. Phase II.2)
12. Leaf-shaped arrowhead. Green (1980) type 4B (II C7. Phase II.3)
13. Leaf-shaped arrowhead fragment (II Unstrat)
14. Awl retouched on both edges to form a point. Worn at the distal end (II C2. Phase II.4)
15. Miscellaneous bifacially retouched (II C14. Phase II.3)
16. Edge retouched knife (II C7. Phase II.3)
17. Side scraper (I C2. Phase I.5)
18. Laurel leaf (Bifacially worked) (II C7. Phase II.3)
19. End scraper. Very worn on both long edges but no retouch visible in these areas (II C2. Phase II.4)
20. Miscellaneous retouch. Very worn. Small areas of invasive retouch visible on both sides of ventral surface. (II C7. Phase II.3)
21. Leaf-shaped arrowhead. Green (1980) type 3B, crudely made example (II Unstrat)
22. Axe/adze. Small fragment of blade from polished flint axe or adze (II C2. Phase II.4)
23. Miscellaneous retouch (I Unstrat)
24. Miscellaneous retouch. Made on a bladelet. Worn on tip of left side at proximal end. Abrupt retouch down part of right side and semi-abrupt retouch down left side. (I Unstrat)
25. Miscellaneous retouch. Tiny fragment with small area of semi-invasive retouch (II C2. Phase II.4)
26. Core, B3 type (II C7. Phase II.3)
27. Core, Levallois type (II C7. Phase II.3)
28. Core, A1 type (I C16. Phase I.3)
29. Core, A1 type (II C7. Phase II.3)
30. Core, B1 type (II C15. Phase II.2)
31. Miscellaneous retouch. Irregular flake with small area of scraper-like retouch (I C3. Phase I.4)
32. Core, type D (II Unstat)

Distribution

Trench II produced 87.3% of the excavated assemblage with a significant proportion deriving from the topsoil (C2). Aside from this the largest representation of lithic items comes from C7 forming the primary fill of the Phase II.3, a recut of F4 (Tables 6, 10, & 12). The ridge trimming flakes, trimming flakes, core rejuvenation tablet, and four cores provide evidence for the inclusion of knapping waste among the material deposited here. A wide range of tools is also present, a number of which show indications of significant wear. This, together with the nature of the fill (see Darvill above), would be consistent with the material having originated from a midden deposit. The presence of an A1 blade core, which would fit comfortably into a Mesolithic assemblage, leaves open the possibility that the midden may have built up over a considerable period or incorporated within it earlier material already extant on the site.

TABLE 11. BREAKDOWN OF TOOL TYPES (EXCAVATED ASSEMBLAGE)

Breakdown of tools (classifiable)	*No.*	*% of total*
Scrapers	3	14.3
Sawing/cutting/engraving tool	4	19.0
Piercing	2	9.5
Arrowheads	9	42.8
Knives & retouched blades	1	4.8
Axe/adze (standard)	1	4.8
Laurel leaf	1	4.8
Total	21	

Surface collections

The surface assemblage comprised 400 items (Table 13) and is the result of informal collection by a number of individuals over a considerable period of time within and around the area of the Peak Camp enclosure. The area is at present covered by woodland and the majority of finds were recovered as the result of exposure following erosion or from within tree-throw hollows and animal disturbance.

Raw Materials

Though the number of items with cortex that could be visually characterised within the surface assemblage is small (1.5% of the assemblage) all cortex that can be identified has the typically abraded appearance of derived flint and this apparent dominance is consistent with the excavated assemblage. No chalk flint or chert was identified.

Core Reduction techniques

The patterning of flake terminations and platforms in the excavated assemblage is mirrored in the surface assemblage, as is the dominance of single direction scarring in the blades and narrow flakes and the percentage of primary and tertiary flakes. The clustering of most debitage within the lower end of the thickness range (2.1–7 mm), and high proportion (68.33%) of blades and narrow flakes, again give an overall picture of chiefly Early Neolithic activity on the site.

Balance of Assemblage

The percentage of tools in the surface assemblage (2.5%) is similar to that among the excavated material (Table 14) and the core to waste ratio (1:180) is even lower. This is consistent with the impression gained from the excavated assemblage that the majority of tools manufactured on the site were being removed for use elsewhere.

TABLE 12. CORES BY CONTEXT (EXCAVATED ASSEMBLAGE)

Trench	*Context*	*Core frag.t*	*A1*	*B1*	*B3*	*D*	*Levallois*	*Total*	*% of all cores*
I	C16	0	1	0	0	0	0	1	10
II	C2	2	0	0	0	0	0	2	20
II	C7	1	1	0	1	0	1	4	40
II	C12	1	0	0	0	0	0	1	10
II	C15	0	0	1	0	0	0	1	10
Unstrat.		0	0	0	0	1	0	1	10
Total		4	2	1	1	1	1	10	

TABLE 13. ASSEMBLAGE SUMMARY (SURFACE COLLECTION)

Assemblage composition	*No.*	*% of total*
Flake	19	4.75
Narrow flake	32	8.00
Blade	9	2.25
Flake/narrow flake/blade	270	67.50
Chunk	6	1.50
Chip	1	0.25
Ridge trimming flake	6	1.50
Trimming flake	18	4.50
Core fragment	2	0.50
Unclassified burnt fragment	27	6.75
Miscellaneous retouched	4	1.00
Bifacially worked miscellaneous tool	2	0.50
Scraper, no bulb on flake segment or broken flake	1	0.25
Piercer	1	0.25
Leaf-shaped arrowhead (4C)	1	0.25
Leaf-shaped arrowhead (frag., type unknown)	1	0.25
Total	400	

TABLE 14. BALANCE OF ASSEMBLAGE (SURFACE COLLECTION)

Balance of assemblage	*No.*	*% of total*
Debitage/prep.	361	90.25
Cores	2	0.50
Unclassified burnt	27	6.75
Misc. retouched	6	1.50
Tools (classifiable)	4	1.00
Total	400	

Tool Assemblage

Leaf-shaped arrowheads are once again dominant within the tool component of the assemblage. The presence among the miscellaneous retouched material of two probable fragments of laurel leaf, one of which is unfinished, may suggest that they, as well as arrowheads, were manufactured on the site during the Early Neolithic. A single fragment of what may be an oblique arrowhead is the only indication of a Late Neolithic presence. However, no definitely Mesolithic tools are present. This is not altogether surprising given that, due to their small size, microliths are possibly the easiest tool type to be overlooked during surface collection.

Summary of Tools

A full summary can be found in Table 13. The following deserve note: a piercer with retouch on the distal edge forming a point; an end scraper without a bulb made on a flake fragment or broken flake; a unifacially retouched piece, possibly a knife fragment; two very small fragments with semi-abrupt retouch; a possible fragment of oblique arrowhead; a bifacially retouched piece, possibly a laurel leaf fragment; and another possible broken unfinished laurel leaf.

Discussion: the assemblages in context

The people who manufactured the flint assemblages found at Peak Camp drew upon broader stone-working traditions prevalent across southern Britain. However, Peak Camp's position in the development and understanding of lithic practice and deposition within the region can be better comprehended via a comparison with other excavated and surface-collected lithic assemblages within the area of the Cotswold scarp and the immediate hinterland around the enclosure. The following observations draw upon doctoral research carried out by the author into lithic assemblages from the Cotswold region (Snashall 2002).

Wherever a significant Early Neolithic presence is apparent Late Mesolithic activity is also represented in the vicinity. Although there is little more than a background level of finds in the Peak Camp assemblage itself, there is a small but clear Mesolithic presence on the site of the Early Neolithic enclosures on Crickley Hill (Snashall 2002, 58) and also in the

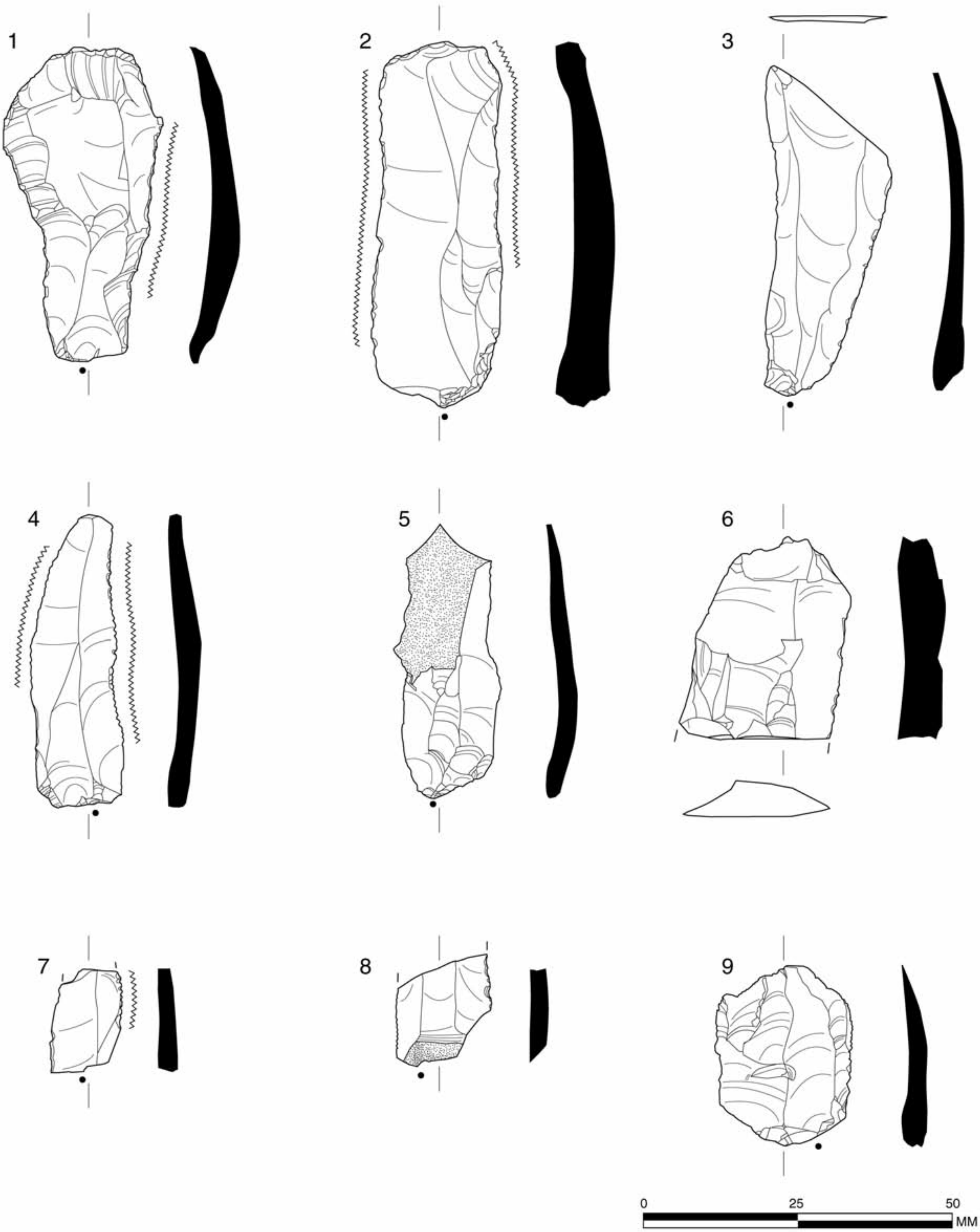

Fig. 18.
Flint tools from Peak Camp. (Drawing by Lorna Gray)

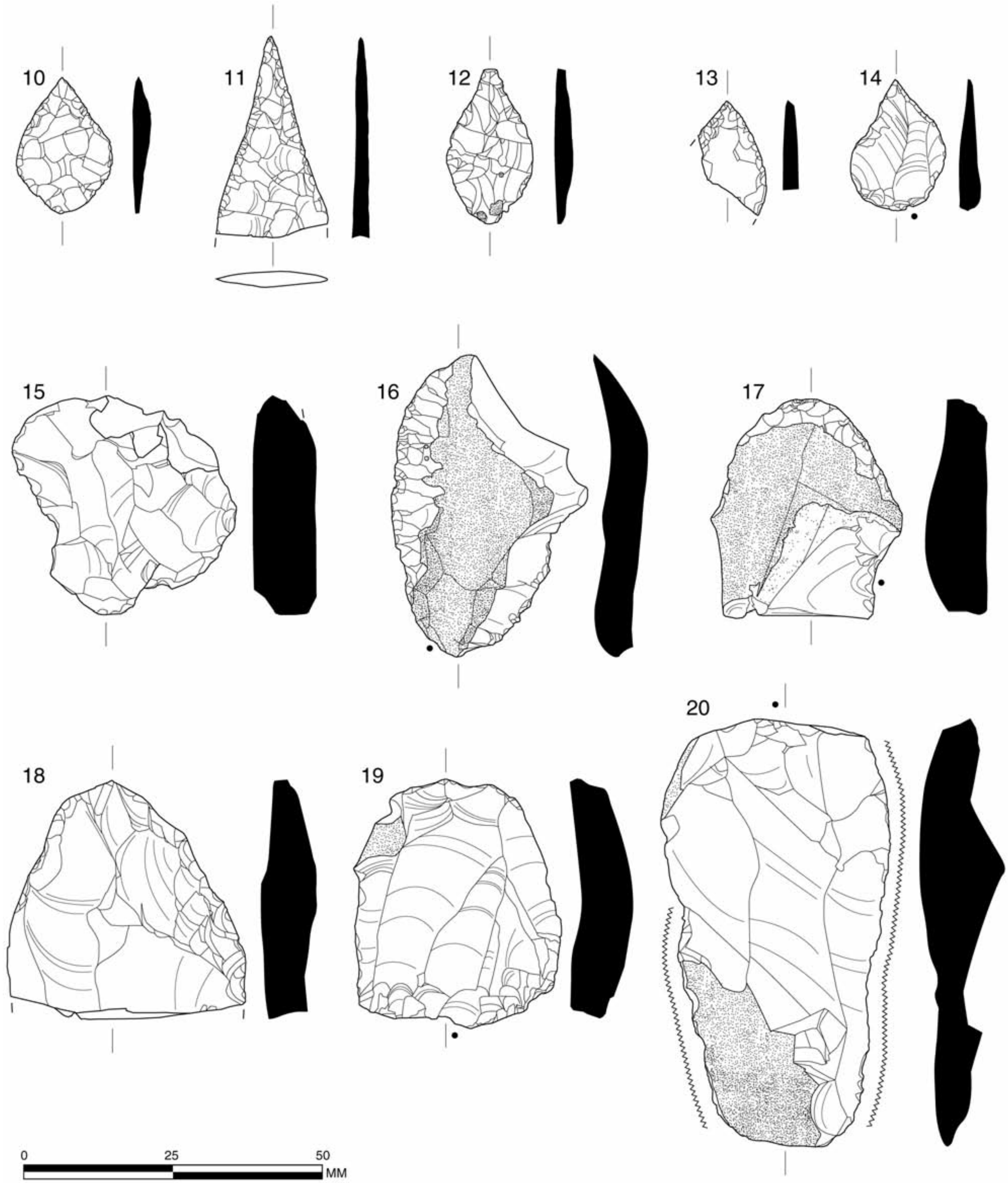

Fig. 19.
Flint tools from Peak Camp. (Drawing by Lorna Gray)

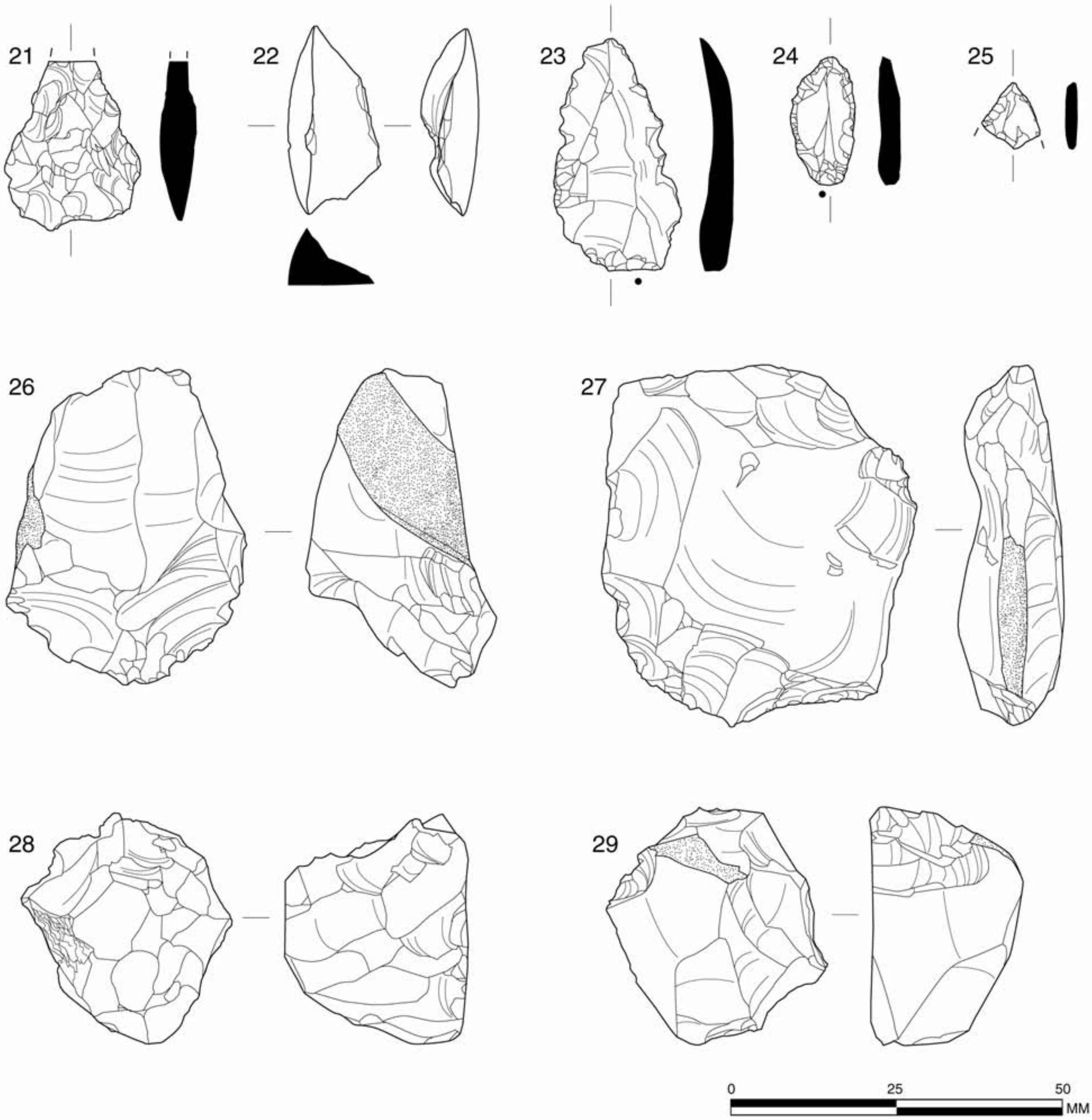

Fig. 20.
Flint tools and cores from Peak Camp. (Drawing by Lorna Gray)

Birdlip Bypass field-walking assemblage (Darvill 1984a, 25). This may suggest a degree of continuity in residential presence within the area through the 5th and 4th millennia cal BC. However, nowhere within any of these scarp-slope lithic assemblages is there a sufficiently diverse spectrum of Late Mesolithic material to suggest the presence of what could be characterised as a base camp. For that we have to look south to Tog Hill (Gracie 1970; Sykes & Whittle 1965). What appears to be a substantial Late

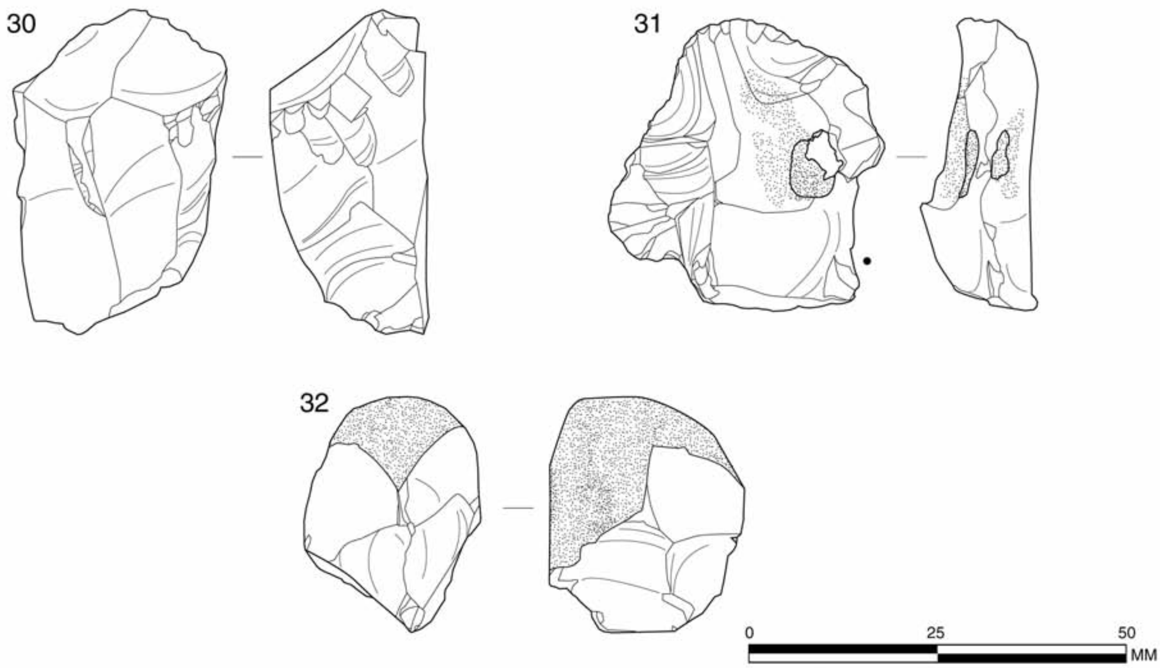

Fig. 21.
Flint cores from Peak Camp. (Drawing by Lorna Gray)

Mesolithic knapping site focusing on microlith production is known from Syreford near Andoversford (Saville 1984a, 70–1) but the limited quantities of other implement types suggest this was unlikely to have served as a base camp.

The make-up of the lithic assemblages at Peak Camp is remarkably similar to that of its Early Neolithic neighbour on Crickley Hill. In both instances a pattern of working is suggested in which large quantities of raw materials were brought to the site from a number of different areas. Both chalk flint from Wessex and derived flint from the river gravels of the Thames Valley play a significant role. People at these sites were carrying out a significant amount of core working, with much of the product of that work seemingly being removed to other locations as individuals or groups moved about. During these movements a small proportion of the tools representing a diverse spectrum of activities were retained at the enclosures.

Outside the enclosures the only evidence for substantial Early Neolithic activity within the environs of Peak Camp comes from Birdlip just a short distance to the east. The Early Neolithic material from Birdlip is more difficult to characterise than that from Peak Camp and Crickley Hill because it forms one component of a much more chronologically extensive assemblage. There does not, however, seem to be such a great emphasis on core working here. The recovered finds suggest that greater attention was given to the performance of tasks such as scraping and cutting, and the maintenance, and presumably use, of bifaces (as demonstrated by the presence of a number of biface thinning flakes).

There are few indications of any substantive presence at Peak Camp during the Late Neolithic or Early Bronze Age from the examined lithic assemblage. Outside the enclosure, however, a very different pattern of use and movement of raw materials and tools to that seen in the Early Neolithic is evident. Many more assemblages of late 4th and 3rd millennium cal BC date are in evidence. Assemblages at Birdlip and Cranham indicate that activity was also more extensive. The balance of the assemblages from this later period presents a consistent picture with pre-prepared raw materials being imported to be used at a variety of locations for the production of tools which were, in most cases, used at the same location. This implies a more restricted degree of residential mobility during this period than was the case in the early 4th millennium.

Despite this, patterns of raw material exploitation during the Late Neolithic and Early Bronze Age remain fairly similar to those of the Early Neolithic with material from a variety of sources being exploited. Connections between different regions seem to have remained remarkably consistent over long periods. However, in the later period there is significant evidence for the recycling of earlier lithic materials in the Birdlip Bypass assemblage. This contrasts with Early Neolithic practice at Peak Camp where only very limited recycling of materials is in evidence.

One final observation can be made concerning the Late Neolithic and Early Bronze Age as indicated by lithic assemblages in this region. Despite the widespread nature of activity during this period, with the exception of arrowheads, there is a remarkable lack of Late Neolithic worked flint from either Peak Camp or the neighbouring enclosure on Crickley Hill. This may suggest there was deliberate avoidance of these places which would still have been visible, if utterly ruinous. Alternatively, the scarp edge situations common to both enclosures may no longer have been regarded as desirable residential locations. Given the apparent proclivity of Late Neolithic and Early Bronze Age individuals for the recycling of materials at Birdlip it may well be that their reluctance to reuse such readily available resources at the former enclosure sites signals a deliberate avoidance of these locations for every-day activities.

Looking further afield, the lithic assemblage from Hambledon, Dorset, bears some resemblance to that from Peak Camp in that, like its Cotswold counterpart, it displays no evidence of a substantial earlier or later presence (Saville 2002, 93). The restricted size of the areas from which the Peak Camp assemblage is drawn makes it difficult to draw meaningful conclusions about the full range of activities that were undertaken at the site, but it would be true to say that the range of tool types represented is entirely consistent with that known from other Early Neolithic enclosures in southern Britain (Smith 1965; Saville 2002).

Recent debate over the interpretation of structured deposits in the enclosure at Staines has produced a dichotomy in the interpretation of the detail of the material (Bradley 2004; Lamdin-Whymark 2008). However, the importance of practices involving purposive structured deposition in spatially distinct zones at some enclosures seems to have been established beyond doubt (Beardsmoore *et al*. 2010). Given the limited area of the excavations at Peak Camp there is a danger of over-extrapolating the significance of differences in the quantity and character of the lithic material present within the areas of Trench I and Trench II. But it is at least suggestive that the quantity of material found in the area of Trench II was so much greater than Trench I and that there is such a heavy bias towards the presence of arrowheads in the former. It is tempting to think that the concentration of arrowheads in this area may be related to the evidence for the Early Neolithic 'battle' at the neighbouring enclosure on Crickley Hill (Dixon 1988; *Dixon et al*. 2011).

WORKED STONE
(TIMOTHY DARVILL)

Three pieces of worked stone were recovered.

Sandstone disc

Trench I [Phase I.1]. About half of a sandstone disc measuring 58 mm in diameter and *c*. 11.5 mm thick with traces of flaking around the edge (Fig. 22.1). A thin-section reveals that the piece is made on laminar fine-grained quartzitic sandstone. More than a dozen comparable discs are known from Cotswold-Severn long barrows (Darvill 2004a, 170) and specimens have also been recorded from chambered tombs in northern and western Britain (Scott 1933, 218; Grimes 1939; Ó h-Iceadha 1946; Powell 1938; Henshall 1972, 194) and from further afield in France (Daniel 1939, 163; L'Helgouach & Le Roux 1965) and TRB contexts in northern Germany (Becker & Benecke 2002, taf. 18:60). Stone discs are less common at sites other than long barrows, but two were found at Windmill Hill, Wiltshire (Smith 1965, 123), three at Hambledon Hill, Dorset (Mercer & Healy 2008, 638–9), and one at Lower Luggy, Powys (Gibson 2006, 179). Nothing is known of the purpose of stone discs. Functional explanations include their use as weights, lids, or some kind of a weapon for

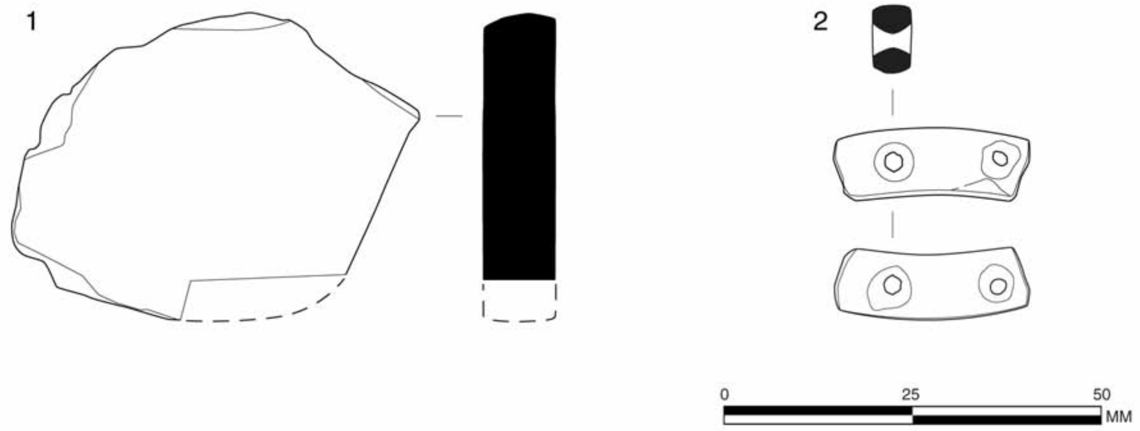

Fig. 22.
Sandstone disc (1) and shale arc pendant (2) from Peak Camp. (Drawing by Lorna Gray)

hunting small animals. A non-functional purpose is just as likely, perhaps as charm-stones, amulets, or representations of the sun or moon. In this connection it is notable that during the 3rd millennium cal BC or later stone discs were probably being made from Bluestone at Stonehenge (Cleal *et al.* 1995, 382).

Shale arc pendant

Trench II [Phase II.1]. This unusual and securely stratified object (Figs 22.2 and 23) comprises a curved piece of dark brown/black shale, probably from Kimmeridge (see below), ingot-shaped in cross-section: length 25.5 mm; maximum width 8.5 mm; thickness 5.5 mm. It is possibly a segment, perhaps a tenth part, taken from an armlet that would originally have been approximately 100 mm in external diameter. Except for the ends, the piece seems to have been polished and the surfaces smoothed except for one slight irregularity on the narrower of the two flat faces. The sides have been rounded and tapered. Two holes are set 14 mm apart, one near each end of the piece. The larger of the holes attains a maximum pierced diameter of 2 mm and was cut by drilling from both sides to give an hour-glass profile with a maximum cone diameter of 5 mm. The second hole is smaller with a maximum pierced diameter of 1.5 mm and seems to have been drilled from one side only with the result that on the narrower of the two flat faces a small flake of shale has broken away from the edge of the hole.

Arc pendants do not figure strongly among the ornaments and dress fittings of the British Neolithic, although bone examples are known from Skara Brae, Orkney, including a decorated one made from a section of boar's tusk (Childe 1931, 148–9). The specimen from Peak Camp appears to be the first recorded instance of one made in shale and serves to increase the range of beads and pendants known to have been made in shale during the 4th and 3rd millennia cal BC (Whittle 1977, 98). Similar items manufactured in bone and stone are known in small numbers on the Continent, the most substantial group being the *pendentifs arciformes* of the Seine-Oise-Marne Culture of northern France (Daniel 1960, 48–50; Bailloud 1964, 206–8; Howell 1983, 72). Many have been found in *allée couvertes* such as Dolmen de la Justice near Presles, Yvelines, and d'Argenteuil, Val-d'Oise, in the Paris Basin heartland of the SOM Culture. In both the Groupe de Villeneuve-Saint-Germain in the Paris Basin of France and the Groupe de Blicquy in the Meuse Valley of Belgium schist bracelets with an average internal diameter of 690 mm (range 450–1200 mm) were sometimes broken into segments each representing about one-fifth of the original piece and typically 30–50 mm in length before being perforated for suspension (Auxiette 1989; Chancerel *et al.* 1995). It is tempting to see this activity as some kind of formal act of entrainment ritual whereby a significant bracelet is broken up and the pieces dispersed

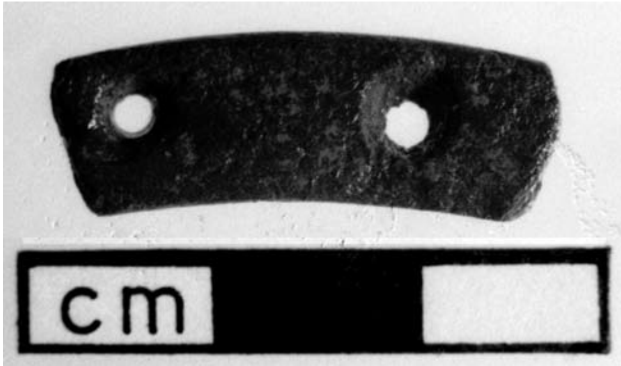

Fig. 23.
Shale arc pendant from Peak Camp.
(Photograph by Timothy Darvill)

physically and contextually as they take on new roles in the perpetuation of memories and the substantiation of links between the original acts and later events.

CHEMICAL ANALYSIS OF THE ARC PENDANT
(MARK POLLARD)

A chemical analysis of the arc pendant was undertaken at the Research Laboratory for Archaeology and the History of Art at Oxford University using x-ray fluorescence spectrometry (see Pollard *et al*. 1981, 144 for methods) to provide a chemical profile of the piece (Table 15). Chemically, the Peak Camp specimen closely matches the composition of Kimmeridge shale (Pollard *et al*. 1981, table 4), although other sources are possible.

Stone axe fragment

Trench II [Phase II.3]. A single flake measuring 22 x 15 mm from a polished stone axe was found in the upper ditch fill. The stone is grey-green in colour, fine grained, with a small remaining area of polishing on the ventral surface. Petrological analysis by the Implement Petrology Survey of the South-West (Serial number 1796/G125; Clough & Cummins 1988, 154) confirms the piece as Group VI rock and a match with a sample collected from scree on the Pike of Stickle in the Lake District.

ANIMAL BONES
(ELLEN HAMBLETON)

Excavations at Peak Camp yielded a hand-recovered assemblage of 2720 fragments, of which 554 (20%) were identified to species. The majority of faunal remains (2477 fragments) were recovered from Trench II, especially C7 (1301 fragments) and C15 (665 fragments). Trench I yielded a much smaller sample (224 fragments). The identified assemblage is comparable in size to that from the enclosure at Whitesheet Hill, Wiltshire (Maltby 2004). With fewer than 500 identified fragments assigned to phased Neolithic deposits such an assemblage has limited potential for reconstructing the wider economy and activities taking place on the site during the Neolithic. Nevertheless, as Maltby (1990; 2007a; 2007b; Rothwell & Maltby 2007) has demonstrated, such assemblages have considerable value when compared with material from other sites.

Methods

All hand-recovered bones and teeth were examined and, where possible, identified to species and skeletal element using reference material from the comparative skeletal collection housed in the School of Applied Sciences, Bournemouth University. Where appropriate, the following information was recorded for each fragment: context; species (or other taxonomic classification); element; anatomical zone; fragment size; fragmentation; surface condition; gnawing; fusion data; porosity; tooth ageing data; butchery marks; metrical data; other comments such as pathologies or association/articulation with other recorded fragments.

Fragment counts of all identified specimens (NISP) include dorsal ends of ribs, vertebral bodies, and unzoned fragments of long bone shaft and skull, provided they could be securely identified to species. Specimens represented by several shards that could be rejoined were recorded as a single unit and the fragmentation was noted. Minimum number of individual counts (MNI) were derived from the most common zone of a bone and the frequency of each bone in the skeleton. Tooth eruption and wear for cattle, sheep/goat, and pig mandibular teeth were recorded and analysed using the system devised by Grant (1982). Standard measurements (in mm) were taken following von den Driesch (1976).

Preservation

Overall preservation is quite poor. Heavy fragmentation and poor surface condition of the bones together contribute to the low proportion of identifiable fragments (20%). Almost all bones were

TABLE 15. CHEMICAL COMPOSITION OF THE SHALE ARC PENDANT FROM PEAK CAMP IN RELATION TO EXPECTED RANGES FOR KIMMERIDGE SHALE

	Fe	K	Ca	Ti	Sr	Zn	Cu	Rb
Peak Camp pendant	27000	3500	24000	900	50	16	traces	traces
Shale outcrops†	>5000	>1000	>16000	<1000	>40	≈0	traces	traces

All elements quantified in parts per million. † Data from Pollard *et al.* (1981, table 4)

incomplete, with the notable exceptions of a complete hare femur from Trench II, C15, a cattle thoracic vertebra from Trench I, C22, and various small, compact bones such as phalanges of cattle, pig, and sheep. A few bones show modern damage, but the surface texture and coloration of most breaks is indicative of dry-bone breaks that occurred in antiquity. Most identified fragments (67%) are smaller than 50 mm, and only 5% of identified fragments are larger than 100 mm. Relative to their overall body size, a broadly similar pattern of fragmentation can be observed for cattle, pig, and sheep/goat (Fig. 24). In addition to heavy fragmentation throughout, substantial erosion of the cortical surface is evident on 29% of identified fragments. Surface erosion and root-marking is more prevalent on the remains from Trench I than Trench II. There is very little evidence of other sources of taphonomic damage (only 3% of identified bones has been gnawed and 3% burned), although the extensive erosion may have contributed to the loss of some surface features such as gnawing or butchery marks. The fragmentation, breakage, and erosion patterns are consistent with much of the bone from the ditch fills being residual, redeposited remains from elsewhere on The Peak. The presence of residual animal bone material in Trench II at least is supported by the range of radiocarbon dates from bone samples. The fragmentation analyses of the pottery remains suggests that the ditch fills contain redeposited midden material, and the state of the faunal material fits with this interpretation.

Species representation

Among the identified faunal sample the remains of domestic cattle, pig, and sheep/goat dominate the NISP counts (Table 16). Wild species make up only 2% of identified fragments and include roe deer, red deer, cat, hare, and a mustelid (probably pine marten). A goose bone and oyster shell came from mixed and modern deposits and are unlikely to be Neolithic. Overall, cattle (53%) are the most abundant, followed by pig (29%), and sheep/goat (16%). The same pattern of domestic species relative abundance is evident in the phased Neolithic samples from both trenches. There is some variability in relative species abundance within the different phases in Trench I but this is probably due to the small size of the samples involved. The larger sample from Trench II also displays variations between phases: in Phase II.2 the remains of cattle (39%) and pig (37%) are present in roughly equal numbers, while in Phase II.3 cattle (57%) are much more abundant that pig (28%). There is also some evidence of spatial differences in species abundance at the site. In Trench II, the small faunal sample from C12 yield mostly cattle fragments, followed by pig and then sheep, while from C15 pig remains were the most abundant before cattle then sheep. Contexts 12 and 15 are components of the same deposit separated by a later recut suggesting spatial variation in species abundance within the ditch.

A minimum number of eight pig, four cattle, three sheep, two roe deer, one red deer, one cat, one hare, and one pine marten are represented. The small overall size of the assemblage means that MNI

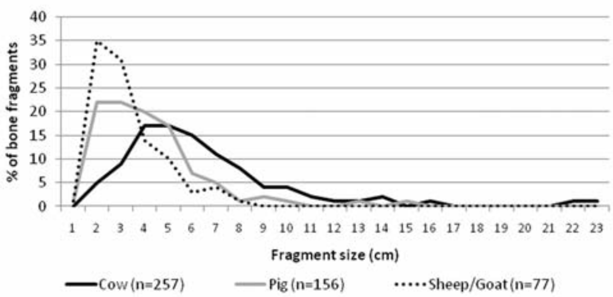

Fig. 24.
Fragment size distributions for cattle, pig, and sheep/goat bones from Peak Camp.

TABLE 16. TOTAL FRAGMENTS (NISP) COUNTS FOR RELATIVE ABUNDANCE OF SPECIES FROM PEAK CAMP FAUNAL ASSEMBLAGE

Phase	*1.1*	*1.3*	*1.4*	*1.4/ 1.5*	*1.5*	*Trench I total*	*2.1*	*2.2*	*2.3*	*Topsoil*	*Trench II total*	*Unstratified*	*Overall total*
Cattle	14	9	2	–	3	*28*	–	51	175	34	*260*	4	*292*
Pig	3	8	2	–	1	*14*	–	49	84	13	*146*	–	*160*
Sheep/goat	3	4	2	–	–	*9*	–	25	44	10	*79*	2	*90*
Roe deer	–	–	–	–	–	*0*	1	4	–	1	*6*	–	*6*
Cat	–	–	–	–	–	*0*	–	–	1	–	*1*	–	*1*
Hare	–	–	–	–	–	*0*	–	1	–	–	*1*	–	*1*
Mustelid*	–	–	–	–	–	*0*	–	–	1	–	*1*	–	*1*
Red deer	–	–	–	–	–	*0*	–	1	–	–	*1*	–	*1*
Goose	–	–	–	–	–	*0*	–	–	–	1	*1*	–	*1*
Oyster shell	–	–	–	1	–	*1*	–	–	–	–	*0*	–	*1*
UMM	4	7	3	–	–	*14*	2	69	124	29	*224*	–	*238*
ULM	12	21	9	–	6	*48*	2	55	126	35	*218*	–	*266*
UM	64	28	12	–	6	*110*	6	550	804	179	*1539*	13	*1662*
Total no. fragments	*100*	*77*	*30*	*1*	*16*	*224*	*11*	*805*	*1359*	*302*	*2477*	*19*	*2720*
%NISP													
Cattle	70	43	33	–	75	*54*	–	39	57	58	*52*	67	*53*
Pig	15	38	33	–	25	*27*	–	37	28	22	*29*	–	*29*
Sheep/goat	15	19	33	–	–	*17*	–	19	14	17	*16*	33	*16*
Roe deer	–	–	–	–	–	*0*	100	3	–	2	*1*	–	*1*
Cat	–	–	–	–	–	*0*	–	–	–	–	*0*	–	*0.2*
Hare	–	–	–	–	–	*0*	–	1	–	–	*0*	–	*0.2*
Mustelid*	–	–	–	–	–	*0*	–	–	–	–	*0*	–	*0.2*
Red deer	–	–	–	–	–	*0*	–	1	–	–	*0*	–	*0.2*
Goose	–	–	–	–	–	*0*	–	–	–	2	*0*	–	*0.2*
Oyster shell	–	–	–	100	–	*2*	–	–	–	–	*0*	–	*0.2*
Total no.identified fragments	20	21	6	1	4	*52*	1	131	305	59	*496*	6	*554*
% identified	*20*	*27*	*20*	*100*	*25*	*23*	*9*	*16*	*22*	*20*	*20*	*32*	*20*

* *cf.*pine marten. UMM – Unidentified Medium Mammal. ULM – Unidentified Large Mammal. UM – Unidentified Mammal

calculations are an unreliable indicator of relative abundance and economic importance; the relative importance of rarer species in the sample has probably been over-emphasised. The pig MNI count appears to have been inflated and biased by the presence of a collection of eight distal pig humeri from C15. In such small samples, the NISP counts are more reliable indicators of relative species abundance and importance.

Cattle

Cattle are the most abundant species represented in NISP counts for the majority of contexts, including the large assemblage from Trench II C7 (56% of domestic species count). The majority of remains appear to belong to domestic cattle (*Bos taurus*), and the few measurements that could be taken all fall within the size range for domestic cattle seen on other comparable Neolithic sites such as Windmill Hill, Wiltshire (Grigson 1999, 214). Two large first phalanges from Trench II C7 could possibly belong to aurochs (*Bos primigenius*) but without reliable measurements this identification remains tentative. The body parts represented (Table 17) in the cattle sample indicate an abundance of head and feet remains that could be the result of differential disposal of primary butchery or skinning waste. However, the main meat-bearing upper limb bones are also represented, indicating all parts of the carcass were deposited. The high proportion of loose teeth is indicative of heavy fragmentation and the emphasis on foot bones may simply reflect better survival of the denser elements in a degraded assemblage. No articulated bone groups of cattle were recovered, although there are four porous cattle bones (two first phalanges, an astragalus, and a calcaneum) from Trench II C7 that could potentially have come from the same young calf.

Ageing information from cattle is scant. Wear stages of loose permanent 3rd molars and deciduous 4th premolar teeth indicate the presence of older adult cattle as well as adolescents and young adults. Together with the presence of the four porous cattle bones mentioned above, this demonstrates that all age groups are present in the cattle sample, perhaps suggesting a mixed husbandry strategy utilising both primary and secondary products. Although calf bones are present, there is not the high proportion of very young and adult cattle seen at Windmill Hill and at Hambledon Hill, Dorset, that in conjunction with chemical residue analysis provide evidence of Neolithic dairying (Copley *et al*. 2003, 1527). At Peak Camp the age profile is more mixed. The epiphyseal fusion evidence indicates that few cattle were killed very young but over half of the latest fusing elements remained unfused at death, suggesting an emphasis on the exploitation of subadult cattle for meat. Very few cattle bones bear direct evidence of having been butchered, although surface erosion may have obliterated some marks. Overall eight bone fragments bear butchery marks (all but one on cattle bones) so there had clearly been some attempt to butcher and process these larger animals. The cattle butchery includes chopped vertebrae, indicative of carcass division and portioning, and groups of fine cut marks on the ends of long bone shafts consistent with disarticulation and dismemberment using flint blades (Fig. 25).

Pig

Pig are the second most abundant species overall, contributing 29% of all identified fragments. The second largest faunal sample (Trench II C15) is a notable exception to this pattern as here pig bones (43%) marginally outnumber those of cattle (39%). All regions of the carcass are represented in the body part counts (Table 17) but there is a clear emphasis on meat-bearing limb bones, particularly the forelimb. The pig sample includes lower proportions of loose teeth (*c*. 19%) than for sheep and cattle, which might indicate that pig remains were less degraded. However, the fragment size analysis indicates broadly similar levels of fragmentation to cattle and sheep suggesting that the lower number of loose pig teeth in the assemblage are due to an under-representation of pig heads relative to upper limb bones. There appears to have been some selection in favour of upper limb bones of pigs. This is especially evident in Trench II C15 which yielded a minimum number of at least eight distal humeri. Such an accumulation of the meat-bearing parts of several carcasses deposited together may be the remains of large scale consumption events such as feasting. There are no pig articulated bone groups present, and no evidence of deliberate 'placement' of pig remains in any of the deposits. Although no butchery marks were observed on pig bones, the emphasis on limb bones points towards carcass division and meat consumption. The limited toothwear and epiphyseal fusion data indicate that the majority of pigs were killed for meat before reaching maturity. The remains probably all belonged to domestic pigs and there were no large specimens present that might be from wild boar. The juvenile and fragmentary nature of the pig remains precluded any metrical analyses.

Sheep/goat

Sheep/goat were the least abundant domestic species overall (16% of NISP) and in all of the largest contexts. Where it was possible to differentiate between sheep and goat, the only positive species identifications were of sheep and none of goat. Although goats have been reported from Neolithic assemblages from southern Britain (eg, Maltby 2007, 299; Grigson 1999) sheep were the more common of the two, and this appears to have also been the case at Peak Camp. The sheep assemblage has been heavily fragmented and the very high proportion of loose teeth (*c*. 41%) and bias towards denser elements such as radius, distal humerus, and metapodials, is further evidence of a poorly preserved assemblage. The smaller, more gracile sheep bones are more susceptible to fragmentation bias than the larger cattle elements and this probably accounts for the higher proportion

TABLE 17. TOTAL FRAGMENTS COUNTS FOR DOMESTIC SPECIES INDICATING RELATIVE ABUNDANCE OF DIFFERENT BODY AREAS REPRESENTED IN THE OVERALL PEAK CAMP ASSEMBLAGE & FROM THE TWO LARGEST CONTEXTS

		Overall assemblage		*Trench II C7*		*Trench II C15*	
Species	*Body area*	*No. frags*	*%*	*No. frags*	*%*	*No. frags*	*%*
Cow	Head	28	10	17	11	2	5
	Dentition	84	29	42	26	11	28
	Forelimb	26	9	8	5	5	13
	Girdles	24	8	17	11	2	5
	Hindlimb	34	12	21	13	6	15
	Feet	77	27	45	28	11	28
	Trunk	14	5	11	7	2	5
Total no. fragments		287		161		39	
Pig	Head	13	8	8	10	2	5
	Dentition	26	16	13	16	7	16
	Forelimb	40	25	23	28	13	30
	Girdles	20	13	11	13	6	14
	Hindlimb	23	14	8	10	7	16
	Feet	33	21	16	20	7	16
	Trunk	5	3	3	4	1	2
Total no. fragments		160		82		43	
Sheep/Goat	Head	12	14	8	18	2	10
	Dentition	36	41	16	36	11	52
	Forelimb	13	15	9	20	1	5
	Girdles	7	8	2	5	3	14
	Hindlimb	5	6	3	7	1	5
	Feet	13	15	4	9	3	14
	Trunk	2	2	2	5	0	0
Total no. fragments		88		44		21	

of loose teeth in the sheep sample compared to cattle. There was no direct evidence of sheep butchery and ageing information is limited, although a mixture of sub-adult and adult individuals are represented and probably represent the remains of animals consumed for meat.

Other species

Other remains from the Peak Camp Neolithic deposits are all wild species. It is clear from the low numbers of these remains that wild species did not play a significant role in the diet, economy, or depositional practices taking place at Peak Camp. Nevertheless, the presence of six roe deer post-cranial bone fragments (including one butchered fragment of pelvis) suggests that roe deer at least were consumed. Red deer is represented by a single antler fragment. Antler would have been exploited as a valuable resource but the deer themselves need not have been hunted or consumed. One bone each of mustelid, hare, and cat are unlikely to represent anything other than chance accumulation in the deposits, as at Windmill Hill (Grigson 1999, 207). It is possible to differentiate to some extent between wildcat and house cat on the basis of size (O'Connor 2007) but the Peak Camp cat mandible is incomplete and no relevant measurements could be taken. There is no evidence of domestic cat in Britain prior to the Iron Age (Hambleton 2008, 37–8; Yalden 1999, 125), and wildcat bones have been identified on the basis of their large size at Windmill Hill (Grigson 1999, 234). The parsimonious assumption is that the Peak Camp cat mandible is that of a wildcat.

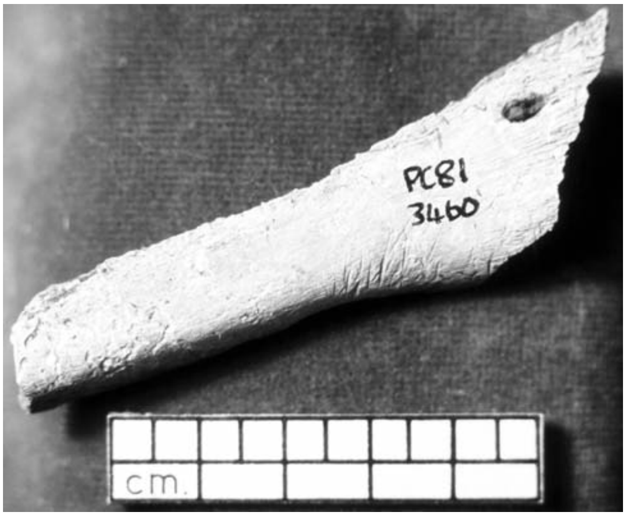

Fig. 25.
Cattle metapodial with butchery marks on the shaft from Peak Camp. Scale totals 50 mm.
(Photograph by Timothy Darvill)

Discussion

The overall pattern of relative species abundance from the Peak Camp Neolithic deposits is similar to that at other Neolithic enclosures in southern Britain, especially Maiden Castle, Dorset (Armour Chelu 1991), Hambledon Hill (Legge 1981), Windmill Hill (Grigson 1999), and Whitesheet Hill, (Maltby 2004). In all cases cattle bones are most abundant (>50%), followed by pig (*c.* 35%), and, typically, low numbers of sheep (*c.* 13%; cf. Grigson 1981, 198). The small proportion of wild species and the predominance of domesticates is also typical. Low numbers of sheep remains are a common feature of Neolithic sites across southern Britain, where they are poorly represented at sites of this period from the Stonehenge environs (Maltby 1990) and in Dorset (Maltby 2007a; 2007b; Rothwell & Maltby 2007). But there are exceptions. At Hambledon Hill, 25% of fragments were from sheep which, according to Maltby (2007a, 304), is unusually high compared with other contemporary sites. Species representation at Peak Camp suggests an emphasis on the exploitation of cattle and to a lesser extent pig. Pig featured in the diet, and in C15 there is a bias towards the disposal of the main meat bearing elements. However, there is no evidence for any increase in the importance of pig from early to late phases, nor the consistent emphasis on pigs and feasting seen at Grooved Ware associated sites of the 3rd millennium cal BC, such as Durrington Walls, Wiltshire (Albarella & Sarjeantson 2002). The levels of fragmentation, and the presence of butchery marks, suggest the faunal remains from Peak Camp represent consumption waste; cattle clearly constituted the main part of the meat diet.

Intra-site differences in the disposal of faunal remains have been observed on other Neolithic sites, perhaps linked to structured deposition (Richards & Thomas 1984). While it is possible that the intra-site variations in species proportions observed among some of the Peak Camp deposits represent a shift in the importance of species from pig to cattle through the Neolithic, or differential disposal practices of cattle and pig across the site, the evidence is tentative at best. Given the small size of the samples involved, and the fact that the Peak Camp faunal assemblage contains redeposited residual fragments, such intra-site variations in species abundance cannot be taken as reliable indicators of changes in animal exploitation through time or spatial differences in deposition at the site. The faunal assemblage recovered from Peak Camp shares characteristics such as heavy fragmentation, a high proportion of loose teeth, and a lack of articulated remains, with the less formalised deposits at Windmill Hill described by Grigson (1999, 207) and interpreted as the degraded remains of activities such as meat consumption. However, the Peak Camp assemblage differs significantly from Windmill Hill in its apparent lack of deliberately placed articulated animal remains and complete cattle skulls (Grigson 1999, 229). This is not to say that the faunal remains from Peak Camp necessarily lack a ritual or symbolic component; the redepositing of earlier midden material in the ditches may have served some symbolic purpose, and the concentration of pig forelimbs in Trench II C15 may represent some form of deliberate selection or disposal of feasting waste. Contexts 12 and 15 are also noteworthy for yielding evidence of consumed wild species (roe deer) as well as containing the only human remains recovered from the site. However, the absence of the formalised deposits that typify other Neolithic faunal assemblages from southern Britain (Grigson 1999) suggests that careful structuring of deposits was not a major part of the activities associated with in-filling those sections of ditch excavated at Peak Camp.

HUMAN BONES
(LINDA O'CONNELL)

Eleven pieces of human bone were recovered from the middle fill of F4 in Trench II (C12, Phase II.2). All derive from the left or right foot of an adult but, together, represent only about 20% of the total bone volume potentially available from that area (Fig. 26). Although there is notable evidence of post-mortem erosion sustained by these fragments, there is no indication of any pathology. The minimum number of individuals represented is one, but the nature of the elements precludes any biological profiling in terms of the sex or age at death of the individual. The following are represented: Left – talus; navicular; calcaneus. Right – navicular; 4th metatarsal; proximal fragment of 5th metatarsal. Side undetermined – shaft of a metatarsal; proximal end of a metatarsal; two fragments of proximal metatarsal; phalange (not 1st).

Fig. 26.
Human foot bones from Peak Camp. Scale totals 50 mm.
(Photograph by Timothy Darvill)

PLANT REMAINS
(RUPERT A. HOUSLEY)

Twelve soil samples, each comprising *c.* 10 litres of unsorted deposit, were examined for plant remains. All the samples were disaggregated by soaking in water before the sediment was separated out by flotation. The flots were dried slowly, sorted, and the plant remains identified by the author. The residues which did not float were also sorted for botanical remains. The results of the analysis are summarised in Table 18.

Only six of the 12 samples yielded carbonised and semi-mineralised seeds, and these in low concentrations. This is entirely typical of many assembles from 4th and 3rd millennia cal BC contexts (cf. Moffet *et al.* 1989), although a more extensive sampling programme at Peak Camp would provide a better picture as the trenches reported here were limited in scale and the range of features examined restricted.

In Trench I the Phase I.1 ditch yielded only traces of sedge (*Carex sp.*), a species appropriately associated with the initial construction of the monument. Phase I.2 and I.3 deposits contained elderberry seeds (*Sambucus nigra*), also appropriate to the colonisation of previously cleared ground. The hazelnut shells (*Corylus avellana*) in the fill of F10 are either modern or residual from earlier disturbed layers.

In Trench II, the Phase II.1 deposits were the richest in terms of palaeobotanical remains from the whole site. Hazelnuts in some abundance (*Corylus avellana*) together with traces of goosegrass (*Galium cf. aparive*) and a fragment from an indeterminable cereal species suggest incidental remains from low-intensity occupation or samples derived from the periphery of a settlement area. The presence of hearth debris in the bottom of the ditch perhaps explains how these seeds became carbonised and preserved in the fill deposits.

Peak Camp is not unusual in the context of the British Neolithic with regards to the archaeobotanical assemblage recovered. Jones (2000, 80–1) has articulated the taphonomic factors that favour the preservation of hazelnut shells in charred assemblages as against cereal grain. The same processes may well be affecting the Peak Camp evidence. Superficially, the low presence of cereals and relative abundance of gathered plant resources at Peak Camp could be taken as evidence for a mobile Neolithic in the sense proposed by Whittle (1997) but the limited scale of

TABLE 18. PLANT IDENTIFICATIONS

Sample details	*Phase*	*Corylus avellana*	*Sambucus nigra*	*Carex sp.*	*Galium cf. aparine*	*Cereal sp.*	*Indet. sp.*
Trench I sample no.							
2100 (C7/17)	I.5	5	–	–	–	–	–
620 (C6)	I.3	–	–	–	–	–	–
790 (C11)	I.3	–	1	–	–	–	–
791 (C18)	I.2	–	–	–	–	–	–
793 (C24)*	I.2	–	2	–	–	–	–
621 (C10)	I.1	–	–	–	–	–	–
792 (C23)	I.1	–	–	–	–	–	–
622 (C27a)	I.1	–	–	2	–	–	–
Trench II sample no.							
623 (C3)	II.3	–	–	–	–	–	–
2097 (C7)	II.3	4	–	–	–	–	–
2098 (C12)	II.2	–	–	–	–	–	–
2099 (C17)	II.1	40	–	–	3	1	1

* Four small fragments of burnt bone (<1 g) and six frags of unburnt bone noted in this sample

the archaeological investigations encourages caution in this interpretation.

Although the evidence for plant husbandry at Peak Camp is inadequate to discuss the subsistence strategy except possibly if negative evidence was to be used, it is informative as far as revealing a picture of the local environment in the vicinity of the site in this phase of the Neolithic. The presence of hazel, elder, goosegrass, and a sedge is entirely typical of nitrophilous broken soils such as occur around human settlements. Hazel is common in scrubland, on woodland margins, or as an understory in mixed oak or ash forest. It prefers damp or dry basic, and damp neutral or moderately acid soils, and is known to have been coppiced from the 4th millennium cal BC onwards, as demonstrated in the Somerset Levels (Coles 1978, 86). Goosegrass is mostly found in damp soils or in ditches and similar damp contexts.

WOOD CHARCOAL

(DEBRA COSTEN)

Four soil samples, each of approximately a litre, were taken from the ashy lens recorded as C10 and C19 in the upper fill of the ditch F7 in Trench I [Phase I.1] for the identification of the wood species represented and provision of charcoal samples for radiocarbon dating. Charcoal fragments in excess of 2 mm were removed from the soil matrix by hand sorting under a low-power microscope. Relatively few large pieces were present amongst the finely comminuted charcoal that dominated the samples and gave them their grey-black colour. The identifications made are summarised in Table 19. They show that more than 75% of the wood by weight and *c.* 85% by fragment count is oak (*Quercus)*, followed by small amounts of hazel (*Corylus*), cherry (*Prunus avium/padus*), and beech (*Fagus*). Just over half of the oak fragments by count, but only 42% by weight, show evidence of tyloses suggesting derivation from heartwood. Overall, it can be suggested that the fuel used in the fire(s) that gave rise to these spreads of charcoal comprised mainly branchwood gathered from a mixed species woodland in which oak dominated or was preferentially selected. It is a picture wholly consistent with the plant remains described above.

RADIOCARBON DATING

(ALEX BAYLISS, FRANCES HEALY, ALASDAIR WHITTLE, AND TIMOTHY DARVILL)

Eighteen radiocarbon dates, including two pairs of replicate measurements, have been obtained on material from Peak Camp. Twelve samples were processed at the Oxford Radiocarbon Accelerator Unit, University of Oxford, two at Beta Analytic, Inc., Miami, and four at the Centre for Isotope Research of the University of Groningen, the Netherlands. Twelve samples were disarticulated animal bone, two were from a cattle vertebra with a fitting, unfused epiphysis, and four were single fragments of short-lived charcoal. Twelve were dated in the course of post-excavation analysis and a further six in 2005 as part of the *Dating Causewayed Enclosures* Project, funded by English Heritage and the Arts and Humanities Research Council, and based in Cardiff University (Whittle *et al.* 2011). Table 20 lists the measurements made.

Objectives of the dating programme

The prime objectives were to achieve as precise an estimate as possible of the date or dates of earthwork construction, to determine the duration of Neolithic use of the spur, and to compare these results with those for Crickley Hill, the enclosure complex 1 km away on the next spur to the north.

Sampling

The 10 samples dated before 2005 provided sequences though the ditches in both trenches, although neither reached to the bottom; all were disarticulated bone, and hence potentially redeposited. Additional samples which were not thought to have been redeposited were therefore sought from the lower parts of the sequences. In Trench I no articulating samples could be found, but three bone samples of different species, and hence not from the same animal, from the initial silts (Fig. 7: C21) included a cattle vertebra with a fitting, unfused epiphysis. Above the rubble fills, two stratigraphically equivalent lenses of burnt material (Fig. 7: C10 and C19) provided short-life charcoal samples. All of the Trench I samples came from successive layers in the first cut of the ditch (Phase I.1, F7), except for OxA-638, which came from C24, an upper fill of F6, Phase I.2. In Trench II no suitable samples were found from farther down the sequence than those already dated and no further measurements were made. Charred hazelnut shells from the primary fill (C13), however, came to light after the dating programme was complete and can still provide an estimate for construction here.

Laboratory procedures

Six AMS dates were obtained from the Oxford Radiocarbon Accelerator Unit, University of Oxford soon after the excavation (Table 20: OxA-416, -417, -444, -445, -446, -638; Darvill 1986; Gowlett *et al.* 1986). These samples were prepared and measured as described by Gillespie *et al.* (1984) and Wand *et al.* (1984). In the course of subsequent analysis, a further two samples (Table 20: OxA-1525, -1622) were dated as described by Hedges *et al.* (1989); and two conventional samples (Table 20: Beta-141094 and -141095) were synthesised to benzene and measured in a scintillation spectrometer according to methods described by the laboratory (Beta Analytic 2006). In 2005, four AMS samples (Table 20: OxA-15249 to -15251; OxA-15284) were processed and measured according to the procedures described by Hedges *et al.* (1989) and Bronk Ramsey *et al.* (2004a; 2004b); and three (Table 20: GrA-30028 to -30031) according to the procedures set out by Aerts-Bijma *et al.* (1997; 2001) and van der Plicht *et al.* (2000). All three laboratories maintain continual programmes of quality assurance, in addition to participation in international inter-comparisons (Scott 2003). These tests indicate no laboratory offsets and demonstrate the validity of the precision quoted.

Results and calibration

The results reported in Table 20 are conventional radiocarbon ages (Stuiver & Polach 1977), quoted according to the standards established by the Trondheim convention (Stuiver & Kra 1986). The calibrated date ranges (95% confidence intervals) were calculated by the maximum intercept method (Stuiver & Reimer 1986). The

TABLE 19. CHARCOAL IDENTIFICATIONS

Sample details	Phase	*Quercus* (with tyloses)	*Quercus* (without tyloses)	*Quercus* (indet.)	*Prunus avium / padus* type	*Corylus*	*Fagus*
Trench I sample no.							
626 (C10)	I.1	17 (1.16)*	5 (2.29)	–	–	–	–
782 (C19)	I.1	7 (3.54)	5 (2.83)	2 (1.27)	1 (0.50)	1 (0.84)	–
783 (C19)	I.1	1 (0.62)	5 (2.60)	–	–	3 (2.08)	1 (0.48)
784 (C19)	I.1	–	–	–	–	1 (0.61)	–

*Quantification by fragment count and weight (g).

probability distributions of the calibrated dates (Fig. 27) were calculated by the probability method (Stuiver & Reimer 1993). All calibrations were undertaken using the program OxCal v3.10 (Bronk Ramsey 1995; 1998; 2001) and the INTCAL04 dataset (Reimer *et al.* 2004).

Description of Bayesian approach

The Bayesian approach to the interpretation of archaeological chronologies has been described by Buck *et al.* (1996). It is based on the principle that, although the calibrated age ranges of radiocarbon measurements accurately estimate the calendar ages of the samples themselves, it is the dates of archaeological events associated with those samples that are important. Bayesian techniques can provide realistic estimates of the dates of such events by combining absolute dating evidence, such as radiocarbon results, with relative dating evidence, such as stratigraphic relationships between radiocarbon samples. The resulting *posterior density estimates*, (which, by convention, are always expressed *in italics*) are not absolute. They are interpretative, and will change as additional data become available or as the existing data are modelled from different perspectives.

The technique used here is a form of Markov Chain Monte Carlo sampling, which has been applied using the program OxCal v3.10 (Bronk Ramsey 1995; 1998; 2001). An OxCal model is constructed which explicitly specifies the known or assumed relative ages of the radiocarbon samples. Its structure is typically defined by the site's Harris matrix. The program calculates the probability distributions of the individual calibrated radiocarbon results (Stuiver & Reimer 1993), and then attempts to reconcile these distributions with the relative ages of the samples, by repeatedly sampling each distribution (using the Metropolis-Hastings algorithm and the Gibbs sampler) to build up the set of solutions consistent with the structure of the model.

This process produces a posterior density estimate of each sample's calendar age, which occupies only part of the calibrated probability distribution (the prior distribution of the sample's calendar age). The posterior distribution is then compared to the prior distribution and an index of agreement is calculated that reflects the similarity of the two distributions. If the posterior distribution is situated in a high-probability region of the prior distribution, the index of agreement is high (sometimes 100% or more). If the index of agreement falls below 60% (a threshold value analogous to the 0.05 significance level in a χ^2 test), however, the radiocarbon date may require further examination. Sometimes this merely indicates that the radiocarbon result is a statistical outlier (more than 2 standard deviations from the sample's true radiocarbon age), but a very low index of agreement may mean that the sample is residual or intrusive (ie, that its calendar age is different to that implied by its stratigraphic position).

An overall index of agreement is calculated from the individual agreement indices, providing a measure of the consistency between the archaeological sequence and the radiocarbon results. Again, this has a threshold value of 60%. The program is also able to calculate distributions for the dates of events that have not been dated directly, such as the beginning and end of a continuous phase of activity (which is represented by several radiocarbon results), and for the durations of phases of activity or hiatuses between such phases.

Analysis and interpretation

A chronological model for Peak Camp is shown in Figure 27. In Trench I, four radiocarbon determinations were obtained from the three samples from the initial silts (Fig. 27: *I 22 924, OxA-15249, GrA-30031).* These results are statistically consistent ($T' = 0.3$; $T'(5\%) = 7.8$; $\nu = 3$), and in good agreement with all the disarticulated bone samples from the overlying layers (Fig. 27; $A_{overall} = 71.3\%$), which suggests that none was redeposited. Oak sapwood charcoal from a lens of burnt material above the rubble fills (Fig. 7: C10; Fig. 27: *GrA-30028, OxA-15250*), however, is older than disarticulated bone samples from the underlying layers, as are oak sapwood and hazel charcoal from C19, though less markedly so (Fig. 27: *GrA-30029, OxA-15251*). Since neither deposit was burnt *in situ*, these samples may have been of some age when they entered the ditch, and the measurements are treated as *termini post quos* for the layers above them. The model defined in Figure 27 suggests that the earthwork bisected by Trench I was built in *3650–3550 cal BC (95% probability*: *first build outer Peak Camp),* probably in *3640–3620 cal BC (30% probability)* or *3605–3570 cal BC (38% probability).* Since no suitable samples could be found from the lower part of the sequence represented within the ditch in Trench II, the construction date of this feature remains uncertain.

TABLE 20. SUMMARY OF RADIOCARBON DATES

Laboratory Number	*Sample reference*	*Material*	*Context*	*Radiocarbon age BP*	*δ¹³C (‰)*	*Weighted mean BP*	*Calibrated date range cal BC (95% confidence)*	*Posterior density estimate cal BC (95% probability)*
Trench I								
GrA-30030	I 22 924 (a)	Cattle. Part neural spine recently broken from young adult thoracic vertebra (926) from same context; also contained 2 frags unfused epiphysis (936, 964), fitting vertebra. Replicate of OxA-15284	Trench I, Phase I.1, Context 22. Initial silt on ditch base, underlying all other Trench I samples	4760±40	−22.69	4774±25 T′=0.2; T′(5%)=3.8; ν=1	3640–3510	*3640–3615 (13%)* or *3610–3520 (82%)*
OxA-15284	I 22 924 (b)	Replicate of GrA-30030	Same context as GrA-30030	4782±31	−21.7			
OxA-15249	I 22 953	Sheep or goat tooth.	Same context as GrA-30030	4776±29	−21.4		3640–3380	*3640–3520*
GrA-30031	I 22 941	Pig, frag. radius	Same context as GrA-30030	4790±40	−21.43		3650–3380	*3645–3520*
OxA-444	I 21 921	Single frag. unident. animal bone	Trench I, Phase I.1, Context 21. Rubble fill, 1st of 3 ditch cuts, overlying initial silt &, in places, ditch bottom. Stratigraphically earlier than samples for OxA-416–7, -445–6	4790±80	−19 (assumed)		3710–3360	*3590–3430*
OxA-445	I 20 873	Cattle, from same mandible as tooth (OxA-446)	Trench I, Phase I.1, Context 20. Overlying rubble fill, 1st of 3 ditch cuts. Stratigraphically equivalent to Contexts 19 & 10. Stratified above sample for OxA-444	4670±90	−19 (assumed)	4741±64 T′=1.2; T′(5%)=3.8; ν=1	3650–3360	*3545–3365*
OxA-446	I 20 873	Cattle. Tooth from same mandible as bone which was sample for OxA-445	Same context as OxA-445	4810±90	−19 (assumed)			
OxA-416	I 20 872	Single frag. unident. animal bone	Same context as OxA-445	4630±110	−19 (assumed)		3650–3020	*3545–3275*
OxA-15251	I 19 782 (b)	*Quercus* sp. sapwood. Same charcoal find as I 19 782 (a)	Trench I, Phase I.1, S face trench, Context 19. Thin layer burnt material overlying rubble fill, 1st of 3 ditch cuts. Stratigraphically equivalent to, though not continuous with, Context 10 in N face	4865±29	−26.1		3710–3630	*3705–3630 (93%)* or *3550–3540 (2%)*

TABLE 20 CONTINUED. SUMMARY OF RADIOCARBON DATES

Laboratory Number	*Sample reference*	*Material*	*Context*	*Radiocarbon age BP*	*δ^{13}C (‰)*	*Weighted mean BP*	*Calibrated date range cal BC (95% confidence)*	*Posterior density estimate cal BC (95% probability)*
GrA-30029	I 19 782 (a)	*Corylus avellana*. Same charcoal find as I 19 782 (b)	Same context as OxA-15251	4825±40	−26.25		3700–3520	*3695–3620 (39%)* or *3610–3520 (56%)*
OxA-417	I 19 847	Single frag. unident. animal bone	Same context as OxA-15251	4660±80	−19 (assumed)		3640–3120	*3540–3325*
GrA-30028	I 10 626 (a)	*Quercus* sp. sapwood. Same charcoal find as I 10 626 (b)	Trench I, Phase I.1, N face trench, Context 10. Thin lens material overlying rubble fill, 1st of 3 ditch cuts. Stratigraphically equivalent to, though not contin-uous with, Context 19 in S face	5060±45	−25.07		3970–3710	*3965–3760 (94%)* or *3725–3710 (1%)*
OxA-15250	I 10 626 (b)	*Quercus* sp. sapwood. Same charcoal find as I 10 626 (a)	Same context as GrA-30028	5060±29	−25.2		3960–3770	*3955–3785*
OxA-638	I 24	Single frag. unident. animal bone	Trench I, Phase I.2, Context 24. Upper fill, 2nd or 3rd of 3 ditch cuts, stratigraphically later than samples for OxA-416–7, -444–6	4290±80			3100–2670	*3495–3465 (2%)* or *3370–3205 (89%)* or *3190–3155 (1%)* or *3100–3050 (2%)* or *3025–2985 (1%)*
Trench II								
Beta-141094	II 15 2590	Cattle metatarsal	Trench II, F4, Phase II.2, Context 15. Upper fill of F4, cut by poss. recut filled by Context 7. Stratified below samples for OxA-1525, Beta-141095	4910±120			3970–3370	*3765–3490 (89%)* or *3470–3385(6%)*
OxA-1622	II 15 2095	Single frag. unident. animal bone	Same context as Beta-141094	4865±80	−21		3800–3380	*3760–3495 (94%)* or *3430–3400 (1%)*
OxA-1525	II 7 564	Single fragment of animal bone, not identified	Trench II, F4, Phase II.3, Context 7. Fill of possible recut into upper fills of F4. Stratified above samples for OxA-1622, Beta-141094	4750±150	−21		3910–3090	*3650–3260*
Beta-141095	II 7 4522	Cattle radius	Same context as OxA-1525	5470±170			4690–3950	*4695–3955*

Discussion of the site dating

Although the sample for Beta-141095 must have been redeposited, the date itself may indicate a human presence on the spur in the late 5th millennium cal BC. This is matched on Crickley Hill, where bone and charred hazelnut shell fragments have both dated to this period (Dixon *et al.* 2011), the former from a series of small pits sealed under the bank of the inner causewayed enclosure and demarcating an area approximately 8 x 3 m, known as the 'Banana Barrow' (Dixon 1988, 78).

Dates from the enclosures on the two spurs can be modelled together and related to each other in time (Fig. 28; Dixon *et al.* 2011). The outer circuit at Peak Camp was probably built after the inner causewayed circuit at Crickley (*78% probable*) and was built before the continuous ditch which superseded the two causewayed circuits there (*96% probable*). It may have been built in the interval between the completion of both circuits of the causewayed enclosure and the inception of the continuous circuit at Crickley (*73% probable*). It is also possible, however, that the causewayed enclosures at Crickley and Peak Camp were built by the same generation of people, living in the third quarter of the 37th century cal BC. The two would have been in concurrent use, at least until the destruction of Crickley in the mid-35th century cal BC (*3490–3450 cal* BC*; 68% probability*; Fig. 28: *Battle of Crickley*). People might have continued to frequent Peak Camp for rather longer, perhaps into the 33rd century cal BC (*3330–3215 cal* BC*; 68% probability*; Fig. 27: *end Peak Camp*), although this late date is entirely dependent on a single measurement from the fill of F6 in Phase I.2 (Fig. 27: *OxA-638*).

DISCUSSION

Peak Camp is one of an increasing number of Neolithic enclosures known on the Cotswolds, and serves to reinforce the fact that this was an intensively occupied and busy region of Britain in the early 4th millennium cal BC (Darvill 2004a). The excavations and surveys reported here show that Peak Camp conforms well with the pattern of known Neolithic enclosures in southern and western Britain: a promontory situation; oval form; use of a natural slope on one side; initial construction around 3600 cal BC; and periodic remodelling at intervals down to 3300 cal BC. Extensive truncation of the hilltop through quarrying on the south and west sides makes determining the original ground-plan of the enclosure extremely difficult, but the three visible sections of earthwork (Fig. 4) can tentatively be reconstructed as representing a double circuit of roughly concentric loops of ditches with associated internal banks that are open to the north. As such this is a familiar style of hilltop or promontory situated Neolithic enclosure with close parallels at Combe Hill, East Sussex (Drewett 1994), Knap Hill, Wiltshire (Connah 1965), Raddon Hill, Devon (Oswald *et al.* 2001, 81), and Banc Du, Pembrokeshire (Darvill *et al.* 2006, 105). More immediately, Southmore Grove, Gloucestershire (Trow 1985), and Crickley Hill (Dixon 1988, fig. 4.1), are also very similar in scale and form. Whether the ditches at Peak Camp were causewayed throughout the sequence, or at particular phases as at Crickley Hill, is also uncertain, but the evidence from Trench I suggests that in Phases I.3 and I.4 at least the outer ditch had some interruptions.

Modelled as a causewayed enclosure with two concentric boundaries, the features recorded in Trench II would lie in the space between the earthworks. Preservation here was good, with a cobbled surface sealing a section of ditch or (more likely) an elongated pit. The sequence of filling and recutting in this feature was similar to that represented in the outer ditch and the assemblage of cultural material was similar as well. Such features are relatively rare at other excavated enclosure sites, although in part this can be explained in terms of poor preservation and the limited extent of investigations in these sectors at many sites elsewhere. However, at Abingdon, Oxfordshire, a large elongated pit rather poor in finds lay between the inner and outer earthworks in Area A on the west side of the site along with postholes and a burial (Avery 1982, fig. 4), while at Briar Hill, Northamptonshire, a large pit created by three or four successive recuttings lay within the outer enclosure also on the west side (Bamford 1985, 44).

Some small-scale use of the The Peak pre-dated the construction of the enclosure, and perhaps extended back into the late 5th millennium cal BC. A piece of cattle bone radiocarbon dated to 4690–3950 cal BC (Beta-141095: 5470±170 BP) was residual in deposits used to fill F4 in Trench II at the western end of the hill and may be contemporary with some of the unstratified narrow-blade flintwork and contemporary

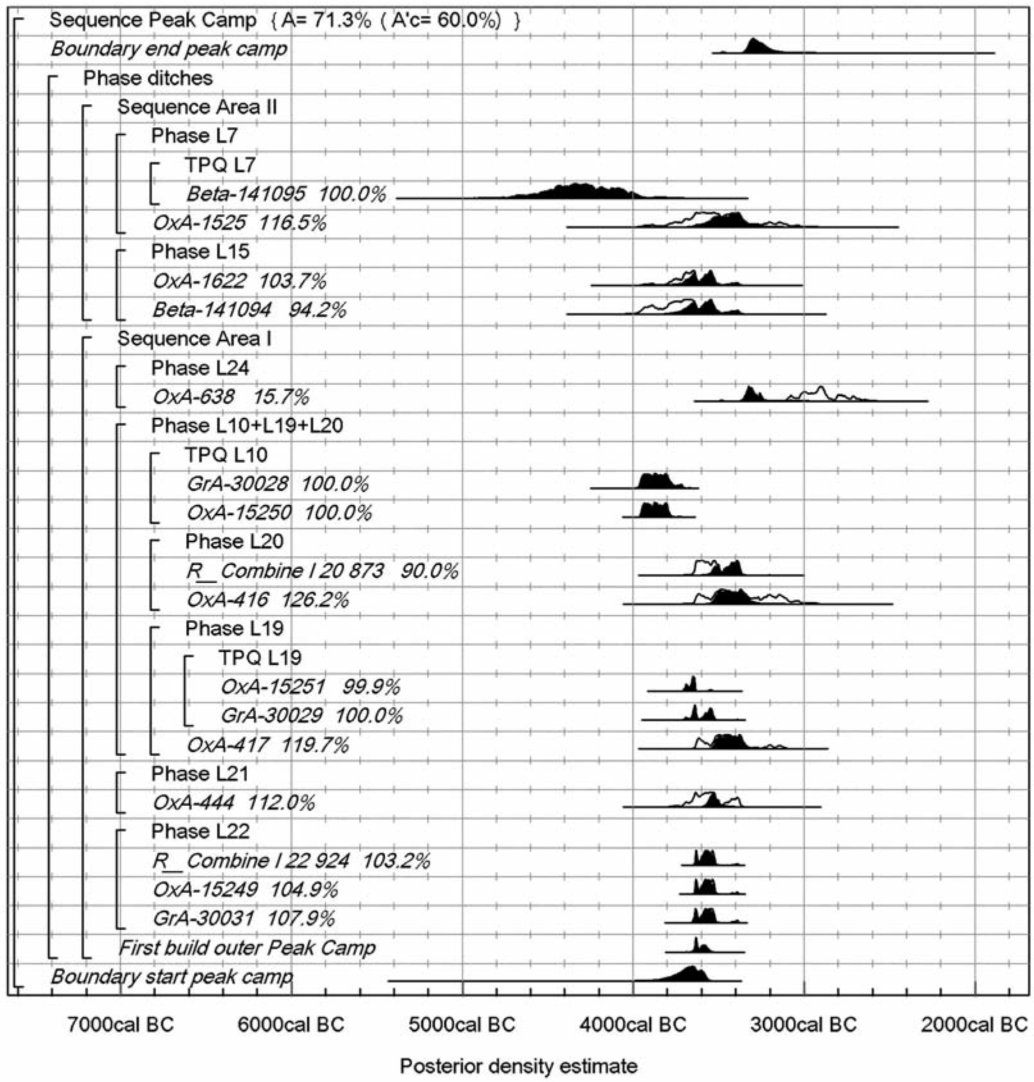

Fig. 27.
Probability distributions of radiocarbon dates from Peak Camp. Each distribution represents the relative probability that an event occurred at a particular time. For each of the dates two distributions have been plotted, one in outline which is the result produced by the scientific evidence alone, and a solid one which is based on the chronological model used. The other distributions correspond to aspects of the model. For example, the distribution '*build outer Peak Camp*' is the estimated date for the construction of the earthwork. The model is defined by the OxCal keywords and the brackets down the left hand side of the diagram.

cores. Such material may have been accidentally swept up from superficial deposits but just as likely is the former existence of a more substantial feature or monument of some kind on the hilltop in the late 5th millennium BC. A series of pits around a central mound roughly 8 x 3 m forming what is often referred to as the 'Banana Barrow' lay beneath the bank of the inner causewayed boundary on Crickley Hill (Dixon 1988, 78; Dixon *et al.* 2011) and dates to exactly this period. Elsewhere, small round and oval barrows were early features at or near enclosure sites, and could have provided a point of origin for long-lived

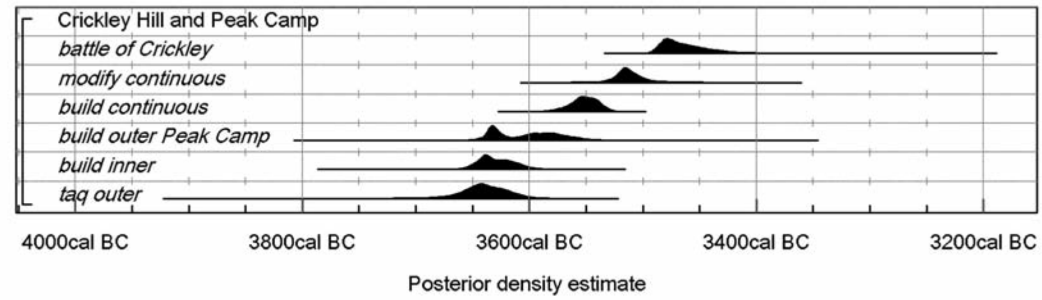

Fig. 28.
Posterior density estimates for the construction of Neolithic earthworks on the spurs at Crickley Hill and Peak Camp. The format is the same as for Fig. 27. The distributions *taq outer, build inner, build continuous, modify continuous,* and *battle of Crickley Hill* derive from a model for the chronology of Crickley Hill (Dixon *et al.* 2011, figs 9.1–9.10)

cultural memories. At Hambledon Hill, Dorset, the so-called South Long Barrow is dated to *3680–3640 cal* BC *at 95% Probability* with a *67% probability* that it is the earliest monument on the site (Mercer & Healy 2008, tabs 4.2 & 4.3). In contrast, what is clear is that at Peak Camp, Crickley Hill, and all the other enclosure sites in central southern Britain that have been explored to date there is no evidence of extensive occupation during the 5th millennium cal BC on the enclosure sites themselves, although there is often evidence for activity of this date in the vicinity. The handful of Late Mesolithic flint artefacts reported from some sites represent nothing more than the background noise of scattered material culture that is to be expected across occupied landscapes. Some enclosures might sometimes have been focused on pre-existing monuments, but most were seemingly established in gaps within the prevailing settlement systems.

At Peak Camp there is very little evidence for activity in the first century or two of the 4th millennium cal BC, a time when short-lived small-scale settlements flourished elsewhere on the Cotswolds, for example at Hazleton North (Saville 1990) and Ascott-under-Wychwood (Benson & Whittle 2007), and in the Usk Valley of eastern Wales at Gwernvale, Powys (Britnell 1984). All three of these sites are characterised by the presence of a midden alongside some kind of timber structure; following a short period of abandonment and cultivation all were covered by classic Cotswold-Severn long barrows. At Peak Camp things seemingly followed a different course which can tentatively be summarised as follows: a midden began accumulating in the 38th century cal BC, perhaps as a result of visits to celebrate a pre-existing monument or natural feature; a century or so later an earthwork enclosure was constructed around about; over the following centuries the two elements developed hand-in-hand, with connections outwards to long barrows, pit clusters, and other enclosures.

Needham and Spence (1997) emphasise that middens develop in an episodic fashion with repetitive deposits of similar character giving the appearance of formality to the deposition of refuse. At Peak Camp no primary midden as such was found, but, as discussed in the specialist reports presented above, the fragmentary and partial nature of the pottery, worked flint, animal bone, human remains, hearth debris, and occasional exotic item in the fills of rock-cut features suggests very strongly selective derivation of mixed material from a midden or other similar accumulation. The hearth debris in Trench I.1 predates the ditch construction by more than a century and suggests that the accumulation of a hilltop midden, perhaps as a result of recurrent episodic activity over several centuries, formed a focal point that served to give the place a special meaning and significance that was later emphasised by the construction of the earthworks.

Another clue to the presence of a midden at Peak Camp may be provided by the rather unusual presence of foot bones in F4, perhaps the feet of a single person or the left and right from two separate individuals. Whichever, an interesting if geographically distant parallel comes from deposits of human bone dominated by hands and feet found at the base of the midden at Cnoc Coig, Oronsay, Argyll & Bute, which is also dated to around 4000 cal BC (Meiklejohn *et al.* 2005; Milner & Graig 2009, 176–7). Why exactly these particular body parts were selected for removal and special treatment is far from clear, although Martin Smith and Megan Brickley (2009, 83) point out that hands and feet are amongst the first parts of a corpse to disarticulate naturally and are easily removed; they speculate that the special significance of these body parts may relate to the fact that it is through hands and feet that individuals principally interact with the world. Moreover, of special relevance to the Cotswolds is the recognition that hands and feet also seem to have been selected for deposition in special contexts that could be seen as foundation deposits in long barrows (Smith & Brickley 2009, 78–80). Thus at Notgrove (GLO 4), Gloucestershire, for example all the bones placed on top of the rotunda grave immediately before the long barrow was built were pieces of hand, more than a third of the bones in special contexts associated with the construction of the Sales Lot (GLO 94), Gloucestershire, were from hands or feet, while Chamber II at Pipton, Powys, contained largely foot and hand bones and a toe-bone was found under a slab in the floor.

The idea of a midden or 'settlement soil' as the source of ritually charged material incorporated into ditches and pits at Early Neolithic sites owes much to the interpretation of the ditch fills at Windmill Hill by Isobel Smith (1965, 9), and the pit fills at Goodland, Co Antrim, by Humphrey Case (1973). But it is one that accords well with what is known of other Neolithic enclosures in southern Britain. At Etton, Cambridgeshire, for example, phosphate data shows the presence of two main concentrations within the interior of the enclosure (Pryor 1998, fig. 84) that could represent chemical residues from former middens, while at Staines, Surrey, the distribution of pottery, struck flint, artefacts, and burnt flint all show concentrations more or less in the centre of the site and in the western sector of the interior (Robertson-Mackay 1987, figs 27–36). By implication, of course, the events giving rise to a midden, its curation and perpetuation, and the selective deposition of small samples from it represents a complicated sequence of routine actions that perhaps mirror the meaning of the material itself in terms of fertility, renewal, regeneration, and transformation. At Peak Camp the basic material culture represents occupation debris in the form of pottery that included fineware, everyday-ware, and coarseware, flint tools and weapons, and flintworking waste. As a consequence of obtaining, preparing, cooking, and consuming food there are also animal remains, carbonised plant remains, hearth debris, and broken ceramic vessels. Whether this material accumulated through permanent, seasonal, or periodic short-lived occupation is not known, but its deposition in the ditches looks from stratigraphic evidence to be episodic and this chimes well with the periodic refurbishment of the boundary works and internal features.

The outer enclosure boundary was reconstructed four or possibly five times. On the first three occasions this involved serious remodelling with new lines established for the ditch that only in part cut through earlier fills. On each of these occasions the ditch appears to have been full to the brim before the next ditch was cut. In Phases I.1 and I.3 the ditches seem to have filled fairly rapidly, but the Phase I.2 ditch shows a degree of undercutting that suggests it remained open for a period; curiously, there was no cultural material in the fills of this phase as if the task of refurbishing the boundary was completed but the rituals associated with refilling remained unfulfilled. Much the same sequence is visible in the successive fills of the feature in Trench II, although the amount of material deposited here was far greater and perhaps hints that the source deposits lay somewhere in the vicinity.

Why material was moved around the site is not clear, but could have been connected with a desire to secure favourable outcomes to routine actions. The transfer of material from an open accessible context in a midden or similar kind of deposit to a closed and inaccessible ditch fill could be taken as a metaphor for life and death in which the stuff of life was buried in the ditch. Occasional exotic items were included, deliberately or accidentally, perhaps as ancestral items placed in the ground as part of their journey through the world. Ceramic types presumably changed over time, but at a slower pace than the incidence of depositional events since the assemblage as a whole shows a high degree of integrity. Visits to the hilltop rather than permanent occupation is suggested by the assemblage of worked flint. The proportion of tools and weapons present is low, and is dominated by leaf-shaped arrowheads; a dominance of scrapers and knives would be expected at a long-term settlement. Flintworking did occur on the site to judge from the waste debris and unfinished arrowhead, but, as

Nicola Snashall emphasises in her discussion above, much of the flint looks to have been prepared before being brought to the site and core rejuvenation flakes suggest economy in the use of raw materials.

How long the enclosure boundaries were maintained is an open question. The final recuts are small-scale and relatively minor compared with earlier episodes as if the impetus to do it was declining. No Peterborough pottery is represented, but the few pieces of Beaker from Trench II may hint that some kind of respect for the ancient enclosure continued down into the late 3rd millennium BC. Much the same picture was found at Hambledon Hill, where the final rather slight ditch recuts were associated with Beaker pottery (Mercer & Healy 2008, 769).

During the main period of its use during the middle centuries of the 4th millennium cal BC the development and use of Peak Camp must have been intimately bound up with activities on nearby Crickley Hill. The radiocarbon sequence suggests that the outer boundary at Peak Camp was built slightly later than the first causewayed ditches on Crickley Hill, but slightly before the enclosure bounded by a single continuous ditch was constructed at Crickley. In the 36th century cal BC the two enclosures would have stood facing each other across the valley now occupied by the A436 (Fig. 29); if reconstructions of the ground-plans of both enclosures, with partly open sides along steep hillslopes, are correct then it was these open sides that faced each other. The distance is such that in good conditions people could have seen aspects of what each other were doing, and could probably have heard each other when the wind carried noise across the valley. Similar close-set enclosures are also known on Hambledon Hill where it is suggested that although the two enclosures were used by the same people rather different activities took place at each (Mercer & Healy 2008, 762), a model that finds a parallel at Etton, Peterborough, where the enclosure is divided into two parts by an earthwork (Pryor 1998, 363–8). Similarly, it is appropriate to envisage Crickley Hill and Peak Camp as part of a single complex with people moving between the two hilltops as part of the way that gathering together, occupying, and using these places worked. The fact that both enclosures overlook a narrow valley in which several springs rise to feed Norman's Brook on its journey westwards to join the River Severn may also be significant.

Increasing defence was one of the drivers behind the developing earthworks at Hambledon Hill (Mercer & Healy 2008, 760), and this also seems to have been the case at Crickley Hill where the causewayed enclosure was replaced by an enclosure bounded by a single continuous ditch with few entrances. Nothing on this scale is visible at Peak Camp, but the resolution now available in the dated sequences allows the possibility that the same generation of people were responsible for the construction of Peak Camp and the defended enclosure on Crickley Hill. Maybe there was no need to defend Peak Camp when its users had Crickley. It is noticeable, however, that leaf-shaped arrowheads predominate amongst the tools and weapons in Trench II at Peak Camp, a residue perhaps connected to events surrounding the so-called 'Battle of Crickley' in the mid-35th century cal BC when the enclosure there seems to have been attacked, overrun, and razed (Dixon 1988, 81–3 Dixon *et al.* 2011).

Like many Neolithic enclosures, the Peak Camp/Crickley Hill complex stands on an ecological boundary (cf. Barker and Webley 1978) with easy access to a range of environments. Exchanging products created or produced by communities living in adjoining but distinct environments may have been one of the roles for periodic gatherings at enclosure sites, and in this respect it is notable that pottery from sources potentially available within the visible landscapes to both east and west are represented while the raw flint most likely derived from sources away to the east and south. Animal products may also have been moved between environments, but such periodic gatherings and interactions have to be set in a wider context in time and space.

Within the Cotswolds and upper Thames Valley the number of recorded Neolithic enclosures has been steadily increasing in recent decades as aerial photography and new excavations bring sites to light (Palmer 1976; Holgate 1988; Oswald *et al.* 2001; Darvill & Thomas 2001; Darvill 2011). Single, double, and multi-circuit examples are known (Fig. 30) although it is noticeable that the inner circuits define areas of broadly similar size. As the numbers increase the spacing between examples decreases (Fig. 1C), and in many cases the walk between sites/complexes is only a matter of a few hours. As such they can hardly be major regional centres attended for seasonal meetings only with considerable effort, unless of course there was a hierarchy of sites.

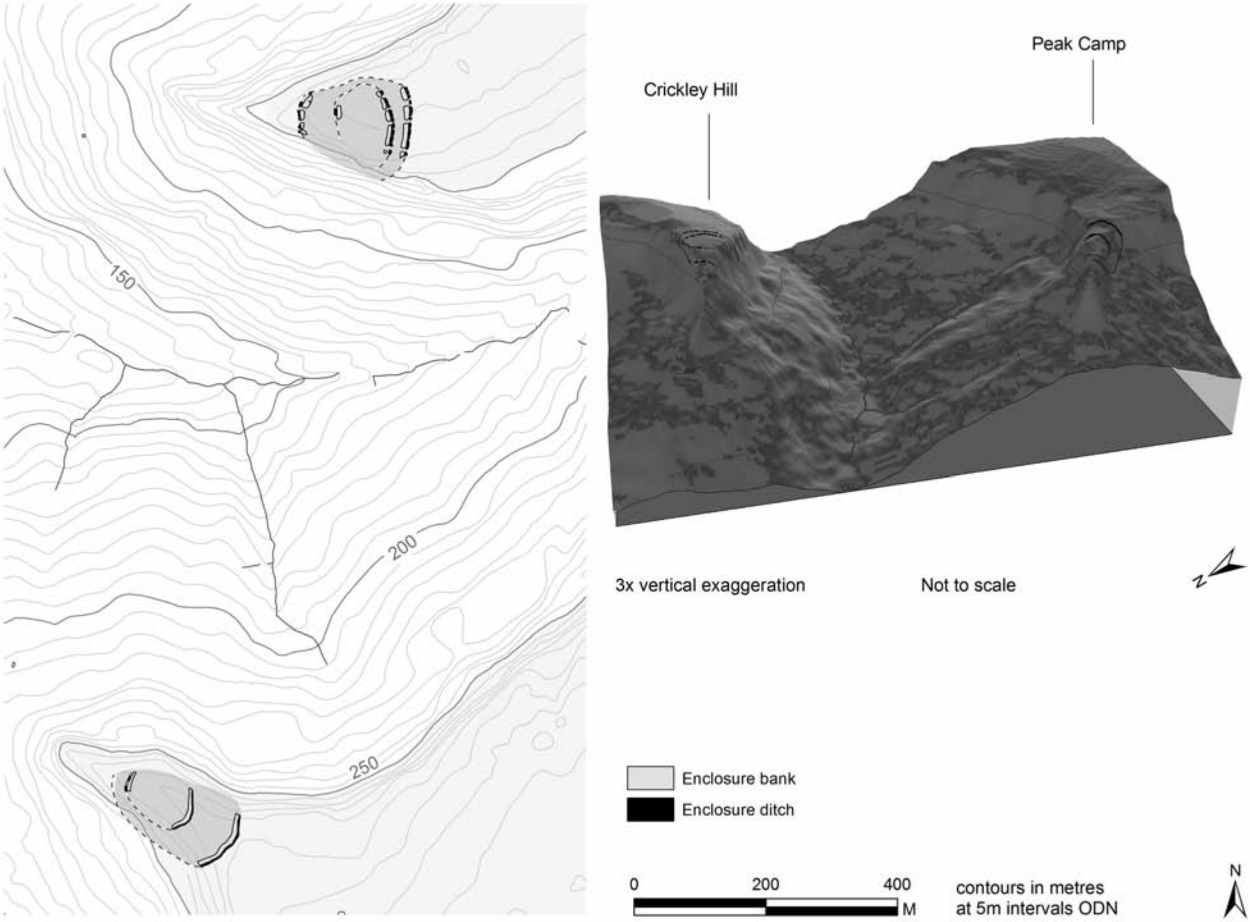

Fig. 29.
Map (left) and digital terrain model (right) showing the relationship between Crickley Hill and Peak Camp.
(Drawing by Vanessa Constant)

Different sites could have been linked to particular festivals and only frequented at that time, or perhaps each community maintained a gathering place but the processes of selecting which to use next was a communal decision that created a peripatetic focus. Within such a cycle ritual pits and pit clusters might also have been important. At Birdlip Quarry, about 2 km east of Peak Camp, about a dozen pits possibly of 4th millennium cal BC date were found during the upgrading of the A417 in 1996–7 but finds were few and mainly confined to struck flints (Mudd *et al.*1999, 17–18). More substantial was the assemblage from a similar-sized pit cluster at Duntisbourne Grove *c.* 10 km south-east of Peak Camp found during the same road improvement works (*ibid.*, 18–20). Worked flint, pottery, charcoal, and carbonised hazelnut shells were represented and one pit yielded a radiocarbon date of 3650–3370 cal BC (NZA-8671: 4761±57) together with fragments of Peterborough style pottery. Early Neolithic bowls and cups from pairs of pits excavated in 2002–3 at Horcott, Gloucestershire, about 26 km to the south-east of Peak Camp were old and fragmentary at the time of their final deposition (Lamdin-Whymark *et al.* 2009, 81). Here, and perhaps the other sites too, may be a case of taking material from a midden elsewhere in the landscape, perhaps even from within an enclosure, for selective disposal in a pit at a special place out in the open countryside.

As well as the local connections represented by pottery and flint the users of Peak Camp had access to exotic items from further afield. The flake of Langdale (Group VI) axe accords with evidence from the Cotswolds generally that Lake District axes were in common circulation here (Darvill 1984b, fig. 6; 1989) and regularly deposited in the River Thames (Bradley & Edmonds 1993, 166). The sandstone disc probably originates to the west or south-west, and is certainly a type that connects the site with the west of Britain and the Atlantic seaways. The fact that it is broken may suggest its deliberate fragmentation as part of some ceremonial deposition. Still wider long-distance links are represented by the shale arc pendant for, while its physical source is probably the south coast of Britain, its cultural associations are across the channel in northern France. It is tempting to see the pendant as a piece from an amulet that was deliberately fragmented and the pieces moved about by a series of owners. Kimmeridge shale bracelets are well represented in the late 1st millennium cal BC and beyond (Calkin 1953), but it is far from clear when they started to be produced. One of the earliest known to date is probably that from the central grave in Barrow 3 on Charmy Down, South Gloucestershire, which has an overall diameter of about 50 mm and a central hole 29 mm across. The cross-section is rectangular and there were 13 holes each *c.* 2 mm in diameter fairly evenly spaced around the flat face, with two suspension holes in the outer edge which penetrate radially into the ring and connect with the neighbouring perforations on the face (Grimes 1960, 218). The piece was associated with a jet bead and a scrap of pottery and accompanied a cremation burial in a pit under a round barrow. Undated, the monument is assumed to be early 2nd millennium cal BC in date, but could be earlier, and the bracelet itself could have been an heirloom when deposited. It is just the sort of item that, if broken into pieces, would make a series of arc pendants.

On a day to day basis, the most important connection for people using the Peak Camp/Crickley Hill complex was probably the local long barrow(s). Although long barrows began to be built in the Cotswolds around 3800 cal BC, perhaps a century or two before enclosures start to be built (Whittle *et al.* 2011), the use of these two types of monument certainly overlaps. Culturally, the ceramic traditions represented at the enclosures match the range of vessels found in the chambers of long barrows, and in contexts associated with their use. The selection of particular body parts in foundation deposits at long barrows and enclosures represents another highly potent linkage and serves to reinforce Isobel Smith's suggestion that the two kinds of monument were linked in the minds of the living by the presence of the dead (see Piggott 1962, 68). Radiocarbon dates from burials at West Tump (GLO8), the nearest long barrow to Peak Camp and only half an hour's walk away, span the period 3770–3630 cal BC to 3370–3090 cal BC (Smith & Brickley 2006, 340–3) in what is more or less a mirror image of the Peak Camp range: it is inconceivable that those people buried in West Tump knew nothing of Peak Camp; most likely the West Tump people were the builders, renovators, and users of Peak Camp.

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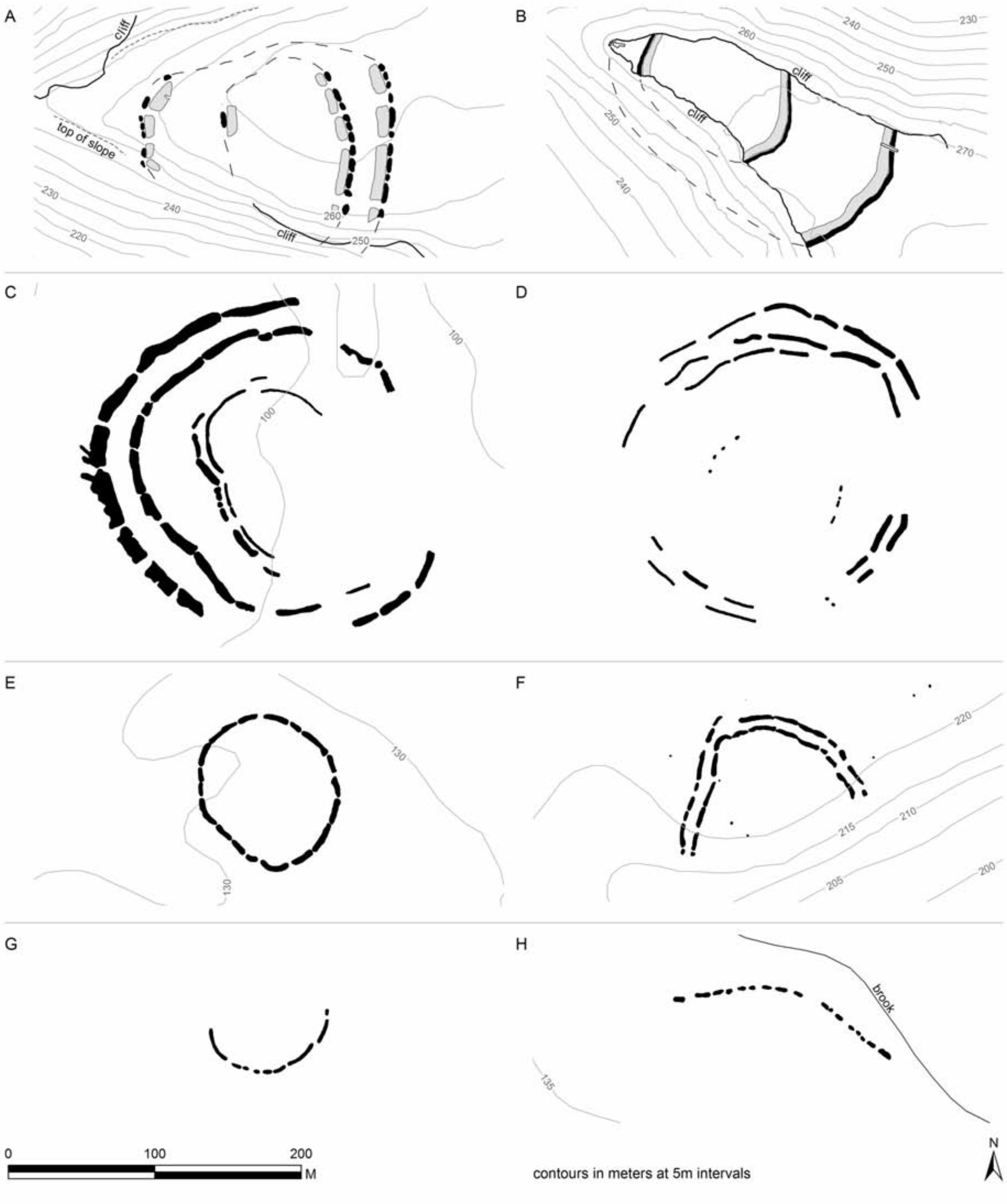

Fig. 30.
Comparative plans of causewayed enclosures in the Cotswolds and upper Thames Valley. A: Crickley Hill; B: Peak Camp; C: Eastleach, Gloucestershire; D: Langford, Oxfordshire; E: Burford, Oxfordshire; F: Southmore Grove, North Cerney, Gloucestershire; G: Down Ampney, Gloucestershire; H: Salmonsbury, Gloucestershire. (Drawing by Vanessa Constant; sources: various)

undertook the chemical analysis of the shale arc pendant. Hugo Lamdin-Whymark, Martin Smith, Alasdair Whittle, Ros Cleal, Neil Hobrook, Geoff Wainwright, Miles Russell, and the three anonymous referees are thanked for their comments and assistance in preparing and finalising this report. The finds and site records have been deposited in the Corinium Museum, Cirencester, accession No. 2011/149.

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