

THREE BRONZE AGE BARROWS AT MOCKBEGGAR LANE, IBSLEY, HAMPSHIRE

By SARAH COLES

with contributions by SIAN ANTHONY, STEVE FORD,
JACQUELINE I MCKINLEY, FRANCES RAYMOND and MARK ROBINSON

ABSTRACT

Three ring ditch sites observed on aerial photographs were excavated in advance of gravel extraction during autumn 2001. Site A comprised two Early Bronze Age ring ditches with an associated complex cremation burial deposit and two pottery vessels. The monument was reused for a single burial in the Middle/Late Bronze Age. Site B also comprised a double ring ditch with clear evidence for the presence of mound material. No burial deposits were associated with this but a food vessel was found within the interior. The finds from the ditch were notable for the presence of flint knapping debris indicating procurement of raw materials. Site C comprised a single ditch with a causeway. It was not associated with burial deposits but did indicate some procurement of flint. Linear features of Roman and post-medieval date were also examined and represent field boundaries.

INTRODUCTION

An archaeological excavation was carried out by Thames Valley Archaeological Services in advance of gravel extraction at Mockbeggar Lane, Ibsley, near Ringwood, Hampshire (Fig. 1). The site occupies an area of c. 4.5ha on the floor of the Avon Valley at a height of 25m above Ordnance Datum. It is situated to the east of the A338 and to the north of Mockbeggar Lane (SU 152 095) (Fig. 1). The geology on site is mapped as valley gravel (BGS 1976) and this was confirmed in the excavation.

The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited with Hampshire County Museum Service (Acc no applied for).

Archaeological background

The site lies within an archaeologically rich area of Hampshire with a wide range of sites and finds on both the floor of the valley and on the surrounding plateau. Several upstanding monuments are present on the heathland of Ringwood Forest to the west. Figure 1 shows the distribution of Bronze Age sites within the study area.

Attention was first drawn to the archaeological potential of the site when a series of aerial photographs identified three ring ditches and two linear features. Archaeological recording during earlier phases of extraction identified a medieval pit or ditch terminal and a pit containing a late Bronze Age jar (CAT 2001) north of the site. To the east, pits and ditches of Iron Age and Roman dates were recorded. Two pits produced 250 sherds of early-middle Iron Age pottery. Five ditches orientated east-west and north-south, and a few other features, were certainly or probably Roman. Over fifty other anomalies were investigated and believed to be treeholes, though one contained fragments of burnt clay (CAT 2001).

THE EXCAVATION

Immediately prior to topsoil stripping, a single evaluation trench was excavated across Site B (Fig. 2), in order to clarify the state of preservation and provide information to devise an excavation strategy. This trench confirmed the existence of ring ditches and revealed the presence of some remnant mound material overlying an outer ditch. Finds from the ditch included prehistoric pottery and a moderate number of struck flints. Topsoil and overburden were then removed

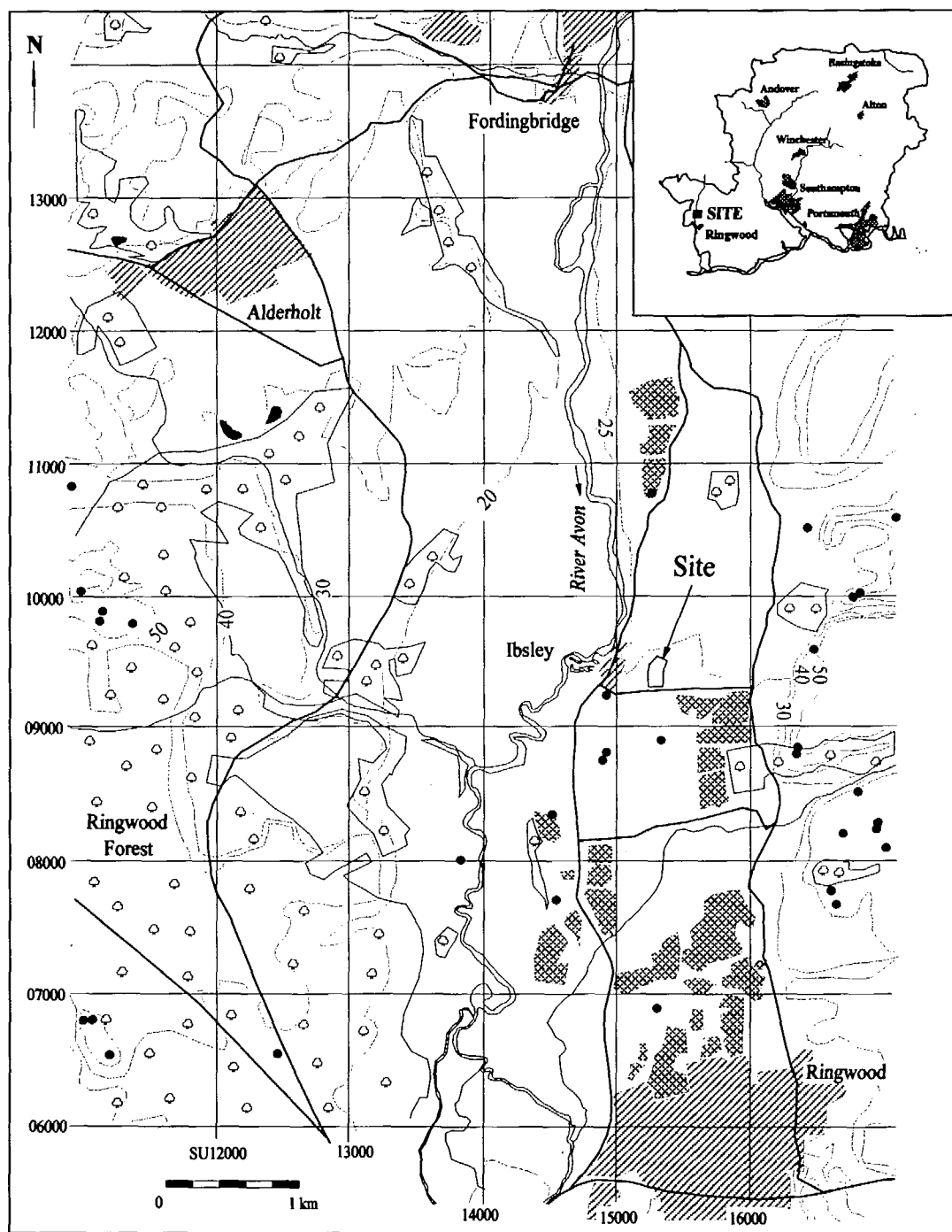


Fig. 1 Location of site and distribution of other Bronze Age sites in the Avon valley

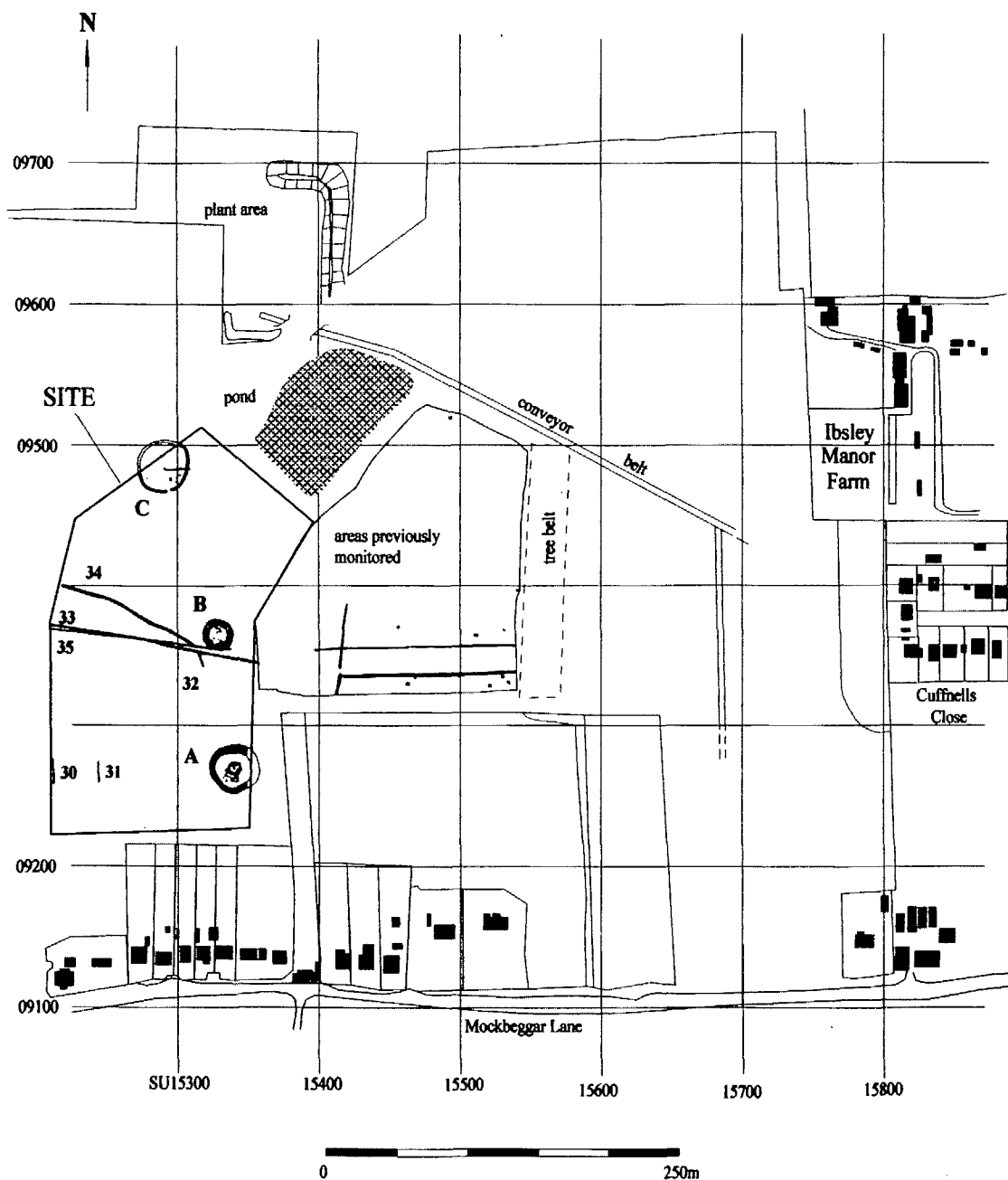


Fig. 2 Detail of site location and previous fieldwork

across the whole of the area by a 360° mechanical excavator fitted with a toothless bucket to expose the uppermost surface of archaeological deposits.

Sites A and C were only partially exposed within the excavation area (Fig. 2). For the outer ditch of A, 20% of the exposed circumference was fully excavated by hand. The remainder of the circuit exposed was excavated by hand to a depth of 0.30m then a mini-digger was used to excavate the remainder of the fill. For Site C, 40% of the exposed ditch was excavated by hand with the remainder excavated by machine. For the complex monument Site B, more than 90% of both ditches was hand excavated.

The cremation deposits were excavated in 20mm spits and all excavated material retained.

For the small number of other features on the site, a sample of 10% of linear features was excavated and all termini and intersections were examined. A substantial number of tree-holes were revealed and about 10% of these were excavated to confirm their nature. Some of these, although clearly tree-holes, did produce finds. A range of context types across the site was sampled for environmental and artefactual evidence. Apart from the burial deposits, these samples were only notable for the complete absence of charred plant remains.

The excavation provided features and deposits from a relatively wide range of periods, although the majority of evidence was from the Bronze Age.

Site A

This monument comprised two ring ditches and cremation burial deposits (Fig. 3). The centre of the site also produced a subsoil deposit, perhaps a relict soil (163), and a number of tree holes.

The relict soil: The earliest deposit on the site is a probable relict soil or subsoil (163). This deposit occupied an area approximately 24m in diameter and was up to 0.30m deep beneath the modern topsoil. Two sherds of early Bronze Age pottery, four flints and a broken leaf-shaped arrowhead (Fig. 9, 2) of earlier Neolithic date were recovered from this deposit.

Tree holes: Several irregular hollows which cut the relict soil deposit (163) were examined. These

features are interpreted as tree holes. One of these was cut by ditch 2 (105); others (smaller and shallower) clearly post-dated the filling of the inner ditch and may have been of relatively recent origin.

The inner ring ditch (ditch 2): Ditch 2 was just under 10m in diameter, 0.90m wide and 0.35m deep forming a continuous circuit (Fig. 3). At the base of the ditch was a charcoal patch from which a radiocarbon date was obtained. This provided an early Bronze Age date of 2044–1936 cal BC (KIA 16925; see below). However, in addition to three sherds of early Bronze Age pottery, the upper parts of the fill produced 123 sherds of late Bronze Age pottery.

The outer ring ditch (ditch 1): Around two-thirds of the full extent of ditch 1 was revealed within the stripped area, certainly sufficient to characterize it. It was 34m in diameter, 5.40m wide and 1.40m deep and had a continuous circuit within the stripped area. The stratigraphy typically comprised four episodes of deposition, all of which were variations of a grey brown sandy silt with gravel. An asymmetrical infill (156) of ditch segment 102 originating from the interior of the site may possibly indicate the presence of an internal mound but this is not clear. The ditch infill appears to have stabilized with the formation of layer 155 and for such a large ditch, it may not have been until Iron Age or later ploughing across the site that the upper fill (154) formed.

From the primary fill of segment 102, a charcoal deposit provided a radiocarbon date from the early Bronze Age of 1979–1870 cal BC (KIA 16924; below). Few finds were recovered from the ditch despite the large volume of fill. A small number of struck flints were the only finds recovered from the lower ditch fills. Pottery comprising eight sherds of early Bronze Age date, one sherd of early-middle Bronze Age date and six of late Bronze Age date were recovered from the upper fill.

Cremation burial 112: A multiple unurned cremation burial (112) was cut into the top of pit 104. This burial of 12 cremated individuals was radiocarbon dated to 1685–1396 cal BC, (KIA 16922) which places it in the middle-late Bronze Age period.

Other features: A single undated posthole (103)

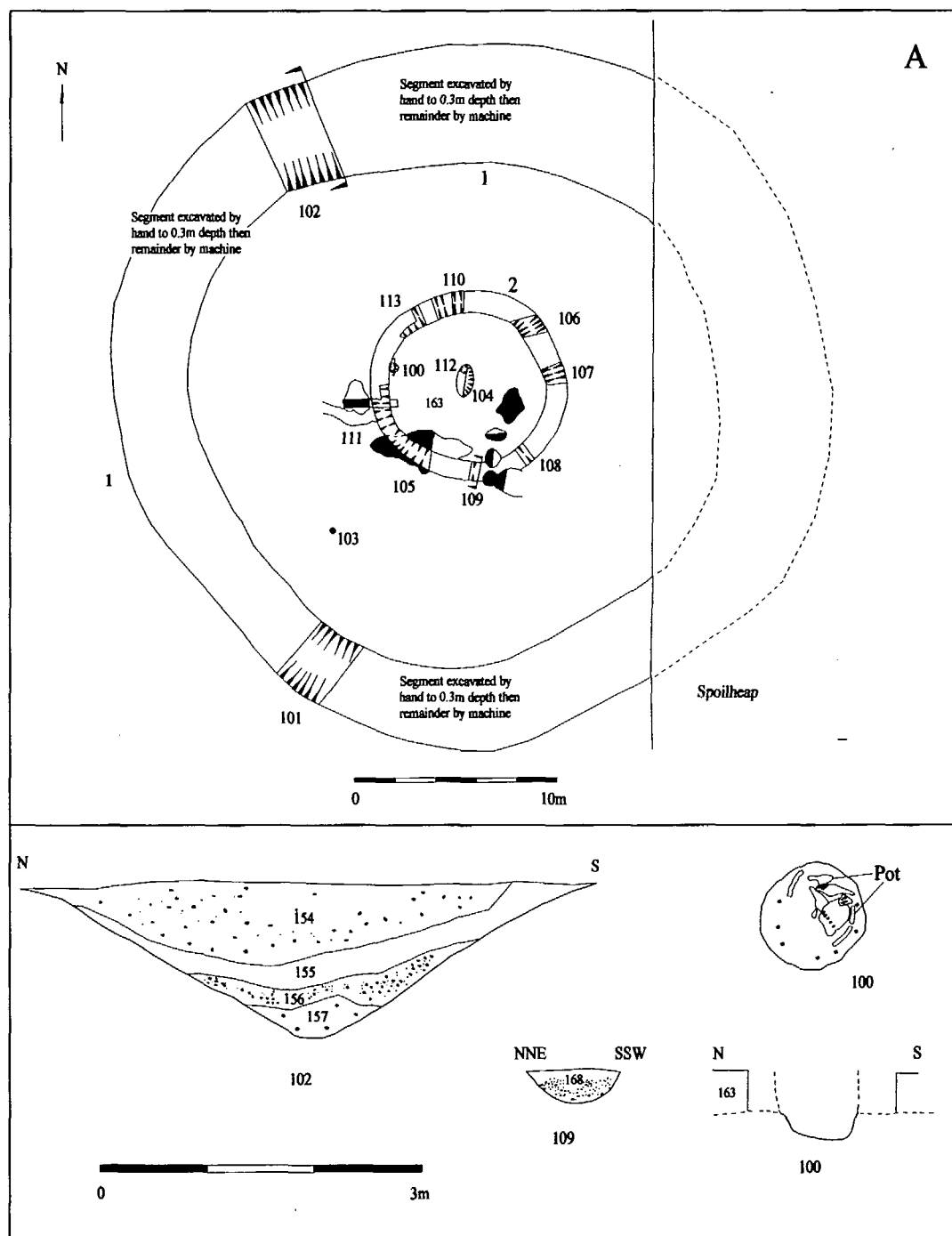


Fig. 3 Detail of Barrow A and sections across inner and outer ditches

was located between the outer and inner ditches. It was 0.36m in diameter and 0.16m deep.

Pit 104: This pit in the centre of the site cut relict soil 163. It was oval in shape, 1.50m long, 1.40m wide and 0.54m deep. The primary fill comprised a silty charcoal-rich deposit (164) which was sealed by a brown sandy silt (161). No finds were retrieved from this feature. Cut into the top was cremation 112.

Pit 100: This pit was 0.50m in diameter and 0.44m deep and was located to the west of pit 104, adjacent to the inner lip of the inner ring ditch (2). It also cut relict soil deposit 163 (Fig. 3). A double-urned cremation burial was found within this feature. The outer vessel (urn 2) comprised large broken rim and body sherds, which had been placed in a circle, creating the impression of a whole pot. The sherds derived from an enlarged food vessel urn (Fig. 8). Some of the rim sherds were face upwards whereas others were downwards indicating that the pot was not broken during or subsequent to deposition, but was a deliberately placed deposit of already-broken pottery. These pottery slabs surrounded a cremated bone deposit and also encased urn 3.

Urn 3, which was a complete undecorated ridged food vessel, had been inverted and contained the cremation burial of two adult males, both represented by comparatively complete collections of bone. This completeness is a pattern commonly observed in the 'primary' burial in any monument.

Two radiocarbon dates were obtained from this feature. Carbonized residues from the inside of urn 2 provided a date of 2580–2111 cal BC (KIA 16926) and charcoal from within cremation urn 3 provided a date of 2350–2196 cal BC (KIA 16923). These dates indicate deposition during the initial stages of the Early Bronze Age which is entirely consistent with the expected chronology of the associated pottery.

The form and development of the monument

The earliest dated activity on Site A (apart from possibly residual finds in the relict soil) comprised the deposition of the complex double cremation deposit which produced two radiocarbon dates suggesting deposition between 2350–2196 BC.

The substantially complete representation of both the individuals buried here is typical of 'primary' burials under barrows (McKinley, below). This feature, however, was not located at the centre of the monument and it seems probable that centrally located pit 104 also belongs to the earliest phase of developments. It is likely that the digging of the inner ring ditch was the next activity, as its primary fill produced a radiocarbon date of 2044–1936 BC. This would have been quickly followed by the outer ditch which produced a similar date of 1979–1870 BC. It seems that the monument was then reused in Middle to Late Bronze Age times. Unurned cremation burial 112 which is stratigraphically later than the central pit 104 produced a radiocarbon date of 1685–1396 BC and may well be related to the large quantity of late Bronze Age pottery recovered from the fills of the inner ring ditch. The outer ditch seems to have taken even longer to fill completely.

This development sequence has an implication for the possible form of the mound. The presence of late Bronze Age pottery within the inner ditch implies that the inner ditch was still open to receive finds, and the late cremation burial (112) inserted at the centre of the site implies that the interior was not occupied by a substantial mound such as a bowl or bell barrow form. It is plausible, but not proven, that the area within the inner ditch was occupied by no more than a low mound through which cremation 112 could easily be inserted. Perhaps, then, the spoil derived from the outer ditch formed an interior or possibly exterior bank rather than a central mound. The lack of features (other than a single undated post hole) in the area between the outer and inner ditch might imply the presence of the bank here.

Site B

This monument comprised two concentric and proximal ring ditches (Fig. 4) but no burial deposits. Traces of upcast and slumping indicate both a development sequence and the presence and location of mound material.

The inner ditch (ditch 11): The first phase of activity comprised the digging of the inner ditch (11). This had a 17m internal diameter, was 2m wide and 1.60m deep. It had a break in its circuit

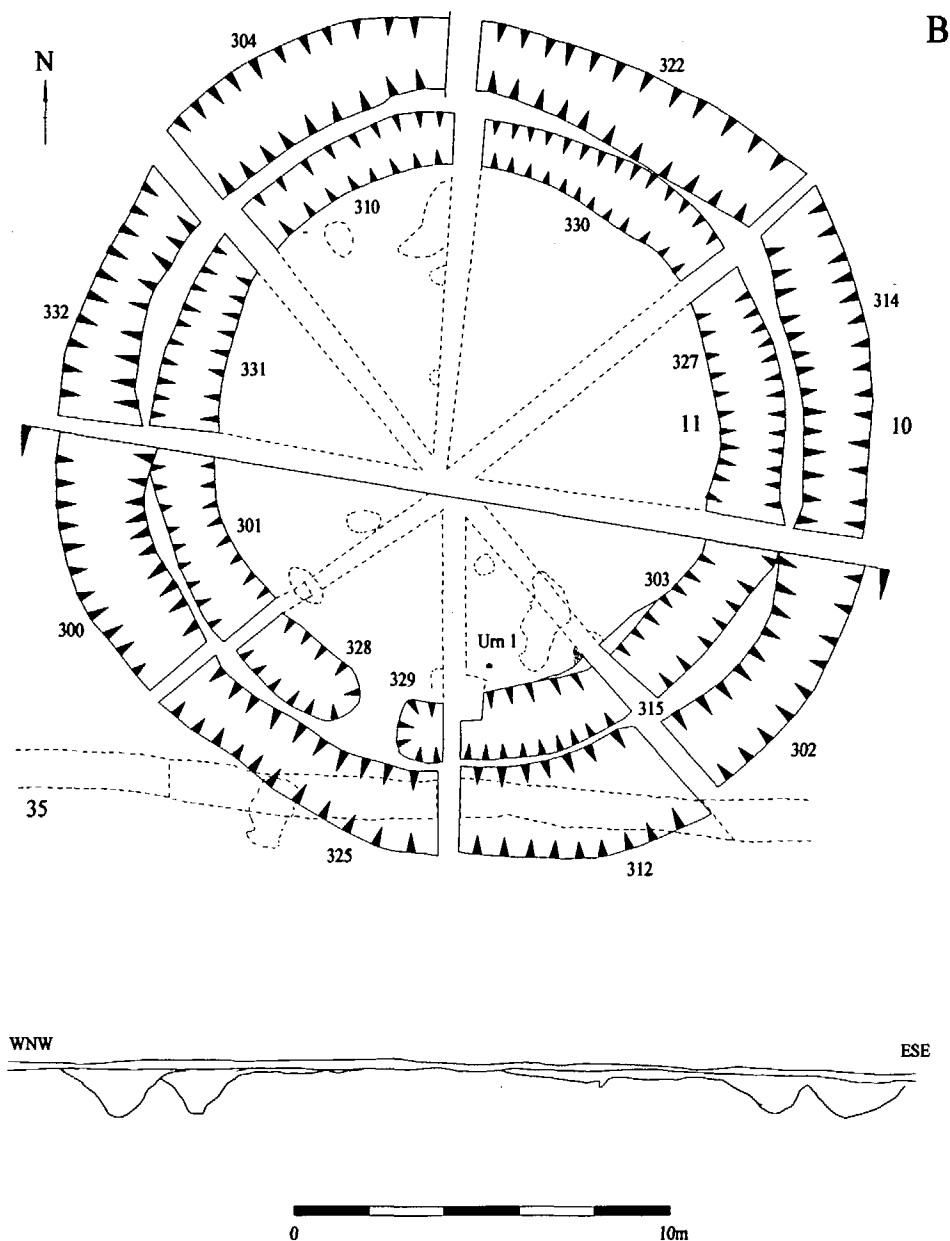


Fig. 4 Plan and profile of Barrow B

on the south side leaving a 1.20m wide causeway (Fig. 4).

The distinctive aspect of this ditch is the

markedly asymmetrical infill originating from the interior, following formation of the primary deposits (Fig. 5). The stratigraphy of the ditch varied

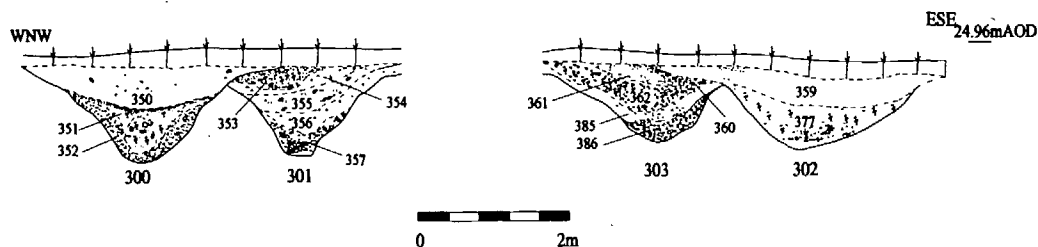


Fig. 5 Detail of Barrow B sections

around the monument but usually comprised four deposition episodes, although both two and six were also recorded.

The primary fill was predominantly gravel (Fig. 5, 357, 386) which was overlain by a brown sandy silt (356 and 385). This in turn was sealed by a grey brown gravelly silt (355, 362), a brown silt (354, 361) and a dense gravel layer (353, 360). Following stabilization of the primary fill (357, 386) and secondary fill (356, 385) the internal mound began to slump back into the ditch, as represented by the gravelly layers (355, 362). This slumping stabilized, allowing the formation of a further soil deposit (354, 361). The subsequent layers (353, 360) appear to relate to the digging of the outer ditch.

A moderate quantity of struck flint and some pottery was recovered from the inner ditch. Two residual sherds of late Neolithic Peterborough Ware pottery were retrieved from the lower fill. Fourteen sherds of Early Bronze Age pottery came from the upper fill of the ditch and included 13 sherds of food vessel perhaps all from one pot.

The outer ditch (ditch10): The outer ditch was a continuous circuit, of 22m internal diameter, 2.40m wide and 1.25m deep. It was positioned so close to the inner ditch that it cut the upper fills of the latter in places (Figs 4 and 5). The spoil from this ditch appears to have been used to refurbish the mound. The evidence for this comprises the dense gravel deposit overlying (or in fact, forming) the upper levels of the inner ditch (Fig. 5, 353, 360). The infill of the outer ditch is more symmetrical and straightforward. Following the formation of the primary gravelly fill (352, 377) stabilization occurred and a largely stone-free soil

(350, 359) formed. The finer gravel present at the top of the primary fill presumably reflects the action of worm sorting and represents a long period without disturbance. The setting of the monument at this time was probably grassland.

The outer ditch provided a moderate quantity of struck flint but only three sherds of early Bronze Age pottery. The struck flint assemblage indicated procurement of raw materials with refitting material present.

Urn 1: An almost complete miniature food vessel (Fig. 7: 6) was found buried just inside the inner ditch, near the causewayed entrance, in a gravel deposit that might represent remnant mound material (394) but which may have been disturbed by root action as evidenced by a tree-hole immediately above (Fig. 4, urn 1). This vessel was not associated with cremated bone remains.

Other features: A late post-medieval ditch (35) traversed the site east-west and cut across the southern portion of the outer ditch. Several tree holes were also examined within the centre of the site.

Site C

Ring ditch 20: Site C lay at the northern end of the group. Approximately two-thirds of the enclosed area was available for excavation (Fig. 6). The monument comprised a single ditch, which was 24m in diameter, 1m wide and 0.50m deep. There was a causeway 2m wide in the southern sector.

The infill of the ditch was relatively uncomplicated with just one or two fills recognized. However, one section (508) revealed four fills with an

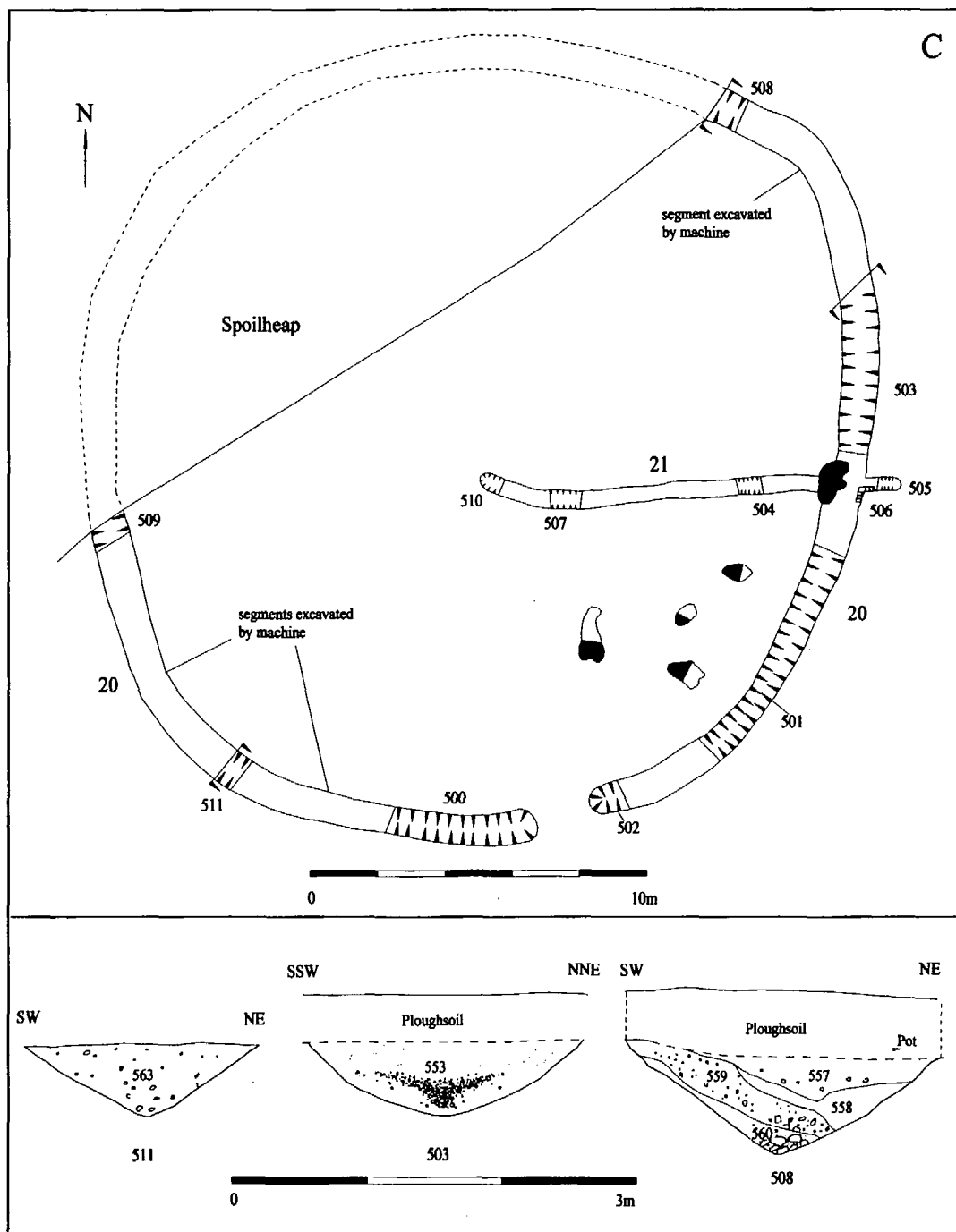


Fig. 6 Detail of Barrow C and representative sections

asymmetrical pattern of alternating gravel and silt deposits, all which appear to have been derived from the inside edge. It is possible that these deposits represent localized slump of a nearby bank or mound. No burial deposits were present at the centre of the site.

A length of gully (21) 12.4m long, 0.6m wide and 0.4m deep traversed part of the ring ditch east-west. The relationship of the two features could not be established but the gully contained one sherd of late Bronze Age/Iron Age pottery and is therefore later than the ring ditch. This gully is similar to other gullies elsewhere on the site (30, 31, and 32) (below) which were post-medieval. This feature does not change its profile where it traverses the interior of the ring ditch suggesting that there was no interior mound when it was cut (if there had ever been one).

Four discrete features within the ring ditch were of natural origin.

Relatively few finds of pottery were recovered from this ring ditch. The primary fill of the ditch contained four sherds of early Bronze Age grog-tempered pottery. A sherd of beaker pottery was recovered but this was from an unstratified context adjacent to ring ditch 20. Struck flints were more plentiful and indicated some procurement activity. The flint assemblage from the ring ditch (503, 553) included a complete flaked axe with a minute trace of polish (Fig. 9, 2) of Neolithic or early Bronze Age date.

Five sherds of late Bronze Age pottery were recovered from the primary fill of one segment of ditch 20 (508, 560), which shows that the early Bronze Age sherds were most likely residual, and must give this monument a late Bronze Age date.

Other features

Ditch 33 (Fig. 2): This ditch was 140m long, 1.10m wide and 0.45m deep and had a single fill. It was aligned approximately east-west and was cut by ditch 35 and gully 32. The ditch contained a residual sherd of Iron Age pottery along with 27 sherds of Roman and late Roman wares. This feature respected ring ditch B which could therefore indicate the presence of a surviving mound at this date.

Ditch 34 (Fig. 2): The ditch was approximately

100 m long, 1.80–2.0m wide and 0.30m deep with one, sometimes two fills. It was aligned NW–SE. This ditch also respected Site B. Three pieces of prehistoric pottery were retrieved from the primary fills but may well be residual.

Ditch 35 (Fig. 2): The ditch was of late post-medieval date and cut across part of Site B. It contained a single sherd of medieval pottery.

Gullies 30, 31 and 32 (Fig. 2): The only one of these gullies that produced any dating evidence was gully 31, which contained late post-medieval pottery. Gullies 30 and 32 were of similar shape and size to 31 and are believed to be of similar date.

FINDS

Pottery by Frances Raymond

The prehistoric pottery assemblage has a total weight of 9363g and is composed of 327 sherds and one complete vessel. Ceramics dating between the late Neolithic and the Iron Age are represented (Table 1) and the material incorporates a significant early Bronze Age group. This includes a complete ridged food vessel associated with a cremation which had been inverted in a pit close to the inner ditch of Site A. Slabs from an enlarged food vessel urn had been placed in the same feature, reflecting an unusual burial rite which has been recorded on a small number of sites elsewhere in Hampshire. The early Bronze Age assemblage also includes half of a miniature food vessel associated with Site B. The prehistoric pottery has been recorded by context following the guidelines of the Prehistoric Ceramics Research Group (PCRG 1997). Details of fabric, form, decoration, surface treatment and colour, wall thickness, fragmentation and condition have been entered on a database in the archive.

The late Neolithic pottery

Two sherds of late Neolithic Peterborough Ware (8g) came from the lower fill of the inner ditch of Site B (331, 473). Both fragments are moderately abraded and could well be residual. One of the sherds is decorated with worn impressions which

Table 1 Quantity of pottery by period

<i>Date</i>	<i>Sherd No.</i>	<i>% No.</i>	<i>Sherd Wt. (g)</i>	<i>% Wt.</i>
Late Neolithic	2	0.61	8	0.08
Early Bronze Age	131	39.94	7255	77.49
Early to Middle Bronze Age	2	0.61	10	0.11
Late Bronze Age	170	51.83	2053	21.93
Iron Age	1	0.30	4	0.04
Indeterminate Prehistoric	22	6.71	33	0.35
<i>Totals</i>	328	100.00	9363	100.00

are probably whipped cord (not illustrated). The sherds are made from the same flint tempered fabric (F/1) and are likely to be from a single vessel.

The early Bronze Age pottery

With the exception of the three food vessels associated with Sites A and B, the early Bronze Age assemblage is very fragmentary. A total of 53 sherds, weighing only 71g, were found mostly in the ditches of the three barrows. Much of this pottery comprises featureless body fragments made from fabrics which could have been used for either beakers or food vessels. The only identifiable beaker sherd was unstratified adjacent to Site C.

The food vessels

The complete undecorated ridged food vessel (Fig. 7: 5) from pit 100 adjacent to the inner ditch of Site A weighs 1544g. The vessel is made from a medium grade, grog tempered fabric (G/1) and varies in colour from red (2.5YR4/6) to brown (7.5YR5/4).

The enlarged food vessel urn (Fig. 8) had been broken prior to deposition in the same pit (100) and is represented by 76 sherds, weighing 5408g. Although all of the fragments from the rim and most of the first to second ridge are present, much of the third ridge, the lower body and the base are missing. Each of the three ridges carries a row of

fingertip impressions which are roughly paired in a manner reminiscent of the 'crows foot' decoration on rusticated beakers. The form of the urn broadly echoes the shape of the smaller ridged food vessel (Fig. 7: 5), while the fabric is similarly tempered with medium grade grog (feG/1). The surface colour is uneven and varies from yellowish red (5YR5/6) to reddish yellow (7.5YR6/6) with confined dark grey patches (10YR4/1).

The ridged food vessel was centrally placed in the pit and had been inverted towards the base of the feature. The sherds from the enlarged food vessel urn were around/above it. These include relatively large slabs up to 340mm across, which lay vertically and horizontally within the fill of the feature. Some of the vertical sherds ringed part of the outer edge of the pit, while pieces of the rim were found in both upright and inverted positions.

The miniature food vessel (Fig. 7: 6) came from a deposit adjacent to the inner ditch of Site B, near the inner ditch 315, where it had been disturbed by tree roots (389). Approximately half of the vessel, with a total weight of 232g, is present. The missing part is likely to have been removed during a recent episode of cultivation, since the fractures appear to be relatively fresh. The deeply stabbed decoration is confined to the upper part of the vessel and consists of a row of vertically set marks on the shoulder between paired rows of horizontally set impressions, which are also repeated on the

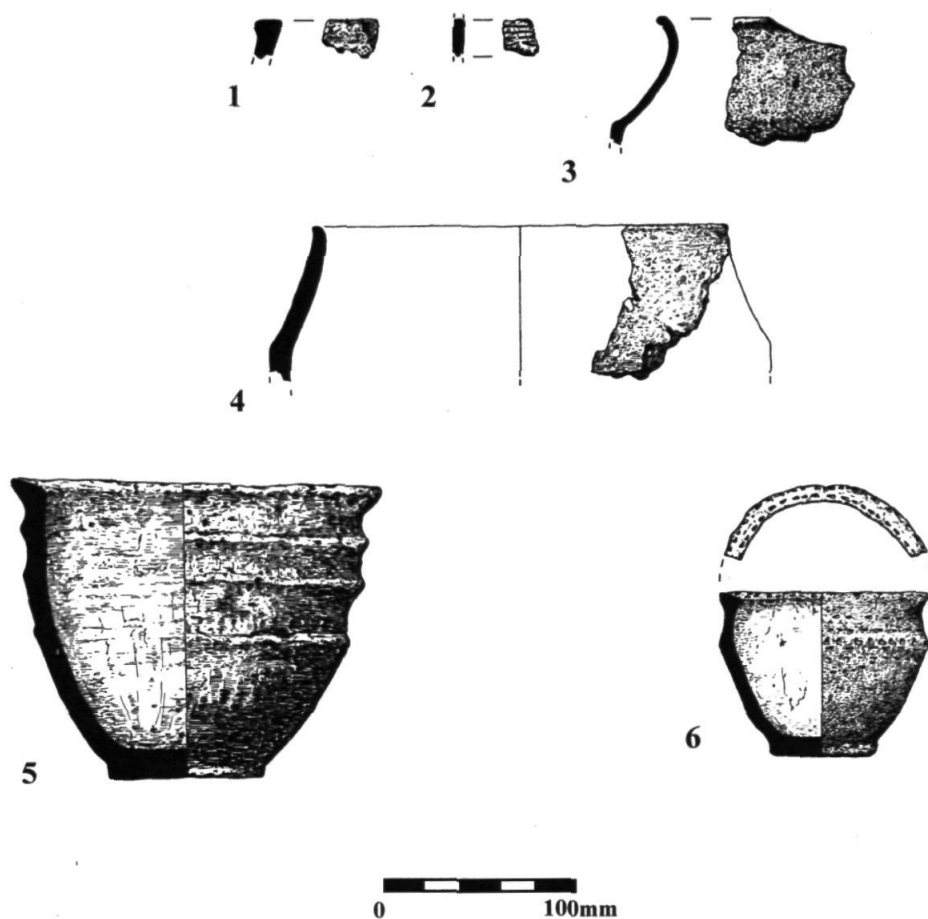


Fig. 7 Pottery

internal rim bevel. The vessel is made from a notably sandy, fine grog tempered ware with a predominantly brown exterior (7.5YR5/4).

The fragmentary early Bronze Age pottery

The 53 small fragments of early Bronze Age pottery include featured sherds from four vessels, three of which are from Site B. Here, the most readily identifiable is probably a food vessel (Fig. 7: 2) which is represented by three rim and ten body sherds with a total weight of just 12g. This is made from a shell tempered fabric (sh/1) and has a very dark grey exterior (10YR3/1). The sherds

were found in the fill of one of the sections through the inner ditch of Site B (301, 355) at a depth of 0.53–0.55m. A single fragment (1g) came from the outer ditch of the same barrow (304, 366) at a depth of 0.34 metres. This sherd is made from an identical fabric, but is not necessarily part of the same vessel.

The second vessel is made from a sandy fabric (feS/1) and is represented by a single body sherd, weighing 4g, decorated with part of a fingertip impression (not illustrated). This is from a high level within the inner ditch (303, 361) and could be part of a rusticated beaker or a food vessel

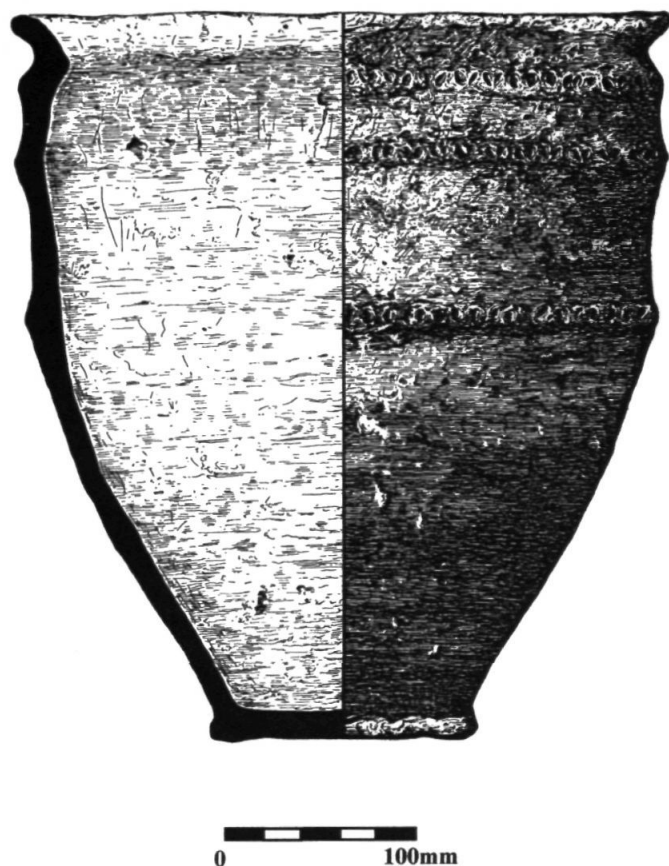


Fig. 8 Pottery

related urn. The third vessel is represented by two decorated sherds (3g) from the outer ditch, made from a fine grog tempered fabric (feGS/3). Both fragments are decorated with linear impressions which are too worn to determine whether they are cord or comb (not illustrated). Again, it is not possible to be certain whether the sherds are from a beaker or food vessel. Four other featureless fragments, weighing 2g, from the surface of the outer ditch may be part of the same vessel.

The only other early Bronze Age featured sherd was found out of context near to Site C. It is a small fragment (3g) from a beaker with zoned decoration created using a square toothed comb (Fig. 7: 1). The fabric is a fine grog tempered

ware (feGS/4) and is reddish yellow in colour (5YR6/6).

Apart from this material, a few featureless body fragments in various early Bronze Age grog tempered wares were associated with each of the barrows. Most of these could have been used for either beakers or food vessels. Thirteen sherds, weighing 22g, came from Site A: three from the inner ditch (110, 169); eight from the outer ditch (101, 150); and two from the relict soil (163). These are derived from a minimum of four different vessels made from distinctive wares (feG/1; FGS/2; FGS/3; and G/1). The two from context 163, each weighing only 1g, match the fabrics of the food vessels from pit 100 (feG/1 and G/1) and

are probably tiny fragments from these same urns (Fig. 7: 5; Fig. 8).

The inner and outer ditches of Site B produced 11 additional fragments of pottery, weighing 12g, derived from at least four vessels made from different fabrics (FGS/3; feGS/1; feGS/2; and G/1). Site C yielded 4 sherds, weighing 10g, in two fine grog tempered wares (feGS/2; and feGS/3) found at depths of between 0.45 and 0.60m. Although one of the wares from Site B was used for the ridged food vessel (Fig. 7: 5 – Fabric G/1), there is no reason to suppose that it was necessarily confined to this particular style. Like the other fabrics from Sites B and C, it could equally have been employed in beaker production.

The low numbers and poor condition of the small early Bronze Age sherds from the barrows mean that they could be residual. This is certainly the case with some of the pottery from the inner and outer ditch of Site A, which came from an equivalent stratigraphic position to late Bronze Age to early Iron Age sherds. Site C also produced ceramics of this date (508, 560).

The early to middle Bronze Age pottery

Two sherds, weighing 10g, from the outer ditch of Site A (101, 150) at a depth of 0.5m and from the surface near to Site B could be of early or middle Bronze Age date. Neither sherd is diagnostic and both are made from flint tempered fabrics (Ffe/1; and FS/5) which could have been used for bi-conical urns or for later Deverel-Rimbury style vessels.

The late Bronze Age pottery

In total 170 sherds, weighing 2053g, have been attributed to the late Bronze Age. Virtually all of this material was found in association with Site A (164 sherds, 2041g). The high proportion of late Bronze Age pottery from this barrow reflects the presence of multiple sherds from two vessels found at a high level in one of the sections through the inner ditch (105, 162, between 0.1 and 0.35m). The bulk of the material, comprising 133 sherds weighing 1917g, is derived from a bipartite shouldered jar (Fig. 7: 4). The vessel has a reddish brown (2.5YR4/4) burnished exterior and is made from a predominantly sandy fabric (FfeS/2). It was directly associated with six sherds,

weighing 78g, from the rim, neck and shoulder of a carinated bowl (Fig. 7: 3). This has a slightly beaded rim, a dark brown (7.5YR4/3) to very dark grey (10YR3/1) burnished exterior and is made from a glauconitic sandy ware (FglS/1).

Six contemporary sherds (18g), were also found in the outer ditch (102, 154). These are from the neck of a vessel made from a sandy flint tempered ware (FfeS/1). The rest of the late Bronze Age pottery from Site A (19 sherds, 28g) are surface finds. Some are probably derived from the two illustrated vessels (Fig. 7: 3, 4), but the remains of another vessel in a contrasting fabric are also present (FS/3).

Site C was also associated with a few sherds of late Bronze Age pottery (6 sherds, 12g). These are made from fabrics represented within the assemblage from Site A (FfeS/1; and FS/3). Most were found in one of the ring ditch sections (508, 560), but a single sherd (1g) was also recovered from an adjacent gully 21 (507, 556).

The Iron Age and prehistoric pottery of indeterminate phasing

A single sherd of Iron Age pottery, weighing 4g, came from late Roman ditch 33 (711, 761) near Site C. This is made from a sandy ware (S/2) which could have been produced at any time during the Iron Age.

The prehistoric pottery of indeterminate date includes 15 tiny fragments (12g) which are too small for identification. However, it also incorporates seven sherds (21g) made from wares which were reproduced at different times during prehistory (FS/1; FS/2; FS/4; glS/1; and S/1). Much of this material is unstratified or residual and has little bearing on the chronology of the ring ditches.

Fabric descriptions

The sherds were sorted into fabric groups using a binocular microscope with a magnification of $\times 20$ and were described using a higher magnification of $\times 40$. The fabric codes are composed of the initial letters of the inclusions identified arranged alphabetically, followed by a unique number to distinguish between wares containing the same inclusions in contrasting frequencies or size ranges. Rare inclusions are not featured in the

codes, but do appear in the descriptions. Prehistoric fabrics which are of indeterminate date do not feature in this report, but are described in the archive.

The late Neolithic fabric

F/1: a soft laminar fabric tempered with moderate quantities of crushed burnt flint, which is coarse (up to 5mm), angular and has an uneven distribution. Rare silt-sized to fine, sub-angular sand (<0.06 to 0.2mm) and rare silt-sized, rounded iron minerals (<0.06mm) are also present.

The early Bronze Age fabrics

All of the early Bronze Age fabrics are soft with evenly distributed inclusions. The majority have hackly fractures and the rest are laminated (these are identified in the following descriptions). The flint is angular, the grog is sub-angular, while the iron minerals are rounded.

FGS/1: this fabric contains sparse, coarse burnt flint (up to 5mm) and very common, fine grog (up to 2mm). Common sub-rounded to angular, fine to very coarse sand (0.2 to 1.5mm) are also present.

FGS/2: a laminar fabric containing sparse fine flint and grog in a similar frequency and size range (up to 2mm). Moderate quantities of sub-rounded, fine to coarse sand (0.2 to 1.0mm) are also present.

FGS/3: this fabric contains sparse, medium sized burnt flint and grog (up to 3mm). Abundant sub-rounded to angular, silt-sized to coarse sand (<0.06 to 1.0mm) is the predominant inclusion type. Rare silt-sized to medium iron minerals (<0.06 to 0.3mm) are also present.

feG/1: this fabric contains sparse very fine iron minerals (0.1mm) and very common, mostly medium sized grog (up to 4 mm with an occasional piece of up to 10mm). Rare fine to coarse sub-rounded sand (0.2 to 0.6mm) and medium sized flint (up to 3mm) are also present.

feGS/1: this fabric contains sparse, silt-sized to medium iron minerals (<0.06 to 0.3mm) and fine grog (up to 2mm). Very common, silt-sized to medium, sub-rounded to angular sand (<0.06 to 0.5mm) is the predominant inclusion type.

feGS/2: this fabric contains sparse, silt-sized to fine iron minerals (<0.06 to 0.2mm) and common fine grog (up to 2mm). Sparse quantities of very fine

to coarse sub-angular sand are also present (0.1 to 0.8mm).

feGS/3: this fabric contains sparse, silt-sized to medium iron minerals (<0.06 to 0.3mm) and moderate quantities of fine grog (up to 2mm). Sparse amounts of silt-sized to medium sub-rounded sand are also present (<0.06 to 0.5mm).

feGS/4: this fabric is very similar to feGS/3, but includes moderate quantities of very fine to medium sub-angular sand (0.1 to 0.5mm).

feS/1: this fabric contains moderate quantities of silt-sized to fine iron minerals (<0.06 to 0.2mm) and common, silt-sized to medium sub-rounded sand (<0.06 to 0.5mm). Rare pieces of medium sized burnt flint are also present (up to 4mm).

G/1: this fabric contains abundant, medium sized grog (up to 3mm) and rare pieces of flint in the same size range.

sh/1: this fabric is characterised by common, medium sized angular voids (up to 4mm) which are typical of leached shell.

The early to middle Bronze Age fabrics

Both fabrics are soft and have evenly distributed inclusions. In both cases the flint is angular.

Ffe/1: a laminar fabric tempered with moderate quantities of medium sized burnt flint (up to 3mm). Sparse, silt-sized to medium, rounded iron minerals (<0.06 to 0.3mm) and rare silt-sized mica (<0.06mm) are also present.

FS/5: a fabric with a hackly fracture containing common, medium sized burnt flint (up to 3mm) and sparse silt-sized to very fine, sub-angular sand (<0.06 to 0.1mm).

The late Bronze Age fabrics

All four fabrics of this date are soft with hackly fractures and have evenly distributed inclusions. In each case the flint is angular and the iron minerals are rounded.

FfeS/1: this fabric contains sparse quantities of medium sized burnt flint (up to 3mm) and silt-sized to coarse iron minerals (<0.06 to 1.0mm). The predominant filler is very common, silt-sized to medium (<0.06 to 0.5mm) sub-angular sand.

FfeS/2: this fabric is tempered with moderate quantities of coarse flint (up to 6mm with rare pieces up to 14mm). Sparse very fine to medium iron minerals (0.1 to 0.5mm) and very common, very fine to coarse sub-rounded sand (0.1 to 1.0mm) are also present.

FglS/1: this fabric contains sparse quantities of coarse

flint (up to 5mm). Abundant sub-rounded, fine to coarse sand (0.2 to 1.0mm) and moderate quantities of silt-sized to medium glauconite (<0.06 to 0.5mm) predominate.

- FS/3: this fabric contains moderate quantities of medium burnt flint (up to 3mm). Abundant quantities of sub-angular silt-sized to medium sand (<0.06 to 0.5mm) are dominant, while rare silt-sized to fine iron minerals are also present (<0.06 to 0.2mm).

The Iron Age fabric

- S/2: a soft fabric with a hackly fracture containing very common, sub-rounded silt-sized to medium sand (<0.06 to 0.5mm).

Discussion

The low frequency and poor condition of the pottery from the ditch fills of the three barrows provides only tentative evidence for the date of their construction. Site B certainly coincides with an area of late Neolithic activity and it is remotely possible that the inner ditch belongs to this period. However, the two sherds of Peterborough Ware from the lower fill of this feature are so worn that they could easily have been incorporated in the deposit at a later date. More certainly, the ceramics indicate early Bronze Age activity at all three monuments, while the absence of diagnostic middle Bronze Age pottery suggests that by this time the barrows were part of a relict funerary landscape.

Some aspects of the ceramic evidence, such as the position of the food vessels close to the inner ditches of the double ditched barrows (Sites A and B), point to shared elements within a common funerary tradition. However, at the same time, the character of the pottery and the manner in which it was deposited indicate clear distinctions in the burial practices at the two monuments.

The two vessels from the pit adjacent to the inner ditch of Site A (Fig. 7: 5 and Fig. 8) are characteristic of the series of ridged food vessels and related urns found in southern England. The Wessex distribution, based largely on pottery from funerary contexts, focuses on Dorset and Wiltshire and extends into the south-western part of Hampshire, where there are relatively few finds. This is a particularly varied group of ceramics, where no two vessels are precisely alike.

Although the ridged series share generalized attributes, individual vessels are distinguished by contrasts in rim form, the number and spacing of the ridges, the position and type of decorative motif and subtle changes in profile. This appears to place an emphasis on the unique character of separate vessels, yet at the same time draws attention to the similarities which exist within a broadly recognizable group. If the pottery was partly being used to create and reinforce distinctive social identities, then perhaps unsurprisingly it displays attributes which imply that these were being defined and negotiated with reference to shared traditions and the wider community.

The ridged food vessel (Fig. 7: 5) belongs to Tomalin's food urn category 'Form 2B' (Tomalin 1983). The distribution of similar styles in the area extends across southern Dorset (Tomalin 1984, appendix 1) into south-western Hampshire. Local finds include two decorated examples from two of the barrows excavated on Beaulieu Heath (Piggott 1943, fig. 8: 1 and 4). One of these has an analogous profile to the Mockbeggar Lane vessel and is similarly characterized by three ridges, but in contrast these are evenly spaced.

The enlarged food vessel (Fig. 8) is typical of Tomalin's food urn 'Form 2A' (Tomalin 1983). The few Hampshire examples of this general category, also with decorated ridges, include one from the Latch Farm Site (Calkin 1962, fig. 4 - M20) and a second urn also from the Christchurch area (Calkin 1962, fig. 4 - M21). Most of the analogous vessels, however, are from sites in Dorset and Wiltshire (see Tomalin 1984, appendix 1 for the Dorset corpus). Many of these vessels, including the Christchurch example, have everted rims with simple internal mouldings similar to the Mockbeggar Lane urn (Fig. 8). Although decoration is commonly found on the ridges of such vessels, fingertip impressions are relatively rare. Recorded Dorset examples occur on vessels from Friar Mayne, Portesham and Melcombe Bingham I (Forde-Johnston 1965, fig. 13), but in both cases the impressions are spaced rather than paired.

The profile of the miniature vessel from Site B recalls Tomalin's Food Urn 'Form 3' (Tomalin 1983), even though proportionally the shape is closer to a bowl rather than the more typical

vase-like form. The triangular stab-marks are a relatively common decorative technique on southern British food vessels (Piggott 1939; Smith 1967), as is their position on the rim and shoulder. There are no close Hampshire parallels for this style, although the distribution across Dorset is fairly extensive (Tomalin 1984, appendix 1).

The occurrence of more than one food vessel in a single funerary context is reminiscent of other early Bronze Age deposits where two or more vessels have been found together. Examples include a barrow on Gallibury Down on the Isle of Wight where an Armorican 'vase à anse' was contained within two nested food vessel urns (Tomalin 1988); and one of the double ditched barrows at Frampton to the north-west of Dorchester, where a small cup lay within a food vessel which had been placed inside a collared urn (Forde-Johnston 1958, Site No. 1, fig. D).

The manner in which the two urns from Site A had been deposited is, however, rather different. There are no certain parallels amongst ceramics of a similar style, although the association between deliberately broken slabs of pottery and a complete vessel may reflect a version of a more widespread funerary tradition of the early Bronze Age (Ellison 1989; Woodward 2002). Analogous evidence is scarce, possibly because so many excavations date to an early period and are inadequately recorded (Ellison 1989). Recent research, however, suggests that in some cases beaker portions were being selected for deposition, possibly because they were heirlooms or relics of the past (Woodward 2002). In Hampshire similar practices appear to be reflected at a later date by two biconical urns from a pit at Easton Lane near Winchester (Woodward 2002) and a series of barrel urn slab burials at Kimpton near Andover (Woodward 2002; Dacre and Ellison 1981). The Easton Lane deposit, where a complete inception series urn containing a cremation had been surrounded by large portions from a supplementary series urn (Ellison 1989), is closer in character to the Mockbeggar Lane find.

While this evidence may point to the sharing of certain aspects of funerary ritual, it seems more than probable that the interpretation and ultimately the meaning of these conventions would have been open to negotiation. Although the idea

that the broken food vessel urn from Site A might have been perceived as an heirloom or relic is attractive, there are no unequivocal supporting data. The good condition of the sherds is consistent with deposition soon after breakage, but equally the fragments could have been carefully curated or may have been protected within another buried context. The considerable overlap in the radiocarbon dates prevents any clear chronological separation between this urn and the ridged food vessel. Indeed this mirrors the evidence from elsewhere in Wessex, where the two types have been regarded as contemporary forms (Tomalin 1983, Forms 2A and 2B). In this particular instance, both vessels display a similarity in shape and ridge spacing which suggests that they are more likely to have been made around the same time.

All that can be said with certainty is that the deposit appears to be one which places an emphasis on contradiction. Not only is this reflected by the different vessel types and the presence and absence of decoration, but also by an apparent opposition between wholeness and fragmentation. It is tempting to draw an analogy between the broken slabs of pottery sealing the grave and the severance of the particular set of human relationships which this event must have signalled. Perhaps in this case it is the missing portion of the vessel which may have been retained by the living community as a tangible link with the dead and a relic of the past.

The miniature vessel, albeit from a disturbed context, implies a different type of deposit at Site B. Various miniature forms including food vessels are relatively common in early Bronze Age funerary deposits (cf. Longworth 1984), where they either occur in isolation or accompany larger urns. It has been suggested that similar miniatures may have been drinking cups with a use restricted to particular occasions, including the ceremonies marking rites of passage (Allen and Hopkins 2000). This particular example may have been an accessory vessel or it could have been placed in the inner ditch as an offering relating to a burial elsewhere in Site B.

The relative chronology of the early Bronze Age pottery from the three barrows is uncertain. The radiocarbon dates associated with the urns

Table 2 Summary of the flint assemblage from the excavations

	Site A	Site B	Site C	Other features
Flakes	95	425	132	15
Chert flake	1	–	–	–
Cores	2	11	3	–
Bashed lumps/core fragments	2	22	6	–
Spalls	13	27	8	2
Scrapers	–	2	–	–
End polished flint axe	–	–	1	–
Hammerstone flake	1	–	–	–
Retouched flakes	–	1	1	–
Leaf-shaped arrowhead	1	–	–	–

from Site A indicate that they were deposited during the second half of the third millennium cal BC. This corresponds with the early end of the range from elsewhere, which points to an origin for food vessels during the later third millennium, with a currency encompassing the earlier second millennium cal BC (Burgess 1986; Healy 1995, fig. 15.5). This overlaps with the radiocarbon dates for beakers which lie between 2600 and 1800 cal BC (Kinnes *et al.* 1991). It is also consistent with Tomalin's proposed developmental sequence which suggests that Forms 2A and 2B are early types (Tomalin 1983). The miniature vessel from Site B may have been deposited at a later date. Similar Form 3 styles are thought to represent the final phase of food vessel production with a suggested origin around 1800 cal BC, overlapping with the currency of biconical urns and middle to late style collared urns (Tomalin 1983).

The two late Bronze Age vessels from Site A display characteristics which suggest that they are most likely to date between the 8th and 6th centuries cal BC. In Hampshire both forms are represented within the assemblage of this period from Winklebury (Smith 1977, fig 29: 17–18; and fig. 31: 23), while similarly shaped biconical jars occur during Phase 3 at Old Down Farm (Davies 1981, fig. 15: 50). The predominantly sandy character

of the fabrics is also consistent with pottery produced during the latter part of the Bronze Age.

Although both vessels are fragmented, the good condition of the sherds suggests that they were either buried soon after breakage or had been protected from weathering prior to deposition. The pottery was found at a high level in the inner ditch and may well have been disturbed by subsequent cultivation, so that the original character of this deposit is uncertain. However, the fact that the assemblage includes a high percentage of well preserved sherds from a single vessel increases the likelihood that it was placed intentionally in the ditch, suggesting that the feature may have been a recognizable hollow at the time. If this was indeed a deliberate offering, it contrasts with the earlier deposits where there was a direct association between specific ceramic vessels and a known individual, by apparently making reference to a more distant ancestral past.

Struck flint by Steve Ford

A collection comprising 773 struck flints was recovered during the course of the excavations. Two of the pieces are rolled and may possibly be of Palaeolithic date, or are a result of natural attrition during formation of the gravel. Table 2

summarizes the composition of the collection by principal features. From the presence of remaining cortex, all except one piece appear to have been derived from the local gravel. The one exception is a flake from the outer ditch of Site A made from chert which has not been geologically sourced but is possibly derived from the Isle of Portland some 30km to the south west.

The purpose of the following analysis is to characterize the nature of the flint assemblages both to define their chronological attributes and to determine the broad range of flint-using activities that may have taken place. The data have also been used to provide intra-site comparisons between the monuments. Several attributes were examined comprising typology, metrical analysis and functional analysis. The analyses are subdivided into the four components of the project i.e. the three ring ditch sites with associated features, and the other features.

Site A

In relation to the size of the outer ditch for this monument, few struck flints (115) were recovered. The sample size from securely stratified deposits is too small to merit metrical analysis. The outer ditch produced just 35 struck flints, the inner ditch 21 flints and pit 104 produced a flake and a core fragment. The remaining 57 flints were recovered from subsoil deposits. For the collection as a whole, functional analysis (defined below) of 87 flakes produced a lower proportion of waste flakes (44%) and cortical flakes (23%) than the other two sites suggesting that procurement was not as great a component of this collection as elsewhere on the site.

Retouched pieces. Two implements were recovered; a flake from a hammerstone from the secondary fills of the main ditch (102, 156) and a leaf shaped arrowhead of earlier Neolithic date from the relict soil deposit (163) within the circuit of the inner ditch (Fig. 9: 1).

Cores. A core and two core fragments were the only pieces recovered from this site.

Site B

The two ring ditches forming this monument produced 487 flints with the outer ditch providing 281 pieces and the inner ditch 206

Metrical analysis. The assemblage recovered from primary contexts of the outer ring ditch was just of sufficient size to merit metrical analysis. Intact flakes were measured following the method of Saville (1980a) and

the broken flakes as in Ford (1987). These figures can be compared with the summarized data from other stratified assemblages (Ford 1987). For this ring ditch, 65 intact flakes and 18 broken flakes were recovered from five of the excavated slots.

Length:Breadth ratio. The metrical data are presented in Table 3. For the intact flakes, only 4.6% of the flakes exceeded a Length:Breadth ratio of 2:1. When these figures are combined with the data for the broken flakes, the blade-like component represents just 4.8% of the total. In terms of chronology this figure would be unambiguously of late Neolithic or Bronze Age date, although if, as suspected, the assemblage is derived from raw material procurement activity, then the chronological significance is less clear (Ford 1987).

Cortex remaining. The proportion of flakes retaining more than 2/3 of the original cortex is high with a figure of 30.1% of both broken and intact flakes. This is a figure typical of later periods and of assemblages where procurement is the dominant activity (Ford 1987, table 2).

Functional analysis. An assessment of the functional capability of the assemblage was made as in Ford (1987). Unlike microwear study, this assessment was not intended to detail what specific pieces were used for and what activities took place but is a measure of the overall origin of the assemblage. The combined total of waste flakes at 54.3% is typical of later assemblages and just falls short of the proportion (55%) typical of quarry assemblages.

Refits. Two pairs of refitting flakes were noted from the slumped mound material at the top of the infilled inner ditch (301, 355) and the secondary fill of the outer ditch (332, 483).

Retouched pieces. The retouched component comprised two scrapers from the upper fill of the outer ditch (312, 387) and a retouched flake from the same context (314, 388).

Cores. Eleven cores, four bashed lumps and 18 core fragments were recovered from Site B as a whole, but only three cores with an average weight of 98g, two bashed lumps and four core fragments were recovered from primary contexts of the outer ditch. All of the cores had been used to produce the broad flakes which constituted the collection from the site.

Site C

Length:Breadth ratio. For this ring ditch, 101 intact flakes and 31 broken flakes were recovered from the primary fills in three excavated slots. For the intact flakes, 8.9% of the flakes exceeded a Length:Breadth ratio of 2:1 (Table 4). When these figures are combined with the data for the broken flakes the blade-like component

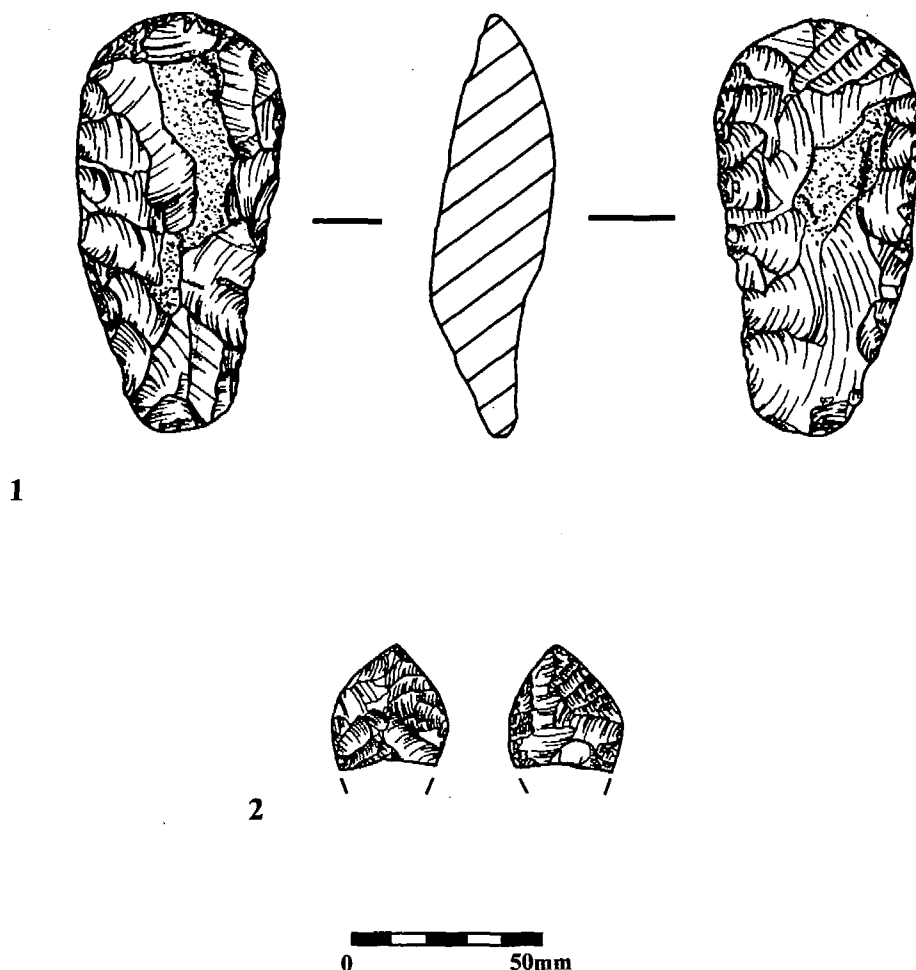


Fig. 9 Flints

represents 9.1% of the total. This is a somewhat higher proportion than expected for Bronze Age assemblages and perhaps the small number of pieces representing deliberate blade or narrow flake production which have raised this figure reflect the presence of stray finds of Mesolithic or earlier Neolithic date.

Cortex remaining. The proportion of flakes retaining more than 2/3 of the original cortex is high with a figure of 46.2% of both broken and intact flakes. This is a figure typical of later periods and of assemblages where procurement is the dominant activity (Ford 1987, table 2).

Function. The broad functional analysis indicates that the combined total of waste flakes at 62.9% is typical both of assemblages of late date and of quarry assemblages.

Refits. Five pieces from the primary fill of the outer ditch terminal (500, 550) formed two groups of refits.

Retouched pieces. A complete flaked axe was recovered from the ditch (503, 553). (Fig. 9: 2). Close inspection of the blade end revealed very slight traces of polishing. The only other retouched item was a retouched flake from the same context.

Table 3 Summary of metrical data from Site B outer ring ditch*A) Intact flakes**Length: Breadth ratio:*

≥ 2.5	$\geq 2 < 2.5$	$> 1 < 2$	≤ 1	<i>Total</i>
1	2	44	18	65
1.5	3.1	67.7	27.7	%

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Azuls</i>	<i>Other</i>	<i>Total</i>
35	19	7	4	65
53.8	10.8	6.2	29.2	%

Thickness

<i>Mean</i>	<i>Standard Deviation</i>
9.6mm	5.01

Remaining cortex:

$< 1/3$	$> 1/3 < 2/3$	$> 2/3$	<i>Total</i>
34	12	19	65
52.3	18.5	29.2	%

B) Broken flakes

<i>Broken blade</i>	<i>Possible broken blade</i>	<i>Broken flake</i>	<i>Total</i>
1	–	17	18
5.6	–	94.4	%

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Azuls</i>	<i>Other</i>	<i>Total</i>
10	3	1	4	18
55.6	16.7	5.6	22.2	%

Remaining cortex:

$< 1/3$	$> 1/3 < 2/3$	$> 2/3$	<i>Total</i>
10	2	6	18
55.6	11.1	33.3	%

C) Combined figures of intact and broken flakes

<i>Blades</i>	<i>Total flakes</i>
4	83
4.8	%

Table 3 (cont.) Summary of metrical data from Site B outer ring ditch

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Awls</i>	<i>Other</i>	<i>Total</i>
45	22	8	8	83
54.3	26.5	9.6	9.6	%

Remaining cortex:

$<1/3$	$>1/3 < 2/3$	$>2/3$	<i>Total</i>
44	14	25	83
53.0	16.9	30.1	%

Table 4 Summary of metrical data from Site C

*A) Intact flakes**Length:Breadth ratio*

≥ 2.5	$\geq 2 < 2.5$	$> 1 < 2$	≤ 1	<i>Total</i>
–	9	63	29	101
–	8.9	62.4	28.7	%

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Awls</i>	<i>Other</i>	<i>Total</i>
62	17	2	20	101
61.4	16.8	2.0	19.8	%

Thickness

<i>Mean</i>	<i>Standard Deviation</i>
9.6mm	4.24

Remaining cortex:

$<1/3$	$>1/3 < 2/3$	$>2/3$	<i>Total</i>
45	17	39	101
44.6	16.8	38.6	%

Table 4 (cont.) Summary of metrical data from Site C*B) Broken flakes*

<i>Broken Blade</i>	<i>Possible broken blade</i>	<i>Broken flake</i>	<i>Total</i>
1	2	28	31
3.2	6.5	90.3	%

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Awls</i>	<i>Other</i>	<i>Total</i>
21	4	–	6	31
67.74	12.9	–	19.35	%

Remaining cortex:

$<1/3$	$>1/3 < 2/3$	$>2/3$	<i>Total</i>
16	5	10	31
51.61	16.13	32.26	%

C) Combined figures of intact and broken flakes

<i>Blades</i>	<i>Total flakes</i>
12	132
9.1	%

Functional analysis:

<i>Waste</i>	<i>Cutting</i>	<i>Awls</i>	<i>Other</i>	<i>Total</i>
83	21	2	26	132
62.9	15.9	1.5	19.7	%

Remaining cortex:

$<1/3$	$>1/3 < 2/3$	$>2/3$	<i>Total</i>
61	22	49	132
46.2	16.7	37.1	%

Other features

The other linear features of various dates observed within the quarry produced residual finds comprising 15 flakes and 2 spalls of unremarkable character.

Discussion

The analysis of the flint assemblages from the three sites has provided two components with which to understand the use of these monuments. First, in terms of chronology, the stratified assemblages from Sites B and C are entirely typical of assemblages of Bronze Age date. The other stratified finds from secondary ditch fill contexts have not been subject to detailed analysis but are of similar character. It is difficult to be more specific on the basis of the lithic characteristics alone as to whether the assemblages are from the Early, Middle or Late Bronze Age, as the latter periods are defined in negative terms (Ford *et al.* 1984). It is clear though that the collection does not contain a significant proportion of material from any earlier periods, though one or two of the narrow flakes are most likely to be Mesolithic or earlier Neolithic. Two retouched items, a flint axe and a leaf-shaped arrowhead, are chronologically distinctive. The leaf-shaped arrowhead is of earlier Neolithic date and is either a stray find or was collected as a curio in the early Bronze Age (cf. Woodward 2002). The axe is less closely datable and could be of Neolithic date. However, it could easily be contemporary with the construction of the barrows.

Second, a dominant proportion of the assemblages from Sites B and C appears to have been derived from procurement activity. In particular the amount of cortical flakes and waste flakes is consistently high, several refitting pieces are present demonstrating *in situ* knapping, and the retouched component is low. This interpretation contrasts with that for Site A, where the main ditch is substantially larger than for Sites B and C, yet flints recovered are fewer in number and less orientated towards procurement debris.

It should come as no surprise that a readily available source of raw material produced as a by-product of ditch digging should be utilized for flint procurement. The concept of embedded procurement strategies predicted for hunter-gatherers (Torrence 1983) is a basic human function and is applicable to early agriculturalists as here. This use

of monuments as quarries is a feature noted on earlier, Neolithic sites and other Bronze Age barrow sites, such as Amesbury G71, Wilts. (Saville 1980b), Micheldever R4, Hants (Fasham and Ross 1978) and North Stoke, Oxon (Ford 1984).

Cremated human bone by Jacqueline I McKinley

Cremated bone from six contexts was received for analysis. All the deposits were from within the confines of Barrow A and included the contents of two graves, 100 situated on the margins of the inner ditch, and 112 in the centre of the barrow, the former containing pottery of Early Bronze Age date and the latter attributed to the Late Bronze Age by radiocarbon dating.

Three contexts were excavated as a series of sub-deposits (context 159 as nine sub-contexts and 173 as two) and 20mm spits (context 171 as 16 spits) which were maintained throughout analysis. Spits were numbered from the top down. The individual fills had been wet-sieved to 2mm fraction and bone separated from the >4mm fraction residues for specialist analysis, the smaller fraction residues were not seen by the writer.

Osteological analysis followed the writer's standard procedure for the examination of cremated bone (McKinley 1994a, 5–21; 2000a). The minimum number of individuals within each context was calculated from the most commonly occurring skeletal element. Age was assessed from the stage of skeletal and tooth development (Beek 1983; McMinn and Hutchings 1985), and the general degree of age-related changes to the bone (Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (Buikstra and Ubelaker 1994).

One of the aims of the analysis of the two burials – which clearly each contained the remains of more than one individual – was to try to ascertain details of formation processes. All the identified skeletal elements from related deposits and sub-deposits were laid out to allow checking for joins between bone fragments and possible pairings of skeletal elements.

A summary of the results is presented in Table 5. Full details of identifications are held in the archive.

Table 5 Summary of cremated human bone

<i>Context</i>	<i>Cut</i>	<i>Deposit type</i>	<i>Weight</i>	<i>Age/Sex</i>	<i>Pathology</i>	<i>Pyre goods/debris</i>
159	100	urned burial	3140.8g	1 & 2) adult males <i>c.</i> 35–45 yr. and <i>c.</i> 40–50 yr.	Schmorl's node – lumbar; mv – wormian bone	Animal bone
173 (= 159)	100	urned burial	770.2g	1 & 2) adult males, <i>c.</i> 35–45 yr. and 35 yr.	op – atlas, sacrum; Schmorl's node – 1T	
160		layer (?=159)	61.5g	adult >18yr.		
164	104	rpdp?	0.1g	?		
171	112	unurned burial	6219.8g	1) neonate 2) infant <i>c.</i> 1–2 yr. 3) infant <i>c.</i> 3–4 yr. 4) juvenile <i>c.</i> 4–6 yr. 5) juvenile <i>c.</i> 6–8 yr. 6) juvenile/subadult <i>c.</i> 11–13 yr. 7–10) adult males, inc. min. one <i>c.</i> 20–40 yr. & one >35 yr. 11–12) adult females, min. one 30–50 yr.	op – finger phalanges, foot phalanx, atlas, rib head; new bone – mandibular M3 socket; exostoses – patella; trauma – rib fracture; pnb – radius shaft; mv – 8 wormian bones, right maxillary M3 accessory rootlet	4.3g Worked bone pins, most of three; 18.2g animal bone – some at least sheep/pig size

Key: rpd – redeposited pyre debris; mv – morphological variation; op – osteophytes; pnb – periosteal new bone)

Condition and disturbance

Both graves survived to a substantial depth, 100 to 0.44m and 112 to a minimum of 0.32m, but cremated bone was evident at the surface of both features and it is possible that some may have been lost from the upper deposits. In the case of grave 112, the upper 0.04m of the fill contained only 83g of bone (c. 1% of the total) and the density of bone was clearly decreasing towards the top, so any loss is likely to have been minimal. The precise distribution of the bone within grave 100 is not entirely clear and it is difficult to deduce how much, if any, may have been lost.

With the exception of three fragments of adult bone from spits 9 (skull and femur shaft) and 14 (femur shaft), which are slightly worn and have a chalky appearance, the bone all appears in good condition. Trabecular bone (vertebrae, articular surface, innominate etc.) is well represented within the deposits from the graves. Since it has been shown that trabecular bone is generally the first to be lost in soil conditions adverse to bone survival (McKinley 1997a, 245; Nielsen-Marsh *et al.* 2000), the fact that it is well represented reinforces the evidence of the visual condition of the bone and indicates that little is likely to have been lost due to adverse soil conditions.

Demographic data

A minimum of 14 individuals were identified from the contents of the two graves (Table 5). The earlier grave (100), contained the remains of two adult males of similar ages, one just slightly older than the other. The later, central grave (112) was packed with the remains of what could have formed an extended family. Half the individuals were identified as immature and half as adults, with an age range from neonate to older adult and including individuals of both sexes, though predominantly male (2:1 ratio).

Pathology

There was little evidence for pathological lesions, with minor changes being observed in the remains from both graves (Table 5). Those from 112 are likely to derive from the remains of only two or three of the identified adults but it is not possible to state conclusively which. Schmorl's nodes, destructive lesions resulting from a rupture in the intervertebral disc, most frequently occur in the vertebrae subject to greatest mechanical stress at points in the normal curvature of the spine (Manchester 1983) and basically reflect back strain, generally in young adulthood. Osteophytes (new bone on joint surface margins), where they occur alone are largely seen as age-related lesions and probably result in 'stiffness' in the affected joints (Rogers and Waldron 1995).

Exostoses are bony growths which may develop at tendon and ligament insertions on the bone. It is not always possible to be conclusive with respect to the aetiology of particular lesions which may include age-related wear-and-tear, traumatic stress, or specific disorders (Rogers *et al.* 1987). Infection of the periosteal membrane covering bone may lead to the formation of periosteal new bone. Infection may be introduced directly to the bone as a result of trauma, develop in response to some adjacent soft tissue infection, or spread via the blood stream from foci elsewhere in the body. Where there is no supportive evidence, as in this case, it is difficult to identify the probable cause of the lesion. Wormian bones – of which there was one from grave 100 and eight (probably from one ?adult female individual) from grave 112 – are classed as morphological variations or a non-metric trait possibly of genetic origin though parturition trauma has also been postulated as a possible cause.

Pyre technology and cremation ritual

All the bone from the early Bronze Age dual burial in grave 100 was white in colour, indicative of full oxidation of the bone (Holden *et al.* 1995a and b). Whilst the bone from grave 112 was also predominantly white, there were a few fragments from most of the 16 spits which showed colour variations, with an increase in the number of fragments and the levels of variation in those fragments from the lower half of the fill. Variations included brown/black (i.e., unburnt-charred), through hues and combinations of blue and grey. All but one of the fragments represented adult bone of both sexes. The bone fragments affected included skull vault, hand and foot bones, upper and lower limb, particularly femur and tibia shafts. A number of inter-related factors may affect the efficiency of oxidation of the bone – temperature, duration of burning, quantity of fuel, oxygen deprivation, position on the pyre (McKinley 1994a, 72–81; 2000a) – and several are likely to have been involved in these cases. One problem with interpretation is not knowing exactly how many individuals are represented by the poorly oxidized bone. The skull, hands and feet, being peripheral, may have been away from the main heat source; the femur shaft has a considerable coverage of muscle tissue which needs to burn off before the bone is exposed to oxidation; the tibia and fibula, with little soft tissue coverage would normally be oxidized relatively rapidly and failure to do so suggests oxygen deprivation. The main point of interest here is the distinction in levels of oxidation between the Early and Late periods.

The total weight of bone (3911g) from grave 100 suggests that the two individuals may have been repre-

sented by an average of 1955.5g each, a substantial proportion of the bone which would have remained at the end of cremation (probably c. 80%; McKinley 1993). The weight is within the upper range recovered from Bronze Age burials in general, and falls within the consistently high range of weights recovered from primary barrow burials (902–2747g, average 1525.7g; McKinley 1997b). It has been suggested that the time and effort taken in collecting and burying such a substantial proportion of the bone in these primary deposits is reflective of the ‘high regard’ in which the individuals were held by their community, though the ritual significance of the mortuary deposit, irrespective of the individuals, was probably also a factor (McKinley 1997b).

The very large quantity of bone from grave 112 does not proportionally represent the same quantity as that from grave 100. Divided equally between the 12 identified individuals each would be represented by c. 518g; as the infants and juveniles are clearly not represented by equal proportions to the adults, the weight of the latter must be higher, potentially between 600–1000g per individual adult. These weights are closer to the average recovered from Bronze Age burials, some, at least probably being in the upper part of the range (McKinley 1997b).

The maximum recorded bone fragment size was 120mm from grave 100, with the maximum from grave 112 being similarly high at 98mm. The majority of bone fragments from both burials was recovered from the 10mm sieve fraction (68–71%). There are a number of factors which may affect the size of cremated bone fragments the majority of which are exclusive of any deliberate human action other than that of cremation itself (McKinley 1994b). In this instance the large fragment size is reflective of the lack of disturbance to the deposits and the soil conditions (see above). There is no evidence to suggest deliberate fragmentation of bone, many of the fragments from grave 100 in particular, being commensurate in size with those from modern crematoria prior to fragmentation (‘cremulation’; McKinley 1997b).

The burials included some identifiable elements from all areas of the skeleton and there is no indication of selection of specific elements for burial. Tooth roots, unerupted crowns, phalanges and other small bones are well represented amongst the remains from both graves. This may be reflective of the mode of recovery of the bone from the pyre site for burial, with bone being skimmed off the upper levels of the extinguished pyre site with subsequent raking or sieving out the fragments (which should result in the recovery of more small fragments) as opposed to hand collection of individual fragments from the pyre.

Pyre goods, in the form of small quantities of cremated animal bone, were recovered from both graves (Table 5) and parts of three similar worked bone pins from grave 112. A survey of Bronze Age burials has shown that c. 16% contain small quantities of animal bone, with sheep/goat/pig being the most common species (McKinley 1997b).

The formation process of the burial in grave 100 suggests the two individuals were buried together, as a single deposit, their bones thoroughly mixed throughout (159 and 173). Direct joins were found between fragments from deposit 159 with spits 3 and 5; between 159 spit 3 and spit 6 and context 173 associated with vessel 3; and spits 4 and 6. Skeletal elements from both individuals occurred throughout the two deposits. It seems most likely that the men were cremated together and that their remains became mixed during collection for burial. If they were cremated separately, the remains must originally have been in different receptacles to those with which they were finally deposited and the remains deliberately mixed before burial.

Only two joins were found between human bone fragments from burial 112, including fragments of scapula from spits 14 and 16, and fragments of a male supra-orbital from spits 10 and 16. There were joins, however, between the fragments of worked bone pin from the deposit; one pin being spread between spits 4, 7 and 9, a second between spits 5 and 6 and the third between spits 6, 9 and 11. Although the joins were few, the identified individuals appeared to be spread through different parts of the fill; the neonate in spits 11–12, the infants predominantly in spits 13–16 but with some fragments as high as spit 4, the juveniles predominantly in the lower spits but spread from 5–16, and the juvenile/subadult in the lower half of the deposit. The adults were more difficult to separate but were clearly spread between spits. The implication is for a mixed deposit rather than one discretely layered and demonstrating a series of separate depositions. It is highly unlikely, though not impossible, that all these individuals died and were cremated contemporaneously as appears to have been the case with burial 100. In this instance it is more probable that the remains from a series of cremations were originally stored elsewhere, this single mass burial in one grave being made at a later date, potentially much later. There is a precedent for such ‘delayed’ burial in Homer’s *Iliad* where Patroclus requests that his cremated bones be buried with those of his [then still alive] friend Achilles; the *Odyssey* relates that the bones of Achilles’ comrade Antilochus were also subsequently included (McKinley 1997b, 142–3).

The burial and possible cremation of two individuals

together, as in grave 100, suggests a close link between them, reflecting either a family relationship or one of close friends/comrades (McKinley 2000b, 116–17). Although different in nature, the implication of placing the 12 individuals in burial 112 so close in death suggests they were also close in life, this single grave perhaps representing a ‘family plot’.

Discussion

Cremation graves containing the remains of two individuals are relatively frequent in Bronze Age cemeteries: on average *c.* 5%, with up to 14% of those from Simon’s Ground, Dorset containing more than one individual (Hazzledine 1982; McKinley 1997b). The majority of these burials and possibly also the cremations were contemporaneous. Of a sample of Bronze Age multiple burials discussed by Petersen (1981) 68% contained the remains of two individuals and 32% contained three or four. Eleven per cent of the Irish early Bronze Age graves included in Mount’s survey (1995) contained more than one burial, the highest number recorded being seven. Large numbers of individuals in one grave, such as the latter and the 12 in grave 112 at Mockbeggar Lane, are very rare. The largest number of individuals currently identified from one grave is 19 from a late Neolithic/early Bronze Age cist grave at Trelowthas Barrow, Cornwall (McKinley 1997b and c). As with burial 112, it was clear at Trelowthas that the cremations were not all contemporaneous, but in this case a series of burials had been made within the cist, the remains from prior depositions being pushed to the back of the grave to accommodate the making of each new burial.

Communal Bronze Age cemeteries are well documented. Multiple, contemporary burials in individual graves under barrows, with no obvious primary burial, form one of three types of burial practice seen in association with Bronze Age barrows (Lynch 1970, 117–18; Savory 1972; Petersen 1972; Mount 1995). The vast majority of these graves appear to hold the remains of a single interment, but there are some instances of multiple burial (Craw 1929; Petersen 1972; Mount 1995). One of the major problems encountered in this area of research is that in many of the older excavations the cremated bone was never

subject to analysis and consequently the numbers of individuals are unknown (e.g. Craw 1929; Mount 1995). We are often left with imprecise and subjective statements which cannot be interpreted, such as Craw’s reference to the remains of ‘burnt bodies’ from one cist grave (1929) and the ‘quantities of cremated bone’ noted by Mount (1995) in his review, both implying the remains of more than one individual were present. Often even the weights of bone are not specified and such criteria alone would, in any case, not be a secure basis on which to suggest numbers of individuals (McKinley 1994a, 5–21; 2000a).

The tradition of the communal Early Bronze Age cist cemetery is well recognized and has particularly been demonstrated in Wales, Ireland and Scotland. Most writers view it as indicative of a continuation of the late Neolithic tradition of group or communal burial, or re-burial (Lynch 1970, 172; Savory 1972; Petersen 1972; Mount 1995). What is of interest at Mockbeggar Lane is that this tradition appears to have been continued into the middle or late Bronze Age.

Worked bone by Sian Anthony

The remains of three worked bone pins were found in cremation burial pit 112 (171) on Site A. All were burnt indicating their use as pyre goods. They were found mixed in different spits, though none was complete. Each is carved from mammalian bone and curved in profile; no species can be identified. The first is in four pieces and is complete apart from the tip; the surviving length is 75mm, it weighs 1.8g. The second is in three pieces, weighs 1.2g and survives to 51mm, it also lacks the tip, there are some modern breaks in the shaft. The third is broken at the neck but the rest is intact, it is the thinnest of the pins but also the longest, surviving at 78mm long, weighing 1.3g. It is curved not only in profile but in plan with the neck (and presumably the head) curving sharply to one side.

Cremated animal bone by Sian Anthony

A small amount of cremated animal bone was identified amidst the human cremated material in pits 100 (159) and 112 (171) on Site A (Table 6). Weighing only 18.2g in total, the majority

Table 6 Summary of cremated animal bone

Context	Spit	Weight (g)	No.	Max length (mm)	Comments
100, 159	2	7	8	38	Sheep/goat metapodial distal shaft, possibly unfused, Ssz vertebrae, 2 Ssz limb shafts
100, 159	3	<1	4	24	Sheep/goat limb bone, 2 Ssz skull, 1 unidentified
100, 159	4	<1	1	17	Joint surface of Sheep/goat proximal tibia
112, 171	6	<1	2	27	Csz limb and Ssz limb, burnt black
	7	<1	1		Ssz rib fragment
	9	<1	3		Csz metapodial distal epicondyle fragment, burnt black, 2 Small mammal size fragments
	11	<1	3		2 small mammal size fragments, 1 Ssz fragment
	13	4	9	21	3 small mammal limb bones, 3 Ssz fragments, 3 unidentified
	14	<1	2		Ssz skull fragment, 1 Ssz fragment
	15	<1	1		Small mammal limb bone
	16	<1	2		Ssz vertebral centrum, Ssz skull fragment

was calcined showing almost complete oxidation of the bone, only two pieces were still burnt black. All were in moderate condition but very fragmented, the maximum fragment length was one piece of 38mm although this was the exception; the majority were under 1mm. Few pieces could be identified to species or element, most were identified only to a relative size of animal. Sheep size fragments were most common, with two elements identified as sheep/goat. The material may be identified as remains of pyre goods or of feasting associated with the cremation ritual, it is common to find small quantities of animal bone (up to c. 16%) in Bronze Age cremations, particularly pig, sheep and bird (McKinley 2000a).

Carbonised plant remains by Mark Robinson

Bulk sampling was undertaken for charred plant remains. Some samples contained very large

quantities of charcoal but seeds and other remains were absent. The samples were floated onto a 0.25 mm mesh and scanned under a binocular microscope at $\times 10$ magnification. For those samples where charcoal was present, a representative range of fragments was identified, using high power incident light microscopy for taxa other than *Quercus*. The results for Site A are given in Table 7.

Site A

A considerable quantity of *Quercus* sp. (oak) was found in cremation pit 100, and a layer of oak charcoal of the same date, 163, was present nearby. Both deposits were inside the area enclosed by the inner ditch. A little oak charcoal was identified from an early Bronze Age post hole, 103, between the ditches and there was very much oak charcoal in 165, an early Bronze Age fill within the inner ditch. In contrast, *Ulex* sp. (gorse) charcoal was found in fill 151 in the outer ditch. Late Bronze Age pit 104, in the centre of the barrow, below cremation 112, contained a large quantity of *Corylus avellana* (hazel) and

Table 7 Charcoal from Barrow A. No. of Samples 15, Total sample volume (litres) 460, No. of samples with charcoal 9

Feature		100				103	106	101	112	104
Context		159	172	173	163	158	165	151	171	164
Sample		35	49	50	36	39	44	40	47	48
Sample volume (litres)		75	30	40	50	10	10	10	15	50
<i>Ulex</i> sp.	gorse	-	-	-	-	-	-	++	-	-
<i>Corylus avellana</i>	hazel	-	-	-	-	-	-	-	++	++++
<i>Quercus</i> sp.	oak	++++	++	++	++	++	++++	-	-	+++

+ present, ++ some, +++ much, ++++ very much

a smaller quantity of oak charcoal, the cremation (112) just contained hazel charcoal.

The results showed that the early Bronze Age charcoal deposits from, or related to, cremations all comprised entirely oak, a good fuel to effect cremation. The outer ditch, however, contained gorse charcoal, perhaps derived from burning scrub which had colonized the acid soil of the barrow and its surrounds. Another fuel, hazel, predominated in the late Bronze Age cremation which had been inserted into the barrow.

Site B

Thirty two samples, totalling 1210 litres, were analysed from site B but all that was found was a fragment of oak charcoal from fill 454, an early Bronze Age layer in the outer ditch.

Site C

Five samples, totalling 75 litres, were analysed from Site C but charcoal was absent.

Radiocarbon dating

Five samples, all from Site A were submitted to the University of Kiel for radiocarbon dating. Three were recommended for use as a precise measurement of age and two are not so reliable. KIA 16922 contained rootlets, which were avoided in sample selection, and KIA 16926 has a humic acid fraction, which is younger than the residue, and therefore marks the presence of a younger contaminant. Details of the methodology

are in the archive. 'Calibrated age' is given according to CALIB rev 4.3 (Stuiver *et al.* 1998). In summary the results were:

KIA 16922 Charcoal from cremation deposit 112 (171, spit 7)

Radiocarbon Age	BP	3243 ± 68
Calibrated Age	cal BC	1518
One sigma range	cal BC	1603–1556; 1538–1433
Two sigma range	cal BC	1685–1396

KIA 16923 Charcoal from contents of Urn 3 pit 100 (172)

Radiocarbon Age	BP	3825 ± 28
Calibrated Ages	cal BC	2286, 2248, 2234, 2216, 2214
One sigma range	cal BC	2300–2266; 2263–2203
Two sigma range	cal BC	2401–2378; 2350–2196; 2167–2144

KIA 16924 Charcoal from base of outer ditch 102 (157)

Radiocarbon Age	BP	3565 ± 29
Calibrated Ages	cal BC	1890
One sigma range	cal BC	1945–1880; 1838–1830
Two sigma range	cal BC	2014–1998; 1979–1870; 1843–1810; 1800–1776

KIA 16925 Charcoal from inner ditch 106 (165)

Radiocarbon Age	BP	3644 ± 25
Calibrated Ages	cal BC	2025, 1995, 1981
One sigma range	cal BC	2107–2104; 2034–2006; 2004–1956
Two sigma range	cal BC	2132–2081; 2044–1936; 1932–1920

KIA 16926 Carbonised residue from inside Urn 2, pit 100 (159)

Radiocarbon Age	BP	3875 ± 97
Calibrated Ages	cal BC	2397, 2384, 2344
One sigma range	cal BC	2467–2267; 2263–2203
Two sigma range	cal BC	2580–2111; 2101–2036

CONCLUSION

This excavation has examined three monuments belonging to the earlier part of the Bronze Age. Such monuments would have been visually impressive features in a locally flat environment and may well have acted as fixed points in the landscape for a population with a mobile settlement pattern. In fact there are 30 barrows and ring ditches and 2 cremation cemeteries recorded by the Sites and Monument Record within the study area shown on Figure 1, yet just a single occupation site is recorded, though doubtless several of the flint scatters located by the Avon Valley fieldwalking project will belong to this period.

Two of the sites show a complex sequence of development with double ring ditches. Site A produced a sequence of radiocarbon dates showing construction within the Early Bronze Age with a dual cremation burial associated with a Food Vessel and an Enlarged Food Vessel Urn. The larger vessel was already broken into slabs prior to being placed around the other vessel. This complex deposit perhaps implies some of these sherds of pottery were heirlooms and were deposited at a considerably later date than when first made.

Subsequent use of this site took place at the end of the Middle Bronze Age with another multiple cremation burial inserted into the centre. It seems unlikely that all twelve individuals represented in the cremated bone deposits died at the same time, suggesting curation of the bones or cremated remains prior to deposition. Woodward (2002) has recently drawn attention to this practice such as at Lockington, Leicestershire and Gallibury Down, Isle of Wight. It may be that the digging of the second ditch marked the *closure* of this site for funerary use, rather than a re-opening, and perhaps this final act of multiple burial involved

collecting remains that had previously been deposited or stored somewhere in the monument; possibly even throughout the intervening period since the two 'primary' burials.

Site B, with its clear evidence for the presence of an internal mound which was refurbished, produced few pottery finds but did include a miniature Food Vessel from within the interior but perhaps from a disturbed context. However this pot was not accompanied by any burial remains and none were recovered from anywhere on this site.

Site C similarly did not reveal any human burial deposits and was general poor in pottery finds. This lack of burial evidence for sites B and C is surprising as all three monuments were fully excavated within the stripped area.

In contrast to the excavations of round barrows and ring ditches in the earlier 20th century, which usually concentrated on the location and immediate environs of the site, more attention has now been paid to the possible use of the space between the monuments. Development schemes such as mineral extraction as here allow these intra-site zones to be examined. It is disappointing therefore to report that these areas here were devoid of any contemporary traces of activity. Traces of contemporary occupation represented by deposits cut into the subsoil are not now to be expected as a routine discovery (Healy 1987) and friable prehistoric pottery does not survive well in modern ploughsoil. However, the topsoil stripping took place under close archaeological supervision and as the site lies within a flint-rich zone, the dearth of finds of both struck flint and burnt flint may well be indicative that there was no occupation within the immediate environs of the monuments; the presence of gorse charcoal might also suggest a scrubland environment; although this need not preclude settlement. Perhaps these sites are located at the periphery of an occupied area.

The only activity on the sites not related to funerary or ritual activity is that of flint procurement. The use of monument ditch digging for acquiring raw materials is a recurrent theme and has taken place here. Yet the quantity of rejected material found is relatively low despite the extensive scale of the excavations and compared to other sites such as Amesbury G71 (Saville 1980b)

where large volumes of debitage were recovered. This observation perhaps reinforces the suspicion that these sites were located at some distance from more intensively settled areas.

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Author: Sarah Coles BA, PGDip, AIFA, Thames Valley Archaeological Services Ltd, 47–49 de Beauvoir Road, Reading RG1 5NR

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