

THE EXCAVATION OF TWO BRONZE AGE BARROWS ON WALWORTH INDUSTRIAL ESTATE, ANDOVER, IN 1987

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ABSTRACT

The excavation of two conjoined Bronze Age barrows, a Bronze Age boundary ditch and a number of Romano-British and post-medieval ditches, was carried out by the Test Valley Archaeological Trust in 1987, in advance of the extension of the Walworth Industrial Estate. The larger, western barrow contained two central pits of undetermined function, the burial of a young child accompanied by a large fragment of Collared Urn, and a series of small pits. One of these contained a Beaker vessel and two others unurned cremations. Three inhumations, of a young child, an adult and a sub-adult, were inserted into the secondary fills of the ditch. Adjacent to the sub-adult inhumation was the complete, articulated burial of a cow. The eastern barrow contained one unurned cremation and its ditch produced fragments of a Middle Bronze Age basal-looped spearhead. Both barrows produced Early Bronze Age – Late Bronze Age pottery and worked flint, and soil samples provided environmental evidence from land snail analysis. A boundary ditch passing close to the western edge of the barrows appeared to be contemporary with them. Later activity was indicated by Romano-British pottery and a post-medieval boundary ditch. The archive is housed with the Hampshire County Council Arts & Museums Service as A1987.3.

PROJECT MANAGEMENT

This Test Valley Archaeological Trust (TVAT) excavation was supervised by Steve Kime assisted by Bob Davies, under the general direction of Francis Green. Initial post-excavation work was completed by the early 1990s, including specialist reports on the human remains, animal bone and environmental evidence, together with initial work on drafting an excavation report. In

1998 TVAT commissioned Wessex Archaeology to assess their outstanding projects, including the Walworth barrows excavation, following which the entire archive was transferred to the Hampshire County Museums Service. In 2004, work on the excavation report was continued by Karen Mills and specialist reports on the flint and pottery were completed, together with a re-assessment of the environmental material. Both the 2004 draft and this final report have relied on the information contained in the archive material rather than personal knowledge of the site. Consequently, the on-site observations and interpretations are those of the excavators, not the later authors. In the absence of a full narrative account of the excavation, or recorded consideration of the main points of interpretation, the results are of necessity limited. However, the findings as described are of sufficient importance to justify bringing this site to publication.

INTRODUCTION

Archaeological investigation took place in 1987 on the southern fringe of Walworth Industrial Estate, Andover, in advance of proposed development. The site (SU 3833 4600) lies to the east of the A3093 and to the north of the B3400 (Fig. 1) at 90m OD. Before development it was a large arable field, situated on Upper Chalk with a topsoil of clay with flints. The natural topography slopes down to the north.

The primary objective was the excavation of two ploughed-out round barrows that were well documented through aerial photography (Fig. 2) and field survey (Grinsell, 1940). This was preceded by an evaluation of the surrounding

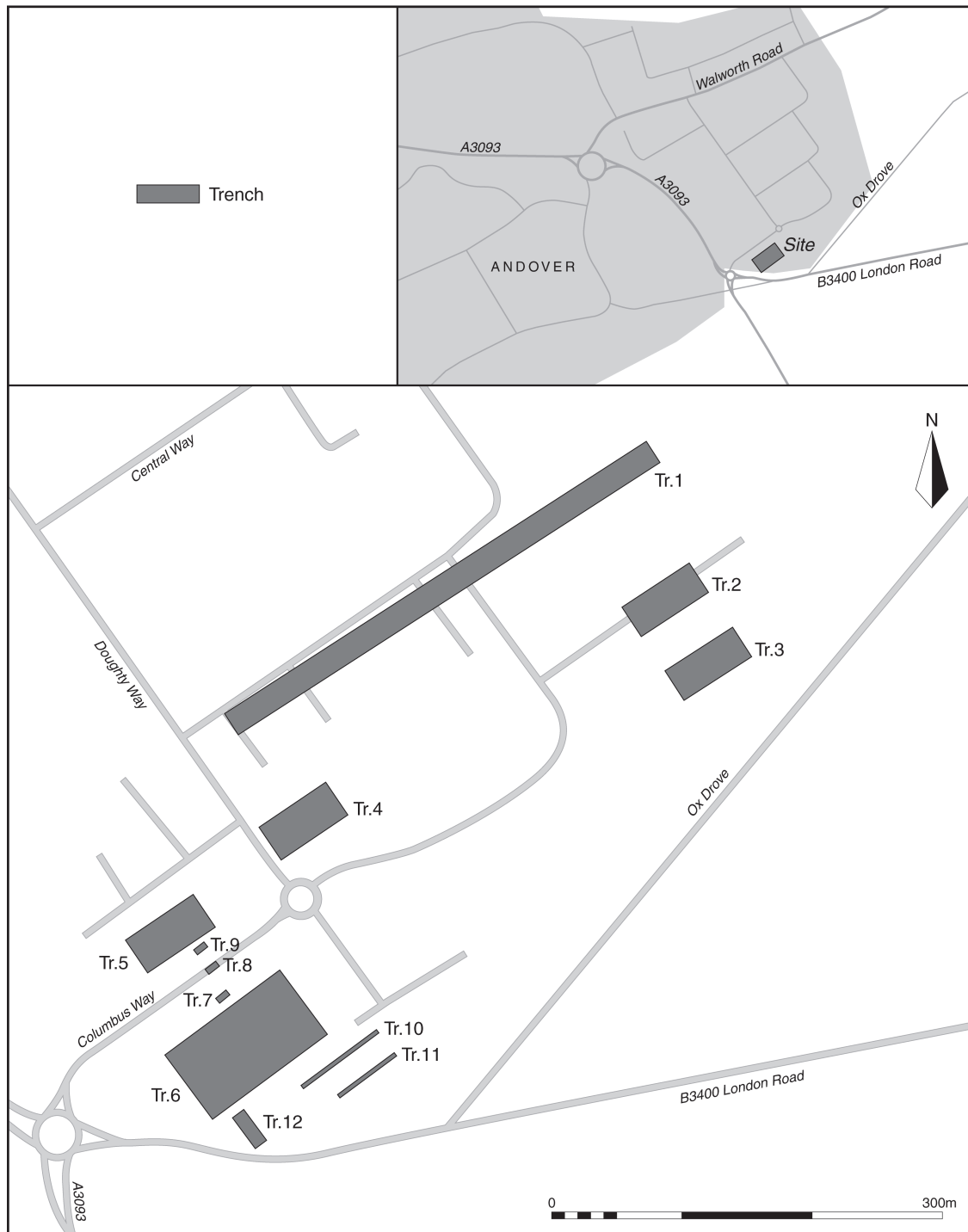


Fig 1 Site and trench location

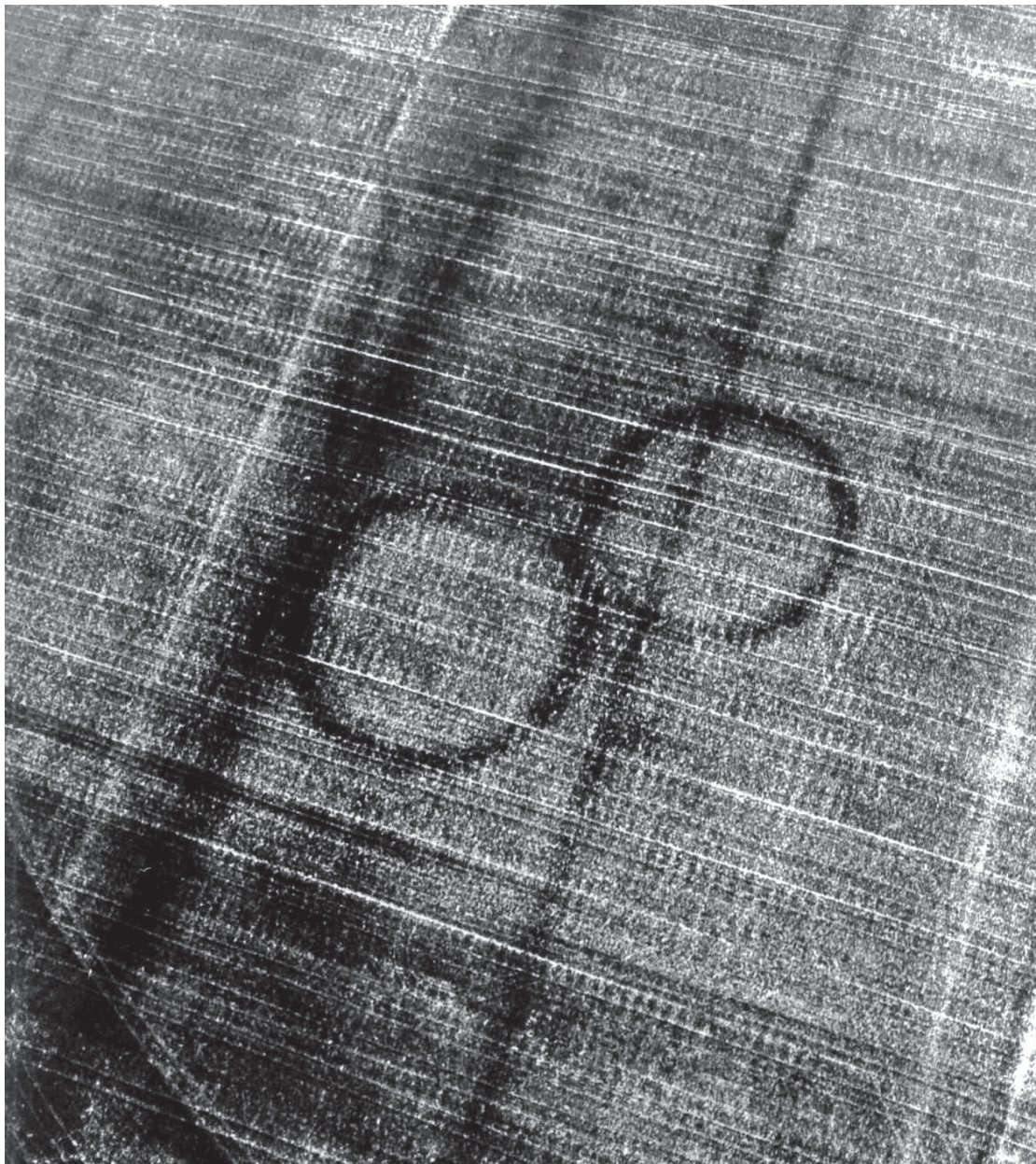


Fig 2 Aerial photograph showing the ring ditches and boundary ditch 201

area to determine the extent of other archaeological deposits. Both phases were funded by the developer, Test Valley Borough Council (TVBC).

Recorded evidence for the Walworth barrows

Two barrows in this location are recorded as *tumuli* on OS 6" sheet SU 34 NE, 1961. Grinsell

includes them in his list of Hampshire Bowl-Barrows (Grinsell, 1940, 349). He identifies them as circular features on air photographs 5285 and 5304 and since they were still visible on the ground at this time he records the diameter of each mound as 25 paces and their height as 1ft (0.30m). Grinsell also describes as 'vague' two other bowl barrows in the same location. Champion (1973, 22) records two, possibly four, bowl barrows. The aerial photographic survey for the RCHM(E) (Palmer 1984, 101) lists four barrows as a linear group, calling them the 'London Road Group':

NGR	OS No.
3834 4600	34NE25A
3834 4603	34NE25B
3834 4606	34NE25C
3834 4609	34NE25D

The excavated barrows are 3834 4600 and 3834 4603 and are listed as conjoined (Palmer 1984, 104). More recently the barrows have been recorded as part of an Aerial Photographic Assessment for TVBC undertaken by Cox in 2000. It is possible that they were indeed part of a linear group of four, but this is not proven.

Excavation methodology

Twelve machined trenches (Fig. 1) stripped the topsoil, followed by hand cleaning. Trench 6 is the main barrow excavation. Trenches 1–5 and 7–12 were positioned to investigate other features visible on the aerial photographs and to evaluate the surrounding area.

EVALUATION TRENCHES

Summary

The most significant feature identified was a linear ditch (**201**) found in Trenches 5,6,7,8 and 9. The ditch is visible in the aerial photograph (Fig. 2) and excavation confirmed its north-south orientation, passing close to the western side of the barrows. It contained Early Bronze Age pottery in its lower fills indicating that it is likely to have been contemporary with them.

A number of other ditches were investigated and revealed Iron Age, Romano-British and post-medieval activity.

The main findings for each trench, summarised by context number

Trench 1 (240m × 12m)

001: An irregularly shaped pit, 2.7m × 0.80m, maximum depth of 0.50m, interpreted as a backfilled tree hole.

002 – 007: Six small, shallow linear ditches orientated northwest–southeast, comprising two pairs of parallel ditches each 2m apart and two single ditches. All the ditches were between 0.45m and 0.65m wide and 0.10m and 0.20m deep. Sections revealed similar fills of light orange/brown fine silty loam in all six ditches. There were no dateable finds. The excavators suggest that they may result from post-medieval agricultural activity, and may even be wheel ruts.

Trenches 2, 3, 4

No archaeological features were identified.

Trench 5 (40m × 20m)

101: A linear ditch orientated west-east along the full length of the trench. The three sections revealed a shallow (0.30m – 0.40m), flat-based, regular profile, stepped on the south side. The majority of finds were of post-medieval date. It was interpreted as a post-medieval property boundary.

201: A linear ditch orientated north-south across the full width of the trench and cut by **101**. This ditch is visible on the aerial photograph (Fig. 2) and its width varied from 1.20m – 1.90m. It was sectioned in three places and the depth varied from 0.45m to 0.65m. It had gradually sloping sides and a flat base. All three sections indicated two phases of deposition.

Phase 1: A period of primary silting took place over a considerable length of time, allowing 0.30m to accumulate. The excavators suggest that there may have been a recut of the ditch during this phase, followed by further silting. The primary silts of compacted weathered chalk mixed with sparse silty loam contained a 'maggot impressed' Beaker sherd (Fig. 13, 10) of Late Neolithic/Early Bronze Age date. The chalk rubble may represent erosion from a bank

erected on the western side of the ditch but there was no other evidence for such a feature.

Phase 2: The upper fill contained larger pieces of flint and chalk. These accumulated in the partly silted up ditch, both in and below a homogenous layer of fine loam. The pottery from the upper fill dates from Late Bronze Age to Romano-British.

This ditch appears to represent a long-lived boundary and primary silting was taking place during at the least the Middle Bronze Age. It is likely to have been constructed when the barrows were in use and was still visible as a feature into the early Roman period.

Trenches 7, 8, 9

201: The aerial photograph (Fig. 2) shows ditch **201** continuing south from Trench 5 and passing close to the western side of the western barrow. Trenches 7, 8 and 9 were opened to confirm its course. They were simple 1m wide *sondages* and the ditch was identified and sectioned in each one (context **500**), revealing a similar story to Trench 5. Soil samples taken from the ditch fills in Trench 7 were processed for their molluscan evidence.

A further section of ditch **201** in Trench 6, where the ditch passed closest to the western barrow (**770**) revealed similar profile and fills to those found in Trenches 5, 7, 8 and 9.

Trenches 10, 11

No archaeological features were identified.

Trench 12 (7m × 20m)

No evidence was found in this trench for the continuation of ditch **201** to the south of the barrows.

600, 601, 602: Three linear ditches, two north-south (**600, 601**), and one east-west (**602**) were located at the southern end of the trench, where it cut the western edge of feature **600**. **600** and **602** were 0.50m wide, **601** was 1.00–1.30m wide. Sections across all three revealed similar profiles of a flat base with fairly steep, even sides. They ranged in depth from 0.20m to 0.40m. The fills were also similar: a lower fill of medium-sized chalk rubble in an orange/brown clayey loam, containing a small quantity of Early Iron Age pottery, Roman pottery and tile and

an upper fill consisting of small flints in a fine orange/brown loam, containing a small quantity of medieval pottery (**600**) that may have resulted from ploughing.

618: A linear ditch, 0.60m wide, orientated north-south on a similar alignment to **601**. This flat-based ditch, 0.30m deep, had fairly steep sides. The uniform fill provided no dating evidence. It cut the southern end of **601** and the western end of **602**.

These four ditches appear to be broadly contemporary and the dateable finds are primarily Romano-British. Their use is indeterminate. There was no trace of them in Trenches 10 and 11.

THE BARROW EXCAVATION

Trench 6

This trench (70m × 40m) was opened to enable the complete area excavation of the conjoined ring ditches. The topsoil was stripped mechanically and although modern ploughing had destroyed the residual mounds noted by Grinsell (1940, p349), it had not penetrated to the surface of the chalk beneath. A layer of hill wash (**300**) covered the rings and the entire surrounding area. To the north this reached a depth of 0.20m, sealing the ditches, but a mere 0.05m covered the southern area. Context **300** was an orange/brown clayey loam containing small flints and small chalk rubble and pottery of Late Bronze Age to Romano-British date. It was interpreted as the remains of a later prehistoric and Romano-British plough soil and when it was removed the surface of the chalk was seen to have been scoured by furrows. Soil samples were taken and indicated an open tilled environment.

With layer **300** removed, the diameter of both ring ditches became clear. The western barrow (**770**) was the larger, with a maximum diameter of 35m, while the eastern barrow (**771**) was 29m. They were joined where the eastern edge of **770** touched the western edge of **771** and here a common single ditch appeared to exist for about 8m. Within the rings approximately fifty features were identified for excavation (Fig. 3).

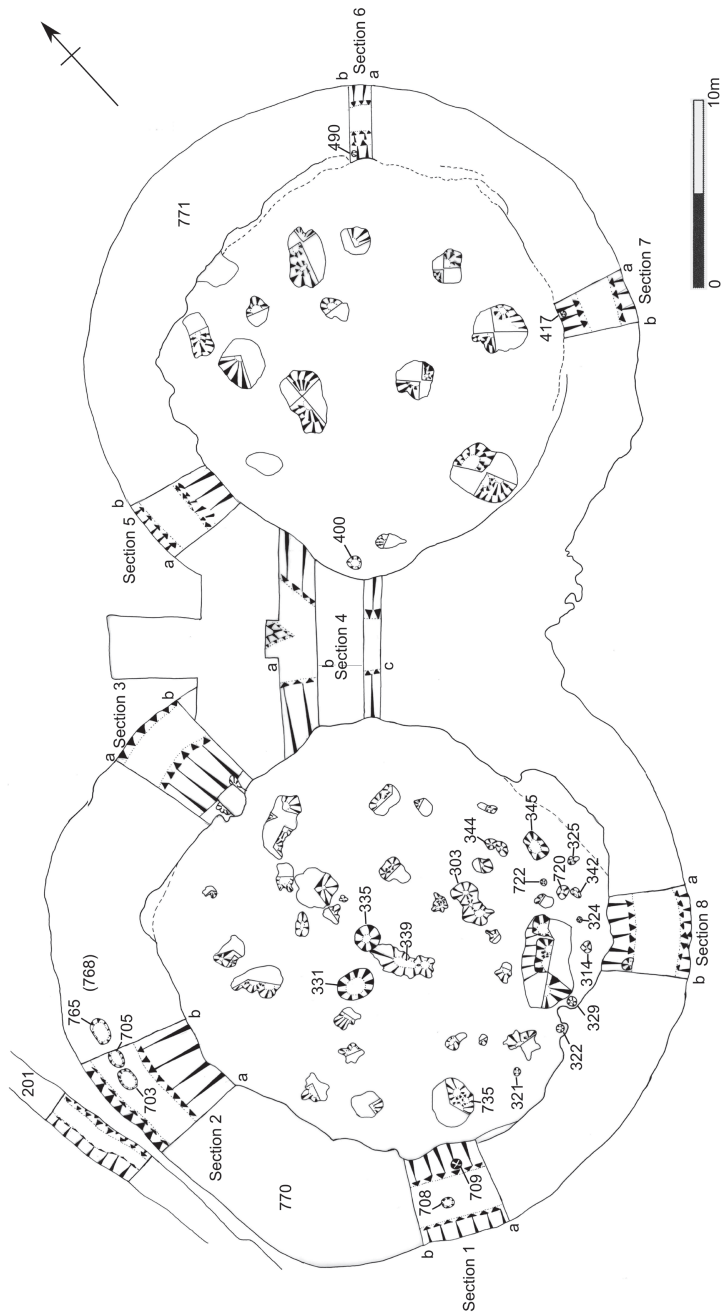


Fig 3 Plan of ring ditches and excavated features

The eastern barrow

Although the area inside the ditch contained a number of features, most of them were found to be irregular hollows, interpreted as tree disturbance. There was only one definite cremation pit (**400**) and no inhumations were present. Evidence from the excavated ditch sections suggests that it was left to decay naturally for some time, followed by phases of infilling.

Context descriptions

400: The cremation pit, 0.60m diameter, was located on the west side of the barrow close to the inner edge of the ditch. It was 0.15m deep, with a fill of black clayey loam with small chalk rubble and small/medium flint. It contained a quantity of burnt flint, charcoal and a small quantity of burnt human bone (4.4g). There was no dateable evidence. It was interpreted as an unurned cremation, truncated by ploughing activity.

771: The ditch was sectioned in three places (Fig. 3). Each cut revealed a depth of about 1m and had a steep outer face, flat base about 2m wide and an inner face cut steeply at the base for approximately 0.55m before shallowing out towards the centre of the barrow (Fig. 4, Section 5A). The primary silts indicate an initial period of natural erosion, followed by layered fills of clayey loam and small chalk rubble. The excavators noted that the rubble tended to accumulate towards the centre of the ditch, suggesting a gradual filling of the ditch, while the fills shown on the section drawings suggest distinct phases of deposition. No recut of the ditch was identified during excavation, but the section drawings suggest that at least one recut occurred.

Small circular features were identified in all three ditch sections and on the eastern edge of Section 4 through the shared ditch. These features, recorded in the primary record, were on the inner side of the ditch close to its top. Two were investigated: **417** in Section 7 was a posthole and **490** in Section 6 was a stake hole. A direct relationship with the barrow could not be established for either feature.

Soil samples were taken from Section 6 in the hope of recovering environmental data from charred plant remains. They were also

processed for land snail evidence, which indicated that the barrow was constructed in an open environment with long-established grassland and that grazing was maintained during its use and intensified in the later Bronze Age.

The ditch produced a quantity of worked flint waste that may have been dumped into the secondary fill during the Late Bronze Age. Eleven fragments of a bronze basal-looped spearhead dated to the Middle Bronze Age were recovered from the upper fill **433** in Section 5. This only represents about a quarter of the whole artefact, which appears to have been deliberately broken prior to deposition. The upper ditch fills contained a few sherds of Early Bronze Age pottery, but the majority was of Middle Bronze Age – Early Iron Age date (Fig. 13, 13). The ditch was sealed by the layer of hillwash (**300**) which produced late Iron Age and Romano-British pottery and an earthenware ‘gaming piece’, indicating fairly intensive domestic and agricultural activity during the Iron Age and Romano-British periods.

The western barrow

The fragmentary remains of a pre-barrow soil (**301**) extended over the central area of the monument. Within the ditched area there were 21 irregular, shallow hollows interpreted as tree disturbance, some of which may pre-date the barrow, two features close to the centre of the barrow (**331**, **335**) viewed as potential graves, and five shallow pits to the south east (**314**, **321**, **322**, **324**, **329**) thought to be unurned cremations. In the same location was a rectangular pit (**342**) containing a pottery vessel, three post holes (**720**, **722**, **735**) and an oval pit (**345**) containing the only inhumation found in the area enclosed by the ditch. The ditch (**770**) had a similar profile and sequence of fills to **771**, with similar dating evidence. Three inhumations were cut through the lower ditch fill into the chalk subsoil.

Context descriptions

301: A dark brown/black loamy humic layer containing flint and small chalk rubble, extending over the central area of the barrow. Modern ploughing and machine stripping had

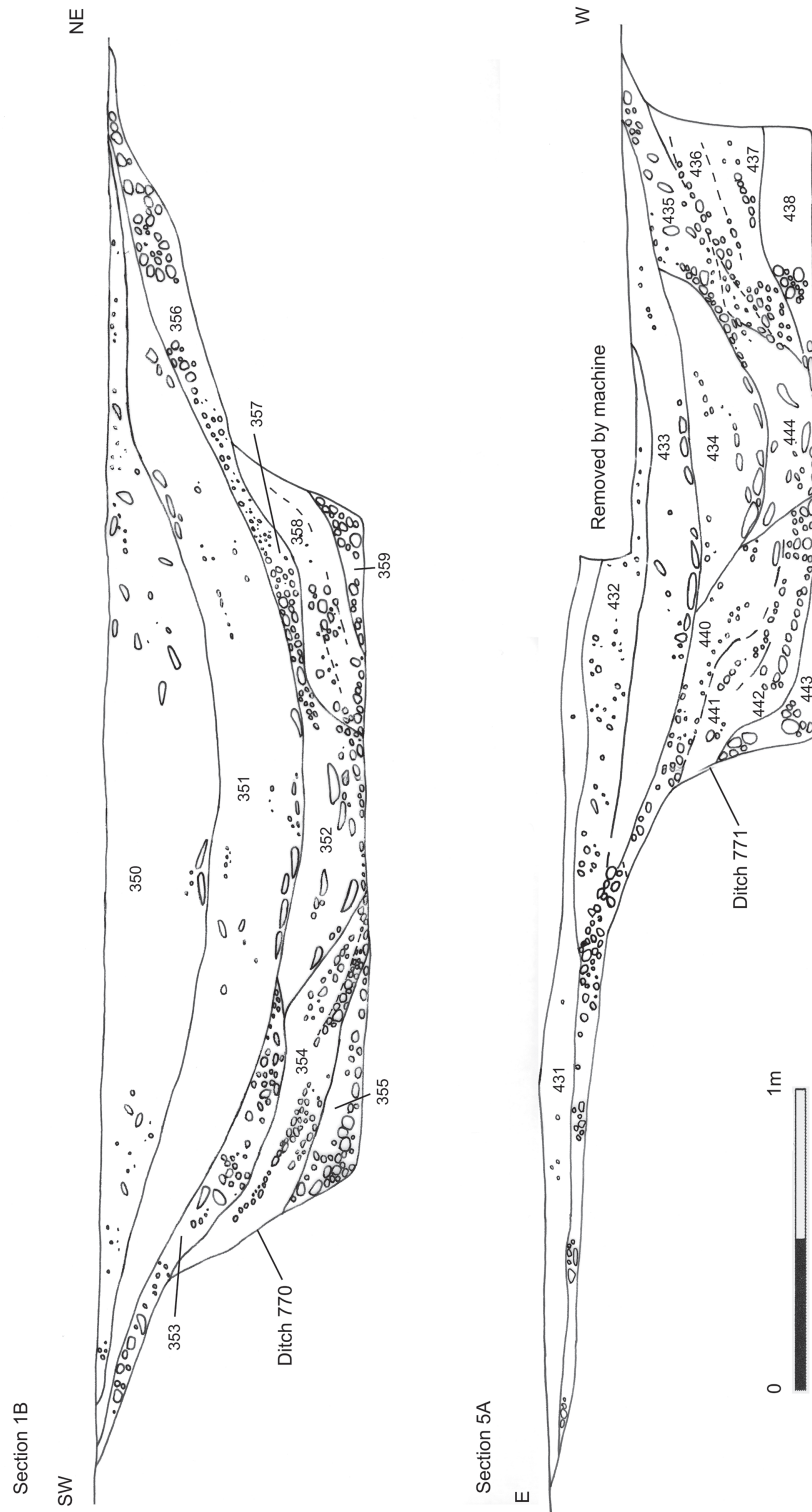


Fig 4 Sections through the ring ditches

removed some of this layer. The appearance was described as 'unusual' and at the end of the excavation it remained as a dark circular 'stain' over the central area of the barrow. It was argued that this layer represented the fragmentary remains of the pre-barrow soil.

Twenty one irregular features, described as 'hollows', were spaced across the area enclosed by the ditch. The majority were between 0.50m and 2m in diameter. Most of them were sectioned and depths varied from 0.10m to 0.70m. The fills varied from light grey clayey loam with chalk rubble and small flint, to a loose dark brown/black humic loam resembling **301**. Most of the hollows were interpreted as tree disturbance features.

Five of the hollows (**302**, **303**, **316**, **325**, **347**) contained Late Neolithic/Early Bronze Age pottery fragments. **303** contained charcoal flecks and at its deepest point (0.18m) a concentration of pottery fragments which included comb tooth decorated Beaker sherds (Fig. 13, 3–5). **325** was 0.40m diameter and only 0.11m

deep and the presence of pottery suggested that it was a truncated man made feature. It was located on the southern side of the barrow near to the series of circular pits.

Central features (Fig. 5)

335: This circular pit, 1.10m diameter, was nearest to the centre of the barrow. It was 0.40m deep with sloping sides and a flat base. The primary fill, **764**, was chalk rubble resulting from the erosion of the pit sides, indicating that the feature had been left open for some time. Three further layers were identified, all loamy, with small quantities of chalk. Four sherds of Late Neolithic/Early Bronze Age pottery (Fig. 13, 12) and a collection of 30 flint flakes together with a fragment of core came from the two upper fills. Three fragments of human bone came from upper fill **761** and two fragments of adult tibia from **764**. The excavators expected this pit to contain a primary burial and suggested that it may have been thoroughly and methodically robbed, whilst



Fig 5 Central pits 331 and 335, viewed from the west

noting that re-deposited humic fill is unusual for a robbed grave. Feature **339**, a shallow scoop immediately adjacent to the pit, produced part of a left femur shaft from a sub-adult or adult.

331: This oval pit, 1.85m × 1.40m, was also near the centre of the barrow. It had straight sides to a depth of 1.10m. The fills showed a clear layering, especially near the base. The lowest fill of chalk rubble (**756**) represented erosion, other layers were humic and loamy. A single fragment of early Bronze Age pottery came from the uppermost fill **750** and a quantity of flint flakes (**82**) and two end scrapers came from the upper fills **751–3**. The excavators also expected this feature to contain a burial, but there was no evidence other than two fragments of human bone from the upper fill **751**. As with **335** it was thought that the fill was unusual for a robbed grave.

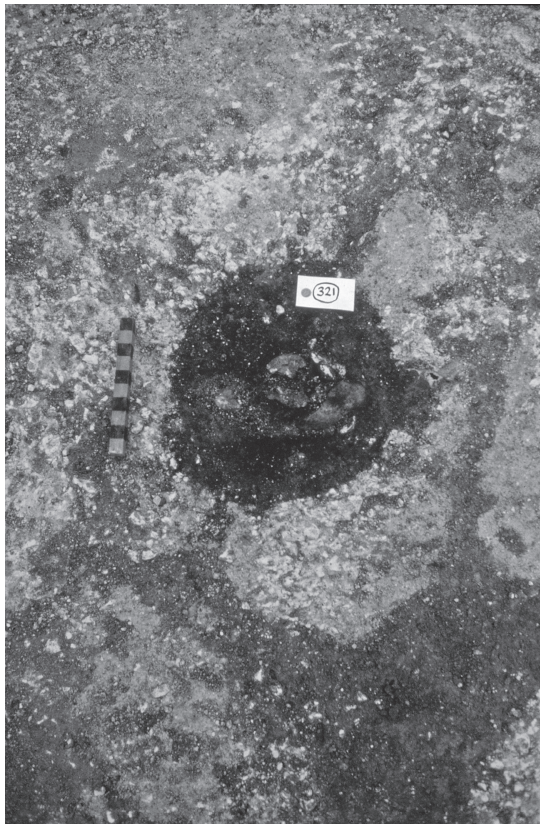


Fig 6 View of cremation pit 321, viewpoint unknown

Features on the south-east side of the barrow

314: This cremation pit, 0.40m diameter and 0.17m deep, was filled with loose, dark grey-black, loamy clay containing burnt human bone fragments (234.9g) and a single comb-decorated pottery sherd from a Beaker (Fig. 13, 6). The pit pre-dated context **740** the upper fill of the ring ditch. Though damaged during stripping of the site it was interpreted as the truncated remains of an unurned cremation.

321: This cremation pit, 0.33m diameter and 0.20m deep, was filled with a dark black loam (Fig. 6). It contained burnt human bone fragments (106.3g) and a quantity of charcoal.

322, 324: These two features, 0.33m and 0.26m in diameter and 0.19m and 0.18m deep, were filled with dark black loam. Charcoal, but no bone, was recovered from both of them. Due to their similarities to **314** and **321** they were thought to be cremation pits, but the absence of burnt bone argues against this.

329: This irregular shallow 'scoop', up to 0.38m diameter and 0.12m deep, was filled with dark

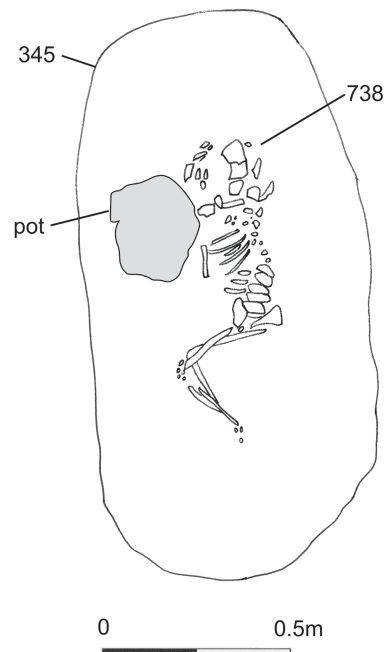


Fig 7 Inhumation 738, child with fragment of collared urn, head to the north

grey clayey loam. Pottery of Early Bronze Age date was recovered but no charcoal or bone.

342: This rectilinear pit, 0.57m × 0.34m, was 0.12m deep with a fill of dark brown loam, abundant chalk and small flint. It contained a significant number of pottery sherds from a single vessel (Fig. 13, 11), possibly a coars-ware Beaker, which was laid on its side on the base of the pit. The vessel was damaged during machine clearance. The entire pit fill and contents of the pot were given flotation analysis, but no cremated remains were found.

345, containing inhumation 738: This oval pit, 1.50m × 0.80m had straight sides and an uneven base, maximum depth 0.47m. The upper fill of dark brown clayey loam and chalk rubble produced no finds. Beneath this was a compact, clayey loam which contained the crouched burial of a child aged 3–4 years (Fig. 7). Fragments of the skull, ribs, vertebrae, pelvis and lower limbs were present but badly crushed. The burial was accompanied by a large rim fragment from an Early Bronze Age Collared Urn (Fig. 13, 1) with twisted cord decoration. The fragment had been broken prior to its inclusion in the grave. The excavators described a black peaty layer (**725**) surrounding the burial that was not present above or below it, suggesting that it may have been the remains of an organic packing around the body. The burial was inserted into the primary fill of the pit, well-compacted chalk rubble in a loose chalky loam.

344, 720, 722, 735: These four post holes were located in the area of the circular pits and child inhumation on the southern berm. The largest, **735**, had a diameter of 0.40m and a depth of 0.90m and was set at an angle. **344** contained a sherd of comb tooth decorated Beaker pottery.

The ditch

770: The ring ditch was sectioned in four places (Fig. 3). Depth varied from 0.8m to 1m. The base was flat, between 2.1m and 2.4m wide and the inner face tended to be less steeply cut than the outer (Fig. 4, Section 1B). The fill layers reflect a similar story to those of **771** and once again no recut was observed during excavation, although several of the section drawings suggest that a recut took place. A few

sherds of Early Bronze Age pottery came from the ditch fills but the majority of pottery from the upper ditch fills was of Late Bronze Age – Early Iron Age date (Fig. 13, 15 & 16). All of the excavated sections produced a quantity of flint flakes, 52 in total. The flakes were in mint condition and principally from core dressing and blank production.

Section 1

708, containing inhumation 707: A pit, 0.50m × 0.36m, cut into the lower ditch fill **352** and subsoil to an additional depth of 0.17m. The pit contained the crouched inhumation of a child aged 3 – 4 years (Fig. 8). Unfortunately the lower portion of the skeleton was lost during machine work. There were no finds associated with this burial. The fill was a loosely packed clayey loam, which had not been compressed



Fig 8 Inhumation 707, child surrounded by flint nodules, viewed from the east



Fig 9 Inhumation 702, flexed adult female, viewed from the east

because large flints had been placed over and around the body.

709: This post hole located close to the inner edge of the ditch was 0.26m in diameter and 0.50m deep. It was cut into an upper ditch fill, **358**, and sealed by **356** and the layer of hillwash **300** and **350**. The fill was a dark grey fine clayey loam with small flint and chalk near the surface.

Section 2

703, containing inhumation 702: This pit, 1.10m × 0.80m, was cut through ditch fill **370** and into the chalk subsoil to a total depth of 0.30m. It was centrally placed in the ditch and contained the flexed inhumation of an adult female. The legs were tucked up under the chin, covering both arms; the right arm was lying across the chest and the left arm was raised beside the head (Fig. 9). There were no associated finds. The grave fill was of uniform loamy chalk rubble, very loosely packed. Soil samples were taken from the main grave fill (**700**) and were analysed for their mollusc content.

705, containing inhumation 704: Located close to **703**, this pit, 1.05m × 0.80m, was cut through the ditch fill **370** and into the subsoil to a depth of 0.20m. The inhumation of a sub-adult, probably male, aged 14–15 years had been placed directly onto the chalk base of the pit in a crouched ‘kneeling’ position, face downwards, with the left arm twisted behind the back and the right arm across the chest (Fig. 10). The grave fill was a light brown loam, more compact than the fill of **703**. It contained thirteen flint flakes, in mint condition, presumably knapped at the time of burial.

765, containing cow burial 767: A pit (1.45m × 0.73m) cut into the ditch fill **370** and into the subsoil to a total depth of 0.25m. The pit contained the complete articulated skeleton of an elderly cow. The cow was lying on its right side with the head turned back and resting on the left flank (Fig. 11). There was some damage to the legs during machine digging. The front legs had been bent at the elbow and wrist in order to fit the animal into the



Fig 10 Inhumation 704, sub-adult male, viewed from the east

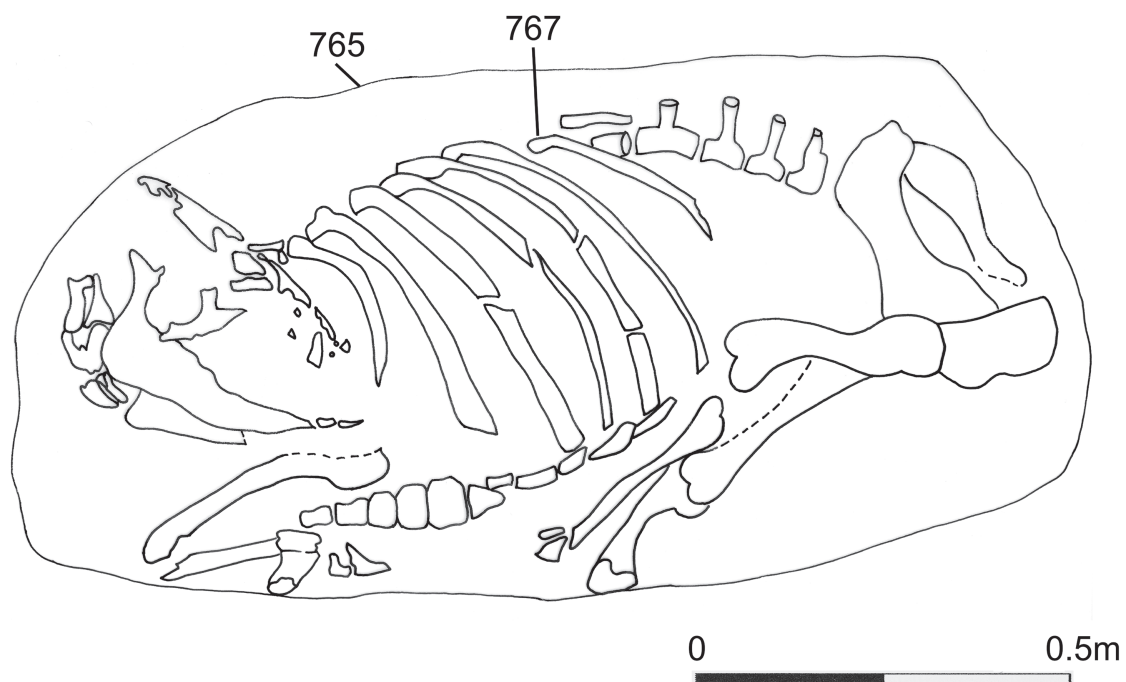


Fig 11 Cow burial 767, head to the south



Fig 12 Section 4b, the junction of the ring ditches, viewed from the north west

pit and the back legs were straight and facing forwards. The right humerus had suffered a fracture some time before death which had healed completely, but imperfectly, and would have given the cow a pronounced limp. There was no obvious cause of death and there were no skinning or butchery marks. There were no other finds. Its proximity and stratigraphic link to the two inhumations in the ditch is noteworthy. The grave fill was a light brown clayey loam with large chalk rubble and some burnt flint and burnt chalk.

768 containing sheep ?burial 769: A layer with indistinct edges, located in the centre of the ditch 1.5m – 2.0m east of **765**. This dark brown orange clayey loam with small chalk rubble was distinct from the general ditch fill **370**. It contained the partial skeleton of a sheep. The poor state of preservation meant that it was not possible to determine conclusively that the remains were articulated.

Section 3

There were no features found in section 3 of the ditch.

Section 4 – junction of the ditches

Section 4a was excavated to investigate the relationship between the two ring ditches where they merged and appeared to share a common line for some 8m, before diverging again. The excavators could find no evidence to suggest that one ditch cut the other. They noted that the fills were continuous throughout the junction (Fig. 12). The excavation of a section of the merged ditch, Section 4b, also provided no evidence for the relationship between **770** and **771**. The tentative conclusion of the excavators was that the two ditches were cut at the same time and had comparable histories.

Section 8

No features were investigated in Section 8 of the ditch, although archive plans record a small circular feature near to the top of the inner edge.

PHASING

A provisional phasing was produced in the

immediate post excavation work. It is the basis of the specialist finds reports below and is outlined here.

- Phase 1A: Pre-barrow subsoil hollows and depressions.
- Phase 1B: Pre-barrow ground level.
- Phase 2: Cutting of both barrow ditches and their primary fills.
- Phase 2–3: 1 cremation pit in eastern barrow, 2 central pits in western barrow, and series of pits, including 2 cremations, and infant burial on its south side.
- Phase 3A: Secondary fills of both barrow ditches.
- Phase 3B: 3 inhumations, cow burial and possible sheep burial inserted into western barrow ditch.
- Phase 3C: Upper secondary fills of both barrow ditches.
- Phase 4–6: Upper fills of both ditches and the general levelling of both barrows.
- Phase 7: Site wide hillwash resulting from Iron Age and Romano-British agriculture.

THE FINDS

The Pottery by Lorraine Mephram

The complete pottery assemblage recovered from Walworth Barrows totals 776 sherds (4881g) and ranges in date from Late Neolithic/Early Bronze Age to post-medieval. Only the prehistoric material (560 sherds; 3114g) will be discussed in any detail here. The most significant component of the assemblage comprises sherds of Beaker vessels and Collared Urns, including a partially complete example of the latter which accompanied one of the burials.

The prehistoric assemblage has been subjected to detailed fabric and form analysis, following nationally recommended guidelines (PCRG 1997). Fabrics have been defined on the

basis of the range of macroscopic inclusions, and coded according to dominant inclusion type. Three fabric groups are represented here: grog-tempered (Group GR); flint-tempered (Group FL) and sandy (Group QU).

Early prehistoric pottery

Early prehistoric pottery comprises 264 sherds (1597g) in grog-tempered fabrics which have been identified, with varying degrees of confidence, as deriving from Late Neolithic/Early Bronze Age Beaker vessels (2400–1800 BC) or Early Bronze Age Collared Urns (1900–1700 BC). The assemblage is too fragmentary to allow any confident calculation of the minimum number of vessels, although a crude estimate based on the number of rim sherds suggests that there are at least four Beakers, one Collared Urn, and two other vessels not attributed to ceramic tradition.

Three grog-tempered fabrics were defined, and are described as follows:

GR1: Moderately fine, grog-tempered fabric with a soapy feel; sparse (1–3%) to moderate (3–10%) grog <1mm; sparse subrounded quartz <0.25mm; some examples have rare shell fragments; generally oxidised but occasionally internally unoxidised.

GR2: Probably a coarser variant of GR1, with a ‘lumpier’ texture and slightly soapy feel; moderate grog <1mm; rare subrounded quartz <0.5mm; rare shell fragments; firing variable.

GR3: Coarse, grog-tempered fabric with a slightly soapy feel; moderate, poorly sorted grog <1mm; rare subangular flint <1mm; rare subrounded quartz <0.5mm; firing variable.

One vessel is represented by a partial profile; this is a Collared Urn deposited within phase 2/3 grave **738** (Fig. 13,1), a medium-sized, relatively thin-walled vessel in fabric GR1, decorated with twisted cord impressions. It probably belongs to the Middle Style of Burgess (1986), but does possess some Early traits. A further 25 sherds in fabric GR1 and two sherds in the slightly coarser variant GR2 are decorated with impressed motifs, either comb tooth (20 examples; eg. Fig. 13,2–7), twisted cord (3 examples), whipped cord ‘maggots’ (1 example; Fig. 13,10), fingernail (2 examples; Fig. 13,8–9), or miscellaneous impressions (2 examples, including one rim; Fig. 13,12).

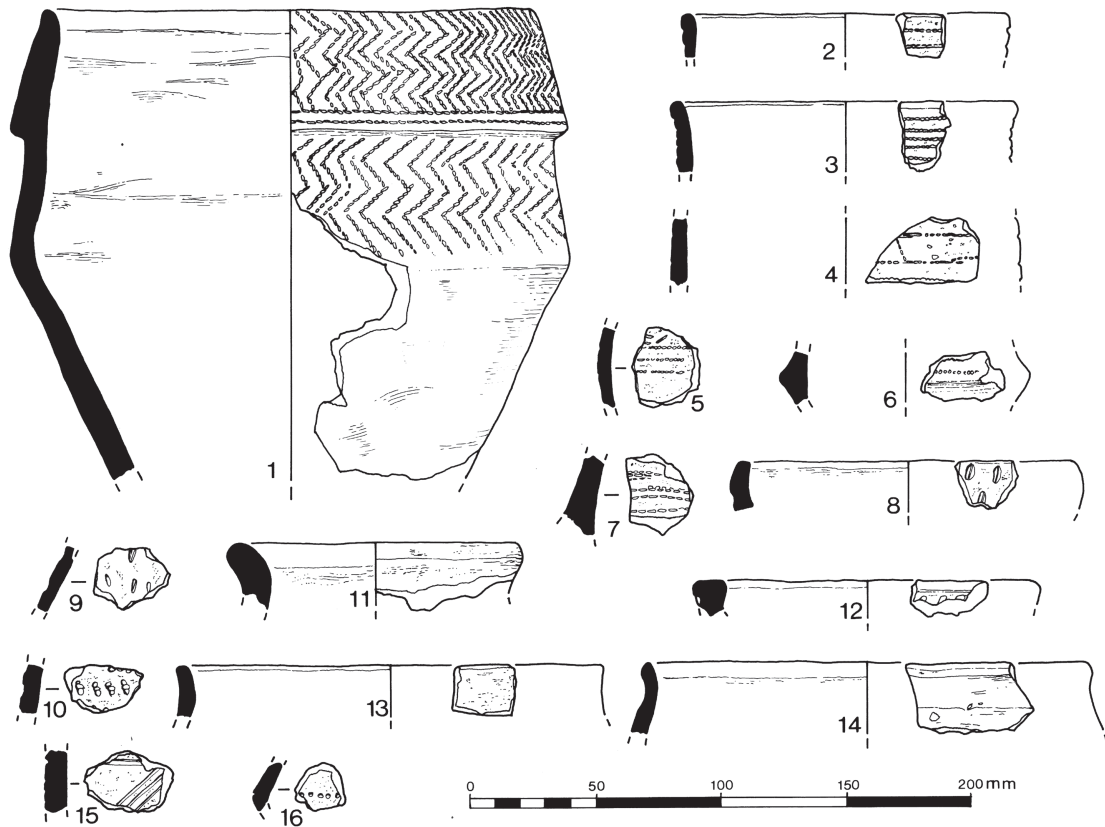


Fig 13 Prehistoric pottery

Apart from the partial Collared Urn from grave **738**, there are no reconstructable profiles, and sherds have been assigned to ceramic tradition largely on the basis of decorative techniques. Thin-walled sherds with comb-tooth and fingernail impressions, including rim and base sherds (Fig. 13,2–9), are characteristic of Beaker vessels, although the sherds are too small for specific styles to be attributed. These sherds were concentrated in phases 1A and 1B (pre-barrow features), although one sherd (from a vessel with a cordon below the rim) was associated with a phase 2/3 cremation (**314**: Fig. 13,6). The latter is a less common Beaker vessel form; the cordon probably being intended to secure a covering (Clarke 1970, 36).

The three sherds with twisted cord impressions could derive from further Collared Urn

vessels; one sherd was found unstratified, while the other two came respectively from a secondary fill of barrow ditch **770** (phase 3A) and residually within a phase 7 spread.

Two vessels, both in fabric GR2, cannot be confidently attributed to ceramic tradition. The first, from phase 2/3 pit **342**, is represented by a significant number of sherds (100), but no profile could be reconstructed; the vessel is relatively thick-walled, with a plain, slightly everted rim, possibly a coarseware Beaker (Fig. 13,11). While this appears to represent the deliberate deposition of a single vessel, no human bone was associated. Of the second, from phase 2/3 feature **335**, only one rim sherd survives, which is expanded, flattened on top and with shallow impressed dots around the outside of the rim (Fig. 13,12).

A further 123 plain and otherwise undiag-

nostic body and base sherds in grog-tempered fabrics are assumed to be of Early Bronze Age date, but cannot be assigned to ceramic tradition. A large proportion of these sherds occurred in contexts of phases 1–3 (63 sherds), including 39 sherds from the pre-barrow features of phase 1.

It is difficult to draw any firm conclusions from this small and very fragmentary group (excluding the two partial vessels from grave 738 and pit 342, the mean sherd weight overall is 4.2g). Two deliberate deposits of single vessels can be recognised: the Collared Urn accompanying an infant burial in grave 738, and the possible plain Beaker with no apparent funerary associations from pit 342. The single sherd of comb-decorated, cordoned Beaker from cremation burial 314 may be noted, but could be incidental in this context, and otherwise the Beaker sherds are not obviously associated with burials. Indeed, the largest proportion of identifiable Beaker sherds (16) derived from the pre-barrow features of phase 1.

Later prehistoric pottery

The remaining prehistoric pottery is grouped together here; this includes material ranging in date from Middle Bronze Age to Late Iron Age, appearing in contexts from phase 3 onwards – from the fills of the barrow ditches (phases 3 and 5), from the boundary ditch (phase 5), and from later levelling and hill wash deposits (phases 6 and 7). In general, sherds within this chronological group are small and abraded, with few refitting sherds – one exception is a group of 52 sherds, probably from a single vessel, found together in barrow ditch 770/1.

Six fabrics (four flint-tempered and two sandy) were defined and are described as follows:

FL1: Moderately fine, well sorted flint-tempered fabric; common (10–20%), well sorted, subangular flint <1mm; rare subrounded quartz <0.25mm; rare iron oxides; thin-walled vessels, often externally burnished; unoxidised.

FL2: Coarse, poorly sorted flint-tempered fabric, slightly micaceous; moderate, poorly sorted, subangular flint <3mm; rare strands of carbonaceous material <2mm; firing variable.

FL3: Moderately coarse but fairly well sorted, flint-tempered fabric, slightly micaceous;

moderate, well sorted, subangular flint <3mm; rare iron oxides; firing variable.

FL4: Fine, silty matrix, slightly micaceous, containing rare, subangular flint <1mm; rare iron oxides; firing variable.

QU1: Glauconitic sandy fabric with some flint; common, fairly well sorted, subrounded quartz <1mm; rare, subangular flint <3mm; sparse ?glauconite; firing variable.

QU2: Moderately sandy fabric; common, well sorted, subrounded quartz <0.5mm; generally unoxidised.

All of these fabrics, with the possible exception of QU1, are likely to have been locally produced. Fabric QU1 could be regarded as non-local on the basis of the presence of glauconitic inclusions, and may be equated with the glauconitic sandy wares of Wiltshire origin identified at Danebury (Cunliffe 1984, 245–6), although glauconitic phosphatic nodules do occur in the local area (Rees 1995, 59).

The scarcity of diagnostic sherds hampers close dating of much of this material, and attribution to chronological period has therefore been achieved, with varying degrees of confidence, largely on fabric grounds. Fabrics FL1 and FL3 can be seen as characteristic of the Deverel-Rimbury ceramic tradition of the Middle Bronze Age, the coarser fabric FL3 representing the coarsewares (Bucket or Barrel Urns) and the finer fabric FL3 the fineware component (Globular Urns), although the only diagnostic sherd is a plain rim in fabric FL3 (Fig. 13,13). Apart from one small sherd in fabric FL3 from a phase 1A feature (hollow 451), the earliest occurrences of these fabrics are in phase 3, from barrow ditch fills, although the majority are in later contexts (phases 5–7). There does not appear to be an identifiable Middle Bronze Age horizon here since fabrics more diagnostic of the Late Bronze Age/Early Iron Age, as discussed below, occur in the same contexts from phase 3 onwards.

The remaining four fabrics have been broadly grouped as Late Bronze Age to Early Iron Age, although they are not all necessarily contemporaneous. The coarse, flint-tempered fabrics FL2 and FL4 are more typical of early Late Bronze Age assemblages, commonly seen within plainware assemblages of the post Deverel-Rimbury ceramic tradition (Barrett

1980). Sandy wares, such as are represented here by fabrics QU1 and QU2, are considered to be a later development within the post Deverel-Rimbury sequence, gradually superseding the flint-tempered wares towards the end of the Late Bronze Age and into the Early Iron Age, and coinciding with a greater incidence of decorated vessels. There is very little diagnostic material here, however, to postulate any sort of sequence. One rim sherd, probably from a shouldered jar (Fig. 13,14), and two decorated body sherds, one incised and one impressed (Fig. 13,15 & 16), all in fabric QU1, could all be encompassed within the known range of Early Iron Age assemblages in the area, for example within ceramic phase 3 at Old Down Farm (Davies 1981; 7th century BC), although the coarser flint-tempered wares (FL2 and FL4) would also fit within ceramic phase 2 (8th century BC) at the same site, and the sandy wares could extend the date range as late as the 4th century BC (*ibid.*, ceramic phase 4). There is no evidence here of the red-finished ('haematite-coated') surface technique seen at Old Down Farm, or within other Early Iron Age assemblages in the area (eg. Rees 1995).

Most of the Late Bronze Age/Early Iron Age material was found in small quantities throughout the barrow ditch fills and other contexts from phase 3, with most from phase 5 and later. Sherds are in general small and relatively heavily abraded (mean sherd weight is 4.7g), and this component of the assemblage has the appearance of redeposited material, arriving in the ditch fills of the barrow as secondary refuse. One small exception is a group of sherds of fabric QU3 from a phase 5 barrow ditch fill (770/771), which probably represents the remains of a large part of a single vessel, although no diagnostic sherds are present.

Late Iron Age and Romano-British pottery

A total of 192 sherds have been identified as falling within the range of Late Iron Age to Romano-British. This group is, not surprisingly, dominated by coarsewares, of which the most numerous are the coarse greywares. These almost certainly derive from more than one source area, amongst the closest being the New Forest and Alice Holt production centres. One known type was identified – Black Burnished

ware (BB1) from the Poole Harbour area of Dorset. Other coarseware types – grog-tempered, oxidised and whitewares – are present in smaller quantities. There are few diagnostic sherds here, but the rim forms present, deriving from bead-rimmed and everted rim jars, and from one dropped-flange bowl, indicate a date range spanning the Roman period; indeed, the grog-tempered wares, representing a native Iron Age tradition which continued in production into the Roman period, could be pre-Conquest. This date range is confirmed by the small quantities of finewares present – Samian from the late 1st and 2nd century (including a Drag 18/31 platter and a possible Drag 35 or 36 bowl), and colour coated wares from the Oxfordshire and New Forest kilns dating from the mid-3rd to 4th centuries.

With the exception of a single sherd of Black Burnished ware, almost certainly intrusive in a phase 1A feature (451), Late Iron Age/Romano-British pottery does not occur before phase 5 contexts, found within upper fills of the barrow ditches and in other features.

Medieval pottery

A small quantity (24 sherds) of medieval pottery was recovered from contexts of phases 6 and 7. More than half of these comprise sherds of Kennet Valley-type coarsewares, both flint-tempered and calcareous, probably of 12th or 13th century date. Also present are a few sherds of glazed and decorated Laverstock-type finewares from the Salisbury area (13th century), and two miscellaneous sandy wares, (?13th century), probably of local origin.

Figure 13 pottery: list of illustrated sherds

1. Partial profile of Collared Urn, fabric GRI, twisted cord decoration; oxidised (pale orange-red) externally, unoxidised (grey-brown) internally. Context 736, burial 738, phase 2/3.
2. Rim of Beaker, fabric GRI, comb-decorated; oxidised (orange-red). Context 432, ditch 771, phase 6.
3. Rim of Beaker, fabric GRI, comb-decorated; oxidised (orange-red). Context 303, hollow 303, phase 1B.
4. Body sherd of Beaker, comb-decorated; oxidised (orange-red). Context 303, hollow 303, phase 1B.

5. Body sherd of Beaker, comb-decorated; oxidised (orange-red). Context 303, hollow 303, phase 1B.
6. Sherd from cordon just below the rim of Beaker, fabric GR2, comb-decorated; unoxidised (pale grey-brown). Context 314, cremation 314, phase 2/3.
7. Decorated body sherd of Beaker, fabric GR1, comb-decorated; oxidised (orange-red). Context 301, layer, phase 7.
8. Rim of Beaker, fabric GR1, fingernail imps round rim; oxidised (orange-red). Context 316, hollow 316, phase 1A.
9. Decorated body sherd of Beaker, fabric GR1, fingernail impressions; oxidised (brick red). Context 300, layer, phase 7.
10. Decorated body sherd of Beaker, fabric GR1, 'maggot' impression; oxidised (pale-orange-pink). Context 230, ditch 201, phase 5.
11. Rim sherds, fabric GR2; unoxidised (dark grey-brown). Context 342, pit 342, phase 2/3.
12. Rim sherd, thickened and flattened, fabric G2; impressed dots around outside of rim; unoxidised (dark grey). Context 761, pit 335, phase 2/3.
13. Rim sherd, possibly from Globular Urn, fabric FL1. Context 420, ditch 771, phase 7.
14. Rim from ?shouldered jar, fabric QU1. Context 522, ditch 500, phase 5.
15. Decorated body sherd, fabric QU1, incised dec. Context 740, ditch 770, phase 7.
16. Decorated body sherd from shouldered vessel, fabric QU1, impressed dots. Context 740, ditch 770, phase 7.

Details of pottery assemblages by chronological period and context are included in the archive material.

The worked flint by Phil Harding

The Walworth barrows produced 869 pieces of worked flint from 61 contexts. There were also 147 pieces of burnt flint weighing 2,401g from 35 contexts, including 50 pieces from 19 contexts containing no worked flint.

The largest quantity of material came from ditch **770** round the western barrow, with smaller groups from the central feature **331** and ditch **771**, round the east barrow. However, only 25% of the assemblage was

associated with phases 2 and 3, which relate to the construction and use of the barrow. The remainder, from phases 4–7, was associated with later prehistoric pottery of Bronze Age, Iron Age or Roman date and is therefore likely to be residual.

The barrow ditches

Flint was evenly distributed throughout all sections cut through the Phase 3 fills of ditch **770** including parts of a broken Siret fracture, an accidental break, which could be refitted. This suggests that the Phase 3 flint was *in situ*, however the sample sections through the ditch made it impossible to conclude whether the material represented individual knapping events or was dumped waste. The Phase 3 assemblage is composed principally of large flakes (85%) from core dressing and blank production, with an additional 4% blades and bladelets (length = $\times 2$ breadth). The flakes are mainly large, robust pieces with deep striking platforms and a marked absence of platform preparation. They are mostly in a mint or sharp condition and had not been moved around on the surface prior to their inclusion in the features. There are also six flake cores, including a failed piece with alternate flaking, two other failed cores, two single platform cores and a miscellaneous piece. The end scraper was made on a long flake with semi abrupt retouch at the distal end to provide a regular convex edge.

Flint from ditch **771** includes three single platform flake cores with striking platforms prepared by flaking.

It may be possible that large quantities of the flint were dumped into the top of the secondary/lower tertiary ditch fills during the Late Bronze Age and that some of the Iron Age/Roman material has become incorporated in soil formation processes. It would not be out of place for flint waste to be dumped into the upper part of ditch fills in the Late Bronze Age.

Features

Small groups of material were found associated with individual features.

335 contained a small collection of undiagnostic core trimming flakes and a fragment of

a broken flake core that could be assigned a broad Late Neolithic/Bronze Age date. There was nothing to suggest that they were removed from the same nodule. There are no retouched tools.

331 contained 82 undiagnostic core trimming flakes and two end scrapers made on flakes with dipping profiles. Retouch is semi abrupt and extended around the distal ends to create a regular convex scraping edge.

Grave **705** contained thirteen flakes in mint condition which may have been knapped at the time of the burial, although they do not refit.

Tools and miscellaneous

There are only 2% retouched tools from the excavation, of which scrapers form the largest component. Scrapers from contexts other than those from the stratified ditch deposits or graves are well made and are unlikely to be of Late Bronze Age date; one comes from hillwash but the others came from two other unlocated contexts.

One other interesting piece is a 'blade' from the fill of phase 7 ditch **600**, which was unpatinated and may be a Mesolithic tranchet axe sharpening flake.

Details of flint totals by phase and feature are included in the archive material.

The Bronze spearhead by Andrew Lawson

Eleven fragments of bronze were recovered from the upper fill **433** of section 5 of the Eastern barrow ditch **771** (Fig. 4). The fragments comprise parts of one blade and the socket of a spearhead, in total representing about one quarter of the whole weapon. The spearhead was finely cast with rounded midrib and narrow, bevelled blades. Although attachment loops do not survive, the general shape of the weapon and the quality of the casting suggest that it was probably of a basal-looped form. It appears to have been deliberately broken-up, a number of the fragments showing distinct marks of impact.

Basal-looped spearheads are a characteristic form which dates firmly to the Middle Bronze Age (Burgess 1980, 150). Some bronzes may have remained in use for slightly longer and

it would not be surprising to encounter such a spearhead in a somewhat later context: for example, fragments of basal-looped spearheads are present in the Hayling Island 1 hoard which probably dates to the 12th century BC (Lawson 1999, 101).

The destruction and deposition of metalwork suggests more than the simple disposal of unwanted rubbish and represents interesting secondary activity at the site.

The human remains by Sue Anderson

Condition

Of the four inhumations, two were in fair condition **704** (Fig. 10) and **707** (Fig. 8), one was poor **738** (Fig. 7) and the fourth was good **702** (Fig. 9). Skeletons **702** and **704** were almost complete, whilst the other two were very fragmentary. Skeleton **707** was represented by the upper half of the body only, whilst skeleton **738** consisted of the skull and fragments of leg bones. [Fragmentary ribs, vertebrae and pelvis are also present for **738**.]

Demographic analysis

The four main burials represent one adult female in middle-age (**702**), one sub-adult, probably male, aged 14–15 years (**704**), and two children both aged approximately 3–4 years (**707**, **738**).

Metrical and morphological analysis

The skull of Skeleton **702** was reconstructed so that measurements could be taken. Indices calculated from these suggest that this woman had a narrow head of medium height, a narrow face and palate, with relatively wide orbits and nose, and a prognathic profile. Stature was estimated at 166.3m from the femora and tibiae of this woman. Height and cranial indices could not be calculated for the juvenile skeletons.

A few common morphological traits were observed in this small group, including the retention of the metopic suture by the adult female (possibly also present in one child, **707**, although the age of this individual might suggest that the suture would still be patent normally). Other traits are recorded in the catalogue.

Dental analysis

The dentitions of all four individuals were available for study, although much of the alveolar bone of the two children had been lost. Tooth charts are presented for each individual in the catalogue. As expected, tooth wear was heavy on the teeth of the middle-aged woman, and lighter on the teeth of the sub-adult and children. The woman had lost four of her teeth before death (all three lower left molars and the right upper second molar) and the first two upper left molars were carious, probably as a result of their loss of chewing function. Abscesses had formed beneath the upper left second molar and second premolar, and around the upper right first premolar, following exposure of the pulp cavity. Some calculus was present on the back teeth. Slight hypoplastic lesions were also noted on the front teeth of the woman, and these were also present on the incisors (c.3 years of age) and second molars (c.5 years of age) of the sub-adult, and the unerupted permanent incisors and canines (c.2–3 years) of one child (707).

Pathology

Evidence of a few minor diseases was observed in the skeletons of the middle-aged woman, the sub-adult, and one child (707). The latter two both showed signs of cribra orbitalia, a condition of the roof of the orbit in which pitting and sometimes new bone formation occur and which has been associated with iron deficiency anaemia. Skeleton 704 was affected to a fairly minor degree (porotic type) in both orbits, and skeleton 707 was affected in the left orbit (the right was too poor for assessment) to a slightly greater extent (trabecular type).

Some signs of degenerative change were noted in skeleton 702. The fourth and fifth lumbar vertebrae were slightly lipped along the anterior borders (osteophytosis), and all the bones appeared osteoporotic. There were also signs of a non-specific infection of the lower legs (periostitis of the tibiae and fibulae), a fairly common skeletal pathology in early populations.

A slight scoliosis was present on the third thoracic vertebra of this individual, the right side being slightly wedged, with a small lesion between the facets for the rib heads.

This was probably the result of a congenital fusion between the right second and third ribs at the necks. Presumably this would have caused slightly reduced mobility, but few other symptoms. A similar congenital lesion was present on one mid-left rib of skeleton 707, which was bifid. This may be evidence for a genetic relationship between the two individuals.

Summary

The remains of one middle-aged female, one sub-adult, probably male, and two small children were recovered from a round barrow at Walworth. The presence of a congenital malformation of the ribs in two individuals suggested the possibility of a relationship between the two individuals.

A catalogue of measurements and dentition for each skeleton is included in the archive material.

The cremated human bone by Garrard Cole

Material

A total of 1212 fragments, weighing 345.7g, were recovered from three contexts (314, 321, 400). It appears that some material had already been sorted by size fraction during the post-excavation process.

Methods

The material from 314 and 321 appears to have been collected from a number of layers of arbitrary thickness, typically 10 cm deep.

The assemblage was assessed using standard osteological methods for cremated human remains (McKinley 2004). Any analysis of cremated remains has to consider the dimensional and morphological changes introduced by the cremation process (Fairgrieve 2008).

The material was graded into a number of size bands (> 1cm, > 5mm, > 2mm and residue < 2mm) to allow fragmentation to be estimated. A dental development chart published by Al Qhatani (2008) was used to determine the developmental age of dental material. Material was identified to skeletal element where possible, and classified according to age, sex, side and colouration. The whole assemblage was further quantified by context, weight,

fragment count and minimum number of individuals (MNI). Data was recorded in a standard Microsoft Access database.

Results (Table 1)

Of the 1212 fragments the majority (968) could not be identified to a specific anatomic element. Of the remaining 244 fragments, 166 were from the cranium, 55 were from long bones, 9 were dental crowns, 8 were mandible fragments and the remaining 6 were parts of the vertebrae. In contrast, the long bone fragments were most common by weight, followed by skull fragments, mandible fragments, vertebrae and dental crowns. Where examined by average fragment weight, long bone and mandible fragments had the highest average weight, followed by vertebrae, skull and dental crown. The unidentified fragments had the lowest average weight, distinctly lower than all other element types.

Of the three contexts containing cremated remains, 68% by weight (502 fragments weighing 234.9g) came from **314**, 31% by

weight (645 fragments weighing 106.3g) came from **321** with just 1% (65 fragments weighing 4.4g) coming from **400**. The average fragment weight from **314** was higher than the assemblage average of 0.3g and distinctly higher than the averages for **321** and **400**.

The three contexts have clearly different fragment size distributions. The absence of residual material from **314** and **400** suggests that the material has been sieved prior to examination. **314** contains a very high proportion of large fragments with progressively smaller contributions from the finer components. **321** has a small amount of the larger fragments, with an approximately equal mix of medium and small components. **400** has small amounts of medium and small sized fragments clearly confirming the token nature of this deposit. Whilst some material was recovered from known depths within each context, the majority was not so it is not possible to assess any spatial patterns.

314 has the widest range of anatomical elements present, followed by **321**. Most of the

Table 1 Anatomical element weight and fragment count summary for each context

<i>Context</i>	<i>Element</i>	<i>Weight g</i>	<i>Count</i>	<i>Weight %</i>	<i>Count %</i>
314	Long bone	67.4	40	28.7	8.0
314	Mandible	10.4	8	4.4	1.6
314	Skull	38.9	46	16.6	9.2
314	Unidentified	114.4	402	48.7	80.1
314	Vertebra	3.8	6	1.6	1.2
				100.0	100.0
321	Crown	3.2	9	3.0	1.4
321	Long bone	4.7	13	4.4	2.0
321	Skull	25.1	111	23.6	17.2
321	Unidentified	73.3	512	69.0	79.4
				100.0	100.0
400	Long bone	0.2	2	4.5	3.1
400	Skull	1.0	9	21.4	13.8
400	Unidentified	3.3	54	74.1	83.1
				100.0	100.0

material recovered cannot be identified to a specific anatomical element.

Pyre information

Cremated bone changes colour and texture as it is heated, from brown through black and grey to white with increasing temperature. The majority of material recovered from all recorded cremation contexts was grey coloured, followed by black / grey, indicating that most material was exposed to temperatures of around 600°C. The material from **314** is mostly grey (90.2% by weight) with the remainder largely black / grey. **321** is dominated by black / grey material (66.7% by weight) followed by grey material forming 16.7% of the assemblage by weight. The size of the assemblage from **400** is so small that it is relatively uninformative to split it into fractions.

Pyre debris was present for **321**. It comprised a mixture of soil, ash, fine root matter and charcoal fragments. No further analysis was carried out on this material.

Age

The only positive evidence for age determination came from the nine teeth found in **321**. These were represented solely by partly cremated crowns. No root fragments were observed so it is only possible to comment on the development status of the crown. The crowns include three permanent crown complete molars with a chalky appearance, three blackened permanent premolars, one partly complete sooted canine, one sooted white deciduous second molar and one chalky partly complete permanent molar. The black colouration of the premolars suggests that they were unerupted at the time of cremation. The chalky appearance of the other teeth suggests these were erupted. The dentition is mixed deciduous and developing permanent material, possibly reflecting the presence of more than one individual. The best estimate of developmental age for one individual based on tooth development is 6–7 years.

The small size of the long bone fragments from **400** suggests the material represents the remains of another child. The material from **314** was generally more robust. The linea aspera on a femur fragment was marked.

Coupled with the relatively gracile nature of the fragments, this suggests the remains of an older, possibly female, adult.

Sex

No sexually dimorphic material was found in the assemblage. It is therefore not possible to determine the sex of any individual represented by the remains by these methods.

Stature

The absence of substantially intact long bones precludes the estimation of the stature of any individual represented by the remains.

Pathology

No evidence for pathology was observed.

Taphonomy

The denser grey and white calcined material tends to be relatively immune to taphonomic changes. The brown coloured material was well preserved indicating a relatively favourable environment.

Discussion

The weight of cremated remains recovered from each context was quite small, with a maximum of 234.9g for **314** and a minimum of 4.4g for **400**. These are comparable to the minimum weights of cremated material recovered from other cremation cemeteries. For example, of adult cremations found in Wiltshire (Thomas 2005) 60% weighed less than 1000g, a further 23% weighed between 1000g and 2000g and the remaining 11% weighed more than 2000g. McKinley (1993) reports that bone weights for modern adult cremations fall into the range 1227–3001g. These weights would be proportionally much less for children.

The data suggests that the remains are consistent with the burial of a single individual in each context with one qualification. The mix of dental material in **321** may represent the deposition of more than one individual but the limited evidence makes that only a possibility.

The remains represent a minimum of three individuals; an adult, possibly female, from **314**, a child with a developmental age of 6–7 years from **321**, and a further child of unknown age from **400**.

The material from **314** tends to be of larger fragment size and to have been exposed to higher pyre temperatures than the other two contexts. It represents the most convincing deposit of an individual rather than accumulated pyre debris for example. The material from **321** is mainly cranial, raising the possibility that the post-cranial material was lost through truncation during the excavation process. Pyre debris, a mixture of soil, ash, fine roots and charcoal, was present in the material from **321**.

The nature of the excavation method, namely recovery by machine excavation, makes it difficult to say a great deal about the cremation process. The material recovered from the three contexts represents a small fraction of the expected weight of material from whole individuals. This could either be due to the method of recovery or the insertion of token amounts of material into the cremation deposits during the original burial ceremony. It is clear that context **400** was heavily truncated as photographs clearly show the scrape of chalk caused by the excavator bucket dragging across the natural chalk layer. Given this heavy truncation, it is also impossible to know if any other crema-

tions were removed without being observed. Land use post-deposition is another factor influencing the survival of cremated remains. Ploughing could result in the dispersal of cremated material, as could the subsequent growth of deep rooted plants and bioturbation arising from burrowing animals.

Detailed cremation data is included in tables in the archive material.

The animal bone by Andrew Bates

The animal bones have been identified and listed by Andrew Bates, excluding the cow burial described separately below. Table 2 summarises the fragment counts.

The cow burial by Sheila Hamilton-Dyer

The methods used for identification and recording were based on the FRU (Faunal Remains Unit, Southampton) method 86 system, with some modifications (see FRU archive, and SH-D archive file BONESTRU). Measurements follow von den Driesch (1976) and are in millimetres unless otherwise stated. Withers heights were calculated according to von den Driesch and Boessneck (1974).

Table 2 Animal bone fragment count

<i>Species</i>	<i>Prehistoric</i>	<i>Prehistoric/ Roman</i>	<i>Roman</i>	<i>Post Medieval</i>	<i>Unstratified</i>
Horse	5				3
Cow	11	1	1	4	1
Pig	1			1	3
Sheep/Goat	26		1	3	
Red deer		1			
Roe deer	4	1			
Cow/Horse	1				
Cow/Red deer	2	1			
Sheep/Goat/Roe deer		1			
Cow/Horse/Red deer	3				
Total	53	5	2	8	7

Archive material includes metrical and other data not in the text.

The skeleton **767** (Fig. 11) in pit **765** was damaged by machining during excavation. Sufficient remained undisturbed, however, to show this was of a cow buried whole within a pit cut into the barrow ditch. The animal had been placed on its right side with the head turned back to lie on the left flank. Although the legs were disturbed and part destroyed it appeared that the front legs had been bent at the elbow and wrist to fit in the pit. The back legs were placed straight, towards the front of the animal but the metatarsals and phalanges of the feet had been destroyed. This positioning of the body implies that burial took place soon after death and before rigor mortis, or after rigor mortis but while the body was sufficiently undecomposed to remain in full articulation.

The 2nd premolar was absent from both lower jaws. This is a genetic variation of unknown cause rather than a true pathological abnormality (Andrews and Noddle 1975). There was also evidence of traumatic pathology. The right humerus had been diagonally fractured mid-shaft, the bone healing with a considerable foreshortening resulting from slippage of the damaged ends. This is caused by muscle tension where the break has been allowed to heal without intervention. The elbow joint also showed abnormalities in the radius and ulna. The joint was still operative but there were exostoses round the edges of the joint surfaces. As the distal radius, and presumably the foot, had been destroyed by the excavation machine it is not possible to see whether the lower

part of the leg had similar changes. Several vertebrae were complete enough to show a marked asymmetry. The dorsal processes were bent to the left, away from the damaged side. These changes are probably a result of compensatory muscle changes after the injury to the right foreleg. As the fracture was completely, if imperfectly, healed the damage must have occurred at least several months before death. No reason for death could be discerned from the bones and no skinning or butchery marks were observed.

Several morphological features indicated that the skeleton was female including the shape of the pelvis, the small curved horncore, the small atlas and the slender proportions of the surviving metacarpus.

There was extensive ageing information. All the bones were completely fused. Several of the sternal bones were partially fused together. The dorsal processes of the sacral vertebrae were fused together to form a single bone. In the lower jaws all permanent teeth had erupted and were in full wear. The wear stages for the 1st, 2nd and 3rd molars were L,K,J (Grant 1975). This indicates that although fully adult, probably over 4 years, the animal was not of extreme age.

Withers height estimations could be calculated on 6 of the bones. The results are shown in Table 3.

The wide range may partly reflect the morphological changes in the skeleton following the trauma to the right foreleg. In addition, other workers have noticed that estimations from the metapodials are often the greatest

Table 3 Withers height estimations

<i>Element</i>	<i>Measurement</i>	<i>Withers height m (nearest cm)</i>
Left humerus	CL 225 × 4.77	1.07
Left radius	GL 257 × 4.3	1.11
Left metacarpus	GL 182 × 6.125	1.12
Right femur	CL 295 × 3.47	1.02
Left tibia	GL 310 × 3.5	1.09
Right tibia	GL 305 × 3.5	1.07

within the group from an individual skeleton. At nearby La Sagesse the range of withers heights for the Late Bronze Age/Early Iron Age was 0.983–1.081. The largest of these were also from metacarpi.

Although large, these sizes are within the range for Bronze Age and Iron Age cattle (Grigson 1982). The larger sizes are often from Bronze Age material.

In conclusion this burial was of an adult cow with considerable damage to the right forelimb. This damage had occurred some while before death. The reasons for keeping an animal which must have had some difficulty in moving can only be surmised. Being female it could have been of use for breeding and dairy products. It may have had other special characteristics such as colour which leave no trace on the bones.

The land snail evidence by Michael J Allen

Introduction

During excavation a series of 23 bulk soil samples was taken and processed; the flots were scanned by Wessex Archaeology who were commissioned to undertake selected analysis.

The 23 samples were processed by the excavators for charred remains. None were taken or processed specifically for land snails, but the potential of determining the land-use history from snails recovered from the flots of these samples was explored. All of the flots were scanned by Sarah F. Wyles.

Despite the processing methods adopted (see below), the assemblages were significant in view of the paucity of palaeo-molluscan environmental work from Bronze Age sites on the chalkland around Andover, a number of which have been excavated. The proximity of Balksbury Camp, which has a detailed and long environmental history from the Atlantic to Roman periods from both mollusc analysis (Allen 1995a) and soils (Macphail 1995), provides a basic local environmental background for the area.

Samples and processing method

The bulk samples were large (3.5–5 litres) and taken for the recovery of charred plant

macrofossils as single samples from individual contexts, rather than contiguous columns. Although this does not provide the finer resolution of sampling usually adopted for mollusc analysis, it was considered that the sampling policy was suitable for land snail analysis.

Processing of the samples by TVAT employed 250 micron mesh sieves to retain the flot and 707 micron mesh sieves for the residues. These sizes are broadly comparable to that for the standard molluscan analysis (Evans 1972).

However, none of the residues were located so the assemblages reported here were wholly recovered from the pre-sorted flots. Some of the residues were reported to have been sorted and all extracted material included with the flots, but there are no formal records for this. The lack of the inclusion of material from the flots, or the poor sorting by untrained personnel, is reflected in the absence of any Limacidae plates and the lack of the larger species (*Cepaea* sp., *Arianta arbustorum*, and non-apical fragments of *Helicigona lapicida*) which more commonly survive as small apical or non-apical fragments which do not float. In contrast, the very high proportions of *Carychium tridentatum* and the *Vallonia* species may indicate slight overrepresentation as these are small species that are more commonly recovered from flots rather than residues. One other notable absence was that of *Trichia hispida* which is common in the type of assemblages recovered. This absence may also be, in part, due to the lack of material from the residue fractions, but this species is discussed more fully below.

Despite these ambiguities, the high numbers of shells from the flots allows basic, but cautious, palaeo-environmental statements to be made.

Results

The flots were scanned under a $\times 10$ – $\times 30$ stereo-binocular microscope (archive Table 2), from which some indication of preservation, shell numbers and taxonomic range can be determined. From these the series of ten spot samples taken from section 6 of the barrow were considered to be the most significant as, together, these assemblages provide

a crude environmental history of the barrow, and show change through the sampled ditch fill sequence. These were fully sorted and identified by Sarah Wyles (archive Table 1). Although samples would normally be taken as a closely-sampled contiguous column, the sampling was comprehensive enough to enable a reconstruction of the full composite profile (archive Figure 1), as was achieved for the 1960's excavations of the Buckskin II barrow, Basingstoke (Allen *et al.* 1995). In addition to the full analysis, the scan of the flot assemblages from other features (archive Table 2) enables some very general comment about the environment of the Middle Bronze Age linear ditch, and the Roman colluvium sealing the barrow.

The barrow environment

The ploughed out nature of the barrow negated the survival of a buried old land surface. Nevertheless, the samples from the primary fill in the base of the ditch (488, 485), although relatively low in shell numbers are dominated by open country species, in particular *Pupilla muscorum* and *Vallonia costata*. We can take this to indicate that the barrow ditch was constructed in a pre-existing open, probably grazed grassland environment.

Shell numbers increase significantly in the secondary fills, especially considering that only the flots were examined, although sample size was relatively large (3.5 – 5 litres). Species diversity also rises indicating more stable ecological conditions for the palaeomollusc fauna. Concomitant with this is an increase in the shade-loving species in the secondary ditch fills. These are represented largely by the Zonitidae and *Carychium tridentatum*, and probably represent a combination of limited local regeneration and the shady ditch micro-habitats themselves. Local vegetation regeneration is probably largely just longer grassland, as *Carychium tridentatum* and *Punctum pygmaeum* are common in these habitats (Cameron and Morgan-Huws 1975), and the pioneering open country species *Vallonia costata*, which Ellis (1986) describes as being common in weedy grassland regeneration is more significant than its congener *Vallonia excentrica*. *Carychium tridentatum* seems

to thrive in these secondary fills, and in one layer (482) there is also a record of the rare Vertiginid *Vertigo pusilla*. The latter species is one typical of ancient woodland environments, especially in moss and dead leaves, but is only recorded as this single specimen. The presence of *Truncatellina cylindrica*, constantly present through the secondary fills in relatively high numbers, tends to confirm the isolated nature of the record of *V. pusilla*, as *Truncatellina* is an obligatory xerophile species. The mixture of species in these lower secondary fills may indicate both the longer grass and more shady grassy habitats in the ditch, and the more open dry grazed grassland surrounding the barrow. Certainly there is no indication of significant vegetation regeneration over the barrow as seen for instance at Buckskin II, Hampshire (Allen *et al.* 1995) and Round-the-Down, Sussex (Allen 1995b).

At the top of the secondary fills (484, 483), the shade-loving element and *Carychium tridentatum* decline as the open country species, especially *Pupilla muscorum*, dominate. As the ditch fills there is, therefore, an indication of complete, unbroken, grazed grassland with possibly light trampling (Chappel *et al.* 1971), over the now relatively shallow ditch. The barrow existed as a part of grazed downland.

During the deposition of the tertiary fills, in the Roman period, the assemblages are almost exclusively comprised of open country species. The subtle changes, which include the antipathetic behaviour of the *Vallonia* spp. (*Vallonia excentrica* increases, in both absolute and relative terms, to the detriment of *V. costata*), the increase in the heliophile *Helicella itala*, and of *Pupilla muscorum*, is a typical assemblage of open, disturbed and tilled environments. Although we might expect to see *Trichia hispida* with this assemblage (cf. Fyfield Down lynchet, Evans 1972; and colluvial sequences at Kiln Combe, Sussex, Bell 1983; Southerham, Lewes, Sussex, Allen 1995c), here it is thought that its low numbers may be a bias inherent in the processing methods. Further caution should also be expressed in that individual shells of two species of introduced Helicellids (*Candidula intersecta* and *Cernuella virgata*) were found in the lower sample from the upper secondary fills (484). This is a species generally not

recorded in Britain until the medieval period, and is an accidental, human, introduction to the country (Kerney 1966). Here, therefore, it must be considered as intrusive, an indication of stratigraphic movement, or contamination. These species were also recorded in samples sorted from the Chilbolton barrow, and there no explanation is given for their occurrence (Williams in Russel 1990, 169–170); so perhaps we may have to consider the possibility of isolated colonies existing in the British Isles. We cannot, however, entertain this possibility, until we can be confident of sample integrity and the absence of intrusive material finding its way through earthworm, or root channels as discussed at other sites eg Belle Tout, Sussex (see Thomas 1982; Hill 1984 and Allen 1997).

The grave fills

A single sample from a secondary burial (703) cut into the shallow ditch fills was also examined. It was optimistically hoped that it might be possible to indicate at what point in the environmental history of the site the grave was inserted, as was possible at Buckskin II (Allen *et al.* 1995). The main grave fill (700) contained good snail numbers and the assemblage was largely open (*Pupilla muscorum* and the *Vallonia* species), but *Carychium tridentatum* was also a significant component. The grave fill essentially represents topsoil and ditch fills through which the grave was cut. The assemblage seems to be one of longer grassland, and compares well with those from the lower secondary fills. We cannot, however, distinctly phase this as the resolution of landscape change is not marked enough to do so.

The flots of two other samples from the same grave confirm this essentially open environment with some local shady habitats (*Discus rotundatus*, *Aegopinella* sp.).

Linear ditch

Like the grave fills, the flots from the linear ditch (201,500) and the colluvium were scanned. The sequence of samples from the Middle Bronze Age ditch indicate typically predominantly open conditions, but with some shade-loving and catholic species. In general terms it is likely that these represent a ditch with localised shady conditions and

possibly long grasses growing in, or immediately adjacent to, the ditch. Although this seems superficially similar to the assemblages from the analysed secondary fills, we cannot, with confidence, indicate that it belongs to the same period as the assemblages reflect highly localised conditions.

Colluvium

The Roman colluvial sequence overlying the tertiary ditch fills (cf Limbrey 1975, 290–300; Evans 1972; Allen 1995d) contains Late Neolithic/Early Bronze Age pottery indicating its erosion from an area with earlier archaeological features. The assemblages are typically very restricted in taxonomic range (archive Table 2) and are typical of colluvial sequences in southern England (Allen 1988) and Wessex in particular (Allen 1992). The assemblages are akin to those from the ploughwash deposits of the tertiary ditch fills. Both indicate an open tilled environment.

Discussion: the development of the landscape

The land-use history for this barrow is relatively simple and uncomplicated. No evidence of the former woodland was recovered from either tree hollows beneath the barrow (cf. Buckskin II, Allen *et al.* 1995) or from the assemblages in primary deposits (cf. Chilbolton, Williams in Russel 1990, 169–170). Evidence of the Atlantic woodland is, however, detailed from tree hollows and other deposits predating the enclosure bank and ditch at Barksbury (Allen 1995a). The fact that the barrow was constructed in a locally open and long-established grassland indicates a considerable period of time after the felling of the woodland, to enable the grassland to become stable and established, and the colonisation of the specialised molluscan fauna. The barrow, therefore, represents activity in a long-used area of downland, for which no archaeological evidence has been recorded in excavation.

The barrow was maintained in an area of utilised downland, as although longer grasses and vegetation grew in the ditch, and possibly on any mound, the barrow did not become a vegetated morass of brambles etc as has been indicated elsewhere (Buckskin II, Allen *et al.* 1995; Round-the-Down, Allen 1995b). It seems

likely that the barrow and immediate environs were maintained by light grazing until the period when burials were inserted into the ditch. After this, grazing or trampling seems to have become more intense, producing a short-grazed downland turf. Whether this intensification of grazing coincides with the land division indicated by the Middle Bronze Age linear ditch can only be surmised. However, what is clear is that in the Roman period, tillage took place of the land around the barrow, and probably the barrow itself, as is common in many other similar sites.

Detailed land snail data is included in tables in the archive material.

DISCUSSION

These two conjoined barrows were constructed during the Early Bronze Age in a landscape of long-established open grassland, as evidenced by land snail analysis. They are situated on gently sloping higher ground east of the river Anton and may have formed part of a larger group of four. Their relationship to other barrows in the locality is illustrated in Fig. 14. Of these barrows two groups to the west of Andover have been excavated. At Portway six Middle Bronze Age barrows that survived as ring ditches were excavated in 1973–5 (Cook and Dacre, 1985) and at Andover Airfield seven ring ditches were excavated by MoLAS in 2007 (www.museumoflondonarchaeology.org.uk). Palmer (1984, 127) describes the barrows in this area as occurring singly and in groups parallel to the water courses and the Walworth barrows, also known as the London Road Group, fall into this pattern. Woodward (2000, 49–72) discusses the role of barrows as landscape monuments and markers and notes the importance of rivers and watersheds in the siting of both long and round barrows and their relationship to later field systems. The presence of the Middle Bronze Age boundary ditch passing close by the Walworth monuments probably indicates the continuing importance of these barrows in the landscape at that time, when the land snail evidence suggests that the land was being intensively grazed.

The ploughed out nature of both barrows

means that practically all evidence of and from the mounds themselves has been lost. Grinsell describes them as ‘bowl barrows’ but the presence of a series of pits close to the inner edge of the western ring ditch and the single cremation pit similarly close to the eastern ring ditch, suggests that there may have been a berm between mound and ditch. If the mounds were limited in their extent then a classification as ‘bell barrows’ might be more appropriate. Alternatively, the pits may have been pre-mound or dug through the mound at a later date. Land snail evidence shows that by the Roman period the land around the barrows, and probably the barrows themselves, were being ploughed and there is photographic evidence for ploughmarks in the area of the mounds. These post-date the barrow but are not modern. This levelling in antiquity suggests that the mounds may never have been very substantial.

The initial cutting of the two ring ditches seems to have taken place simultaneously and they share a common ditch where they are joined. There is a marked difference in the evidence recovered from within the two enclosed areas, however. There appears to have been very little activity within the eastern ring ditch. There is no central pit and no inhumations were identified, only a single unurned cremation being found close to the edge of the shared ditch. Healy and Harding (2007, 57) describe the absence of primary burials in a number of round barrows in Northamptonshire and elsewhere, suggesting that “the appropriate time to build a barrow may have been determined by factors other than the need to inter a significant individual”.

By way of contrast the western ring ditch produced evidence for a variety of activities. Two pits close to the centre of this barrow could be robbed-out early burials, but the only supporting evidence is a few fragments of human bone, while the layering of the pit fills is uncharacteristic of robbing. The second area of activity is represented by the series of pits close to the ditch on the south-east side. These contained deposits of charcoal and/or cremated human bone, of pottery fragments and of a solitary coarseware Beaker, suggesting varied depositional activity. Nearby, the

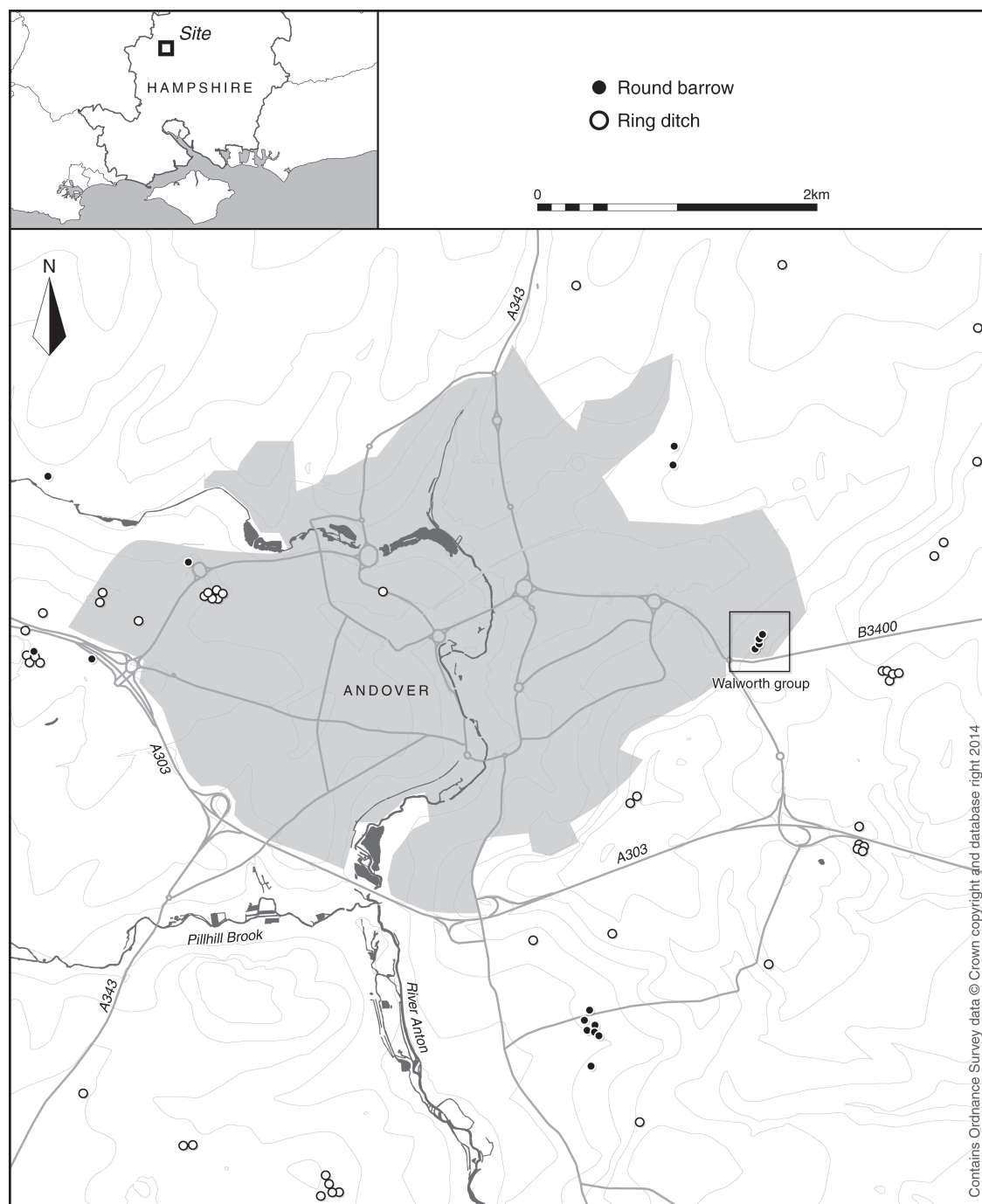


Fig 14 Distribution of round barrows in the Andover area

crouched inhumation of a young child was accompanied by a large rim fragment from a Collared Urn. The deliberate burial of broken pottery in round barrows and their ditches in Hampshire is discussed by Raymond (2004, 47) with reference to the site at Mockbeggar Lane, Ibsley. She suggests that the retention of part of the pot by the living may represent a tangible link between them and the deceased. Further afield, Nowakowski (2007, 108–10) explores the burial of broken pottery in the ditches of Cornish barrows and the role this may play “in forging and creating individual and group memory”.

Although the evidence from the ditches seems to support the contrast between the ‘busy’ western barrow and its ‘quiet’ eastern neighbour, a note of caution must be sounded. As excavation took place under time constraints, neither of the ring ditches was fully excavated and the opened sections amount to a small sample, presenting only a partial picture of what may have occurred in antiquity. In particular there may have been more burials within the ditch fillings. The presence of small circular features at the inner edge of each of the eastern barrow ditch sections, noted in the primary record, is tantalising and suggests the possibility of a post or stake ring on the inner lip of the ditch. One notable find from the upper fill of the eastern ditch is the Middle Bronze Age basal-looped spearhead, broken prior to deposition. The burial of incomplete objects in such a context is being increasingly recognized as a deliberate act (Woodward 2000, 101).

Activity in the western ditch is associated with a possible recut of the feature, when the three inhumations were inserted through the secondary fills. The inhumation of the young child in Section 1 had large flints placed over and around the body. A possible genetic link was identified between this child and the adult female from Section 2. The close proximity of the two inhumations uncovered in Section 2, together with the fact that they were cut into the same ditch fill, suggests that they were either buried at the same time or that the position of the earlier cut was marked in some way. The same could be argued of the nearby cow burial, which is one of the most significant finds from

the site. The careful burial of a cow, so close to the humans, indicates that this is a special deposit. Whilst deposits of animal bones in barrows are common, the burial of such a large articulated animal is rare. The fact that the cow was lame makes it even more intriguing. An Early/Middle Bronze Age barrow excavated at Twyford Down, Hampshire produced an articulated goat skeleton which was deposited in the upper fill of the barrow ditch. Pathology observed on this animal revealed that it too “would have been very lame” (Powell *et al.* 2000, 132).

While it is important to bear in mind the limitations of the excavation, the Walworth barrows illustrate a common theme of recent research into Bronze Age barrows in general, namely the individual nature of each monument. The role of barrows in the societies which created them is much more complex than the simple provision of a funerary monument and can include aspects of landscape delineation, social identity and community history.

At Walworth, the probable genetic link between two of the individuals buried in the western barrow ditch is a strong reminder of the social bonds in place, while the boundary ditch seems to confirm the site as a landscape marker. Perhaps the most interesting evidence, however, is that of the ‘special’ deposits; the deliberately broken pottery, the broken spearhead and the articulated cow, which all add to the growing body of evidence for the variety of ancillary deposits at Bronze Age burial monuments.

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