Chapter 4: Moores Farm

THE ARCHAEOLOGICAL SEQUENCE

Introduction

Stripping of the site revealed a variable natural geology, consisting of gravel and sand overlain in places by silty deposits representing either loess or alluvium (Lobb and Rose 1996, 7). Two clayfilled palaeochannels crossed the site on SW-NE and WSW-ENE alignments, and the approximate extent of these is shown on Figure 1.4, using information from the evaluation trenches and the 1999 watching brief. The date of these palaeochannels is unclear, although early Iron Age material was recovered from the surface of the southern channel within Area 12 (see below). Most of the archaeological features were located in the zone between the two palaeochannels, with very few present in Areas 1-6 further to the north. The datable features represent four discrete phases of activity, in the early Mesolithic, middle Neolithic, middle Bronze Age and early Iron Age respectively. Many other pits and postholes contained no datable finds and could not be phased. Most features contained fills of silty clay; fills will only be described where they differ markedly from this norm.

Mesolithic

Two irregular hollows or tree throw holes located 55m apart within the northern half of Area 16 contained early Mesolithic flintwork (Fig. 4.1). Hollow 2429 measured 2.00 x 0.63m in plan and 0.22m deep, and produced 54 pieces of worked flint. Hollow 2697 measured 1.00 x 0.58m in plan and 0.13m deep, and contained 19 pieces of worked flint and flecks of charcoal. In addition to these two features, a number of residual or unstratified pieces of Mesolithic flintwork were also recovered, many of which had weathered out of the subsoil within the central part of Area 16 (context 2851; see Cramp below).

Middle Neolithic

Activity during the middle Neolithic was again focussed on the northern half of Area 16. An irregular pit or hollow (2967) and a posthole (2900) both contained pottery in the Impressed Ware tradition (Fig. 4.1). A few residual sherds of Neolithic pottery were also recovered from later features scattered across Area 16 (see Morris below).

Pit 2967 was only partially exposed beneath a sealing layer of alluvium, but measured at least

1.75m in diameter and 0.45m in depth. It contained five pieces of worked flint and 600gof Neolithic pottery, including large fragments of two Mortlake style bowls. One sherd of probable middle Bronze Age pottery was also recovered, however, which may indicate a degree of disturbance to the feature. A horse tooth fragment could also be intrusive as evidence for horses in Neolithic Britain is extremely sparse (see Charles below).

Lying 85m to the south, posthole 2900 was 0.70m in diameter and 0.42m deep, with a distinct postpipe (0.32m in diameter and 0.40m deep). The fills of the post-pipe contained charcoal, 83g of probable Fengate style pottery and a single flint flake.

Late Neolithic to early Bronze Age

Although no features of this period were recorded, some activity on the site is indicated by residual sherds of pottery found in later deposits. Four sherds of Beaker pottery (late Neolithic/early Bronze Age) were recovered from Areas 12 and 16, and several sherds of early Bronze Age pottery, including fragments of two Biconical Urns, came from Area 16 (see Morris below).

Middle to late Bronze Age

During the middle Bronze Age, a field system was laid out across the area between the two palaeochannels (Fig. 4.2). Contemporary occupation within the field system was concentrated in Area 16, taking the form of a loose scatter of pits, postholes and two possible ovens. In addition, 11 middle Bronze Age waterholes were distributed around the periphery of the main occupation area and in the south-western part of the field system. Conclusive evidence for late Bronze Age activity was scant, although unstratified fragments of two late Bronze Age-type ovoid jars were recovered (see Morris below).

Field system

Although the full extent of the field system was not uncovered, it does not appear to have had a regular coaxial layout. Rather, it consisted of fields of varying sizes and forms, demarcated by both straight and curving ditches (Figs 4.2–6). While the ditches were on varying alignments, the predominant orientation of the system as a whole was broadly N–S/E–W. The irregular layout of the fields suggests that they may have been developed in an organic, piecemeal fashion. Certainly, there is

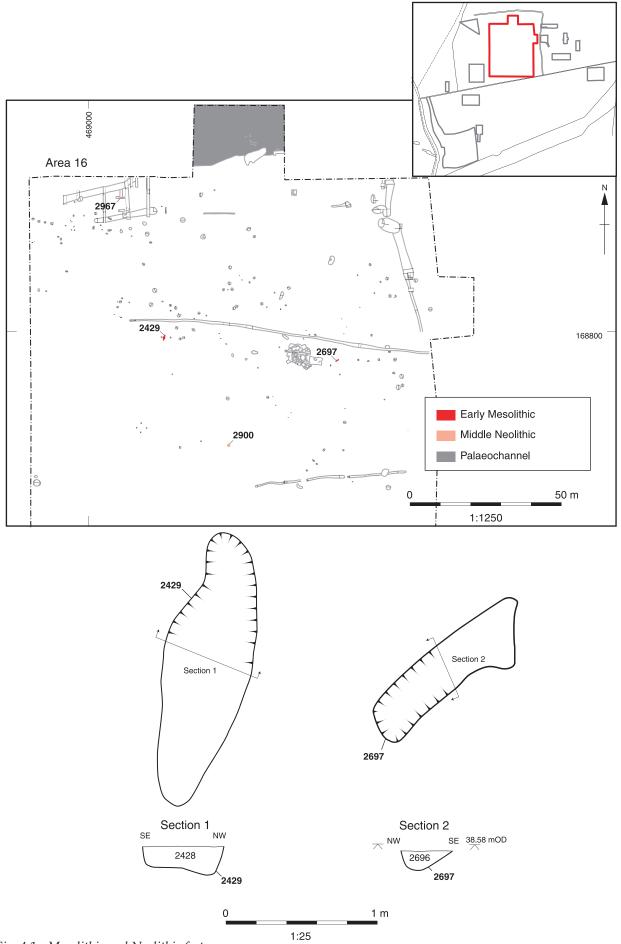


Fig. 4.1 Mesolithic and Neolithic features

evidence for maintenance and alteration of field system over time, as a number of the boundary ditches had been recut or realigned. For example, 1382 was recut as 1384 (Fig. 4.5); 1474 was cut by 1472 (Fig. 4.6); 2041 was recut twice; and 2117 was recut as 2199 (Fig. 4.3). Another feature of the field system was the presence of paired parallel ditches. Parallel ditches 710 and 712/717 were set only 0.30–0.50m apart (Fig. 4.3), and may have lain either side of a bank or hedge, a phenomenon attested in other Bronze Age field systems in the region (Yates 1999, 165–6). Two other pairs of parallel ditches that may form part of the field system (5209 and 5220; 5309 and 5311) had a wider spacing of c 2.00m and could either represent banked/hedged boundaries or narrow trackways (Fig. 4.2).

The ditches forming the field system were up to 0.81m deep and generally no more than 1.50m wide, with U-shaped profiles. They typically had pale, silty fills laid down by natural processes. Finds from the ditches were generally sparse, consisting of modest amounts of pottery, fired clay,

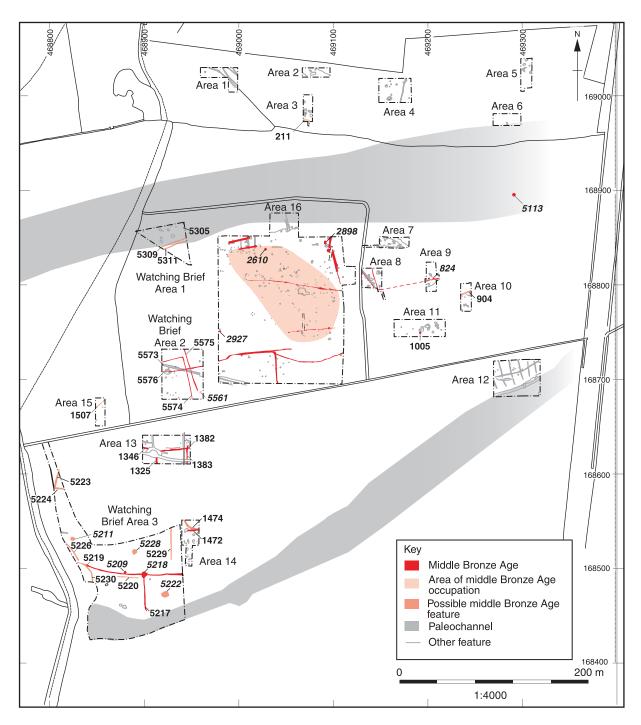


Fig. 4.2 Middle Bronze Age features. Waterholes are labelled in italics

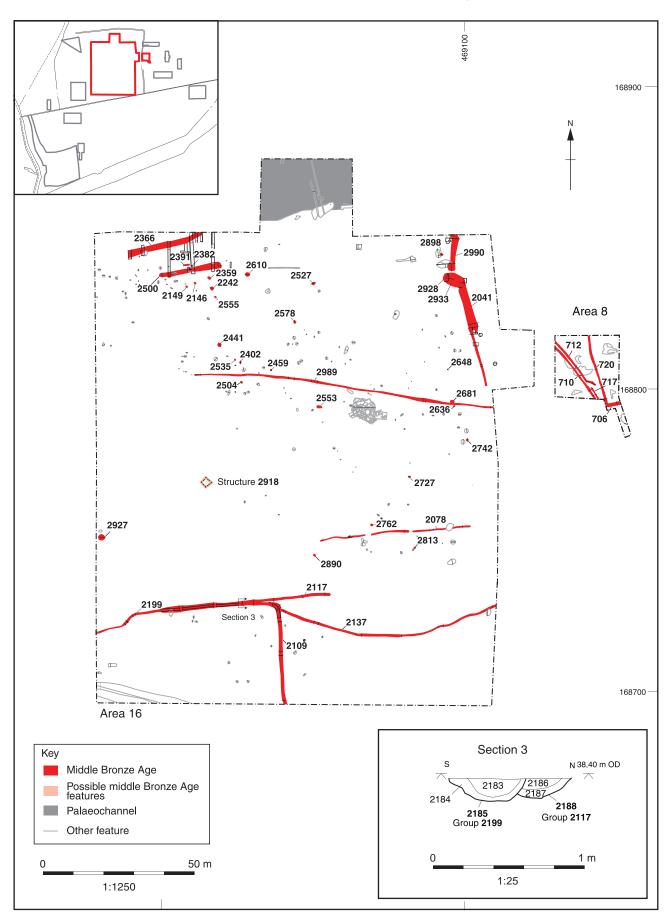


Fig. 4.3 Middle Bronze Age features in Areas 8 and 16

Chapter 4

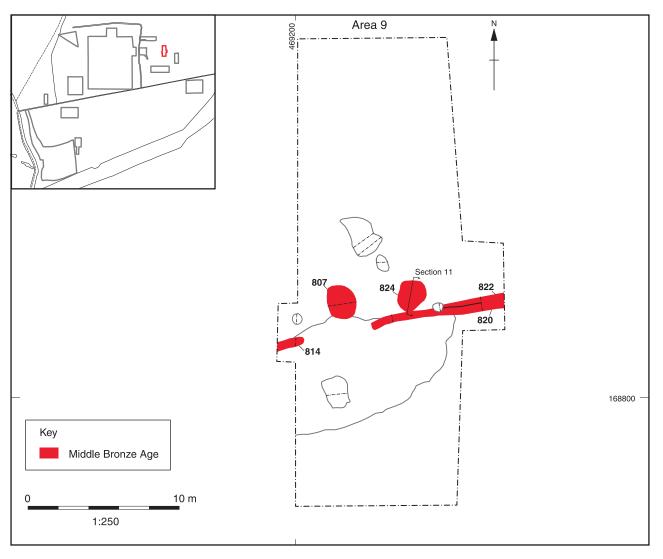


Fig. 4.4 Features in Area 9

worked flint and animal bone, with most finds unsurprisingly occurring close to the main area of contemporary occupation in Area 16 (Table 4.1). Dating evidence is provided by fragments of middle Bronze Age pottery from nine of the ditches, in some cases from the primary fills. Early Iron Age pottery was also recovered from some of the ditches, but only from upper fills, often being associated with alluvial deposits laid down when the ditches were already largely infilled (see below). There is thus no evidence that the field system continued to be actively maintained beyond the middle Bronze Age. The ditches from Areas 3, 10 and 15 and Watching Brief Areas 1 and 3 produced no datable finds, and are only tentatively ascribed to the field system.

Settlement features: pits, postholes and 'ovens'

Middle Bronze Age settlement was focused on Area 16, in a roughly NW-SE aligned swathe of dispersed features, including 20 pits, 7 postholes and 2 possible ovens (Fig. 4.3). Activity was sparse elsewhere, with

single pits in Areas 9 and 11 (Figs 4.2 and 4.4), and a pair of postholes in Area 14 (Fig. 4.6).

Pits

The pits can be divided into two broad form categories: concave or bowl-shaped pits (Type 1), and pits with steep or sheer sides and a flat base (Type 2) (Table 4.2; Fig. 4.7). There were 10 bowl-shaped pits, most of which measured between 0.57-1.90m in diameter and 0.07-0.52m deep. Two larger examples, 2928 and (cutting this) 2933 were present in the northeast corner of the area, measuring up to 3m in diameter and 0.66–0.76m deep. It is possible that these larger features were actually shallow waterholes (see below). The 10 flat-based pits ranged from 0.42–1.20m in diameter and 0.11–0.45m deep. One of these (2402) appeared to have a stakehole (2413; 0.04m diameter) driven through its fill and base (Fig. 4.7). There is no clear spatial patterning in the distribution of the two pit types. Pits in both categories typically produced only small quantities of pottery (<150g), occasionally accompanied by pieces of fired clay, worked flint or animal bone. Three of the bowl-shaped pits stood out

| Feature | Dating evidence |
|---------|---|
| 706 | Continuation of 814/820 |
| 710 | 1 sherd later prehistoric pottery |
| 712/717 | 1 sherd later prehistoric pottery |
| 720 | Return of 706 |
| 814/820 | 1 sherd MBA pottery, 1 sherd later prehistoric |
| | pottery. Recut of 822 |
| 1325 | Phased by alignment |
| 1346 | 5 sherds later prehistoric pottery. Continuation of |
| | 1382 or 1384 |
| 1382 | Cut by 1384 |
| 1383 | 8 sherds later prehistoric pottery. Cuts 1382, cut |
| | by 1384 |
| 1384 | 3 sherds later prehistoric pottery from primary |
| | fill; 13 sherds later prehistoric pottery and 1 sherd |
| | Roman pottery from top fill. Recut of 1382 |
| 1472 | 1 sherd BA pottery, 4 sherds later prehistoric |
| | pottery |
| 1474 | Cut by 1472 |
| 2041 | 1 sherd EBA pottery, 32 sherds MBA pottery, 4 |
| | sherds later prehistoric pottery |

Table 4.1Summary of field system ditches

Table 4.1 (continued)

| Feature | Dating evidence |
|-----------|--|
| 2078 | 9 sherds MBA pottery |
| 2109 | 2 sherds MBA pottery, 8 sherds later |
| | prehistoric pottery and 1 sherd Roman |
| | pottery, all from upper fill. Cuts 2117 and |
| 2137 | |
| 2117 | 1 sherd MBA pottery |
| 2137 | 1 sherd MBA pottery, 6 sherds later prehistoric |
| | pottery, 11 sherds post-medieval pottery from |
| | ditch surface. Cut by 2109 and 2119 |
| 2199/5576 | 1 sherd MBA pottery and 8 sherds later |
| | prehistoric pottery. Cuts 2117 and 2137 |
| 2366 | 1 sherd EBA pottery, 2 sherds MBA pottery, 23 |
| | sherds later prehistoric pottery |
| 2391 | 5 sherds MBA pottery |
| 2500 | 12 sherds MBA pottery, 10 sherds later prehistoric |
| | pottery |
| 2989 | 7 sherds later prehistoric pottery |
| 5573 | Return of 5574 |
| 5574 | 3 sherds later prehistoric pottery. Cut by 5576 |
| 5575 | Cut by 5576, parallel with 5574 |

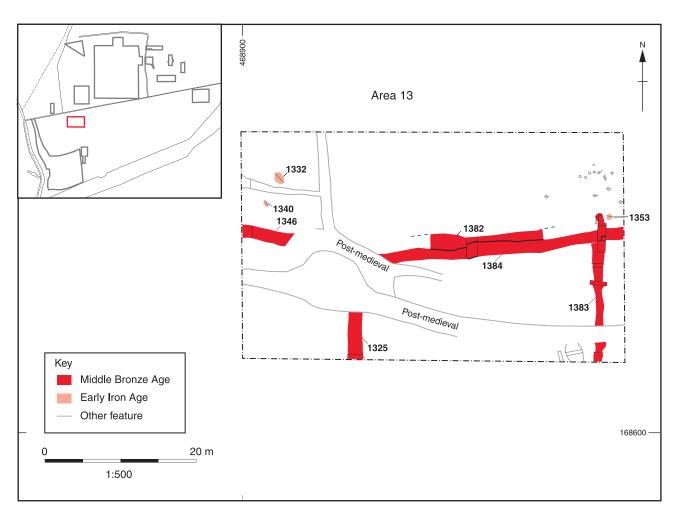


Fig. 4.5 Features in Area 13

for having more unusual deposits. Pit 807 (Fig. 4.4) contained 12 worked fragments of red deer antler in its upper fill, along with 22g of pottery and 2 flint flakes. Pit 2441 (Fig. 4.7) had unusually dark, charcoal-rich fills, containing burnt flint, fired clay

Table 4.2 Summary of middle Bronze Age pits

| Feature | Туре | Diameter (m) | Depth (m) | Finds |
|---------|------|-----------------|--------------|----------------------------------|
| 807 | 1 | 1.90 | 0.28 | Pottery, flint, antler fragments |
| 1005 | 1 | 0.65 | 0.16 | Pottery |
| 2146 | 2 | 1.20 | 0.15 | Pottery, flint, animal bone |
| 2149 | 2 | 0.83 | 0.22 | Pottery, flint |
| 2382 | 2 | 0.90 | 0.45 | Pottery, flint |
| 2402 | 2 | 0.86 | 0.30 | Pottery, flint |
| 2441 | 1 | 1.50 | 0.44 | Pottery, fired clay, flint |
| 2504 | 1 | 0.80 | 0.52 | Pottery, flint |
| 2527 | 1 | 1.30 | 0.22 | Pottery |
| 2535 | 2 | 0.52 | 0.27 | Pottery |

and 190g of pottery. An environmental sample from this pit produced occasional cereal grains (wheat and barley). Pit 2681 contained 1.1kg of pottery in its lower fill, most of which belonged to a single bucket urn; this was sealed by an upper fill of sterile soil.

Table 4.2 (continued)

| Feature | Туре | Diameter (m) | Depth (m) | Finds |
|---------|------|-----------------|--------------|--------------------------------|
| 2553 | 1 | 1.88 | 0.34 | Pottery, flint |
| 2555 | 2 | 0.66 | 0.11 | Pottery |
| 2636 | 1 | 0.57 | 0.29 | Pottery |
| 2681 | 1 | 1.25 | 0.26 | Pottery |
| 2727 | 2 | 0.73 | 0.17 | Pottery |
| 2742 | 2 | 0.88 | 0.53 | Pottery, flint |
| 2762 | 2 | 0.42 | 0.24 | Pottery |
| 2890 | 2 | 0.64 | 0.12 | Pottery, flint, quern fragment |
| 2928 | 4 | 1.12 | 0.76 | Pottery |
| 2933 | 4 | 2.00 | 0.66 | Pottery, animal bone |

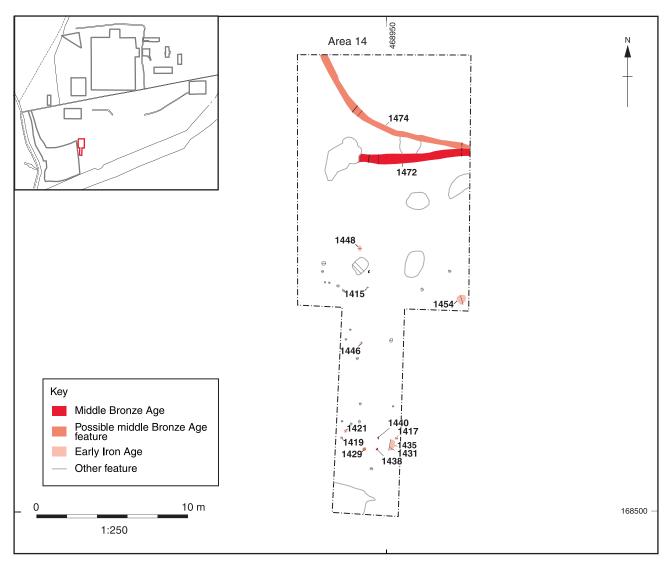


Fig. 4.6 Features in Area 14

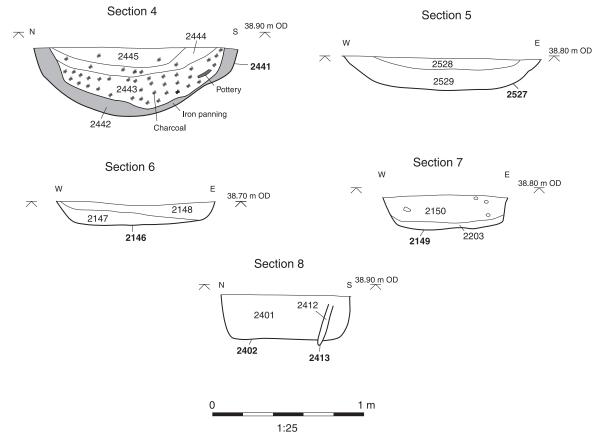


Fig. 4.7 Sections of middle Bronze Age pits

Postholes

The postholes were widely scattered, and measured between 0.14-0.44m in diameter and 0.11-0.22m deep (1305, 1438, 1440, 2459, 2578, 2648 and 2813). Most cannot be attributed to any structures. However, postholes 1438 and 1440 in Trench 14 might have been associated with undated posthole 1429, forming three corners of a four-post structure, measuring $1.30 \times 1.30m$ (Fig. 4.6). Finds were very scarce, with none of the postholes containing more than 30g of pottery.

'Ovens'

A pair of shallow features (2242 and 2359) placed 4m apart in the north-western part of Area 16 appear to have had a specialised function (Figs 4.3 and 4.8). In both cases, numerous stakeholes had been driven through the primary silts in the base of the feature. These pits cannot be paralleled at other sites in the local area. However, finds of charcoal and fired clay from the features suggest a possible function as ovens, with the stakes perhaps supporting a superstructure of clay, earth or turf. In neither case do the stakeholes form any clear pattern, and it is possible that more than one phase of construction is represented.

Feature 2242 was roughly oval in plan, measuring 1.35m in diameter and 0.26m deep, with the sides sloping gently onto a flat base (Figs 4.8-9).

Thirteen stakeholes (2993), 0.04–0.07m in diameter and 0.04–0.10m deep, had been driven through the primary fill of the feature (2313) and were sealed by the upper fill (2243). Both fills were composed of dark grey-brown silty clay with frequent charcoal inclusions, and contained fragments of amorphous fired clay (230g in total) and middle Bronze Age pottery. Four pieces of horse bone were also recovered from the upper fill.

Feature 2359 was similar in size, measuring 1.38 x 1.02m in diameter and up to 0.33m in depth, but had a more irregular profile, being deepest at its western end (Figs 4.8 and 4.10). Nineteen stakeholes were present (2396), measuring 0.03–0.08m in diameter and 0.02–0.10m in depth. Again, these seem to have been driven through the primary fill (2395) but were sealed by the upper fill (2360). The two fills were similar to those within feature 2242, and again contained frequent charcoal inclusions. A few fragments of middle Bronze Age pottery were recovered from both deposits, with small fragments of possible fired clay oven furniture also found in the lower fill.

Waterholes

Eleven features were identified as waterholes, located around the edge of the main middle Bronze Age settlement area and in the south-west corner of

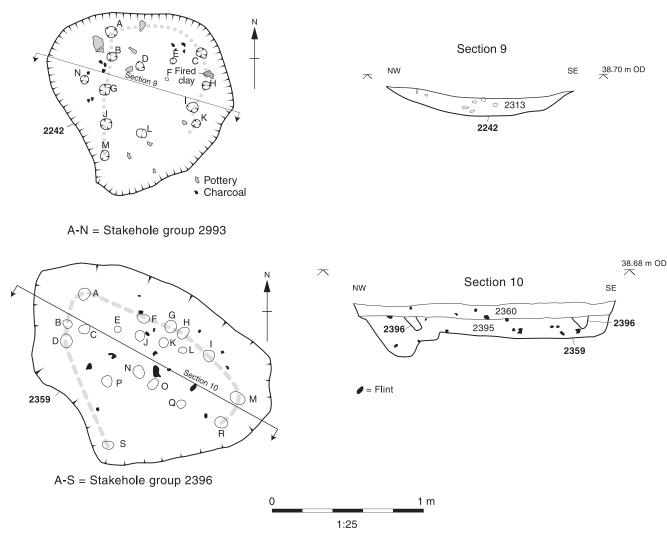


Fig. 4.8 Plans and sections of middle Bronze Age 'ovens'

the site (Fig. 4.2). These were up to 5.00m in diameter and 1.12m deep, and generally appear to have filled though natural processes of silting and erosion. In contrast to Green Park, none of the waterholes from Moores Farm were ramped, and none showed any evidence for in situ timber revetment structures. This is unlikely to be due to factors of preservation, as most of the waterholes had waterlogged lower fills. The waterholes typically contained few finds, with those in the southwestern part of the site producing no cultural material of any kind, making their ascription to the later Bronze Age tentative. Where finds did occur, the emphasis seems to have been on the deposition of animal remains rather than artefacts, with a butchered horse skeleton placed in waterhole 5113 and pig and deer bone in waterhole 2610.

Waterhole 824

Waterhole 824 was 2.17 x 1.84m in size and 1.02m deep, with an irregular, partly undercut profile (Fig. 4.11). It contained a primary erosion deposit of gravel (835) overlain by three fills of silty clay

(825–7), each of which contained a single sherd of middle Bronze Age pottery. Pollen analysis suggests that grassland/pasture was dominant around the waterhole, with aquatic plants such as duckweed growing within the feature itself (see Scaife below).

Waterhole 2610

Waterhole 2610 was 1.54m in diameter and 0.96m deep, with steep sides and a fairly flat base. It contained an initial gravel erosion fill and five subsequent silting deposits. A small assemblage of pig and red deer bone, all from immature animals, was recovered from the lower and middle fills of the feature. The middle and upper fills contained a few fragments of middle Bronze Age pottery.

Waterhole 2898

Waterhole 2898 was 1.10m in diameter and was excavated to a depth of 0.68m before work was abandoned due to standing water. The lowest of the exposed fills consisted of grey clay, which was sealed by a black silty deposit containing high

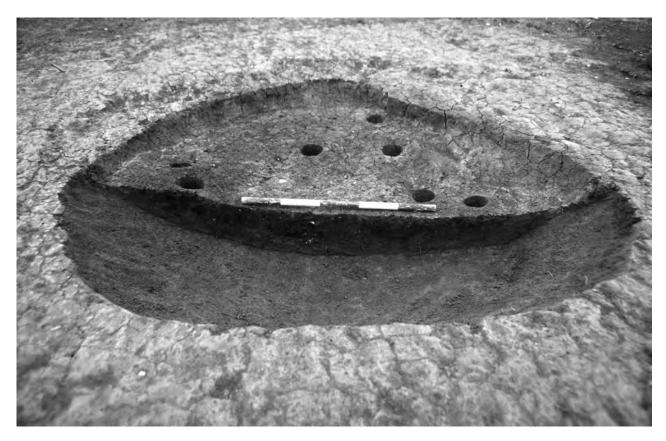


Fig. 4.9 Middle Bronze Age 'oven' 2242, facing south. Scale: 0.5m

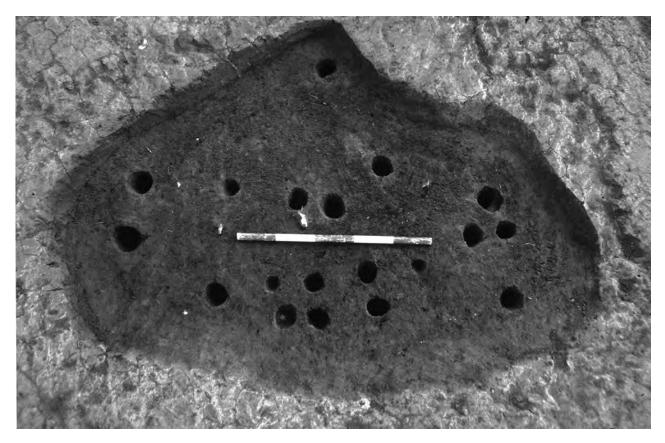
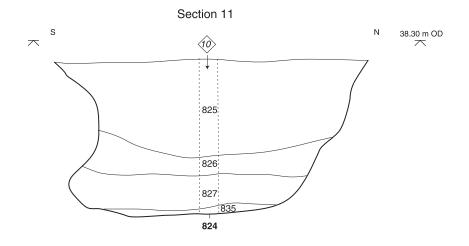
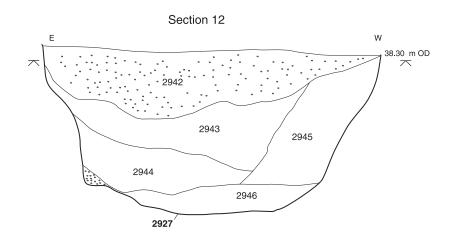


Fig. 4.10 Middle Bronze Age 'oven' 2359, facing south. Scale: 0.5m

Chapter 4





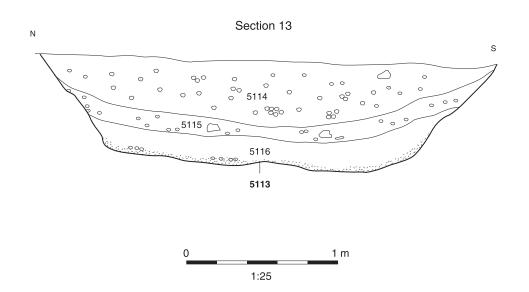


Fig. 4.11 Sections of middle Bronze Age waterholes

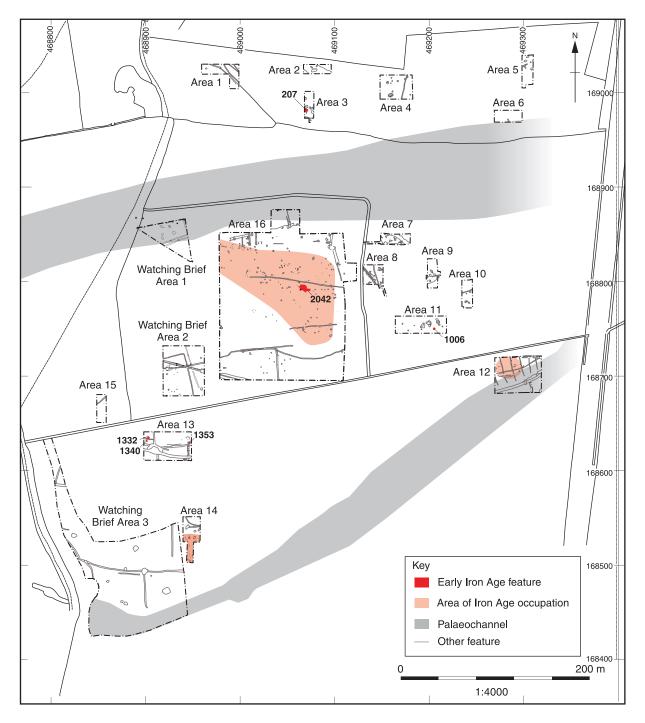


Fig. 4.12 Early Iron Age features

Table 4.3 Radiocarbon dates from early Iron Age pit group 2042. Dates calibrated using OxCal v3.10 (Bronk Ramsey 1995; 2001) and atmospheric data from Reimer et al. (2004)

| Feature | e Context | Laboratory number | Material | δ ¹³ C (‰) | Uncalibrated date (BP) | Calibrated date (1 σ) | Calibrated date (2 σ) |
|---------|-----------|----------------------|--------------------------------|-----------------------|---|-------------------------------|-------------------------------|
| 2042 | 2043 | OxA-17416 | Charred grain, Hordeum vulgare | 23.25 | $\begin{array}{c} 2458 \pm 25 \text{ BP} \\ 2447 \pm 25 \text{ BP} \end{array}$ | 750–410 cal BC | 760–410 cal BC |
| 2042 | 2065 | OxA-17417 | Charred grain, Hordeum vulgare | 25.90 | | 740–410 cal BC | 760–400 cal BC |

frequencies of burnt flint and charcoal. The upper fills contained 48g of middle Bronze Age pottery.

Waterhole 2927

Waterhole 2927 was 2.23m in diameter and 1.12m deep, with a bowl-shaped profile (Fig. 4.11). A primary fill of grey clay (2946) was overlain by three layers of silty clay, which appear to have slumped into the feature from all sides of the cut (2943–5). The uppermost fill (2942) contained a high proportion of gravel. Small amounts of middle Bronze Age pottery were recovered from the upper three fills.

Waterhole 5113

Waterhole 5113 was an apparently isolated feature investigated during the 1999 watching brief (Fig. 4.11). It was 3.45 x 3.00m in size and 0.93m deep, and contained three layers of silty clay (5114–6). The primary fill contained a partial horse skeleton, which appears to have been butchered and placed within the waterhole in a semi-articulated state (see Charles below). The uppermost fill produced 21g of middle Bronze Age pottery.

Waterholes 5209, 5211, 5218, 5222 and 5228

These five waterholes, measuring 4–5m in diameter, formed a cluster within Watching Brief Area 3. Waterholes 5209 and 5211 were both 0.95m deep, and had a series of grey silty clay fills. Waterholes 5218, 5222 and 5228 were not fully excavated, but appeared to contain similar fill sequences. None of the waterholes produced any datable finds, although two showed a relationship to field system ditches of probable later Bronze Age date. Waterhole 5209 cut ditch 5219, and waterhole 5218 was located at the intersection of ditches 5201, 5217 and 5219, although its stratigraphic relationship to these features could not be established.

Waterhole 5561

Located in Watching Brief Area 2, waterhole 5561 was 2.80m in diameter and 0.82m deep, with a bowl-shaped profile. It contained an initial gravel-rich erosion deposit, overlain by six layers of clay. No finds were recovered.

Early Iron Age

Following the marked reduction in activity during the late Bronze Age, the site was resettled in the early Iron Age. Occupation again focussed on Area 16, where a concentrated cluster of pits (pit group 2042) was surrounded by a more dispersed swathe of pits and postholes. Activity on a smaller scale was found in Areas 12, 13 and 14, along with single pits in Areas 3 and 11 (Fig. 4.12).

Main settlement area

Group 2042 was a dense cluster of 54 pits, many intercutting, placed within a shallow hollow and extending across an area of 9 x 7m (Figs 4.13–15).

The individual pits were up to 1.50m in diameter and 0.95m deep, and generally had moderate to steep sides and a flat base. The pit fills were often dark with frequent charcoal inclusions. The function of the pits is unclear; certainly, they do not closely resemble the cylindrical or bell-shaped storage pits known from Iron Age sites elsewhere in southern England. The intense intercutting made it difficult to elucidate the stratigraphy of the group. In some cases individual layers were recorded as infilling more than one pit, although it is not clear whether this shows that the features were infilled simultaneously or simply reflects problems in distinguishing the fills of different pits.

Collectively, the pits within group 2042 produced 9.5 kg of early Iron Age pottery, representing more than half of the assemblage from the site. The largest quantities came from pit 2169 (1.9kg) and layer 2043/2065 (3.8kg), a dark deposit recorded as forming the upper fill of several pits in the northwest quadrant of the group, including 2131 and 2282. In both cases the pottery included large sherds of fineware and coarseware vessels. Other finds from the pit group included small amounts of animal bone and fragments of a fired clay triangular loomweight or oven brick. Environmental samples from layer 2043/2065 produced a few charred grains of barley and wheat. The barley grains

Table 4.4 Summary of early Iron Age pits, excludingpit group 2042

| Feature | Туре | Diameter (m) | Depth (m) | Finds | |
|---------|------|-----------------|--------------|---|--|
| 207 | 1 | 2.90 | 0.44 | Pottery, animal bone | |
| 1006 | 1 | 1.10 | 0.30 | Pottery, flint | |
| 1237 | 1 | 1.10 | 0.40 | Pottery, fired clay, flint, animal bone | |
| 1267 | 2 | 0.80 | 0.18 | Pottery, fired clay | |
| 1332 | 1 | 1.46 | 0.27 | Pottery, fired clay, flint | |
| 1353 | 1 | 1.00 | 0.40 | Pottery, fired clay, animal bone | |
| 1435 | 2 | 0.95 | 0.25 | | |
| 1448 | 1 | 0.50 | 0.08 | Pottery, fired clay | |
| 1454 | 1 | 1.20 | 0.15 | Pottery, fired clay | |
| 2144 | 1 | 1.20 | 0.30 | Pottery | |
| 2318 | 2 | 0.82 | 0.08 | Pottery, flint | |
| 2340 | 1 | 0.80 | 0.06 | Pottery, fired clay, flint | |
| 2393 | 1 | 0.60 | 0.08 | Pottery, animal bone | |
| 2451 | 2 | 0.43 | 0.16 | Pottery | |
| 2492 | 2 | 1.12 | 0.26 | - | |
| 2494 | 2 | 0.75 | 0.14 | Pottery, fired clay | |
| 2525 | 2 | 0.44 | 0.28 | Pottery | |
| 2551 | 1 | 0.71 | 0.31 | Pottery | |
| 2552 | 1 | 0.56 | 0.14 | Pottery, fired clay | |
| 2618 | 2 | 0.58 | 0.23 | Pottery, flint | |
| 2621 | 2 | 0.54 | 0.14 | Pottery, flint | |
| 2640 | 1 | 1.07 | 0.28 | Pottery | |
| 2642 | 2 | 0.70 | 0.18 | Pottery | |
| 2831 | 2 | 0.51 | 0.20 | Pottery, fired clay, quern fragment | |
| 2836 | 2 | 0.60 | 0.13 | Pottery, fired clay | |

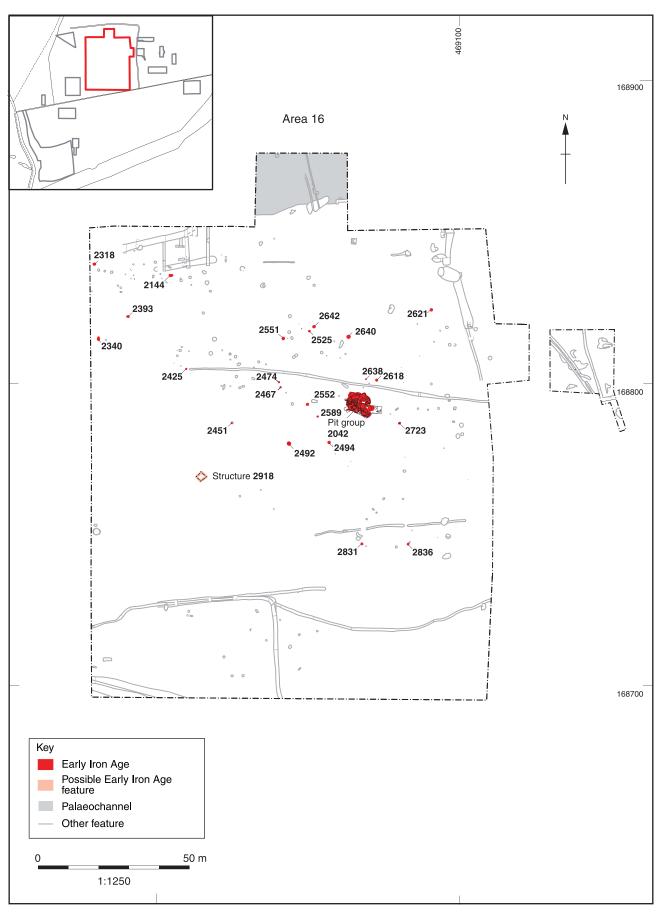


Fig. 4.13 Early Iron Age features in Area 16

Chapter 4

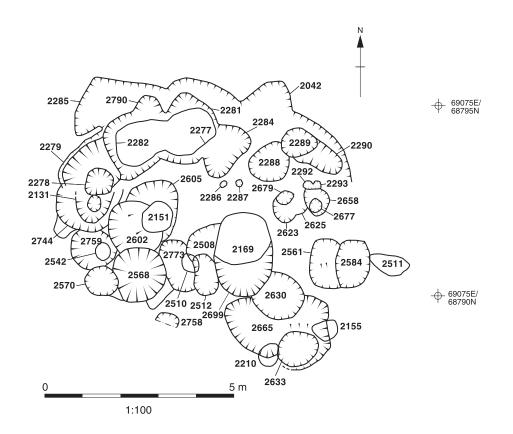


Fig. 4.14 Pit group 2042



Fig. 4.15 Early Iron Age pit group 2042, facing south. Scale: 1m

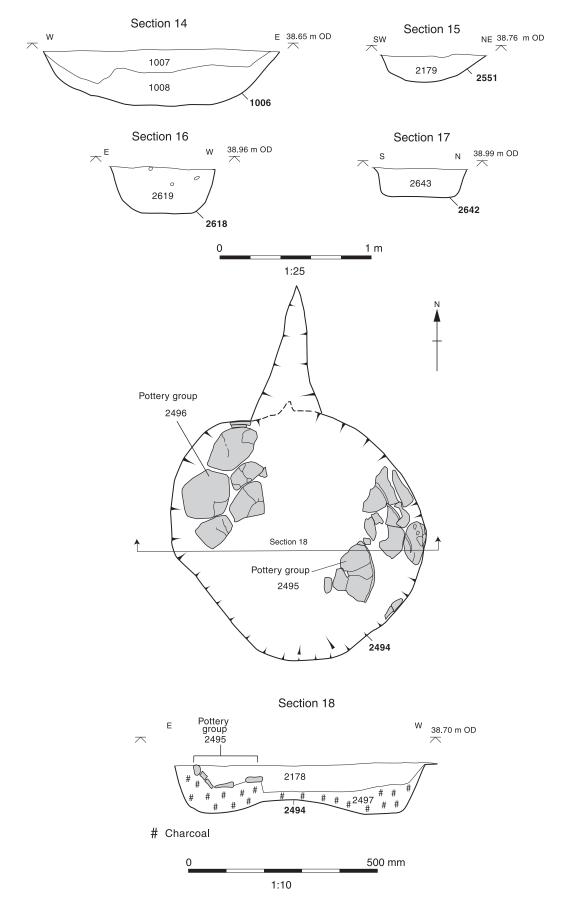


Fig. 4.16 Sections of early Iron Age pits

provided two radiocarbon determinations of 760–410 cal BC (OxA-17416: 2458 \pm 25 BP) and 760–400 cal BC (OxA-17417: 2447 \pm 25 BP) respectively (Table 4.3).

A further 16 shallow pits and 6 postholes were scattered across the main zone of settlement within Area 16 (Fig. 4.13). Following the same typology as used for the middle Bronze Age pits (see above), 6 of the pits were bowl-shaped, measuring up to 1.2m in diameter and 0.31m deep, and 10 were flatbased, measuring up to 1.12m in diameter and 0.28m deep (Table 4.4). The pits generally produced modest quantities of pottery (<350g) and other finds. Two of the flat-based pits contained significantly greater amounts of pottery, however. Pit 2494, located 12m to the south-west of pit group 2042 (Fig. 4.16), had a lower, sandy fill with frequent charcoal inclusions (2497) that was overlain by 2.2kg of pottery in two discrete clusters of sherds (2495 and 2496), before the pit was backfilled (2178). Pit 2836, located at the southern edge of the occupation swathe, had a single dark fill containing 1.0kg of pottery.

The postholes in Årea 16 measured 0.10–0.34m in diameter and 0.14–0.35m deep. They were dispersed across the settlement area and did not form any clear structures, although 2467 and 2474 formed a pair placed 1.5m apart.

Other areas of occupation

A cluster of shallow pits and postholes was located at the northern edge of the southern palaeochannel in Area 12 (Fig. 4.17). Two pits (1237 and 1267) and four postholes (1241, 1247, 1257 and 1269) produced early Iron Age pottery. Further pottery and fragments of triangular fired clay loomweights or oven bricks were recovered from the surface of the palaeochannel (context 1271).

Within Area 13, two bowl-shaped pits (1332 and 1353) and a hearth (1340) were present (Fig. 4.5). Both pits had sterile lower fills and charcoal-rich upper fills containing pottery and fired clay. Hearth 1340 consisted of a sub-circular spread of burnt clay and charcoal, 0.50m in diameter, which produced a few sherds of pottery. A small quantity of early Iron Age pottery was also recovered from alluvial deposits sealing the Bronze Age field system ditches in this area.

Occupation in Area 14 took the form of a loose cluster of postholes (1415, 1417, 1419, 1421, 1431 and 1446) and shallow pits (1435, 1448 and 1454) (Fig. 4.6). The postholes ranged from 0.27–0.38m in diameter and 0.10–0.30m deep; none can be attributed to any recognisable structures. A number of the pits and postholes in this area contained a significant frequency of charcoal and/or fired clay

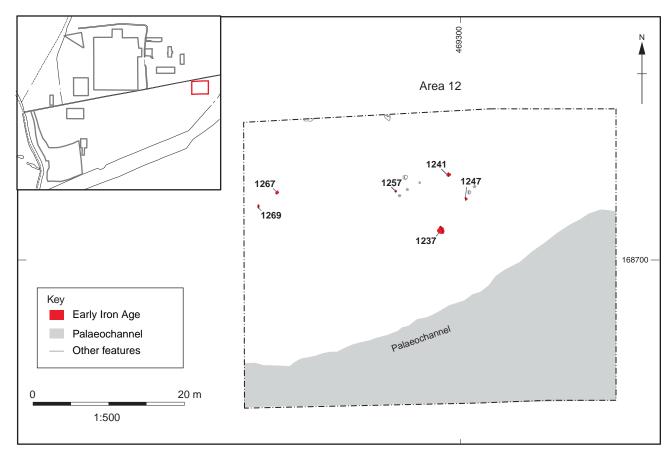


Fig. 4.17 Early Iron Age features in Area 12

inclusions, suggesting that either hearths or ovens or a burned down building lay in the vicinity.

Unphased prehistoric features

A number of pits and postholes scattered across the site produced no dating evidence. Most of the postholes could not be attributed to any recognisable structures. An exception was four-post structure 2918, located in isolation in the south-western part of Area 16 and measuring 2.20 x 2.20m (Figs 4.3 and 4.13). The individual postholes were up to 0.32m in diameter and 0.10m in depth, and contained no finds. The structure is likely to have been associated with either the middle Bronze Age or early Iron Age occupation of the site. Similar four-post structures are a common feature of later prehistoric settlements across the region, and are traditionally interpreted as raised granaries or storehouses (Gent 1983).

Later activity and alluvial layers

Alluvial clay or silt layers predating the modern subsoil sealed several of the middle Bronze Age and early Iron Age features, notably in Areas 12 and 13 and the northern part of Area 16. This indicates that the site was subject to flooding at some point from the later prehistoric period onwards. Some of the alluvial layers sealing the Bronze Age field system ditches contained sherds of probable early Iron Age pottery, especially in Area 13, hinting that the onset of wetter conditions may already have begun in the early to mid 1st millennium BC. This Iron Age pottery could be residual, however; at Green Park 1 similar alluvial layers sealed features of Roman date (Robinson 1992). Other than a few small, stray sherds of Roman pottery, there is no evidence for subsequent human activity on the site predating the post-medieval agricultural use of the area.

ARTEFACTS

Flint by Kate Cramp and Hugo Anderson-Whymark

Introduction

A total of 392 struck flints and 1407 pieces of burnt flint weighing 11.02kg were recovered (Table 4.5). The assemblage can be divided into two groups, which will be dealt with separately in this report. The first group comprises the material from tree throw holes 2429 and 2697 and subsoil layer 2851, which dates to the earlier Mesolithic. The second group comprises the remainder of the assemblage, recovered in a low-density scatter across the site. This is composed of Neolithic and Bronze Age flintwork combined with a residual Mesolithic element.

Methodology

The methodology for the recording and analysis of

the assemblage as a whole followed that used for the Green Park 3 assemblage (see Chapter 2). In addition, technological, metrical and refitting analyses were selectively performed on the Mesolithic assemblages recovered from tree throw holes 2429 and 2697 and alluvial subsoil layer 2851. The technological analysis involved recording diagnostic attributes including butt type, termination type, probable hammer-mode, and the extent and position of dorsal cortex. The presence or absence of platform edge abrasion and dorsal blade scars were also recorded. To compensate for the considerable number of broken pieces, the metrical analysis was performed on all artefacts within the sample. This required taking the maximum length, breadth and width measurements of a specimen, in relation to the perpendicular provided by the striking platform. The intention was to enable the dating of the material to be refined, and to permit a more detailed characterisation of the reduction sequence.

Condition

The majority of the struck flint is in a fresh condition. Post-depositional edge damage is limited both in degree and distribution, and tends to be confined to the more vulnerable flake edges. On the basis of the condition, it is conceivable that the majority of the material has been recovered from *in situ* or minimally disturbed contexts. A few flints displayed a heavier degree of post-depositional damage; others were rolled. These generally occurred as residual material in later contexts.

Almost without exception, the material is uncorticated. Where cortication is present it is generally light, occurring as a blue-white mottled patina on the surface of flints. A total of 77 flints exhibit a light brown iron staining. This staining frequently occurs on flints considered to be of Mesolithic date, with 61.6% of the material from the Mesolithic tree throw holes being iron stained.

Raw material

The raw material consists of a locally available river gravel flint, which contains few thermal fractures and is probably of a good flaking quality. The cortex is generally thin and abraded, and varies in colour from light cream to mid buff. The interior of the flint is relatively fine-grained, usually brown or orangebrown in colour, and contains the occasional lightercoloured cherty inclusion. The raw material used for the Mesolithic artefacts is a particularly good quality gravel flint, possessing a thin, rolled, creamy-coloured cortex.

A single flake of Bullhead flint was recorded from early Iron Age posthole 1237. Bullhead flint occurs in the Bullhead Bed at the base of the Reading Beds (Dewey and Bromehead 1915; Shepherd 1972, 114) and may also occur in the local river gravels in small quantities. The nearest outcrop of the Reading

Table 4.5 Worked flint

| | Mesolithic contexts | Remaining assemblage | | | Total | |
|------------------------------------|---------------------|------------------------|-----------------------|-------|-------|--|
| Category | | Residual Mesolithic | Neolithic contexts | Other | | |
| Flake | 39 | 13 | 2 | 172 | 226 | |
| Blade-like flake | 8 | 1 | - | 7 | 16 | |
| Blade | 22 | 3 | 1 | 13 | 39 | |
| Bladelet | 4 | - | - | 1 | 5 | |
| Rejuvenation flake tablet | - | - | - | 1 | 1 | |
| Rejuvenation flake: core face/edge | 1 | - | - | - | 1 | |
| Rejuvenation flake (other) | - | - | - | 1 | 1 | |
| Chip | - | - | - | 5 | 5 | |
| Irregular waste | 2 | 1 | 2 | 9 | 14 | |
| Single platform flake core | 1 | - | - | 4 | 5 | |
| Multi-platform flake core | | 2 | - | 3 | 5 | |
| Single platform blade core | 1 | 2 | - | - | 3 | |
| Core on a flake | 1 | - | 1 | 6 | 8 | |
| Unclassifiable/fragmentary core | 1 | - | - | - | 1 | |
| Tested nodule | - | - | - | 17 | 17 | |
| Retouched flake | 4 | 3 | - | 11 | 18 | |
| Notch | 1 | - | - | 1 | 2 | |
| Piercer | 2 | - | - | - | 2 | |
| Serrated flake | - | - | - | 2 | 2 | |
| End scraper | - | 1 | - | 5 | 6 | |
| Side scraper | - | - | - | 1 | 1 | |
| End and side scraper | - | - | - | 4 | 4 | |
| Disc scraper | - | - | - | 1 | 1 | |
| Scraper on a non-flake blank | - | - | - | 1 | 1 | |
| Other scraper | 1 | - | - | 2 | 3 | |
| Micro burin | 1 | - | - | - | 1 | |
| Microlith | 2 | - | - | - | 2 | |
| Oblique arrowhead | - | - | - | 1 | 1 | |
| Unclassifiable/other arrowhead | - | - | - | 1 | 1 | |
| Total | 91 | 26 | 6 | 269 | 392 | |

Beds is 2km to the north-east of the site. No artefacts of chalk flint manufacture were convincingly identified in the assemblage; given the quantity of noncortical flakes recovered, it is possible that this source is under-represented.

The reliance on local gravel flint at this site parallels the raw material use at Green Park 3, where the assemblage dated broadly to the later Neolithic and Bronze Age, and appeared to be composed entirely of artefacts manufactured from a local flint type (see Chapter 2). Similarly, at Green Park 2 the flint was predominantly from a derived source, with a few pieces of Bullhead flint also present (Bradley 2004). It was noted that the later Neolithic assemblage contained a better quality local flint than the later Bronze Age assemblage. The Green Park 1 excavations revealed a more distinct chronological difference in the selection of raw material. In the Neolithic there was a preference for chalk flint sources, while the late Bronze Age assemblage was mainly of local gravel flint with only 36% chalk flint (Bradley and Brown 1992). The Moores Farm assemblage appears to bear out this general pattern of the declining importance of good quality flint over time. This can be seen most clearly when the Neolithic/Bronze Age assemblage is compared with the Mesolithic component, the latter containing flint of a better knapping quality.

The Mesolithic assemblage by Kate Cramp

The Mesolithic assemblage consists of 91 flints (Table 4.6). The majority of these were from tree throw holes 2429 (context 2428) and 2697 (context 2696), which contained 54 and 19 pieces respectively. The remaining 18 flints had weathered out of the subsoil in the central part of Area 16 (context 2851).

Assemblage composition

Although flakes form the largest category of debitage, the collection as a whole contains a considerable number of blades and blade-like pieces (37.4%) (eg Fig. 4.30.1–3). This figure is securely within the range predicted for blade-based Mesolithic assemblages (Ford 1987). Context 2696

| | | Context | | |
|------------------------------------|------|---------|------|-------|
| Category | 2428 | 2696 | 2851 | Total |
| Flake | 24 | 6 | 9 | 39 |
| Blade-like flake | 6 | 1 | 1 | 8 |
| Blade | 10 | 9 | 3 | 22 |
| Bladelet | 4 | - | - | 4 |
| Irregular waste | 1 | 1 | - | 2 |
| Rejuvenation flake: core face/edge | 1 | - | - | 1 |
| Single platform flake core | 1 | - | - | 1 |
| Single platform blade core | - | - | 1 | 1 |
| Core on a flake | 1 | - | - | 1 |
| Unclassifiable/fragmentary core | - | - | 1 | 1 |
| Retouched flake | 3 | - | 1 | 4 |
| Flake from a scraper | - | - | 1 | 1 |
| Notch | 1 | - | - | 1 |
| Piercer | 1 | - | 1 | 2 |
| Microlith | - | 2 | - | 2 |
| Micro burin | 1 | - | - | 1 |
| Total | 54 | 19 | 18 | 91 |

Table 4.6 Worked flint from Mesolithic contexts

contained the highest proportion of blades at 47.4%, which is confirmed by the results of the metrical analysis for this material (see below).

Three cores, including a single platform flake core (context 2428), an incomplete single platform blade core, and a possible blade core fragment (both context 2851), were recovered. These weighed 50g, 35g and 74g respectively, producing an average weight of 53g for both complete and incomplete specimens. The flake core exhibited a number of blade-like removals. The cores/core fragments all displayed platform edge abrasion, indicative of a controlled reduction strategy aimed at the removal of flakes and blades of predetermined form. The single platform blade core was probably knapped using a soft-hammer percussor; in the case of the remaining cores, the hammer-mode was indeterminable. A single rejuvenation flake, removing an abraded platform edge, was recovered from context 2428. These cores and rejuvenations are representative of a blade producing industry, consistent with a Mesolithic date.

A single proximal microburin was recovered from context 2428 (Fig. 4.30.4), representing the initial stage of microlith manufacture (Inizan *et al.* 1992, 69). Another blade from this context had a notch near the bulb, and was apparently abandoned before the microburin removal was made (Fig. 4.30.5). Two broad-blade microliths were recovered from context 2696. The complete example (Fig. 4.30.6) is comparable to Jacobi's form 1b (Jacobi 1978, 68); the other was broken, perhaps during manufacture, and may be compared to Jacobi's form 1a.

In addition to the microliths, several other retouched pieces were recovered including two piercers, one notched piece, a retouched blade (Fig. 4.30.8) and a flake from a scraper. Four edgeretouched flakes were also recovered, exhibiting varying degrees of retouch. Macroscopically visible use-wear was detected on two of the retouched flakes, and a further 13 blades and flakes had apparently been utilised. Utilised pieces thus account for 16.5% of the assemblage, a figure that would undoubtedly increase with microscopic analysis.

Metrical and attribute analysis

The metrical analysis of the Mesolithic assemblage did not initially confirm the visual description of a blade-like industry when only intact pieces were considered (Fig. 4.18). Due to the relatively low numbers of intact pieces-resulting from possible microlith manufacture and/or the increased vulnerability of blades to pre- or post-depositional breakage-broken pieces were included in the analysis in order to reach a more representative sample. When these broken pieces were included, a more distinct clustering was noted along and above the 2:1 line (Fig. 4.18). This indicates that despite breakage, the incomplete pieces as a group were more blade-like than the intact pieces. The deliberate selection, and resultant breakage, of the longer, more slender blades during tool manufacture may explain this patterning. Microlith manufacture, in particular, would conceivably produce the observed pattern of breakage. Additionally, the longer pieces are likely to have been more vulnerable to breakage during knapping, use and deposition.

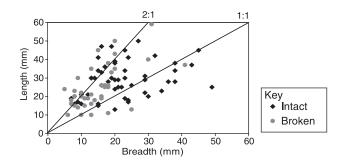


Fig. 4.18 Mesolithic flint assemblage: length/breadth ratio of broken and intact flints

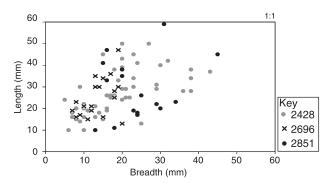


Fig. 4.19 *Mesolithic flint assemblage: length/breadth ratio by context*

The results of the metrical analysis for context 2696 (Fig. 4.19) revealed a more blade-like tendency than in either context 2428 or 2851. The flints from context 2851 appeared least blade-like, and included a noticeably higher proportion of squat flakes. This may suggest that the material from this alluvial subsoil layer incorporates some later prehistoric flintwork. Overall, however, with 22.2% blades and blade-like pieces context 2851 falls within the typical range of Mesolithic and earlier Neolithic mixed assemblages (Ford 1987).

When compared to the degree of breakage in the remaining assemblage, it is apparent that significantly more flints have been broken in the Mesolithic contexts (Fig. 4.20). Context 2428, for example, contained 53.7% broken artefacts (Fig. 4.21). Again, it is possible that the explanation for this patterning lies in the vulnerability of blades to breakage. However, the presence of a microburin and a notched blade from context 2428, representing the early stages of microlith manufacture (Inizan *et al.* 1992, 69), suggests a stage of activity which would result in the breakage of blades.

Technologically, the material from Moores Farm is typical of a Mesolithic industry, including a high incidence of platform edge abrasion (29.7%; Fig. 4.22) and the use of soft-hammer percussion. Context 2696 contained the highest percentage of flints with platform edge abrasion (36.8%), a feature that may be related to the more blade-like form of many of the pieces within this assemblage. With the exception of the material from this context, a correlation between a blade-like propensity and the

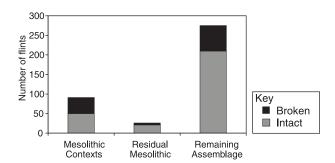


Fig. 4.20 Proportion of broken and intact flints

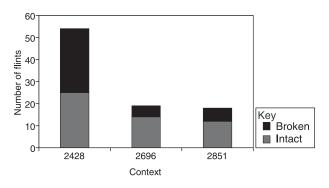


Fig. 4.21 *Mesolithic flint assemblage: proportion of broken and intact flints by context*

presence of platform edge abrasion was not noted for the assemblage as a whole (Fig. 4.23). It can be seen that both abraded and non-abraded flints form a general spread with a slight clustering around the 2:1 line. An analysis of butt-types reveals that, whilst plain butts were the most common type, linear and punctiform platforms were well represented across the assemblages (Fig. 4.24), being particularly abundant in context 2696.

Figure 4.25 demonstrates the close association between punctiform and linear butt-types and a blade-like morphology, compared to the range of size exhibited by pieces with plain platforms. Whilst

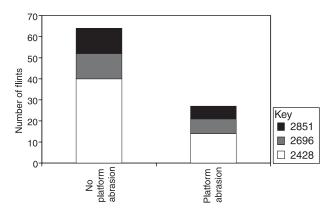


Fig. 4.22 *Mesolithic flint assemblage: platform edge abrasion by context*

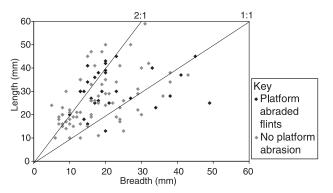


Fig. 4.23 *Mesolithic flint assemblage: length/breadth ratio of flints with and without platform edge abrasion*

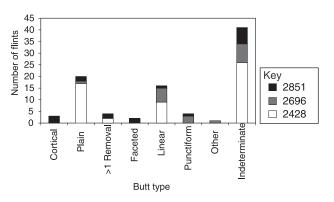


Fig. 4.24 *Mesolithic flint assemblage: butt types by context*

no direct correlation was noted between platform edge abrasion and morphology (Fig. 4.23), it appears that these attributes are indirectly related through butt-type. A total of 43.5% of plain butts had been abraded, compared to 75% of linear butts and 100% of punctiform butts. Platform edge abrasion thus appears to influence butt form, and hence the final shape of the removal. The more laminar form of pieces with linear and punctiform butts reflects attempts to produce blades through careful platform preparation and controlled percussion.

Hammer-mode was inferred using the morphology of the bulb of percussion. Four pieces (all from

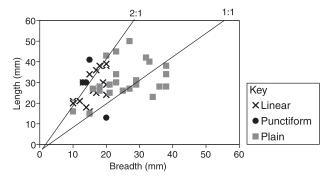


Fig. 4.25 *Mesolithic flint assemblage: length, breadth and butt type*

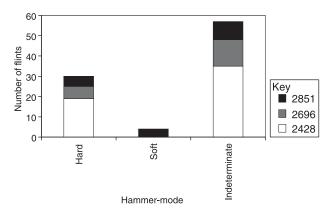


Fig. 4.26 *Mesolithic flint assemblage: hammer mode by context*

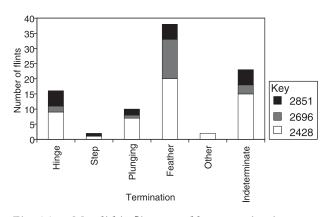


Fig. 4.27 *Mesolithic flint assemblage: termination type by context*

context 2851) possessed lipped, diffuse bulbs and were probably struck using a soft-hammer percussor, such as an antler hammer (Fig. 4.26). Thirty pieces, which exhibited defined and prominent bulbs, were probably struck using a hard hammer. The majority of the flakes had been removed using a percussor of an indeterminate nature or could not be assessed due to breakage. It may tentatively be concluded that the material represents a mixed hammer-mode, with the possible predominance of hard-hammer percussion. The low numbers of hinge and step terminations, which are often associated with hard hammer reduction, in comparison to feather terminations (Fig. 4.27) implies that flakes struck using a soft-hammer percussor are under-represented in the analysis as a result of the difficulty of identification.

The overwhelming majority of flakes and blades (63.7%) are non-cortical (Fig. 4.28). Context 2696 contained the highest percentage of non-cortical removals, at 89.5%. Very few flakes retaining more than 25% dorsal cortex were identified, and only one entirely cortical flake was recovered. A similar pattern is evident from an analysis of flake type (Fig. 4.29). The various categories of secondary removal (side-trimming, distal-trimming and miscellaneous trimming) together provide 28.6% of the total, of which side-trimming flakes were the most frequently occurring sub-type.

The under-representation of flakes retaining

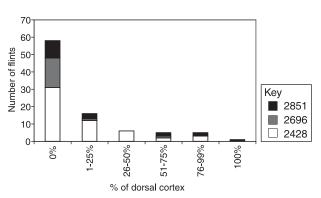


Fig. 4.28 Mesolithic flint assemblage: dorsal cortex extent by context

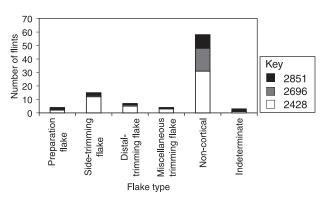


Fig. 4.29 Mesolithic flint assemblage: flake type by context

dorsal cortex, and in particular of wholly cortical flakes, implies that cores were at least partially prepared elsewhere. The predominance of noncortical pieces suggests that, rather than general knapping waste, the groups of Mesolithic flintwork represent selected elements of the range of debitage produced in the course of a knapping episode. These pieces may have been preferred by virtue of their suitability for use and/or for secondary reworking as part of microlith manufacture.

Two refitting flakes were recovered, both from context 2428 (Fig. 4.30.9). A third flake may have been struck from the same core, but would not refit. These flakes are undiagnostic, and may date from the Mesolithic to Bronze Age. Contexts 2428 and 2696 both contained several small groups of flakes, from two to four pieces, that were identified as related groups on the basis of similarities in flint type. It is possible that these pieces were struck from the same core, although no refits were found to confirm this.

Discussion

The presence of earlier Mesolithic flint work at Moores Farm, both as a general spread across the site and in higher quantities within two tree throw holes, is significant. Excavations 200m north of the site at Pingewood produced a very small number of artefacts dating to the earlier Mesolithic, which included a microburin and scrapers (Care 1985, 33–5). Otherwise, few early Mesolithic findspots are known in the area, although a number of sites have been located in the Middle Kennet Valley (Lobb and Rose 1996, 74), and a substantial assemblage of Mesolithic flintwork was recovered from Park Farm, Binfield, 16km to the east (Ford and Roberts 1995). The large-scale excavations at Green Park 1 and 2 produced no evidence for Mesolithic activity (Bradley and Brown 1992; Bradley 2004), although a few pieces of probable Mesolithic or early Neolithic flintwork were recovered from Green Park 3 (see Chapter 2).

The assemblage from context 2696 appears to be the most technologically coherent. This feature contained both of the two broad-blade microliths, and the debitage component exhibited the most blade-like propensity. Although context 2428 contained two refitting flakes, the assemblage does not represent the full range of debitage produced in the course of a knapping event. The paucity of cortical flakes implies that the waste flakes produced during the decortication stage of the knapping sequence were deposited elsewhere, perhaps at the immediate source of the raw material. The absence of spalls may reflect sampling strategies or a collection bias, but again implies that the material was not deposited in the context of a knapping event.

Conversely, the percentage and range of retouched and utilised pieces in the assemblage indicates that the flints were deposited following various tool-using activities, and as such probably represent a selection of knapping products that were formed into a tool-kit. The range of retouched forms implies that a series of different tasks were performed, and that the site was not a specialised activity area. The relatively frequent occurrence of side-trimming flakes in the assemblage may reflect the preferential selection of naturally backed pieces for utilisation. Possible evidence of microlith manufacture, including a microburin and a notched blade, may suggest that tool-kits were being supplemented or maintained at the site. In the context of this interpretation, the cores may have been transported as raw material for the replenishment of the tool-kit, as needed. This could explain the presence of the two refitting flakes from context 2428.

The Mesolithic material from Moores Farm represents a low-density concentration, particularly when compared to the much larger quantity of flints recovered from occupation sites in the Middle Kennet Valley such as Thatcham (Healy *et al.* 1992) and Wawcott (Froom 1972; 1976). Unlike Area A/M at Binfield (Ford and Roberts 1995), where the pattern of distribution appeared to represent numerous superimposed concentrations over a wide area, the Mesolithic flints from Moores Farm were concentrated in three contexts in close proximity. These concentrations should be viewed against a general background spread of residual Mesolithic material (see below).

It is probable that the flintwork was deposited in the context of short term or temporary occupation. The assemblage appears to contain a notable earlier Mesolithic component; no diagnostic pieces of later date are present. It is possible, therefore, that the flints were deposited in one episode of activity over a relatively short period. The flints may have been cached or discarded in hollows following a brief stopover, for example, in the course of which toolkits were renewed and a range of activities performed. Although it cannot be ruled out, there is no clear evidence to suggest that the material represents superimposed deposits resulting from the revisiting of the site. Similarly, the limited quantity of material and its discrete concentration strongly implies a small-scale, off-site activity area rather than a riverside base-camp.

The remaining assemblage by Kate Cramp and Hugo Anderson-Whymark

The remaining assemblage is composed of 301 flints (Table 4.5). Six pieces were recovered from middle Neolithic contexts, with the remainder being recovered from middle Bronze Age or early Iron Age features or as unstratified material. The flintwork is thinly distributed across the site; only four features produced more than 10 pieces, all dating to the middle Bronze Age (pits 2146, 2441 and 2742 and 'oven' 2359). Most of the material dates broadly to the Neolithic and Bronze Age, combined with a residual Mesolithic element. Given the low density of the material, it will be discussed as one assem-

blage, with separate reference to residual Mesolithic flints where appropriate.

The flakes are generally small, although some are of relatively broad dimensions. A mixture of hard and soft percussion appears to have been used. Blades, bladelets and blade-like flakes were less numerous than flakes (8.8%). This is significantly lower than the percentages for the Mesolithic contexts, and reflects the later prehistoric date of much of the material. Several fine soft-hammer blades were nonetheless present in the assemblage. A number of these exhibit dorsal blade scars and platform edge abrasion, and appear to belong to a Mesolithic blade industry.

Twelve pieces of irregular waste were identified, most of which represent attempted flake removals that were struck or had shattered down thermal fractures. Only five spalls were present in the assemblage; this is a disproportionately low figure, and is probably the result of excavation methods rather than the absence of microdebitage *per se*. Consequently, it cannot be certain whether the paucity of spalls is a true reflection of the original composition of the assemblage.

A range of formal core types were recovered, including four single platform flake cores, five multi-platform flake cores (eg Fig. 4.30.10), two single-platform blade cores and seven cores on flakes. The complete specimens weighed between 9g and 174g, with an average weight of 39.7g. The flake cores generally lacked much platform preparation and were aimed at expedient flake production rather than controlled blade production. The majority can be broadly attributed to industries of the later Neolithic or Bronze Age, although most probably date towards the later end of this range. Two of the single-platform blade cores exhibit a series of unidirectional blade removals and platform edge abrasion, and are probably of Mesolithic date. Both have been manufactured from a good quality gravel flint.

Tested nodules, defined as partially worked cores exhibiting a limited number of removals, occurred frequently within the assemblage, with 17 examples (48.6% of all core types). The majority consisted of relatively small gravel flint nodules, often in a frostshattered condition, from which two or three flake removals had been taken. It is likely that the first few preparatory removals were designed to assess the knapping suitability of these pieces, which were subsequently abandoned when thermal fractures were encountered.

A total of 34 retouched pieces were present in the assemblage, providing 11.5% of the total. The most commonly occurring type within this group was the edge-retouched flake. A total of 14 were recovered, exhibiting varying degrees of retouch. Most, however, were characterised by slight abrupt retouch along one of the lateral margins. An edge-retouched blade from the subsoil in Area 4 is probably of early Mesolithic date, and has two notches that may have been related to microlith manufacture.

A total of 15 scrapers were recovered. The majority were end scrapers and end and side scrapers, although one disc scraper (Fig. 4.30.11) was present and a possible fragment of an early Bronze Age thumbnail scraper (Fig. 4.30.12) was also identified. The upper fill of middle Bronze Age waterhole 2610 contained a flake that had been struck from a scraper manufactured on a non-flake blank. As a group, scrapers form 44.1% of the retouched component and 5.1% of the total assemblage from the site. This constitutes an unusually high proportion, and may indicate that hide preparation was an important activity on site.

Two arrowheads were recovered as unstratified finds from Area 16. These comprised a later Neolithic oblique arrowhead (Fig. 4.30.13) and an undiagnostic fragment of a finely retouched arrowhead (Fig. 4.30.14). The latter may be part of a leaf, oblique or barbed and tanged form, and can only be broadly dated between the early Neolithic and early Bronze Age. The assemblage also contained two incomplete serrated flakes, recovered from an early Iron Age pit (Fig. 4.30.15) and undated tree throw hole 2656. Again, these artefacts may date from the Mesolithic to the Bronze Age.

Compared to the material from the Mesolithic contexts, a high proportion of the remaining assemblage exhibited evidence of burning. A total of 27 flints (9%) had been burnt, whilst only three flints (3.3%) in the Mesolithic assemblages displayed heat damage.

Discussion

Much of the remaining assemblage has been redeposited; no large, potentially *in situ* groups were detected. Most of the material, with the exception of the later Neolithic oblique arrowhead, can only be dated broadly to the Neolithic and Bronze Age. There is also undoubtedly some residual Mesolithic flintwork, represented by some of the fine blades and possibly some of the scrapers. The low density of material across numerous contexts would suggest that this material represents a background spread, rather than an occupation or working area. Nonetheless, the high proportion of scrapers within the assemblage may suggest a focus on hide preparation or similar activities.

Catalogue of illustrated flint (Fig. 4.30)

Mesolithic assemblage

- 1 Blade. Alluvial layer 2851
- 2 Blade. Tree throw hole 2429, context 2428
- 3 Blade. Tree throw hole 2429, context 2428
- 4 Microburin. Tree throw hole 2429, context 2428
- 5 Notch. Tree throw hole 2429, context 2428
- 6 Microlith, Jacobi type 1b. Tree throw hole 2697, context 2696
- 7 Microlith, Jacobi type 1a. Tree throw hole 2697, context 2696
- 8 Retouched blade. Tree throw hole 2429, context 2428
- 9 Refitting flakes. Tree throw hole 2429, context 2428

Chapter 4

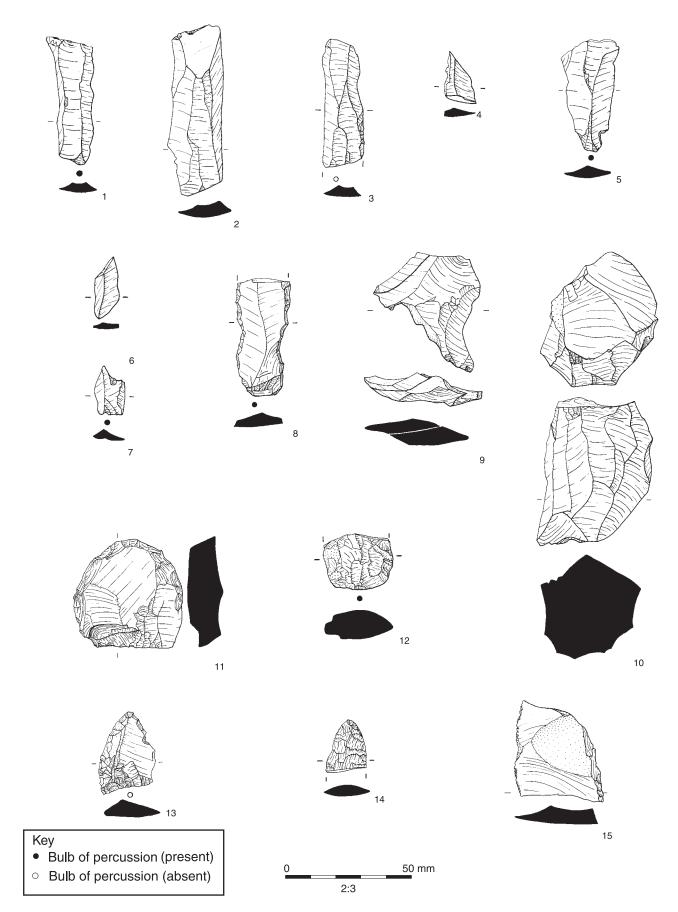


Fig. 4.30 Worked flint

Remaining assemblage

- 10 Multiplatform flake core. SF 31. Early Iron Age pit group 2042, layer 2044
- 11 Disc scraper. SF 6. Subsoil, Area 13 (context 1304)
- 12 Possible thumbnail scraper. Early Bronze Age? Early Iron Age posthole 1237, context 1238
- 13 Oblique arrowhead. Later Neolithic. SF 9. Subsoil, Area 16 (context 2001)
- 14 Unclassifiable arrowhead. SF 25. Unstratified, Area 16 (context 2172)
- 15 Serrated flake. Early Iron Age pit group 2042, pit 2508, context 2509

Neolithic and early Bronze Age pottery

by Sandy Budden and Elaine L Morris

Introduction

The assemblage of Neolithic and early Bronze Age pottery totals 238 sherds (1000g; Table 4.7). Owing to the small size of the assemblage individual vessels have been characterised, where sufficient evidence exists. The assemblage divides into four chronological groups. Most prominent of these is the Neolithic material, which is dominated by Peterborough, or Impressed, wares (Gibson 2002, 78-82). Late Neolithic/early Bronze Age pottery includes Beaker material and is the smallest group. Early Bronze Age sherds are also rare. The undiagnostic 'Indeterminate' group is made up of sherds that cannot be confidently assigned to any of the above groups, but which are clearly earlier prehistoric based on fabric. The methodology used in this analysis follows the guidelines of the Prehistoric Ceramics Research Group (PCRG 1997). All sherds have been subject to both macroscopic inspection and microscopic inspection at x20 magnification and have been assigned to each chronological group based on a combination of fabric, form, surface treatments and decorative characteristics. Seven fabric groups have been identified and these are described below.

Table 4.7 Quantification of Neolithic and early BronzeAge pottery by pottery date

| Pottery date | No. of sherds | Weight (g) | No. of rim sherds | No. of base sherds |
|----------------------------|------------------|---------------|-------------------------|--------------------------|
| Neolithic | 209 | 763 | 9 | 9 |
| Neolithic/early Bronze Age | 6 | 13 | 1 | - |
| Early Bronze Age | 11 | 115 | 3 | - |
| Indeterminate | 12 | 109 | 1 | - |
| Total | 238 | 1000 | 14 | 9 |
| | | | | |

Fabrics

Analysis revealed three broad fabric groups based on the dominant inclusion present: flint, grog and quartz. Each of these groups becomes further subdivided by identification of variations of size, density and combinations of inclusions and the presence of varied clay matrices, making a total of 11 fabrics (Table 4.8). Of these by far the most dominant fabric type is F1 which is associated with all the Neolithic İmpressed Wares, in particular the pots identified as Mortlake bowls, and is a fabric typical of this pottery type (Cleal 1995, 189). Fabric F2 varies most notably from F1 in its clay matrix of rounded rather than angular quartz and is associated with a possible Fengate Ware base and a decorated Fengate body sherd. Of particular interest is fabric Q2 which appears just once as a Mortlake rim. Angular-quartz-bearing fabrics in the Mortlake sub-style are particularly noted in Wales (Gibson 1995, 33) and a known phenomenon in the Oxfordshire region. It is interesting that the same apparent Mortlake sub-style present in the Moores Farm assemblage occurs in two such contrasting fabrics with clear differences in the execution of decoration and firing relating to these fabric types. This could well suggest the work of two different potters. Fabric F4, with 70% flint temper in what otherwise appears to be a Beaker sherd, is another interesting anomaly within this assemblage as flint in this quantity is not a tempering practise common to Beaker vessels. All the other fabrics in this small assemblage fall into appropriate classifications for the periods that they represent and there is nothing to suggest anything other than local origins for the pottery assemblage as a whole.

Flint-tempered group

F1: An orange through to dark red and black fabric, the latter caused by an unoxidised firing atmosphere but also by refiring. Common (25%) inclusions of poorly sorted angular flint range in size from 0.25 to 6mm. Of this flint 15% ranges from 0.25 to 1mm while 10% is between 2 and 7mm and is particularly poorly sorted. Some of the flint in this fabric group is flint core and appears degraded possibly from refiring and ensuing decomposition following deposition. The clay matrix of this fabric contains very common (30%), angular and subangular, fine quartz and rare (2%) pieces of red iron, both of which are very well sorted. The fabric is hard with a well-compacted surface despite the flint inclusions. The fracture is laminated.

F2: Well oxidized, orange fabric with common (25%) inclusions of poorly sorted angular flint, ranging from 0.25 to 4mm in size. Of this flint 10% ranges from 0.25 to 1mm, while 15% is between 1 and 4mm, with the vast majority of inclusions lying in the 2mm range. The sorting of these larger inclusions is very poor. The clay matrix of this fabric contains moderate (10%), rounded, fine quartz. The fabric feels soft to medium with a rough texture and has a hackly fracture.

F3: A highly oxidized, orange to red fabric with

common (20%) inclusions of poorly sorted, multifaceted, angular, calcined flint with a grey crackled appearance, 0.5 to 7mm across. This fabric is particularly characterized by the irregular, multifaceted flint on the exterior surface. The clay matrix contains common (20%), angular, medium to fine, well sorted, quartz and 3–5% poorlysorted, well-rounded red iron. The fabric is soft to medium with a very rough surface texture and hackly fracture.

F4: An oxidized exterior surface but otherwise unoxidised fabric, black with some buff colouring. Inclusions are an unusually abundant (70%) amount of poorly sorted angular, calcined flint, 1–2mm across. The high density of the inclusions makes identification of the clay matrix impossible without resorting to petrological analysis. The fabric is of medium hardness with a rough texture and hackly fracture.

Grog-tempered group

G1: A highly oxidised orange and buff fabric with moderate (10%), moderately sorted, angular grog, 2–3mm across. Also present is sparse (5%) angular, very poorly sorted flint ranging from 0.5 to 3mm. The clay matrix contains abundant (40%), very fine, rounded quartz. The fabric is soft, feels powdery and has a hackly fracturing surface.

G2: A highly oxidised, orange fabric with moderate (10%), well-sorted, angular grog measuring 1–2mm across. The grog is hard to detect and 10% is suggested as a reasonable quantity present. Also present is sparse (7%), moderately sorted, angular flint, 0.5–1mm in size. Rare (1%), well rounded, red iron generally 1mm in size is a characteristic of this fabric. The clay matrix contains common (20%), fine rounded quartz. This is a fine, dense, medium to hard-fired fabric with a surprisingly rough surface texture and a smooth fracturing surface.

G3: A black, unoxidised, fabric with moderate (15%), moderately sorted, angular, grey grog ranging from 0.5 to 2mm. It is probable that the grog content is not of the same fabric as the sherds examined. The clay matrix includes common (20%), fine, well-sorted, rounded quartz. G3 is of medium hardness with a soapy texture and has a hackly fracture.

G4: An orange, iron rich, oxidised fabric with very common (30%), poorly sorted, angular grog that appears to be the same or very similar to the fabric of the sherds examined. The grog ranges from 1–4mm in size. The clay matrix includes abundant (40%), well-rounded, fine to medium, quartz with red iron also present. This fabric is soft, feels powdery, with a very slightly grainy surface texture and a smooth to hackly fracture.

G5: A red, orange and black fabric with oxidised exterior surfaces and both oxidised and unoxidised interior surfaces. The majority of G5 sherds appear well tempered with grog but firing conditions of this fabric makes it hard to suggest precise amounts. Moderate (10%) to common (25%) moderately sorted, angular grog ranging from 1–2mm in size is, therefore, the suggested description. Sparse (7%), well sorted, calcined, angular flint, 1–4mm in size, is also present. The well-sorted and angular nature of this flint suggests its use as a deliberate tempering agent despite the low percentage present. The clay matrix contains very common (30%), fine, rounded quartz with iron also present. This fabric is hard, particularly on exterior surfaces, with a smooth texture and has a laminated fracture.

Quartz/quartzite-bearing group

Q1: A buff/black fabric generally showing unoxidised firing conditions but with oxidised exterior surfaces. Q1 has sparse (7%), poorly sorted, angular quartz ranging in size from 2–4mm. Given the low

| Table 4.8 Quantification of Neolithic and early Bronze Age 1 | pottery by fabr | ic |
|--|-----------------|----|
|--|-----------------|----|

| | Nec | Neolithic | | Neolithic/early Bronze Age | | Early Bronze Age | | Indeterminate | | Total | |
|--------|-----|------------|-----|----------------------------|-----|------------------|-----|---------------|-----|-----------|--|
| Fabric | No. | Weight (g) | No. | Weight (g) | No. | Weight (g) | No. | Weight (g) | No. | Weight (g | |
| F1 | 195 | 667 | 0 | 0 | 0 | 0 | 1 | 3 | 196 | 670 | |
| F2 | 4 | 21 | 1 | 5 | 0 | 0 | 1 | 6 | 6 | 32 | |
| F3 | 9 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 70 | |
| F4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 1 | 4 | |
| G1 | 0 | 0 | 0 | 0 | 3 | 89 | 0 | 0 | 3 | 89 | |
| G2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | |
| G3 | 0 | 0 | 0 | 0 | 3 | 4 | 2 | 9 | 5 | 13 | |
| G4 | 0 | 0 | 3 | 3 | 5 | 22 | 0 | 0 | 8 | 25 | |
| G5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 50 | 7 | 50 | |
| Q1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 41 | 1 | 41 | |
| Q2 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | |
| Total | 209 | 763 | 6 | 13 | 11 | 115 | 12 | 109 | 238 | 1000 | |

frequency of these large quartz inclusions it is difficult to place them as deliberate temper. However, the clay matrix also contains moderate (10%), rounded fine naturally-occurring quartz, and is likely to be the same matrix as in fabric F1 which suggests that the large quartz fragments are possibly temper. The fabric is soft with a rough, soapy feel and hackly breaking surface. The general appearance is of a highly laminated fabric.

Q2: A black, unoxidised, laminated fabric with sparse (5%), moderately sorted, angular quartzite ranging in size from 0.5 to 2mm. As with Q1 the low percentage of quartz present makes it difficult to determine if this is a deliberate tempering agent. The clay matrix of Q2 contains common (20%), rounded, well-sorted, naturally occurring quartz with black iron also present. The fabric is hard, especially on the exterior surface, with a smooth texture and a rough fracturing surface.

Neolithic pottery

Neolithic pottery makes up the majority of the assemblage (Table 4.8). The mean sherd weight is only 3.7g, which indicates the fragmented condition of the vessels. The pottery belongs to the Mortlake and Fengate sub-styles of Impressed Wares, dating to the middle Neolithic, *c* 3500–2800 cal BC (Barclay 2002, 90). In terms of fabric the Neolithic material is dominated by F1 (Table 4.8) which is characteristic of Neolithic Impressed wares (Cleal 1995, 185–94). One vessel in this fabric appears to have been subjected to processes of reburning after use as a cooking pot. Each identified vessel is described below.

Vessel 1 (Fig. 4.31.1): Recovered from Neolithic hollow 2967 (context 2969). No rim sherds are present. There are three slightly rounded basal sherds and 123 body sherds, mostly of a reasonable size, averaging 30mm across. Despite the absence of a rim the numerous sherds, decoration type and fabric all combine to define this as a single globular Mortlake bowl. The quantity of sherds, combined with an average wall thickness of 10mm, allows the suggestion that this bowl may be somewhat larger than Vessel 2 described below. Decoration covers the exterior of the pot, with the exception of the basal sherds, and takes the classic form of bird or small mammal bone impressions (Gibson 2002, 79) accompanied by a small amount of twisted cord decoration. Fabric F1 has been used for the manufacture of this pot.

Vessel 2 (Fig. 4.31.2): Recovered from the same context as Vessel 1. The morphology, and impressed whipped cord, 'maggot' decoration, which is particularly crisp, indicates that this is a second Mortlake bowl. The available rim sherds, *c* 6% present, reveal a diameter of 160–180mm suggesting it had been a medium-size pot for this sub-style (Barclay 2002,

91). The construction of the rim is particularly clear allowing for an accurate description of the manufacturing process. The basic rim had been formed and then small coils were added internally and externally in order to embellish the rim morphology and create a better platform for the impressed decoration. Based on wall thickness measurements and fragmentation, this is probably a smaller vessel than Vessel 1. The sherds from Vessel 2 include all of the reburnt sherds within the F1 fabric description. There is some evidence of both sooting and residues associated with this vessel which suggest an association with food preparation. However, the very dark nature of the sherds indicates that this alone cannot account for the refired appearance of this vessel. What is certain is that Vessel 2 was not in close association with Vessel 1 when it was reburnt, because there is no corresponding evidence of burning on Vessel 1. This suggests that the reburning may have occurred prior to deposition in hollow 2967.

Vessel 3: Represented by a single, small basal sherd which is flat externally and slightly rounded internally. Again, it is constructed in fabric F1 and was recovered from the same context as Vessels 1 and 2. The construction of the base leads to the suggestion that this may belong to a Fengate vessel.

Vessel 4 (Fig 4.32.3-4): The sherds ascribed to this vessel include a base sherd and a decorated body sherd. The base sherd (Fig. 4.32.3) was recovered from middle Bronze Age ditch 2041, and has a rounded interior and flat exterior, with a base diameter of 80–100mm. The F2 fabric with its highly laminated structure and firing characterise this as a Neolithic sherd, most likely a Fengate style base. The decorated body sherd (Fig. 4.32.4) was recovered from middle Bronze Age pit 2441, 80m to the west. The decoration takes the form of tiny bird or mammal bone impressions. Despite the different contexts of final deposition, the two sherds share many distinctly similar characteristics. The possibility that they are from two vessels of the same style cannot be ruled out, but the favoured interpretation is that they represent a single vessel and that this anomaly may reflect redeposition occurring on the site.

Vessel 5 (Fig. 4.32.5): This unstratified sherd is very definitely characterised as a Mortlake vessel through reference to rim morphology and the very clear whipped cord, maggot decoration. This vessel was manufactured in fabric Q2 and fired in an unoxidising atmosphere making an almost entirely black fabric.

Vessel 6: This consists of four body sherds from Neolithic posthole 2900, dated by their manufacture in fabric F3. One is a very small base sherd with a flat exterior and slightly curved interior. In the absence of any other significant featured sherds it is

not possible to do more than suggest that these sherds may belong to another Fengate vessel.

The final four sherds in the Neolithic group add weight to the argument for extensive redeposition amongst the Neolithic material. All are plain body sherds. Three sherds in fabric F1 and bearing all the same characteristics as Vessel 1 were found in middle Bronze Age contexts (ditch 2078, posthole 2890 and fill 2943 of waterhole 2927). Either these sherds represent other vessels exhibiting identical characteristics to Vessel 1 or we are seeing evidence of redeposition of sherds belonging to Vessel 1. The final sherd is also in fabric F1, and has the same reburnt characteristics as Pot 2, but was found in early Iron Age tree throw hole 2336.

Late Neolithic/early Bronze Age pottery

This period is scantily represented within the assemblage and is somewhat problematic in nature. There are just four possible vessels, only one of which, Vessel 7, is characterised through reference to a featured sherd.

Vessel 7 (Fig. 4.32.6): Represented by two joining rim sherds, counted as one for quantification purposes. The rim is slightly incurving with a squared off, flattened lip, and has a diameter of *c* 120mm. This is a very fine pot manufactured in fabric G2, which contains grog, flint and sand, and appears to be very similar in character to the G21 fabric at Field Farm, Burghfield (Mepham 1992a, 40). This combination of tempering materials is not a common fabric for Beaker vessels but is noted by Cleal (1995, 188) to represent 8% of Beaker fabrics in the Wessex region. The vessel fits well into Boast's (1995, 72) characterisation of Beakers found in settlement contexts in that its very fine, but plain, surface is untreated apart from limited smoothing. The sherds were recovered from early Iron Age pit 1267, indicating redeposition.

The remaining sherds in this group are all problematic to one extent or another. One unstratified plain body sherd from Area 16 exhibits Beaker characteristics in terms of its general appearance but is manufactured in fabric F4, which consists of 70% of angular flint. This is unusual for a Beaker vessel but not unheard of (Mepham 1992a, 42; Cleal 1995). It shows evidence for burnt food residues on the interior surface. Three highly abraded fragments from middle Bronze Age posthole 2813 are in a grogtempered fabric which displays typical Beaker characteristics. A final sherd from middle Bronze Age ditch 2500 is again established as Beaker only on the grounds of general characteristics.

Early Bronze Age pottery

This is a slightly more substantial group than the late Neolithic/early Bronze Age group.

Vessel 8 (Fig. 4.32.7): This consists of two joining,

plain rim sherds of a neutral-profile vessel with a rim diameter of *c* 220mm. The grog-tempered fabric, G1, and general rim form characterise this as of Early Bronze Age origin. It was recovered from posthole 2531.

Vessel 9: This is very similar in character to Vessel 8, manufactured in the same G1 fabric, and was recovered from the same context. However, the wall thickness of the rim is 2–3mm greater than that of Vessel 8, and the rim morphology is of a slightly different character. In addition, the rim of Vessel 8 has no surface treatment while that of Vessel 9 is noticeably smoothed on its interior surface.

A further plain body sherd in fabric G1 was recovered from posthole 2890 and could derive from either of the above vessels; wall thickness and surface treatment suggest a close link with Vessel 9. This is one of the few sherds in this assemblage with evidence of burnt food residue. It may be that this sherd represents a third vessel in this fabric group, or simply disturbance and redeposition of sherds.

Vessel 10 (Fig. 4.32.8): This is a small, bevelled rim sherd, found in middle Bronze Age pit 2144. Its fabric, G3, and morphology suggest the possibility that this rim is part of a Biconical Urn although no precise parallel has been found.

Vessel 11 (Fig. 4.32.9): This is a single decorated body sherd manufactured in fabric G4. The orientation and nature of the applied cordon with impressed finger decoration suggests a horseshoe handle of a Biconical Urn more in keeping, perhaps, with the later Ardleigh style (Brown 1995, 127) than those found on Wessex horseshoe-handled urns (Gibson 2002, 100).

Four further sherds also manufactured in fabric G4 share many similar characteristics to Pot 11 but were found in a number of different contexts, again leaving us to wonder whether we have a number of similar vessels or one vessel that has been subject to redeposition.

Indeterminate pottery

This group of pottery consists of sherds that cannot be confidently assigned to any of the three preceding chronological groups. It is also not possible to confidently identify individual vessels. Significant within this group is a small, plain rim sherd in fabric F1, recovered from middle Bronze Age ditch 2109. There is also a striking group of sherds manufactured in fabric G5 and sharing firing and surface treatment characteristics which result in a highly distinctive 'leathery' texture and dark brown colour. All but one of the sherds also share a wall thickness of 7–9mm. Each sherd in this group was, however, found in a different context, with no

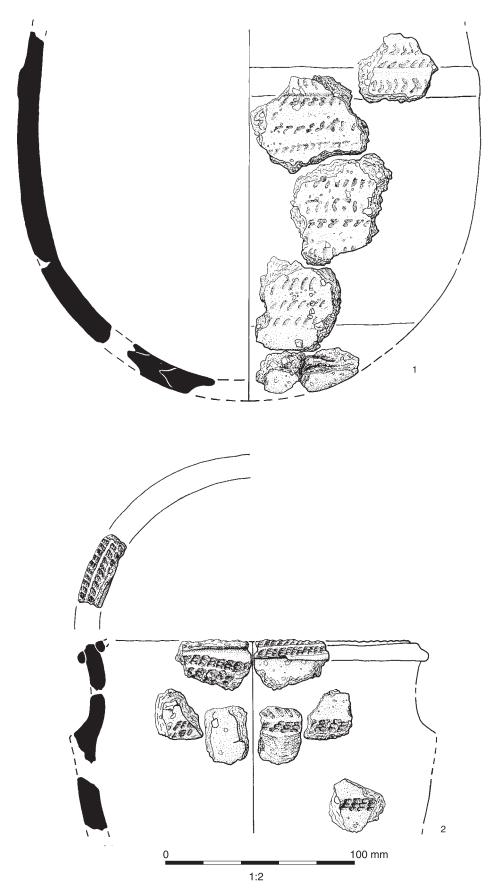


Fig. 4.31 *Neolithic pottery, nos* 1–2

apparent relationship across the site. These sherds represent either the repetitive use of particular manufacturing strategies to produce a number of very similar vessels, or yet again these sherds are linked to the apparently highly disturbed nature of the earlier prehistoric archaeology at Moores Farm. Cleal and Raymond (1990, 120) suggest that sherds of the same fabric occurring widely scattered across a site cannot be used to chart the movement of individual pots. Perhaps, however, this is only the case if we are unprepared to accept that sherds exhibiting strong technological signature traits, as with the G5 fabric group, may just as well represent one pot as several.

Discussion

With reference to each of the pottery groups within this assemblage there appears to be considerable evidence of disturbance of early prehistoric deposits across the site. The only other explanation for so many technologically similar sherds deriving from separate contexts would be a very low presence of sherds originating from more vessels across the site than have been suggested in this report. This, however, seems an unlikely scenario for two reasons. Firstly, this would seem not to account for the multi-periodicity of the phenomenon. Secondly, in the case of the G5 fabric group, it assumes that pots were being made on a scale of production that is perhaps more suited to later prehistoric periods. The nature of this disturbance is not necessarily caused by the same factors across the whole assemblage. The digging of pits in the later Bronze and Iron Age may account for some of this disturbance, for example the Beaker rim found in an early Iron Age pit, but it seems unlikely that this is should be regarded as the sole cause of redeposition, particularly in the case of the G5 fabric group. Given the known intricacies of Impressed Wares in relation to social, and possibly ritual, activity in earlier prehistory (Barclay et al. 1996, 5; Thomas 1991, 89–125; Cleal 1984, 146–50), and as a new technology, careful consideration should be given to the many possible reasons for deliberate movement of pottery sherds to different parts of the site.

This kind of action is perhaps underlined by the refiring of Vessel 2 at some time in its biography. This may be incidental, for example, accidental refiring within a hearth, which given the evidence of sooting and residues associated with it seems a reasonable supposition. However, it could just as easily be linked to similar complex actions such as

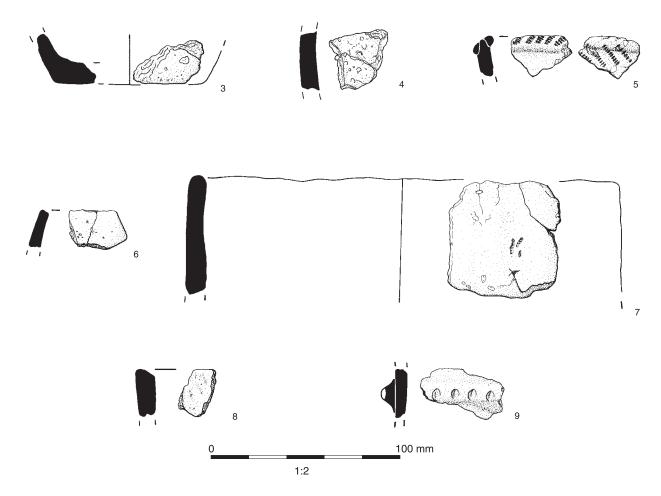


Fig. 4.32 Neolithic and early Bronze Age pottery, nos 3–9

those outlined by Barclay *et al.* (1996, 8) with regard to tree felling in earlier prehistory in the Oxford region or to other forms of ritual behaviour (Barclay *et al.* 1996, 5; Thomas 1991, 89–125; Cleal 1984, 146–50).

Catalogue of illustrated pottery

- 1 Mortlake Bowl; fabric F1; decorated with bird/ mammal bone and twisted cord impressions; smoothed interior and exterior surfaces; oxidised exterior and unoxidised interior. Neolithic hollow 2967, context 2968.
- 2 Mortlake Bowl; 6% of c 160–180mm diameter present; fabric F1; whipped cord 'maggot' decoration; very well smoothed (polished) interior surfaces and smoothed with grass on upper exterior; some oxidisation but mostly unoxidised firing conditions plus refiring of this fabric. Neolithic hollow 2967, context 2968.
- 3 Fengate base sherd, rounded interior with flat exterior; 5% of c 80-100mm diameter present; fabric F2; interior and exterior smoothed with grass; oxidised firing throughout. Middle Bronze Age ditch 2041, context 2053.
- 4 Decorated body sherd, possibly same vessel as no. 3; fabric F2; decorated with mammal or bird bone impressions; interior smoothed, exterior smoothed with grass; oxidised. Middle Bronze Age pit 2441, context 2243.
- 5 Mortlake vessel; <5% present; fabric Q2; decorated with impressed whipped cord 'maggots' lying diagonally across the rim; smoothed exterior; unoxidised. Unstratified (context 2851).
- 6 Plain Beaker rim; 7% of c 120mm diameter present; fabric G2; smoothed interior and exterior; oxidised. Early Iron Age pit 1267, context 1268.
- 7 Plain early Bronze Age rim; 5% of c 220mm diameter present; fabric G1; oxidised. Middle Bronze Age posthole 2531, context 2530.
- 8 Biconical Urn rim; <5% present; fabric G3; smoothed/burnished all over; oxidised. Middle Bronze Age pit 2144, context 2145.
- 9 Biconical Urn decorated body sherd; applied and impressed cordon; fabric G4; interior and exterior smoothed with grass; oxidised. Middle Bronze Age ditch 2041, context 2081.

Middle and late Bronze Age pottery

by Elaine L Morris

A total of 610 sherds (4046g) of middle Bronze Age pottery was recovered (Table 4.9). All of the pottery is flint-tempered. Identifiable vessel forms include the typical range of globular, bucket and barrel urns of this date. In addition, there are two vessels which probably date to the late Bronze Age.

Methodology

The current recommended guidelines for the study of later prehistoric pottery were followed (PCRG 1997), with the addition of codes to describe sherd thickness as follows: code 1, <5mm; 2, 5–<7mm; 3, 7–<9mm; 4, 9–<11mm; 5, 11–<13mm; 6, 13–<15mm; 7, 15–<17mm; and 8, 17–<19mm. The establishment of 2mm thickness codes provides a practical means of using the data to examine the frequency of wall thickness variability by fabric. Each sherd was examined by eye, and some also by using a binocular microscope at 10x power, to determine the size and density of temper and the presence of quartz sand in the clay matrix.

Condition of the assemblage

The general condition of the assemblage is moderately poor, with a mean sherd weight of 6.6g. This is a clear indication of the degree of fragmentation. This aspect is given additional emphasis when the number of sherds without one or both surfaces present, ie sherd flakes, is quantified (Table 4.10). Nevertheless, there are several featured sherds present including rims, shoulders, bases and decorated examples which provide evidence of the variety of vessels used at this settlement. Some of the sherds have been affected by iron staining, not

Table 4.9 Quantification of middle to late Bronze Agepottery by fabric

| Fabric | No. of sherds | Weight (g) | Mean sherd weight (g) | % by number | % by weight |
|--------|------------------|---------------|--------------------------|----------------|----------------|
| F6 | 297 | 2189 | 7.4 | 48.7 | 54.1 |
| F7 | 93 | 622 | 6.7 | 15.2 | 15.4 |
| F8 | 22 | 113 | 5.1 | 3.6 | 2.8 |
| F9 | 93 | 751 | 8.1 | 15.2 | 18.6 |
| F10 | 101 | 362 | 3.6 | 16.6 | 8.9 |
| F11 | 4 | 9 | 2.2 | 0.7 | 0.2 |
| Total | 610 | 4046 | 6.6 | 100 | 100 |

 Table 4.10 Middle to late Bronze Age pottery,

 quantification of sherds from each fabric type that

 have one or both surfaces missing

| Fabric | No. of sherds | % by fabric type | |
|--------|---------------|------------------|--|
| F6 | 71 | 23.9 | |
| F7 | 47 | 50.5 | |
| F8 | 9 | 40.9 | |
| F9 | 35 | 37.6 | |
| F10 | 22 | 21.8 | |
| F11 | 1 | 25.0 | |
| Total | 185 | 100 | |

only on the surfaces but also throughout the fabric of the sherds. This is a common occurrence amongst prehistoric pottery from the Lower Kennet Valley and can be compensated for during identification and definition of fabric types.

Fabrics

Six fabric types were defined for this assemblage of flint-tempered pottery (Table 4.9). There are two coarseware fabrics (F6 and F7), two which could be classified as intermediate to coarsewares (F8 and F9) and two which are distinctively finewares (F10 and F11). This range of fabrics is typical of middle Bronze Age pottery from central southern England as described by Ellison (1980). Very similar, if not identical, fabrics have been identified on other sites with middle Bronze Age pottery in the Lower Kennet Valley at Field Farm, Burghfield (Mepham 1992a) and Shortheath Lane, Sulhamstead (Mepham 1992c). Re-examination of the fabric reference collection from Green Park 1 has shown that the fabrics associated with decorated sherds from middle Bronze Age urns (Hall 1992, fig. 51, 206, 211, 212) are also the same types of fabric as F6 and F7, described below, with a significant density of large, angular, crushed burnt flint temper in a relatively clean clay matrix. Woodward has indicated that the range of fabrics from Shortheath Lane in particular is typical of the Lower Thames Valley (1992, 77).

The Moores Farm fabrics had no specific inclusions to indicate that the resources used to make the fabrics were other than local in origin. However, it is important to indicate that the clay matrices in these fabrics do not display any iron oxide inclusions of a specific geological nature, a fact which contrasts significantly with the types of clays used to make late Bronze Age pottery in this area.

F6 (coarseware): A common to abundant amount (25–40% concentration) of very angular to angular, moderately sorted, crushed, calcined flint temper measuring \leq 7mm across with the majority of pieces \leq 3mm; principal characteristics are a distinctive harshness to both surfaces and the presence of all size ranges of inclusions, especially pieces \leq 0.2mm across in an only slightly sandy clay matrix containing subrounded, medium to fine quartz grains \leq 0.5mm across in rare to sparse concentrations (1–3%) with many sherds often displaying very fine to silt-grade size quartz of \leq 0.2mm across, creating a nearly quartz-free clay matrix.

F7 (coarseware): A common to very common amount (20–30%) of poorly sorted, very angular to angular, crushed calcined flint temper measuring \leq 8mm across with the majority measuring \leq 4mm and very few fragments \leq 0.5mm in a sandy clay matrix containing a sparse to moderate amount (7–10%) of subrounded quartz grains, measuring \leq 0.5mm across with the majority \leq 0.2mm. The paucity of flint fragments less than 0.5mm and the

resultant absence of harshness to the surfaces of sherds distinguishes this fabric from fabric F6.

F8 (intermediate): A sparse to moderate amount (7–15%) of very angular to angular, moderately sorted, crushed, calcined flint temper measuring \leq 3mm across in a very fine to fine sandy clay matrix with a moderate amount of quartz grains measuring \leq 0.2mm across so that it clearly twinkles in well-lit condition when viewed at 10x power. This fabric could be described as a less dense version of F6.

F9 (intermediate / coarseware): An abundant amount (40–50%) of very angular to angular, well-sorted, crushed, calcined flint temper measuring \leq 3mm across but majority \leq 2mm in an only very slightly very fine sandy-silty clay matrix with rare to sparse quartz grains measuring \leq 0.125mm across. A well-processed fabric but not as much preparation effort as for F10 (see below). The infrequency of very fine quartz may be a result of the considerable amount of temper. This fabric visually appears to be similar in texture and, therefore, manufacturing process to middle Iron Age flint-tempered 'saucepan pot' fabrics from central southern England.

F10 (fineware): An abundant amount (40–50%) of very angular to angular, very well-sorted, crushed, calcined flint temper measuring <2mm across with the majority <1mm; quartz sand grains not visible at 10x power. A very distinctive fabric with a sieved temper, almost like 'flint dust' in appearance, resulting from an extraordinary amount of pounding. A considerable amount of effort was invested to make this fabric type.

F11 (fineware): A moderate to common amount (15–20%) of very angular to angular, crushed, calcined flint temper measuring \leq 2mm across with the majority <1mm across in an only very slightly silty clay matrix with microscopically visible quartz grains.

Forms

The classic types of middle Bronze Age Deverel-Rimbury urns were identified in the assemblage, as well as two examples of ovoid vessels which may bridge the transition from middle to late Bronze Age pottery repertoires (Table 4.11). While there is a clear correlation between the fineware fabric F10

 Table 4.11 Middle to late Bronze Age pottery,

 quantification of vessel forms

| Form | No. of vessels | |
|----------------------|----------------|--|
| Barrel/bucket urns | 121 | |
| Globular urns | 29 | |
| Late Bronze Age jars | 2 | |

and the very distinctive globular urn type, there is considerable variation amongst the fabric types used for making the coarser bucket and barrel urns.

Two rims (Figs 4.33.5 and 4.34.17) are typical of the externally expanded, thickened, flattened rims found on barrel urns (Gibson 2002, fig. 51.5). No examples of barrel urns were found at Field Farm (Butterworth and Lobb 1992) but a similar rim was found on a Lower Thames Valley type 5 sub-biconical cordoned vessel from Shortheath Lane, Sulhamstead (Woodward 1992, 76-7, fig. 24.2). Further afield another can be seen on an urn from Ashford Common, Sunbury, Middlesex (Barrett 1973, fig. 1.2). Bucket urns, however, are a more common type in middle Bronze Age assemblages in this region, and Moores Farm is no exception. At least seven different bucket urns were identified from rims alone, and these include the simple upright, vertical-sided, thick-walled vessel type with rounded rims, one of which is girthed with a plain applied cordon for lifting (Fig. 4.35.20), or slightly flattened examples and some which may be inclined towards the top (Figs 4.33.10, 4.34.13 and 4.35.21–2). Other examples have distinctive hooked rims, one of which bears an attached knob (Fig. 4.34.18-19). Complete examples of knobbed vessels display four opposing knobs and are considered to be functional appendages for lifting, rather than decorative, and therefore similar to plain, applied cordons. Fragments of a very similar, plain bucket urn with knob-like lug was found at Knight's Farm, Burghfield (Bradley et al. 1980, fig. 32.39) associated with a radiocarbon date of 1750-1200 cal BC (BM-1594).

What is most unusual about the Moores Farm assemblage is the frequency of fineware, globular urns compared to coarseware barrel and bucket urns. The featured sherds from probably six different globular urns have been identified in this assemblage, including three represented by the upper parts of vessels (Figs 4.33.1 and 4.33.3-4), two specifically by decoration (Figs 4.33.8 and 4.34.16), and one by the angled hip of an urn (Fig. 4.35.23). One of the undecorated globular urns has the slight hint of an attached knob or lug below the neck zone (Fig. 4.33.4). In addition, there are numerous plain but burnished, thin-walled body sherds made from fabrics F10 and F11 which must have derived from globular urns similar to these diagnostic examples. No other published site in the immediate area has this frequency of globular urns relative to other urn types.

One coarseware body sherd from an F6 fabric vessel (thickness code 5; oxidised throughout; pit 807) was perforated prior to firing from the exterior into the interior, creating a 4mm diameter hole. The presence of prefiring, through-the-wall perforations is a common characteristic of coarseware urns of middle Bronze Age date, and is thought to provide a method for securing soft covers as lids on vessels, as the holes often occur just below the rim.

Two unstratified vessels are ovoid jars, and most likely to date to the late rather than the middle Bronze Age. One is made from the moderately tempered fabric F8 and has medium-thick walls (Fig. 4.33.6), while the other is also made from this fabric and has thin walls (Fig. 4.35.24). Both examles were fired in unoxidising conditions.

The range of vessel forms from Moores Farm demonstrates the smooth transition from the middle Bronze Age to those profile characteristics of the earliest of the late Bronze Age plain assemblage types. The hooked rim, ovoid jars of the post-Deverel Rimbury late Bronze Age period certainly derive from the hooked rim bucket urns of the middle Bronze Age, as do the straight-sided upright rim vessels of the post-Deverel-Rimbury late Bronze Age which reflect the very similar straight-walled bucket urns with uniform vertical body to rim profiles. What is most distinctive about the pottery of the late Bronze Age, however, is the subsequent development of the distinctive should arma truly new vessel profile. While it would be comforting to suggest that biconical bowls derive from globular urns due to the dropped girth angle profile on many globular urns, this characteristic is not a common one in the Berkshire region. Therefore, while the burnished biconical bowl may have had the same or a similar function as the highly burnished globular urn, there is an apparent gap in time between these urns and the new bowls. This gap needs to be examined more carefully to positively confirm its presence.

Decoration and surface treatment

One of the most distinctive aspects of middle Bronze Age pottery is the presence of fingertip- and fingernail-impressed decoration on applied cordons, and also fingertip impressions straight onto the body of the vessel (Table 4.12). The Moores Farm assemblage contains two examples of fingertip impressions directly on the wall (Figs 4.33.7 and 4.33.11), and four examples of both fingertip and fingernail impressions onto cordons (Figs 4.33.2, 4.33.9 and 4.34.14–15). There are possibly two variations amongst the impressed decoration examples: (1) broad, flat fingertip decoration applied into the wall and onto broad cordons and (2) narrow fingernail impressions only on a narrow cordon. This suggests that there may be two different potters creating the same general

Table 4.12 Middle to late Bronze Age pottery,quantification of decoration types

| Decoration type | No. of vessels |
|---|----------------|
| Fingertip impressions | 2 |
| Applied cordon | 2 |
| Applied cordon and fingertip impressions | 3 |
| Applied cordon and fingernail impressions | 1 |
| Tooled lines | 2 |
| Fingernail impressions on LBA jar | 1 |

decorative effect on these urns, these personal impressions constituting 'signatures' (Tomalin 1995). In addition, one of the late Bronze Age-type ovoid jars (Fig. 4.33.6) is decorated with fingernail impressions along the bevelled rim.

Applied cordons were likely to have been primarily for functional use, supporting the vessel walls of large, thick-walled urns or acting as horizontal lifting bands. There are two examples of undecorated, applied cordons in the assemblage (Figs 4.34.12 and 4.35.20). Two similar examples were recovered at Weir Bank Stud Farm, Bray (Cleal 1995, figs 21.21 and 21.25).

The tooled parallel lines on globular urns (Figs 4.33.8 and 4.34.16) are quite distinct for this area. Obvious parallels were not identified in a search of the literature. For example, there are no decorated examples amongst the globular urns from Bray (Cleal 1995, figs 19–21). The vessels are made with extraordinarily well-processed flint temper, and they are thin-walled and burnished to a high degree on at least one if not both surfaces. They are uniformly dark grey to black in colour, and when decorated they display what appear to be tooled parallel strands of some material, similar in appearance to necklaces and located on the neck zone of the vessels.

In addition, most of the sherds from vessels made in fabric F7 also appear to have been smoothed on both surfaces when leather-hard, prior to firing. This is unusual because the fabric is quite coarse with frequent large flint inclusions, and the smoothing of the surface tends to conceal or at least partially hide the flint inclusions. This smoothing effect is commonly found amongst the urns from Shortheath Lane, Sulhamstead (Lobb 1992, 75), and the phrase 'slip on exterior surface' has been used to describe many middle Bronze Age urns from Middlesex (Barrett 1973) and may be a similar effect. This smoothing or slipped effect is thus characteristic of Middle and Lower Thames Valley urns and demonstrates that some special effort was applied to these particular coarseware vessels. The fabric coarseness may have been necessary to take the weight of the thick walled large urns but the context of vessel use and regional identity may have required a more finished appearance to the vessels. It is important to emphasise that this effect is observed on vessels recovered from settlement as well as funerary contexts.

Evidence for use

There are four plain body sherds which display evidence for use in the form of burnt residues on the interior surface, one decorated body sherd (Fig. 4.33.11) which has soot captured in the fingertip decoration and one rim sherd (Fig. 4.34.18) with soot on the exterior surface. These all are derived from coarseware urns in fabrics F6 and F7, which were used as cooking pots. The presence of burnishing on both surfaces of the fineware sherds suggests that these fancy vessels were used for the serving of liquids. A programme of lipid residue analysis of middle Bronze Age urns should be encouraged to determine what kinds of foods were cooked in these vessels, and the carbonised residues could provide samples for AMS radiocarbon dating of these last meals.

Discussion

Why are there two variations of each class of fabric—two coarse, two intermediate, and two fine? This question is worth exploring from three perspectives to determine which appears to have the greater validity based on the evidence at hand.

Chronology: The middle Bronze Age activity at Moores Farm may represent a 400-year period of inhabitation, during which time different clays were selected for pot making. The procedures for making and adding temper are likely to have changed over such a long time span (20 generations of potters may have lived and died within this period). Even if the period of inhabitation was not long-term, several generations of potters would have been represented. While apprenticeships would have been expected during the middle Bronze Age, with an older potter teaching a younger potter the normal methods and expectations of potting for this community, subtle variations could have developed. The ceramic evidence does not favour longterm occupation due to the limited variation in fabric types, but this interpretation needs comparative investigation with other middle Bronze Age settlement assemblages where several phases of occupation phasing are strongly represented.

Technology: It may be that the two different fabrics in each class represent a change in technology, perhaps stemming from the recognition that certain materials were better for pottery production than others. This can be supported by the nature of fragmentation if, for example, the rate of disintegration for F7, which had poor cohesion of vessel walls compared unfavourably with F6, which had better cohesion (Table 4.10).

Society: It is worth considering the effect of different residency patterns (matrilocal/patrilocal) and pottery production as a possible explanation. If an extended family was in residence at this site, including an older woman potter and her daughter or daughter-in-law who came from a settlement nearby, the older woman could have 'trained' her daughter or the newcomer daughter-in-law to the ways of the community/family. She may have allowed elements of non-conformity to enter, if middle Bronze Age society at this time was not a repressive, controlling society. Therefore, different clay beds could have been used and slightly different procedures for tempering fabrics allowed—as long as the general concepts of coarse, medium and fine, crushed calcined flint-tempered wares were followed along with Middle-Lower Thames valley-style vessel forming, surface treatment and firing standards.

This social aspect of pottery production is particularly evident if two sherds are examined. Two decorated sherds (Fig. 4.34.14-15) are identical 'concept' sherds: they are coarseware fabrics, they are both from thicker-walled vessels which appear to be straight-sided urns of very similar thickness and each vessel was decorated with an applied cordon and then impressed with decoration. However, they are also very different sherds. One was made from fabric F6 and the other from fabric F7; one was smoothed and wiped on the interior (despite the presence of large, sharp flint grits) and the other was not; and one was fired in an unoxidising atmosphere while the other was irregularly oxidised. Furthermore, the impressed decoration of each is executed in a different manner: one (Fig. 4.34.14) was fingertip impressed with the full end of the finger resulting in fewer impressions on the cordon and the other (Fig. 4.34.15) was fingernail impressed with a higher density of crescent-shaped and oval impressions. Are these potters' signatures? The key which links these two sherds is that both were found in the same layer and both are nearly the same sherd weight. As they were clearly selected for specific deposition into the eastern terminus of ditch 2500, this strongly suggests that they represent some kind of relationship-a relationship of similarity and difference.

Can we recognise different hands in the preparation of middle Bronze Age urns? A methodology needs to be developed to identify individual potters' products, and one possible approach would be to study the entire array of fingertip and fingernail decorated pottery from several vessels in a small area of landscape such as the Burghfield environs.

Catalogue of illustrated pottery (Figs 4.33–5)

- Globular urn, rim; 5% of c 220mm diameter present; fabric F10; burnished exterior; unoxidised firing throughout; thickness code 3. Middle Bronze Age ditch 2041, context 2058.
- 2. Decorated urn, body sherd; fabric F7; applied cordon, fingertip impressed decoration on straight vessel wall; thickness code 4; oxidised on exterior, unoxidised core and interior. Middle Bronze Age ditch 2078, context 2072.
- 3. Globular urn, rim; 11% of *c* 140mm; angled, shoulder sherd also present; fabric F10; thickness code 2; burnished on both surfaces; unoxidised throughout. Middle Bronze Age ditch 2391, context 2125.
- 4. Globular urn, rim; 30% of 140mm; flat base, 30% of 100mm diameter present; fabric F10; thickness code 1; burnished on both surfaces; the start of a knob or lug attachment visible on the neck to body zone; faint traces of possible shallow parallel lines on lower neck

zone; unoxidised throughout to an unusual pale grey colour. Middle Bronze Age ditch 2391, context 2125.

- Barrel urn, rim; <5% present; fabric F7; thickness code
 oxidised exterior, unoxidised core and interior. Unstratified, Area 16 (context 2127).
- Ovoid jar, decorated rim; <5% present; fabric F8; thickness code 3; fingernail impressed decoration on top, inner edge of rim; unoxidised throughout. Unstratified, Area 16 (context 2130).
- Decorated urn, body sherd; fabric F6; thickness code 5; fingertip impressed decoration on straight vessel wall; unoxidised throughout. Middle Bronze Age pit 2146, context 2148.
- 8. Globular urn, body sherds; fabric F10; thickness code 2; at least six, parallel, tooled lines creating a curved effect; burnished on both surfaces; unoxidised throughout. Middle Bronze Age pit 2146, context 2148.
- Decorated urn, body sherd; fabric F7; thickness codes 4–5; applied cordon, fingertip impressed; oxidised on both surfaces, unoxidized core. Unstratified, Area 16 (context 2173).
- Bucket urn, rim; <5% present; fabric F9; thickness code 5; irregularly fired exterior, unoxidised core and interior. Middle Bronze Age posthole 2636, context 2177.
- Decorated urn, body sherd; fabric F7; thickness codes 4–5; smoothed exterior; fingertip impressed decoration on straight vessel wall; unoxidised throughout; sooted on exterior. Middle Bronze Age ditch 2500, context 2181.
- 12. ?Bucket urn, lower portion; 100% of 120mm diameter base; fabric F9; thickness code 3; applied cordon around girth; irregularly fired exterior, unoxidised core and interior. Middle Bronze Age ditch 2500, context 2262.
- 13. Bucket urn, rim; 5% of c 200mm; fabric F7; thickness code 4; smoothed on both surfaces; unoxidised throughout. Middle Bronze Age ditch 2500, context 2303.
- 14. Decorated urn, body sherd; fabric F7; thickness code 5; applied cordon, fingertip impressed; smoothed and wiped on interior; unoxidised throughout. Middle Bronze Age ditch 2500, context 2322.
- 15. Decorated urn, body sherd, fabric F6; thickness codes 4–5; applied cordon, fingernail impressed; irregularly fired exterior, unoxidised core and interior. Middle Bronze Age ditch 2500, context 2322.
- Globular urn, decorated sherds; fabric F10; thickness codes 2–3; four parallel, tooled lines; smoothed on both surfaces; irregularly fired exterior, unoxidised core and interior. Middle Bronze Age ditch 2366, context 2353.
- 17. Barrel urn, rim; <5% present; fabric F7; thickness code 4; smoothed exterior, smoothed and wiped interior;

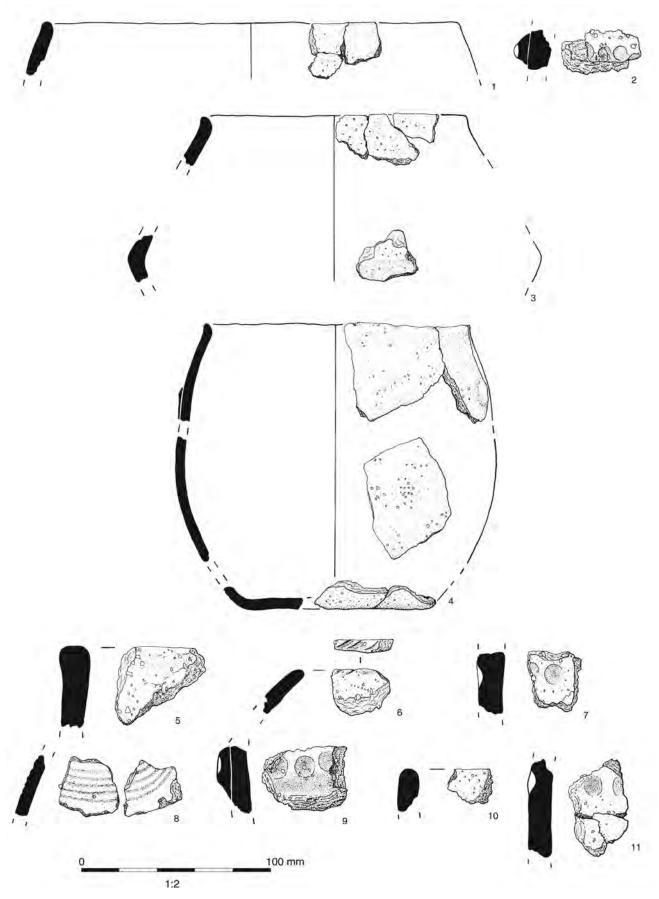


Fig. 4.33 Middle Bronze Age pottery, nos 1–11

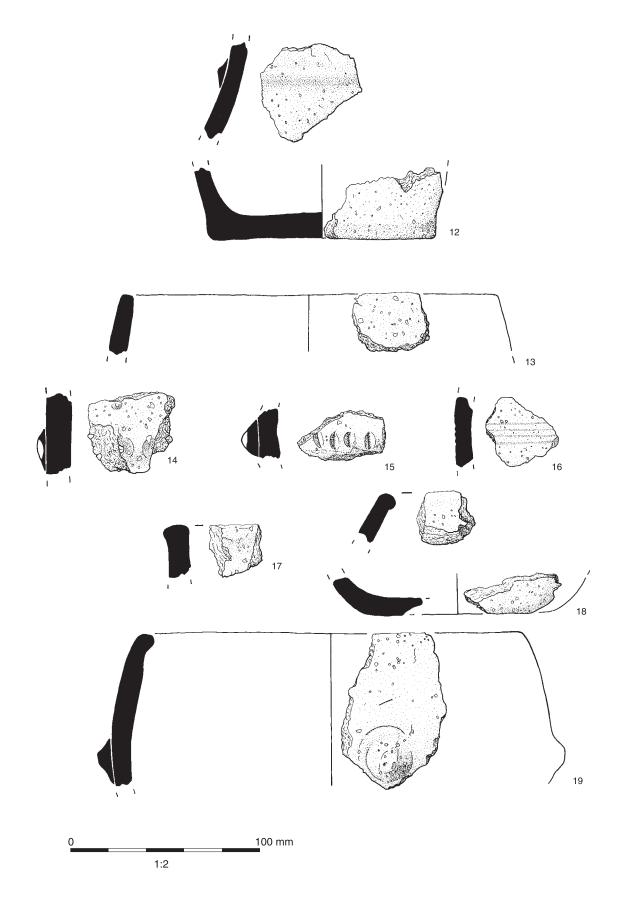


Fig. 4.34 Middle Bronze Age pottery, nos 12–19

oxidised exterior, unoxidised core and interior. Middle Bronze Age ditch 2500, context 2375.

- Bucket urn; <5% present; flat base, 12% of 100mm diameter present; fabric F6; thickness codes 3–4; unoxidised throughout; sooted on rim exterior. Middle Bronze Age pit 2382, context 2380.
- 19. Bucket urn, rim; 5% of 200mm diameter present; fabric F6; thickness codes 3-4; knob at girth; irregu-

larly fired exterior, unoxidised core and interior; Middle Bronze Age pit 2441, context 2443.

20. Bucket urn; 35% of 180mm rim diameter present; flat base, 35% of 180mm diameter present; fabric F6; thickness codes 4–5; 5% of undecorated, applied cordon at girth present; mainly oxidised exterior, unoxidised core and interior. Middle Bronze Age pit 2681, context 2682.

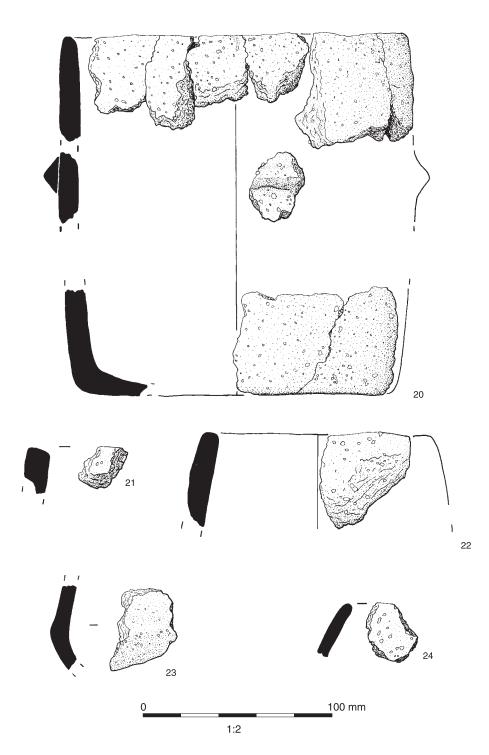


Fig. 4.35 Middle Bronze Age pottery, nos 20-24

- 21. Bucket urn, rim; <5% present; fabric F7; thickness code 5; smoothed both surfaces; unoxidised throughout. Middle Bronze Age pit 2742, context 2743.
- 22. Bucket urn, rim; 11% of 120mm diameter present; fabric F8; thickness codes 4–5; irregularly fired exterior, unoxidised core and interior. Area 16, unstratified (context 2851).
- 23. Globular urn, angled sherd; fabric F10; thickness code 3; smoothed exterior, burnished interior; unoxidised throughout. Middle Bronze Age pit 2933, context 2935.
- 24. Ovoid jar, rim; <5% present; fabric F8; thickness code 2; unoxidised throughout. Unstratified (context 5082).

Early Iron Age pottery by Kayt Brown

The excavations produced a total of 1829 sherds (18,230g) of early Iron Age pottery (Table 4.13). A large proportion of the assemblage was recovered from pit fills, primarily from intercutting pit group 2042. The assemblage was recorded following PCRG (1997) guidelines.

Condition of assemblage

The mean sherd weight (MSW) of 10g for the entire assemblage conceals considerable variation in the condition of the material. The material from pits has a MSW of 10.5 g, compared to only 3.9g for that from postholes. Some particularly well-preserved groups of pottery were recovered from intercutting pit group 2042, notably the material from pit 2151 (26 sherds, MSW 26.2g). No inter-feature sherd joins were noted.

Table 4.13 Quantification of early Iron Age potteryby fabric

| Fabric group | No. sherds | Weight (g) | % sherds | % weight |
|---------------|------------|------------|----------|----------|
| A1 | 3 | 27 | 0.2 | 0.2 |
| A2 | 31 | 148 | 1.8 | 0.8 |
| AP2 | 161 | 1729 | 9.4 | 9.7 |
| APM1 | 103 | 439 | 6.0 | 2.5 |
| BF2 | 5 | 32 | 0.3 | 0.2 |
| PFA1 | 220 | 1101 | 12.8 | 6.2 |
| PFA2 | 1194 | 14,386 | 69.5 | 80.5 |
| Fabric total | 1717 | 17,862 | 100.0 | 100.0 |
| Indeterminate | 112 | 368 | - | - |
| Total | 1829 | 18,230 | - | - |
| | | | | |

Fabrics

Although 26 fabrics were initially identified, a number of these contained varying proportions of the same inclusions, and probably represent a single basic fabric. The fabrics have thus been amalga-

mated into the 8 broad fabric groups described below; a full breakdown of the original 26 fabrics is available in the archive.

The large majority of the pottery (80.5% by weight) was made in a coarse fabric containing flint, iron oxide and quartz sand in varying proportions (PFA2). Occasionally crushed calcined flint also appears to have been added, particularly to the underside of bases. A number of sherds in this fabric also contain gravel or pebbles, some quite substantial, suggesting poor preparation of the clay prior to manufacture. This iron-rich fabric was very distinctive and clearly different from the middle Bronze Age fabrics at this site. A second coarseware fabric (BF2), represented by only five sherds, contained glauconitic inclusions. This could indicate a source in Greensand deposits, the nearest of which lie 25–35km from the site, although glauconitic sand can also be found in some of the local Reading beds (Morris and Mepham 1995, 79). The finewares show a greater degree of variation, including a number of fine sand and silty fabrics, along with a finer version of the main coarseware fabric (PFA1). A number of small fragments could not be identified to a specific fabric and were assigned to a general 'indeterminate' group.

Coarsewares

PFA2: Coarse, flint tempered; rare to moderate sub-angular flint <3mm, moderately sorted; sparse to moderate rounded iron oxides <1mm; moderate sub-rounded, moderately-sorted quartz grains, <1mm. Occasionally sherds contain very coarse (>5mm) gravel inclusions or additional crushed calcined flint (<3mm).

BF2: Glauconitic fabric; common sub-rounded glauconite and quartz grains <1mm in clay matrix; sparse sub-angular flint <3mm (occasionally >3mm); sparse iron oxides <1mm.

Finewares

A1: Fine, slightly micaceous sandy fabric; fine, common, rounded quartz grains <0.25mm; sparse iron oxides <2mm; mica.

A2: Sandy, micaceous; moderate rounded quartz grains <0.5mm; sparse iron oxides <2mm, mica.

AP2: Moderately fine; moderate poorly-sorted quarz grains <1mm; sparse to moderate iron oxides <3mm; rare sub-angular flint <1mm.

APM1: Very fine, alluvial clay fabric; microscopic quartz, mica, rare flint <2mm, linear strands carbonaceous material <3mm, iron oxides <2mm.

PFA1: Finer version of PFA2; rare sub-angular flint <2mm (occasionally <5mm); sparse iron oxides <1mm, sparse to moderate sub-rounded quartz grains <0.5mm.

Chapter 4

| | Coars | ewares | | Finewares | | Total |
|----------------------------------|-------|--------|-----|-----------|------|-------|
| Vessel type | PFA2 | BF2 | AP2 | APM1 | PFA1 | |
| Shouldered jars | 19 | - | 2 | - | - | 21 |
| Barrel-shaped jars | - | - | - | - | 1 | 1 |
| Bucket-shaped jars | 1 | - | 1 | - | - | 2 |
| Slack-shouldered jars | 4 | - | - | - | 3 | 7 |
| Tripartite angled jars | 1 | - | - | - | - | 1 |
| Uncertain jar/bowl forms | 1 | - | - | 1 | 2 | 4 |
| Uncertain bowl forms | - | - | 3 | 1 | 8 | 12 |
| Carinated bowl | - | - | 2 | - | 5 | 7 |
| Hemispherical/curving-sided bowl | - | - | - | - | 1 | 1 |
| Bipartite jar/bowl | - | - | - | 1 | - | 1 |
| Uncertain/unidentifiable forms | 3 | 1 | - | - | 1 | 5 |
| Total | 29 | 1 | 8 | 3 | 21 | 62 |

Table 4.14 Early Iron Age pottery, correlation of fabric group and vessel class by rim count

Vessel forms, decoration and use wear

There is a clear distinction in the assemblage between coarseware jars on the one hand and fineware bowls and jars on the other (Table 4.14). The coarseware jars are shouldered, mainly with short upright or slightly everted rims, though occasionally with quite flared rims (Figs 4.36. 1-2, 4.37.8 and 4.38.16). The rims are either rounded or, most commonly, squared or flattened. Such vessels are frequently decorated with a row of fingertip impressions on the neck or shoulder, or both. A small number of slack-shouldered, bucket-shaped or barrel-shaped jars were also present within the assemblage. Several bases were pinched out, and some had flint-gritted undersides. Although this latter characteristic is usually regarded as a late Bronze Age phenomenon, it continued into the early Iron Age in this region.

The fineware bowls are carinated, often with long necks and flaring rims. A number of longnecked 'furrowed' bowls were present, ornamented with shallow-tooled horizontal lines (Figs 4.37.9 and 4.37.11–12). One long-necked bowl displayed incised oblique lines on the shoulder (Fig. 4.36.6), similar to an example from Potterne, Wiltshire (Gingell and Morris 2000, fig. 47.12). One fineware bowl or jar has a bipartite profile (Fig. 4.38.17). Most fineware vessels had flat bases, although one omphalos base was recovered, probably from a bowl.

The occurrence of decorative techniques by fabric type is shown by Table 4.15. Fingertip or fingernail decoration occurs principally on coarseware jars, with only two examples on fineware jars. Burnishing is largely restricted to finewares, and furrowing and incised decoration is restricted to bowls in fabric PFA1.

Evidence for vessel use was only visible as carbonised deposits on the exterior of some coarseware jar sherds. This may indicate that the primary function of such jars was food preparation.

Chronology and comparisons with other sites in the region

Independent dating evidence is provided by two radiocarbon determinations from upper layer 2043/2065 within pit group 2042 (OxA-17416 and OxA-17417). These produced dates of 760–410 cal BC and 760–400 cal BC respectively (Table 4.3), confirming the early Iron Age date of the pottery from this deposit (Fig. 4.36.1–6). The pottery from the pit group shows a combination of coarse, shouldered jars, often ornamented with fingertip and fingernail impressions, and fine, carinated bowls

Table 4.15 Early Iron Age pottery, correlation of fabric group and decoration type by number of vessels

| | Coarse | ewares | | Finewares | | | | Total | | |
|----------------------|--------|--------|----|-----------|------|------|-----|-------|--|--|
| | PFA2 | BF2 | A1 | A2 | APM1 | PFA1 | AP2 | | | |
| Burnished | 5 | - | 1 | 1 | 4 | 18 | 3 | 32 | | |
| Furrowed | - | - | - | - | - | 5 | - | 5 | | |
| Incised lines | - | - | - | - | - | - | - | - | | |
| Fingertip/fingernail | 25 | 1 | - | - | - | 1 | 1 | 28 | | |
| Total | 30 | 1 | 1 | 1 | 4 | 24 | 4 | 65 | | |

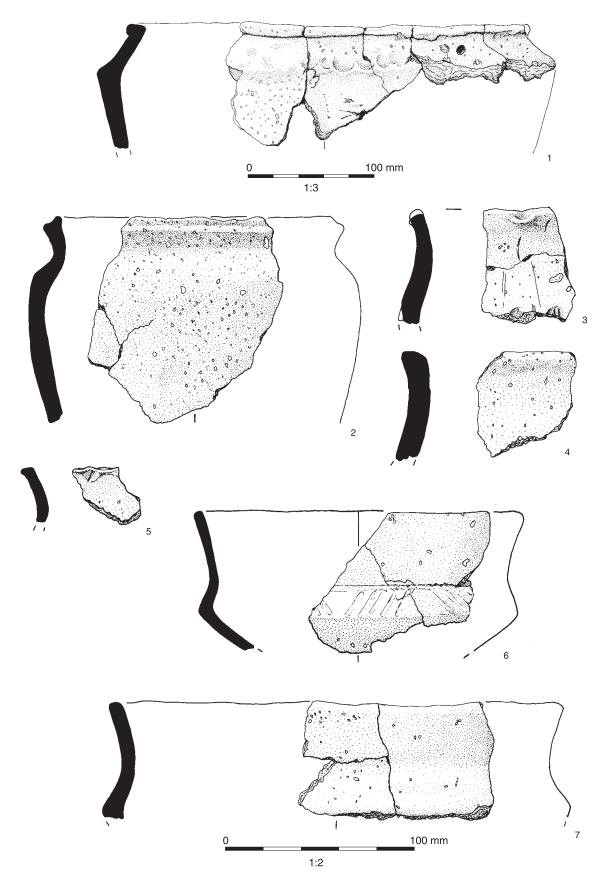


Fig. 4.36 Early Iron Age pottery, nos 1–7

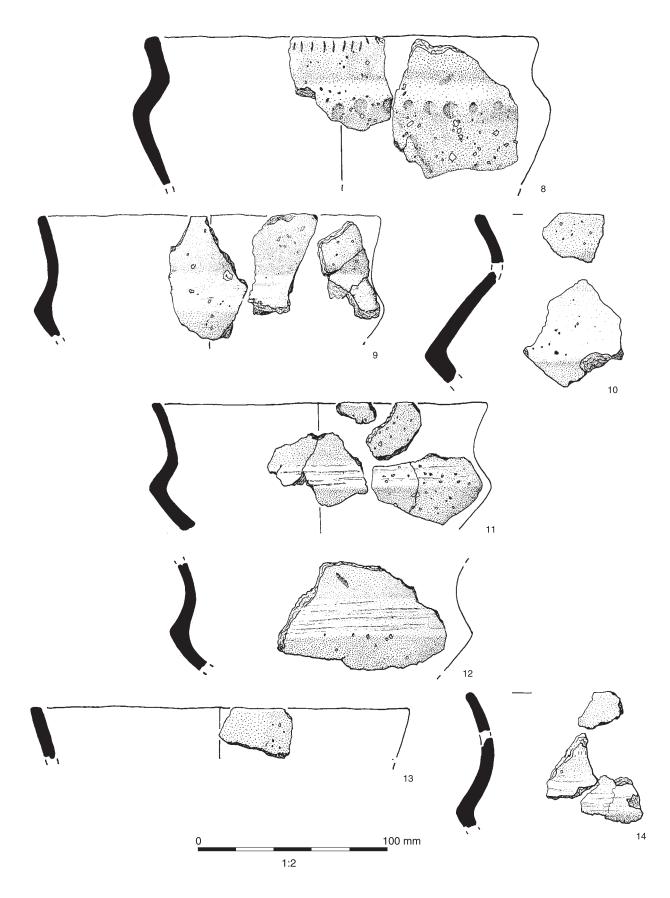


Fig. 4.37 Early Iron Age pottery, nos 8–14

and jars, often with linear tooled decoration. The assemblage can be attributed to the All Cannings Cross ceramic style, the distribution of which extended from Wessex into the Kennet Valley (Cunliffe 2005). Current understanding suggests that this style can be divided into two chronological groups, distinguished mainly by the form and decoration of fineware vessels. The early All Cannings Cross group, dating to around the late Bronze Age to early Iron Age transition, is characterised by bipartite bowls and large, decorated jars with rounded shoulders and everted rims (ibid., fig. A2), while the later group (or All Cannings Cross-Meon Hill group) is characterised by long-necked bowls with flaring rims (ibid., fig. A8). The Moores Farm assemblage, with its long-necked rather than biconical bowls, clearly belongs to this later group. Evidence from stratified deposits at Potterne, Wiltshire, has suggested that the shift from biconical bowls to long-necked bowls occurred around 700 BC (Gingell and Morris 2000), in line with the radiocarbon dates from Moores Farm.

The Moores Farm pottery appears to be later in date than the post-Deverel-Rimbury (PDR) assemblages from Green Park. At Green Park 2 and 3,

only plain ware PDR pottery of the late Bronze Age was found. At Green Park 1, a small element of decorated ware PDR pottery of late Bronze Age/early Iron Age date was recovered, but the presence of a decorated jar with early All Cannings Cross parallels and the absence of long-necked or furrowed bowls indicates an earlier date than the Moores Farm assemblage. Elsewhere in the Kennet Valley, decorated ware assemblages have been found at Knight's Farm (Lobb et al. 1980), Field Farm (Mepham 1992a) and Wickhams Field (Laidlaw 1996b), all in Burghfield parish, and at Theale Ballast Hole (Piggott 1938), Dunston Park, Thatcham (Morris and Mepham 1995) and Hartshill Copse, Upper Bucklebury (Morris 2006). The pottery from Knight's Farm Subsite 1 is a classic early All Cannings Cross assemblage, with decorated biconical bowls but no long-necked or furrowed bowls, again suggesting an earlier date than Moores Farm. This can be accommodated by the radiocarbon evidence from the site, with one large group of pottery from a pit being associated with two dates of 1060-590 cal BC (Har-1011) and 810-430 cal BC (Har-1012) respectively. Sites that show greater similarities to the Moores Farm

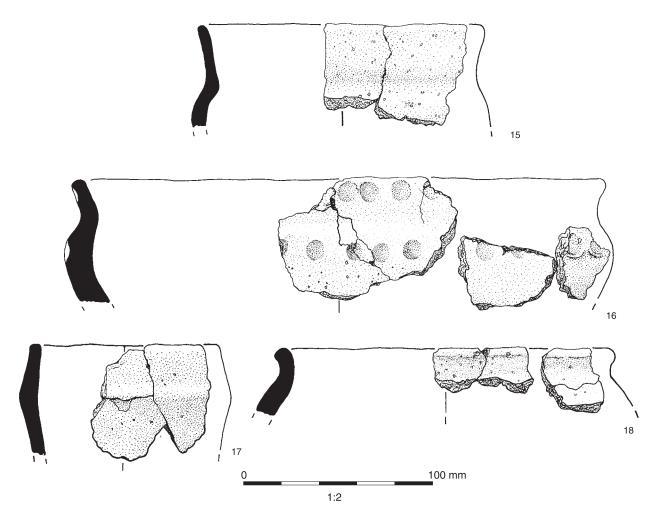


Fig. 4.38 Early Iron Age pottery, nos 15–18

assemblage, and could perhaps have been broadly contemporary, include Dunston Park, Field Farm and Wickhams Field. At Dunston Park, furrowed bowls and a possible long-necked bowl are present, and the assemblage was suggested on stylistic grounds to date to around the 7th century BC (Morris and Mepham 1995, 84). Long-necked furrowed bowls are also present at Field Farm and Wickhams Field.

Catalogue of illustrated pottery (Figs 4.36–8)

Pottery from pit group 2042

- 1 Shouldered jar. Fabric group PFA2. Pit 2131, context 2043/2065
- 2 High-shouldered jar with faint groove on rim. Fabric group PFA2. Pit 2131, context 2043/2065
- 3 Long-necked jar/bowl with fingertip impressions on rim top and shoulder. Fabric group PFA2. Pit 2131, context 2043/2065
- 4 Long-necked jar/bowl. Fabric group PFA2. Pit 2131, context 2043/2065
- 5 Long necked bowl with fingertip impressions on rim. Fabric group PFA1. Pit 2131, context 2043/2065
- 6 Long-necked tripartite bowl with incised/burnished oblique lines on shoulder. Fabric group PFA1. Pit 2131, context 2043/2065
- 7 Long-necked bowl. Fabric group PFA1. Pit 2151, context 2204
- 8 Shouldered jar with fingernail impressions on rim front and fingertip impressions on shoulder. Fabric group PFA2. Pit 2169, context 2207
- 9 Tripartite 'furrowed' bowl with shallow tooled lines on shoulder. Fabric group PFA1. Pit 2169, contexts 2182 and 2207

Long-necked tripartite bowl. Fabric group AP2. Pit 2169, context 2171

- 11 Tripartite 'furrowed' bowl with shallow tooled lines on shoulder. Fabric group PFA1. Pit 2665, context 2664
- 12 Tripartite 'furrowed' bowl with shallow tooled lines on shoulder. Fabric group APM1. Pit 2699, context 2698
- 13 Long-necked bowl rim, burnished external surface. Fabric group PFA1. Layer 2044
- 14 Tripartite bowl with burnished lines on shoulder. Fabric group PFA1. Layer 2414
- 15 Long-necked bowl. Fabric group PFA1. Layer 2414

Pottery from other features

16 Shouldered bowl/jar with fingertip impressions on

rim front and shoulder. Fabric group PFA2. Pit 2494, context 2495

- 17 Bowl/jar rim. Fabric group APM1. Pit 2836, context 2174
- 18 Bowl/jar rim with rounded shoulder. Fabric group AP2. Pit 2318, context 2122

Fired clay by Sandy Budden

A small assemblage of fired clay weighing 2531g was recovered. Almost all of this had an iron-rich matrix containing quartz sand; full details of the fabrics are available in the archive. Middle Bronze Age contexts produced only a small quantity of fired clay (178 fragments, 378g). Most of this consisted of amorphous fragments, although possible oven 2359 produced some pieces with flat surfaces that might represent fragments of oven furniture. A greater quantity of fired clay was recovered from early Iron Age contexts (668 fragments, 1897g), again mostly amorphous; almost half (900g) came from hearth 1340. The only recognisable objects were triangular loomweights or oven bricks (Poole 1991, 380; 1995) with pierced corners, in sandy fabrics. Fragments of one or two of these objects were recovered from layer 1271, and one further fragment came from pit group 2042 (context 2157).

Querns by Ruth Shaffrey

Ten quern fragments were recovered, of which four are fragments from the main lower stones of saddle querns, three are probably upper stones or rubbers, and three are too small to be diagnostic. Two of the objects were recovered from middle Bronze Age contexts and two from early Iron Age contexts, with the remainder being unstratified (Table 4.16).

Sarsen was the most common quern material, accounting for half of the fragments recovered. This included one of the middle Bronze Age querns and both of the early Iron Age querns. One of the latter (context 2043) still had evidence of the pecking used to dress the grinding surface. Sarsen would have been widely available in the local area, and was commonly exploited for quern manufacture in later prehistory (see Shaffrey, Chapter 2). The other middle Bronze Age quern fragment was made of friable, heavily iron-stained sandstone, probably from the local Tertiary sandstone. A rubber fragment in the same material was recovered from the alluvium. Other unstratified finds included two Greensand quern or rubber fragments. Lower Greensand was not available locally, the nearest sources being 25–35km away in Oxfordshire or Surrey. Despite this, Greensand saddle querns are not uncommon in the local area, with examples recovered from later Bronze Age contexts at Green Park 1 and 2 (Jennings 1992, 94; Roe 2004).

| Feature | Context | Phase | Stone type | Description | Measurements |
|-------------------------|----------------|----------------------|---|---|-----------------------------|
| Ditch 2041 | 2754 | Middle Bronze Age | Medium to very coarse, poorly sorted ferruginous sandstone | Probable quern fragment with one smooth surface but no edges | 60mm thick x 90mm x 50mm |
| Pit 2890 | 2891 | Middle Bronze Age | Fine- to medium-grained sarsen | Possible quern fragment with one flat surface which is slightly worn | 65mm x 55mm x 82mm |
| Pit group 2042 | 2043 | Early Iron Age | Medium-grained quartz sarsen with lilac/pale blue siltstone inclusions | Small quern or rubber fragment with two flat surfaces, one worn smooth and originally pecked | 45mm thick x 54mm x 70mm |
| Pit 2831 | 2832 | Early Iron Age | Fine- to medium-grained, well-sorted, pure quartz sarsen | Probable quern fragment with two flat edges perpendicular to each other, one of which is worn smooth. Other edges are angular | 37mm x 25mm x 27mm |
| Subsoil, Area 13 | 1304 | Unphased | Very well-sorted, pure quartz sarsen | Probable rubber fragment with one grinding surface and one edge remaining. | c 45mm thick |
| Alluvium, | 1338 Area 1 | Unphased 3 | Dark, glauconitic Greensand | Possible rubber fragment with one flat surface worn smooth | 50mm x 35mm x 45mm |
| Unstratified Area 16 | , 2166 | Unphased | Fine-grained, well-sorted, almost quartizitic sandstone | Rubber or quern fragment with one worn, flat surface and one pecked curved surface | 59mm x 34mm x 33mm |
| Alluvium, Area 16 | 2332 | Unphased | Grey, fine-grained sarsen | Broken pebble which may have been utilised as a rubber | 65mm x 51mm x 34mm |
| Alluvium, Area 16 | 2851 | Unphased | Poorly sorted limonite cemented sandstone | Probable rubber fragment with one flat and worn surface with remaining edges angular | 46mm x 35mm x 27mm |
| Alluvium, Area 16 | 2970 | Unphased | Fine grained and well- sorted, pale green, slightly glauconitic Greensand | Quern fragment with one concave surface, which has been worn smooth. Other edges are also worn | |

Table 4.16 Saddle querns and rubbers

OSTEOLOGICAL AND ENVIRONMENTAL EVIDENCE

Animal bone by Bethan Charles

1120 fragments of bone were recovered, of which 598 were hand collected and 522 were recovered from sieved samples (Table 4.17). The bone was generally in poor condition, although the material from the middle Bronze Age waterholes was better preserved. The majority of the bones were from large animals and it is likely that smaller bones such as those from sheep have not survived.

Middle Neolithic

A badly fragmented horse tooth was retrieved from pit 2967. Horse remains are extremely rare from Neolithic contexts in Britain (Burleigh *et al.* 1991), and it is possible that this is an intrusive fragment, particularly as a sherd of middle Bronze Age pottery was also recovered from this feature.

Middle Bronze Age

Although horse was the most frequent species by fragment count, almost all of the horse bone came from the primary fill of waterhole 5113. The horse bone from this deposit almost certainly belongs to a single individual. Only part of the skeleton was recovered, including both radii and ulnas, metatarsals, scapulas, innominate bones, the left tibia and femur and the right metacarpal as well as vertebrae and rib bones. As the remains were recovered by machine during the watching brief, some bones might have been missed. The animal was male and over three and a half years of age. Some of the bones had butchery marks, including both the left and right innominate (pelvis) bones, four of the thoracic vertebrae (which had chop marks just off the sagittal plane) and two of the lumbar vertebrae (which had knife marks down the body and the transverse processes chopped off). It is possible that the animal was partially disarticulated, possibly for meat, before being placed in the waterhole.

Pig and red deer were the other most numerous species. Pit 807 contained 12 fragments of red deer

| | | | Hand-reco | Sieved bone | | | | | |
|-------------------|--------|-------|-----------|-------------|----------|--------------|-----|-----------|--------------|
| Phase | Cattle | Sheep | Horse | Pig | Red deer | Unidentified | Pig | Frog/toad | Unidentified |
| Middle Neolithic | - | - | 1* | - | - | 1 | - | - | - |
| Middle Bronze Age | 4 | 5 | 59** | 22 | 21 | 326 | 1 | - | 314 |
| Early Iron Age | 11 | - | 4 | 1 | 1 | 105 | - | - | 37 |
| Unphased | 4 | - | - | - | - | 33 | - | 170 | - |
| Total | 19 | 5 | 64 | 23 | 22 | 465 | 1 | 170 | 351 |

Table 4.17 Animal bone, numbers of fragments.

* = possibly intrusive. ** = 57 bones from a single skeleton

antler, which appeared to be waste from antler working. Otherwise, most of the red deer and pig bone came from waterhole 2610. All of the red deer fragments appeared to be from immature animals, and may have come from two or more individuals. The pig bones were also from immature animals. It is possible that the pig and deer bones from this waterhole represent a special deposit, although the fact that the remains were not complete suggests that they may simply be butchery refuse.

Early Iron Age

A few fragments of cattle, horse, pig and red deer bone were recovered. The majority of the bone came from pit group 2042.

Charred and waterlogged plant remains

by Ruth Pelling

A total of 34 samples were processed for the recovery of plant remains using bulk water flotation. The volume of deposit processed ranged from 20 to 40 litres and flots were collected onto a 250 mm mesh. Samples were scanned under a binocular microscope at x10 magnification. A summary of those samples in which seeds or chaff were noted is provided by Table 4.18; all date to either the middle

 Table 4.18 Charred and waterlogged plant remains

Bronze Age or early Iron Age. Waterlogged plant remains only occurred in middle Bronze Age waterhole 2927, consisting of occasional elder (Sambucus *nigra*) and a small Labiate seed. Charred seeds and chaff were very rarely present in the samples. Occasional poorly preserved grain was noted in five samples and included barley (Hordeum vulgare) and emmer or spelt wheat (Triticum dicoccum/spelta). No sample produced any more than five grains. Very occasional weed seeds were noted in two charred samples only. Charcoal was present in the majority of samples. Oak (Quercus sp.) was most abundant in both the middle Bronze Age and early Iron Age samples, with occasional samples containing small amounts of Pomoideae (apple/pear/hawthorn etc.). The early Iron Age samples additionally produced occasional sloe (*Prunus spinosa*) and hazel or alder (Corylus/Alnus sp.).

Pollen by Robert G Scaife

Introduction

Pollen analysis was carried out on the fills of middle Bronze Age waterholes 824 and 2927. Of these, only waterhole 824 (sample 10: see Fig. 4.11) contained sub-fossil pollen and spores in the grey humic sediments at the base of the feature. The assem-

| | | Phase | MBA | MBA | MBA | EIA | EIA | EIA | EIA |
|-------------|---------------------------|----------------------------|------|-------|--------------|------|----------|---------------|---------------|
| | | Sample | 32 | 35 | 41 | 11 | 14 | 26 | 28 |
| | | Feature | Pit | Ditch | Water | Pit | Posthole | Pit | Pit |
| | | | 2441 | 2117 | hole 2927 | 1353 | 1419 | group 2042 | group 2042 |
| | | Context | 2443 | 2187 | 2946 | 1354 | 1420 | 2043 | 2065 |
| Charred | Hordeum vulgare | Barley grain | 2 | 0 | 0 | 0 | 1 | 2 | 5 |
| | Triticum spelta/dicoccum | Spelt/emmer wheat grain | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| | Indet | Indeterminate cereal grain | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | <i>Vicia/Lathyrus</i> sp. | Vetch/vetchling | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | Eleocharis palustris | Common spikerush | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Waterlogged | Labiate | Small-seeded labiate | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | Sambucus nigra | Elderberry | 0 | 0 | 4 | 0 | 0 | 0 | 0 |

MBA = middle Bronze Age; EIA = early Iron Age

blages obtained provide information on the local environment and land use contemporary with the filling of this feature.

Methods and results

Monolith profile tins were used to obtain samples for pollen analysis. These profiles were later examined in the laboratory and were sub-sampled for pollen analysis at 50mm intervals. Standard techniques were used for the extraction of the pollen and spores (Moore and Webb 1978; Moore *et al.* 1991). Absolute pollen frequencies were calculated using added exotics (Stockmarr *Lycopodium* tablets) to known volumes (1–2ml) of sample. Sufficient pollen was present in the material to enable pollen counts of generally 300 grains per level (the pollen sum) to be made plus all extant marsh/aquatic taxa and spores of ferns. Data are presented in standard pollen diagram form (Fig. 4.39 with percentages calculated as follows:

| Sum | = | % total dry land pollen (tdlp) |
|---------------|---|--------------------------------|
| Marsh/aquatic | = | % tdlp+sum of marsh/aquatics |
| Spores | = | % tdlp+sum of spores |
| Misc. | = | % tdlp+sum of miscellaneous |
| | | taxa |

Taxonomy follows that of Moore and Webb (1978) and Stace (1991), modified according to Bennett *et al.* (1994).

Two local pollen assemblage zones (l.p.a.z.) have been recognised (Fig. 4.39). These, however, relate to the changing stratigraphy, depositional environment and pollen taphonomy of the waterhole sediment fills. Overall, the pollen spectra are dominated by herbs while trees and shrubs are poorly represented. Pollen was absent in soils above 0.55 m, due possibly to oxidation. The two pollen assemblage zones are characterised as follows:

l.p.a.z. 1 (0.91–0.73m). Basal, humic, grey silt. Absolute pollen frequencies are relatively high with values to 130,000 grains/ml. Poaceae are dominant (to 60%). Other taxa include Chenopodiaceae (to 10%), *Plantago lanceolata* (3%), cereal type (2%), Lactucoideae (increasing into zone 2) and a diverse range of herbs. Trees and shrubs comprise *Quercus* (6%) and *Corylus* type (to 9%) with sporadic occurrences and small numbers of other taxa. Marsh and aquatic taxa include Cyperaceae and *Lemna*.

l.p.a.z. 2 (0.73–0.55 m). Brown soil with transition into underlying grey silts of zone 1. Absolute pollen frequencies are substantially lower than l.p.a.z.1, with values down to 9000 grains/ml and absence in higher levels. Tree and shrub pollen remain consistent with herbs remaining dominant. There is a marked expansion of Lactucoideae (*Taraxacum* type to 51%). Poaceae remain relatively important but

with declining values (to 20%) and *Plantago lanceolata* (8%). There is also some reduction in species diversity. Cyperaceae remain consistent but *Lemna* declines. *Pteridium aquilinum* expands progressively up the profile (to 60%).

Discussion

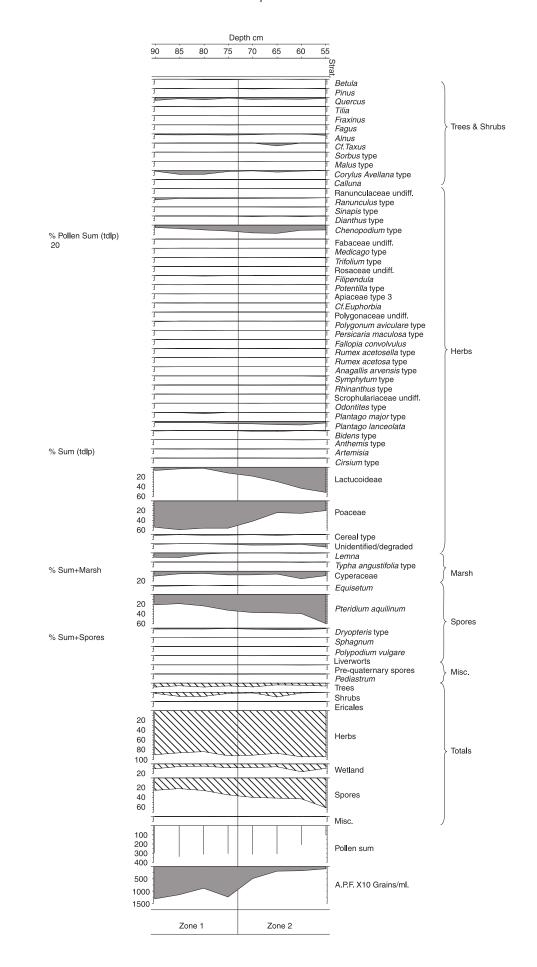
Pollen arriving in small catchments such as waterholes will most probably come largely from the very local area. Such complex taphonomy is likely to cause serious under-representation of pollen from even near-local and further regional sources. This may be the reason why there are only small amounts of tree and shrub pollen in these spectra, which overall show dominance of herbs of pasture suggesting preponderance of grassland locally.

As noted, the two pollen zones which are distinguished may be attributed to the stratigraphical variation which is evident. The lower humic sediments which represent accumulation in the waterhole contain well preserved pollen and spores. Given the small areal extent of this waterhole, the pollen catchment will have been of restricted extent, being derived principally from vegetation growing in and adjacent to the site and within the local area. As such, some useful information can be gained from the analysis. However, pollen zone 2 within the overlying brown soil, whilst containing pollen, displays marked evidence of differential pollen preservation and substantially smaller absolute pollen frequencies. This is evidenced by the rising percentages of Lactucoideae (dandelion types), a taxon with robust exine which is typically overrepresented in poor pollen preserving environments where thinner walled grains have been destroyed. Thus, the pollen assemblages of zone 2 are skewed in favour of robust taxa. A further problem with the soils/sediments of zone 2 is the possible secondary origin of the fills.

As this feature was a waterhole, some evidence of aquatic and fringing vegetation might be expected. This is the case with duckweed (*Lemna*), which occurs on slow flowing water or stagnant ponds. Sedges (Cyperaceae), which are also present, may have fringed this pond with other rooting marginal aquatic plants such as bur reed/reedmace (Typha/Sparganium). Other taxa not differentiable to species may also relate to this habitat, for example, ĥorsetail ferns (Equisetum eg E. palustre). The majority of taxa present are, however, attributed to dry land and are dominated by grasses (Poaceae), ribwort plantain (Plantago lanceolata) and goosefoots/oraches (Chenopodiaceae). The dominance of grasses with other herbs which occur sporadically suggests that grassland/pasture was dominant in the vicinity of the waterhole. Goosefoots/oraches are consistently present and these may also be indicative of nitrogen-enriched soils (livestock dung and urine) and disturbed

Fig. 4.39 (facing page) Middle Bronze Age waterhole 824: percentage pollen diagram

Chapter 4



101

ground. Plants of the latter also include hoary or greater plantain (*Plantago media/major*) and weeds which are also associated with arable agriculture; knotgrass (*Polygonum aviculare*), bistorts/redshank (*Persicaria maculosa* type), black bindweed (*Fallopia convolvulus*) and mugwort (*Artemisia*). Whether these taxa relate to disturbed ground around the waterhole is not clear, since there is also some evidence of cereal/arable cultivation indicated by the small numbers of cereal pollen grains (wheat and barley type). The presence of cereal pollen, although definitely showing that arable agriculture was practised, is further complicated by the fact that the pollen may have derived indirectly from crop processing, with pollen trapped in the cereal heads liberated and dispersed during threshing and winnowing.

There are notably small numbers of tree and shrub pollen throughout. Oak (*Quercus*) and hazel (*Corylus*) are most consistent with only small numbers of other trees and shrubs. These include tree taxa which are normally under-represented in pollen spectra such as beech (*Fagus*), lime (*Tilia*), ash (*Fraxinus*) and yew (*Taxus*), and as such it is likely that these taxa may have been present occasionally in the local environment.