

A LATER BRONZE AGE SETTLEMENT AND IRON AGE CEMETERY. EXCAVATIONS AT ADANAC PARK, NURSLING, HAMPSHIRE 2008

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ABSTRACT

Excavations at Adanac Park, Nursling (SU 37350 15550) revealed the remains of a Late Bronze Age settlement consisting of roundhouses and other structures, with associated pits containing pottery and charred plant remains indicating an agricultural economy. Radiocarbon dates from associated features indicate occupation early in the first millennium BC. After several centuries of abandonment, an Iron Age cemetery containing flat graves and barrows of various forms, including one square example, was established over and to the east of the settlement. One grave contained a sword, spear and shield fittings, suggesting a date in the 1st century BC – 1st century AD. Continental influences are suggested.

Adanac Park, Nursling (SU 3735015550) is an area of former pasture belonging to Adanac Farm on the north-western boundary of Southampton (Fig. 1). The site lies on the east side of the valley of the River Test on a slight south-west facing slope rising from 11.1 m to 14.2 m above Ordnance Datum.

The site lies on the northern edge of Southampton, just outside the city boundary. Much of the immediately adjacent land has been subject to development or disturbance (housing to the east and south; quarrying on the west). Archaeological investigations and chance discoveries in the locality in the 19th and 20th centuries indicate a relatively widespread habitation of the locality in the Middle Bronze Age to Early Iron Age and again in the Romano-British period.

THE 2008 EXCAVATIONS

Desk-based assessment and field evaluation indicated the need for excavation in advance

of the construction of new office buildings and access roads. An area of 1.08 ha was investigated (Fig. 1). The initial excavation covered 0.95 ha, situated in the area of densest archaeology. A westwards extension of 0.13 ha was opened, to investigate threatened archaeological deposits up to the limits of a former gravel quarry.

The archaeological deposits consisted entirely of features cut into natural subsoil consisting of Valley Gravel, with a small area of London Clay in the north-west part of the site (British Geological Survey 1973, Sheet 315). Fieldwork was undertaken in accordance with an approved statement, a copy of which is in the archive. The location of all recorded features is shown in Figure 2. Full details are held in the archive.

Late Bronze Age activity

Evidence for Late Bronze Age activity comprised numerous postholes and pits. Many of these contained no dating evidence, but of those that did only one had ceramics of other than Late Bronze Age date.

The circular structures

Parts of six possible roundhouses were identified (Table 1). Each consisted of post and/or stakeholes, some with pits or other internal features. None had drip-gullies. Only three had complete or near-complete circumferences. The structures are described in sequence from the north-west corner of the site. The numbering has no chronological significance.

Roundhouse 1 consisted of two rings of postholes and a porch. Pottery was recovered from two of the outer postholes and two in the

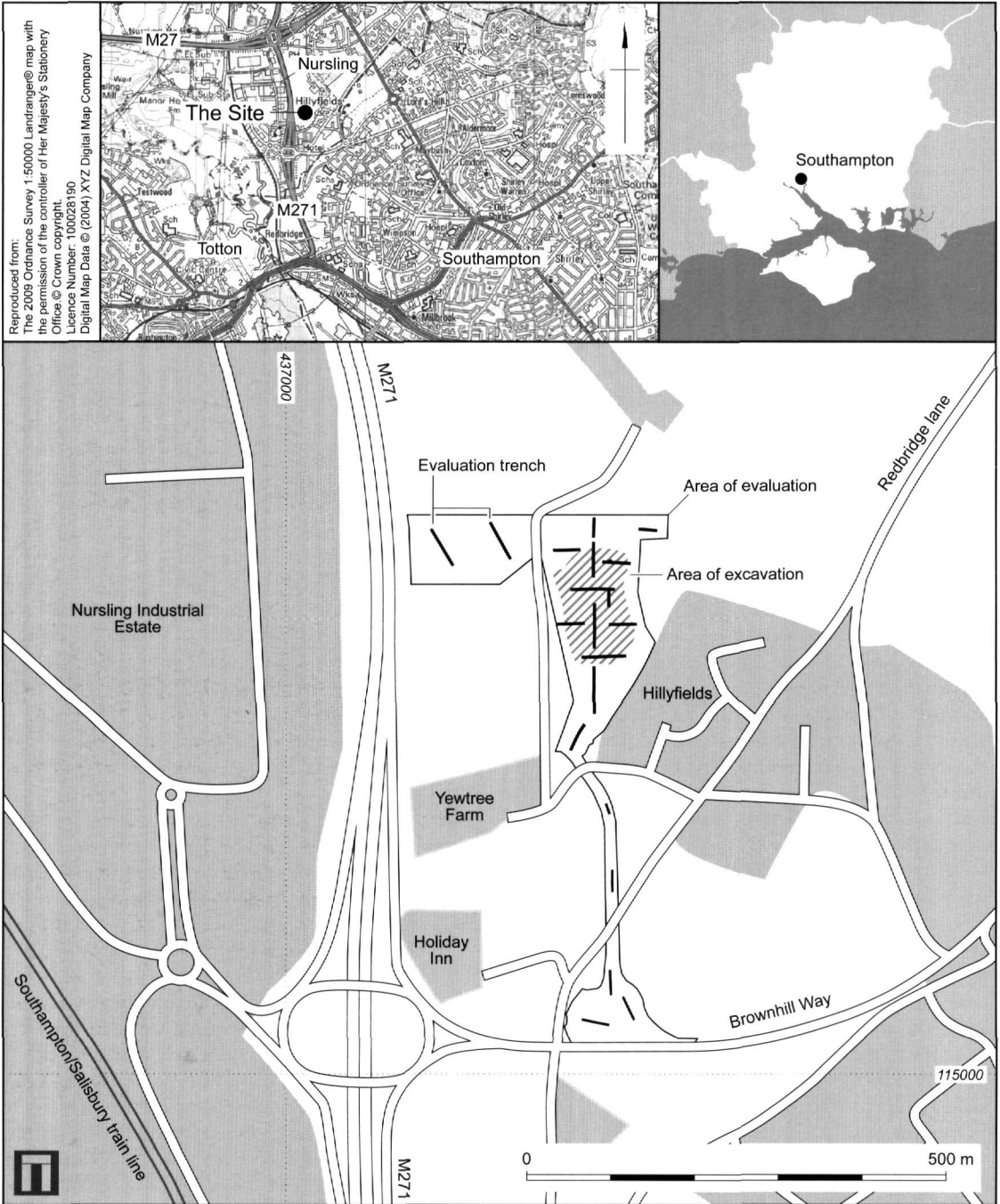


Fig. 1 Site location plan

Table 1 Late Bronze Age roundhouses and structures

No.	External wall (no. of posts; diameter)	Internal wall (no. of posts; diameter)	Porch Y/N?	Dimensions; orientation of entrance	Associated finds
Bronze Age					
1	9; 8.5 m	7; 7.5 m	Y	2.5 m × 2.5 m; 5 posts; ESE	Pottery; burnt clay
2	5; 7 m	4; ?	N	–	Pottery
3	4; 8 m	4; ?	N	–	Loomweight; quern; whetstone; struck flint; burnt flint; pottery; grain
4	6; 3.8 m	–	N	–	Pottery, burnt flint, struck flint, fired clay
5	4; 4.5 m	–	N	–	Pottery
6	9; 5.6	–	Y	4 posts; SE	Pottery, fired clay, stone
Iron Age					
7	12; 7m	–	N	SE	

entrance. In the centre of the area defined by the outer ring was a pair of shallow pits: 2034 was 0.80 m in diameter and 0.15 m deep; immediately south of it, 2036 was 1.00 m by 0.65 m and 0.17 m deep. Both had fairly charcoal-rich fills containing burnt clay and small fragments of Late Bronze Age pottery which appeared to be secondary waste. Several postholes in the outer ring and porch retained their post-pipes and packing, and the posts had clearly rotted *in situ*. Others contained disturbed post-packing suggesting deliberate post removal.

Structure 2 lay immediately south of and overlapped with Roundhouse 1. but there was no definable relationship between them. Irregularly-spaced postholes formed the western half of an arc representing the outer wall and the eastern part of the inner. The irregularity of the spacing, and incomplete circuit, mean that this is a tentative structure at best. Two of the features of the inner wall may in fact be small pits, as neither had post-pipes or packing, and contained comparatively large quantities

of ceramics (30 sherds weighing 171 gr in 2282; 178 sherds weighing 1057 gr in 2223). Pottery was also recovered from four postholes of the outer wall, and the remaining features of the inner.

Structure 3 consisted of one or perhaps two roundhouses or ancillary structures indicated by a cluster of irregularly-spaced postholes immediately to the east of Roundhouse 1. A roughly circular structure might be defined with an outer and inner wall and roof supports. Several of the internal postholes contained disturbed packing material suggesting that posts had been removed, while elements of the inner wall appeared to have been left to rot *in situ*. Other features were less clear, and not all had evidence for uprights.

Feature 2017, for example, in the outer wall, may have formed one side of an entrance or may have been a small pit, since there was no trace of an upright. The feature contained three fills, two deliberate deposits separated by a fine ashy layer. This was sterile, but the delib-

erate fills contained a substantial amount of material. Over 2 kg of loomweight fragments were recovered, along with two pieces of a large saddle quern, a whetstone and smaller quantities of struck and burnt flint (Fig. 8, 1–2). In addition, 155 sherds of Late Bronze Age pottery weighing almost 2 kg were present (Fig. 6, 1–3). This material included fragments of at least three finger-smearing and wiped jars and one shouldered bowl. Some of the material had been burnt prior to deposition. Charred grain fragments and charcoal were also present. Although this material is apparently domestic refuse, care seems to have been taken over its placement. Larger sherds were found vertically against the feature sides; one of the loomweight fragments had been placed on top of a broken quern fragment.

Structure 4 was another possible circular building defined by a group of postholes describing three-quarters of a circle (Fig. 2). Two further postholes lay within, possibly roof supports, and a number of adjacent pits may be related.

Structure 5 was similar to Structure 4, consisting of postholes defining part of an arc with five further postholes in the interior (three overlapping) possibly forming roof supports.

Roundhouse 6 consisted of a circular arrangement of postholes. In some places two postholes lay close together, suggesting rebuilding or replacement, and at one point on the south-west side an extra post seems to have been inserted. Two postholes in the entrance contained small quantities of Late Bronze Age pottery. The centre of the structure was occupied by a shallow depression cut by a pit. The depression appeared to have silted slowly, whereas the pit contained a sequence of four dumped fills, one of which contained 45 relatively unabraded sherds (325 gr) of Late Bronze Age pottery, as well as small fragments of fired clay and two fragments of sarsen and sandstone.

Fences and four-post structures

Among the remaining scatter of largely isolated and undated postholes are groups which may represent other buildings or structures. The most convincing of these are four-post struc-

tures towards the south end of the site, and a fenceline (or fencelines) oriented north of north-east to south of south-west and traceable at various points, usually in the vicinity (and to the east) of the circular structures.

The four-post structures lay adjacent to each other on different alignments, the southernmost measuring 2.5 m by 2.7 m, the northernmost 1.45 m by 2.2 m (Fig. 2). There are a number of other postholes in the immediate vicinity, although none belong convincingly to structures. The four-posters could not be dated and it is possible that they belong to the Iron Age barrow cemetery rather than the earlier settlement.

The fenceline survives best in the north-eastern part of the excavation where it existed as a 20 m length of at least 22 postholes. Five contained fragments of Late Bronze Age pottery. No post-pipes or packing were noted in the small shallow features. Some 32 m to the south-west, a further seven postholes appear to continue the same line and may mark a common boundary.

Pits and pit groups

A large number of pits were found, many of which contained little or no dating evidence. Where pits lay within or adjacent to dated structures, some contemporaneity can be inferred, but many others remain undatable. The 20 pits with contents or physical associations which demonstrate or suggest a Late Bronze Age date fall into four types (Table 2).

A number of these pits are associated with the circular structures (a Type 2 pit adjacent to Structure 2; Type 1, 2, 3 and 4 pits immediately south of Structure 4; three Type 1 pits in a small group south-east of Structure 6). One of the latter (pit 2087) contained large sherds of unabraded Late Bronze Age pottery, (in all 44 fragments weighing 607 gr). This deposit appeared to have been covered fairly rapidly.

Other pits – although in groups – are more isolated. Type 1 pits 2598, 2671 and 2422 lay at 16 m intervals along east-west line in the area between Structures 2 and 4. Pit 2671 contained 154 sherds of Late Bronze Age pottery weighing 1384 gr. This may represent general household

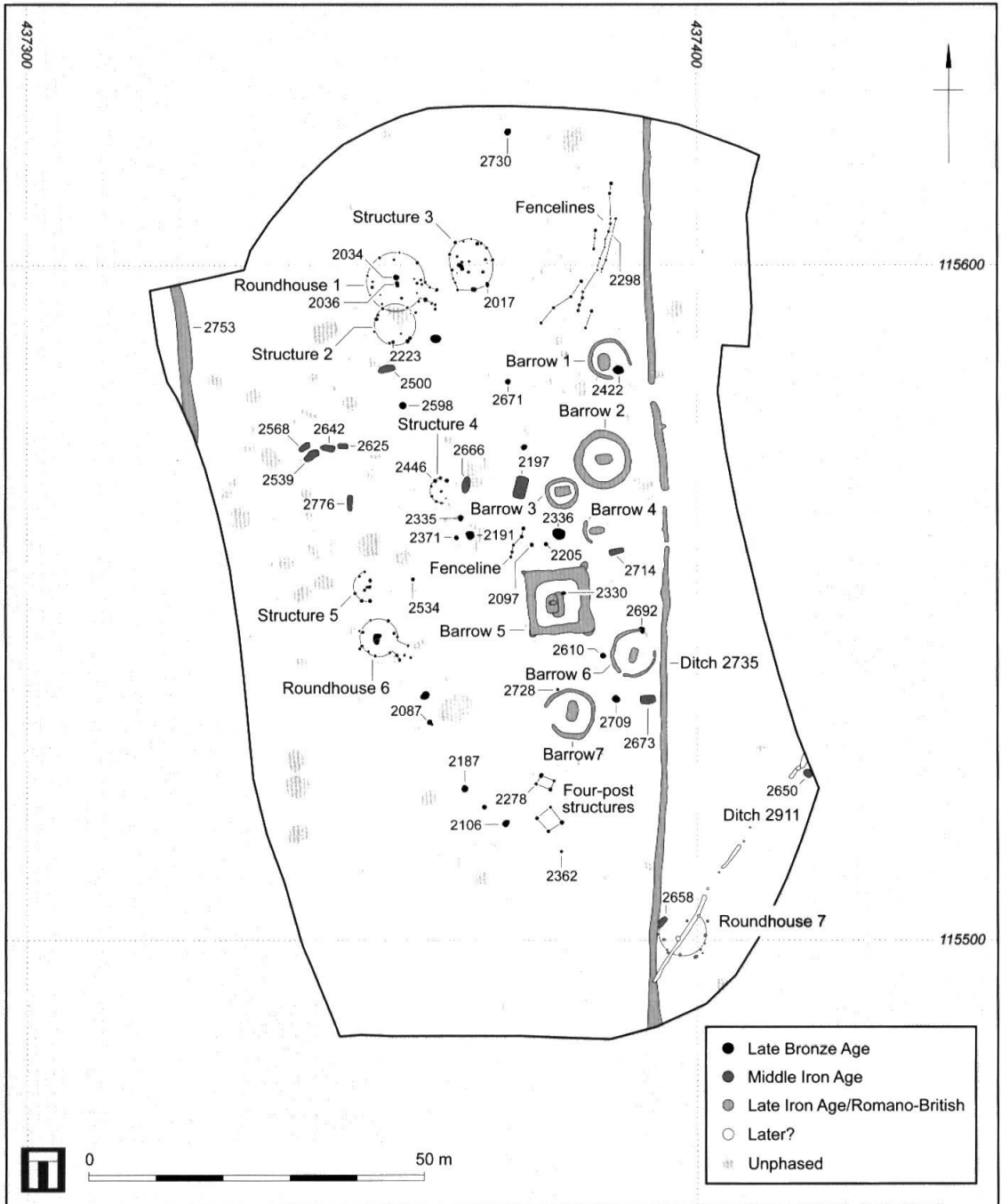


Fig. 2 All features revealed by excavation

Table 2 Late Bronze Age pit types

Pit type	Shape	No in group	Diameter (m)		Max. depth (m)	No of fills
			Min	Max		
1	Circular	13	0.35	0.80	0.35	1 (9 eggs); 2 (3 eggs); 3 (1 eg)
2	Oval	5	0.80	2.00	0.35	1 (2 eggs); 3 (2 eggs); 3 (1 eg)
3	Oval	2	0.75	0.95	0.50	2 (1 eg); 4 (1 eg)
4	Oval	1	0.71	0.90	0.63	3

waste, but a number of the sherds were large and could be reconstructed, and may represent one or two smashed vessels. Type 1 pits 2097, 2205 and 2336 lay east of a fenceline that separates them from the pit cluster south of Structure 4.

Type 1 pit 2362 and Type 2 pits 2106 and 2187 were situated towards the southern end of the excavation, in an area occupied by possible four-post structures. Pit 2106 contained a substantial quantity of Late Bronze Age pottery (273 sherds from two vessels, weighing 4028 gr) in a dumped soil matrix, along with a large fragment of a quernstone and smaller quantities of struck and burnt flint. The soil matrix was relatively sterile, with no charred plant remains. Pit 2187 contained two rapid backfill deposits containing small quantities of burnt flint and a total of 90 sherds of Late Bronze Age pottery weighing 696 gr, from a number of different vessels. The smaller and more abraded condition of this material suggests general household refuse or redeposited midden material.

Type 2 pit 2692 was cut by the northern ditch terminal of Barrow 6, while Type 3 pit 2610 lay immediately west of the same barrow. This pit contained a substantial quantity of Late Bronze Age pottery (606 sherds weighing nearly 12 kg). Most of the sherds were large and unabraded, and some had been deliberately placed against the edges and base of the pit, associated with a large ironstone quern fragment situated at the centre. The sherds represent more than three vessels. Two fragments of burnt animal bone were retrieved from this feature, and the fill contained quantities of emmer wheat and weed seeds. Radiocarbon dates for

this material calibrate to 1050–800 cal. BC (2805±30 BP, SUERC–28112) and 1270–1040 cal. BC (2945±30 BP, SUERC–27931). Type 1 pit 2730 lay at the very northern edge of the excavated area.

Other features

A large number of other pits, postholes and features were encountered. Many contained no dating evidence and can only be seen as possible parts of the Late Bronze Age settlement. One posthole, east of Structure 5, and not apparently related to any structure (2534) contained charred plant remains (see Pelling, below) which gave radiocarbon dates of 1050–850 cal. BC (2805±30 BP, SUERC–27932) and 1110–900 cal. BC (2825±30 BP, SUERC–27933), suggesting a date of between 1000–900 BC.

Iron Age activity

Evidence for Iron Age activity consisted of seven barrows of varied form, at least two unenclosed flat graves, a post-built structure, and three ditches (Fig. 2). Very few of these features were closely dated and they cannot be divided chronologically.

The barrow cemetery

The seven barrows (Table 3) were situated on the highest part of the gravel ridge which crossed the site from north to south. The barrows were of varied form, with circular, sub-circular, penannular and square examples present. Each contained a grave (Barrow 5 had two, one of which clearly cut the other), but none contained any skeletal remains due to the

Table 3 Barrows

<i>Barrow</i>	<i>Group</i>	<i>Shape</i>	<i>Dimensions</i>	<i>Internal grave shape and size</i>	<i>Grave no. and orientation</i>	<i>Summary</i>
1	2096	Penannular	6.4 m N-S by 5.9 m E-W	Oval. 2.6 m by 1.8 m, 0.75 m deep	2124; N-S	Entrance to SE (2.5 m wide). Large oval grave is off-centre
2	2065	Circular	8.7 m N-S by 8.4 m E-W	Sub-circular. 2.5 m by 1.5 m, 0.32 m deep	2132; E-W	Central grave
3	2533	Circular	4.5 m N-S by 4.8 m E-W	Sub-rectangular, 2.3 m by 1.4 m, 0.4 m deep	2451; E-W	Contained grave goods
4	2914	Sub-circular	Truncated	Sub-circular, 2.3 m by 1.3 m N-S, 0.65 m deep	2636; E-W	Truncated. Curvilinear ditch only partially surviving
5	2129	Square	9.4 m N-S by 9.35 m E-W	Two graves, both sub-rectangular. Grave 2572 was 3.67 m N-S and 1.74 m E-W and 0.32 m deep and grave 2431 was 2.75 m N-S, 1.82 m E-W, and 0.51 m deep	2572; 2431; N-S	Two graves, not contemporary
6	2508	Segmented penannular	7 m N-S by 6.44 m E-W	Sub-circular, 2.23 m N-S by 1.12 m E-W and 0.7 m deep	2591; NNE-SSW	Segmented, partly truncated but probably two opposing entrances in SW and NE
7	2466	Penannular	7.26 m N-S by 7.3 m E-W	Sub-oval, 3.04 m N-S by 1.63 m E-W, 0.32 m deep	2448; N-S	Not quite symmetrical, with splayed entrance. Entrance to west, 2.57m wide

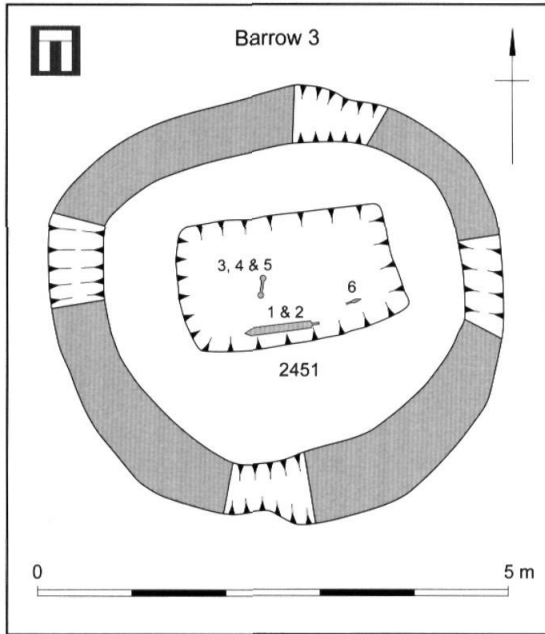


Fig. 3 Barrow 3

acidic soil conditions. Only one (grave 2451 in Barrow 3) contained grave goods. The absence of grave goods and skeletal material makes the dating and interpretation of the cemetery difficult, but all the indications place them in the later Iron Age.

Barrow 1 consisted of a penannular ditch without any indication of a mound or bank. Two features lay in the interior, although pit 2422 is Late Bronze Age. Grave 2124 was oval and situated off-centre on the western side of the barrow. It had been cut by a large sub-circular pit (2126; not shown on plan).

Barrow 2 consisted of a circular ditch, the fill of which indicated the presence of a central mound. The large sub-circular grave (2132) had been cut by a smaller circular pit (2130; not shown on plan).

Barrow 3 (Fig. 3) consisted of a rather heavily truncated circular ditch with no evidence for a bank or mound. A fairly substantial sub-rectangular grave aligned east-west was located centrally. As in every other instance, there were no skeletal remains but the grave goods (a

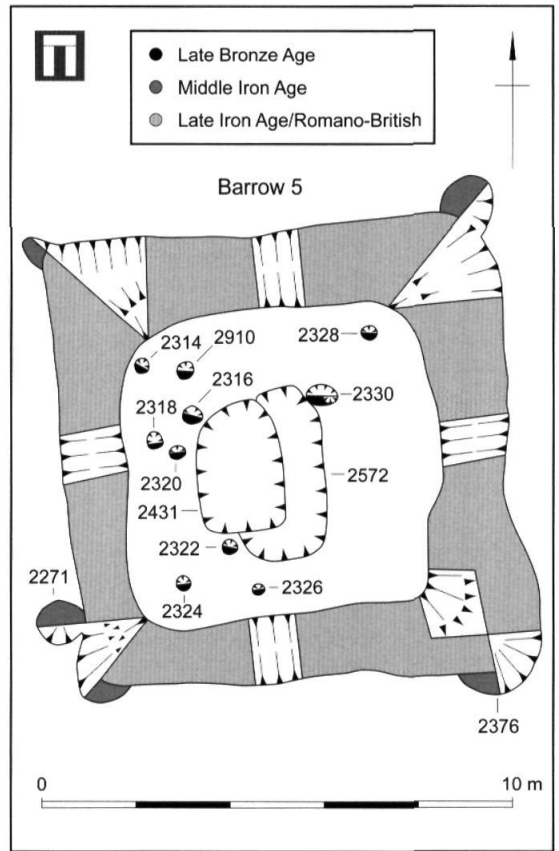


Fig. 4 Barrow 5

spearhead, sword, shield handle and fragment of ornamental boss, plus two rings from a baldric, Fig. 5 see Fitzpatrick, below) suggest a burial with the head at the eastern end. The spearhead was recovered from the eastern end of the grave, the shield fittings and baldric rings were located centrally and the sword lay along the southern edge of the grave cut, presumably along the left hand side of the deceased.

Barrow 4 survived only as a short stretch of curving ditch on the western side and an east-west orientated grave with a stepped western side.

Barrow 5 (Fig. 4) consisted of a square ditch with flared corners, each of which intersected with a pre-existing pit. There were indications

Table 4 Flat graves (m)

	<i>Length</i>	<i>Width</i>	<i>Depth</i>	<i>Orientation</i>
2197	3.28	1.86	0.40	N-S
2658	1.90	0.84	0.14	NE-SW
2539	2.45	1.10	0.36	NE-SW
2568	1.85	0.85	0.32	NE-SW
2642	1.94	0.95	0.32	E-W
2625	1.62	0.83	0.32	E-W
2500	2.60	1.06	0.47	E-W
2776	2.30	0.80	0.17	N-S
2666	2.43	1.10	0.55	N-S
2714	2.12	0.83	0.23	NE-SW
2763	2.10	1.38	0.21	E-W

of a central mound and the concentration of stony fills in the central parts of the flanking ditches suggests that the mound was circular. Within the area defined by the ditch were nine postholes and small pits. Most were undated and three contained Late Bronze Age ceramics (one of which also contained a fragment of a quern). One, however, contained Iron Age pottery suggesting that some may have been related to the barrow, but no coherent pattern could be identified. Grave 2572 was placed centrally within the barrow. There was no evidence for an interment or grave goods. The western half had been cut away and disturbed by the insertion of a second grave (2431), which was similarly empty. Four later features cut both graves (not shown on plan).

Although there is no direct evidence it is possible that this barrow was built in two phases, or that the ditched barrow replaced an earlier structure. Grave 2572 may have predated the ditched barrow, lying within a more ephemeral structure indicated by the earlier postholes at the corners. Grave 2431 could then have been dug at the same time that the ditched barrow was created.

A total of 100 sherds of pottery (weighing 516 gr) were retrieved from the ditch fills of the

barrow, including 44 sherds of a fine greyware vessel of 1st or early 2nd century AD date and five grog-tempered sherds of similar date, both from the south-eastern corner. The remaining 24 sherds from the lower fill were small abraded Late Bronze Age ceramics, undoubtedly redeposited. The upper silts contained 25 sherds of Iron Age pottery, a sherd of samian and an intrusive medieval sherd.

Barrow 6 was a segmented penannular ditch with a pair of opposed entrances. There was a single central grave (2591) within which evidence was noted, in the form of an oval organic deposit, for a possible decayed casket or shield. The slumped fill within this grave suggested a possible collapse after organic components had decomposed.

Barrow 7 was penannular, with a broad asymmetric west-facing entrance and a single sub-rectangular grave (2448) placed centrally. No skeletal remains or grave goods were present. Middle Iron Age pottery (24 sherds; 52 gr) was recovered from the ditch fill.

Flat graves

Several unenclosed flat graves, in most instances grave-shaped empty features, none with skeletal remains, were encountered (Table 4). One is

Middle Iron Age in date, the remainder are likely to be broadly Iron Age.

Grave 2197 was situated to the west of Barrow 3. Only a few sherds of probably redeposited Late Bronze Age pottery were retrieved from its single fill. There are no indications of its date, other than its proximity to Barrow 3. Grave 2658 was spatially isolated from the barrows, in the very south-eastern corner of the excavated area. A circular organic stain was noted in the centre of the grave which may have been the decomposed remains of a shield. At the south-western end a fragmentary but substantially complete Middle Iron Age pot was found. The grave was cut by a Late Iron Age ditch, as well as a posthole belonging to Roundhouse 7 (see below). A number of other features shared morphological similarities with this Middle Iron Age grave which suggest that they may all belong to a small unenclosed (albeit rather dispersed) cemetery. Four cluster together (features 2539, 2568, 2625 and 2642), while others (2500, 2776, 2666, 2714, 2763) are spread across the excavated area. Datable contents and stratigraphic relationships were few. Grave 2666 cut two Late Bronze Age postholes 2667 and 2669. Grave 2763 cut four postholes (2755, 2757, 2759 and 2761), all lacking pottery but presumably of Late Bronze Age date.

A circular structure

Roundhouse 7 has a roughly circular plan and was located in the south-eastern part of the excavated area. Some of the postholes contained packing and some posts may have rotted *in situ*. Others had relatively sterile fills, indicating that they had been rapidly backfilled once the structure had gone out use. One cut Middle Iron Age grave 2658. Therefore the structure must be Middle Iron Age or later in date.

Ditches

Ditch 2735 crossed the excavated area from north to south, immediately east of the barrow cemetery, to which it appeared to form a boundary. Small quantities of Late Iron Age pottery were recovered from its fill, and it cut

the south-western corner of Middle Iron Age grave 2658 (Fig. 2). Ditch 2753 was parallel to 2735, 68.5 m to the west. Only a small portion was excavated and it remains undated. It may mark the opposite side of an enclosure, but the evidence is inconclusive.

In the south-east corner of the excavated area a narrow, shallow segmented ditch (2911) was aligned north-east, south-west. It cut the upper fill of ditch 2735, and consequently post-dates the Late Iron Age. The ditch was generally 0.55 m wide and 0.25 m deep. It continued to the east of the excavated area (noted in an evaluation trench). Here a possible entrance was suggested by a 4.7 m gap between two ditch terminals.

Pits

Pit 2650 was situated adjacent to the southern side of ditch 2911 at the eastern limit of the excavated area. It contained a few small but unabraded sherds of grog-tempered Middle Iron Age pottery.

Undated features

A number of features – mostly postholes but also pits – remain undated. While it is possible that the former belong to the Late Bronze Age settlement, there are no actual indications of date. Similarly, pits close to dated features (primarily barrows) may be considered of Iron Age origin, but there is nothing to prove this. One example of such a feature is pit 2728 located immediately adjacent to the north side of Barrow 7. The pit contained a dump of burnt material consisting almost entirely of oak charcoal, which could represent redeposited pyre debris. No bone was present however, and the feature could simply be a posthole with the post burnt *in situ*.

A number of other undated features were located in the vicinity of the barrows, and several were of similar size and shape to graves. On investigation, however, these proved to be irregular in profile and to contain bioturbated fills, and were more probably tree-throw holes. Many of these features were focused in the western part of the excavated area, on slightly

lower ground on the slope below the grave ridge.

FINDS

Metalwork by A P Fitzpatrick

Metal objects from Grave 2451 (Barrow 3)

An iron sword (Fig. 5.1) was found at the southern side of the grave and an iron spearhead in the south eastern corner (Fig. 5.6). What was thought to be a single copper alloy object was found near the centre of the grave but interrogative conservation revealed that there were three separate objects; part of a shield handle, an ornamental mount that is likely to have decorated the shield boss, and a buttoned ring that was used to adjust the belt or baldric to which the sword scabbard was attached (Fig. 5.2–5.5).

Sword

A badly corroded iron long sword was found on the southern side of the grave, its tip at the western end. The sword is 888 mm long, on average the blade is 50 mm wide and lenticular in section. The hilt end is straight. X-rays suggest that the blade has a slightly 'streaky' appearance caused by the individual strips of iron that were forged together to form the blade. Such an appearance may have been created deliberately. The corrosion of the blade has resulted in the mineral replaced remains of the oak (*Quercus* sp.) scabbard being very well-preserved, revealing that it was *c.* 2.5 mm thick. There is no evidence that the scabbard had a leather cover.

There is a triangular openwork copper alloy mount on the front of the scabbard. Depressions in the corrosion products on the opposite face of the scabbard suggest the former existence of a horizontal strip which would indicate that the openwork mount is all that survives of a hilt guard for the wooden scabbard rather than an upper loop plate.

The scabbard would have been attached to the baldric by two copper alloy suspension rings. A fragment of mineral-replaced leather,

identified by Quita Mould as probably being bovine leather, near the hilt may be from the belt. Part of one ring, 46 mm in diameter and 5 mm thick, was still attached to the scabbard. It is uncertain if the remaining ring fragments all come from this ring or if the second ring is represented. The baldric was fastened and adjusted by a copper alloy ring *c.* 41 mm in diameter and 4 mm thick which has a raised or buttoned stud that functioned as a buckle and which was worn at the waist. Although only a small number of comparable finds are known, the buttoned ring is usually found at the waist, as is likely to have been the case at Adanac Park (Stead 2006, 50–2).

The sword belongs to Stead's Group D of long swords from southern Britain and is of type iv, which have straight hilt ends. The scabbard is of Stead's type v organic scabbards which are relatively frequent in later Iron Age contexts in southern England and examples of first century BC and AD date include burials at Whitcombe, Dorset, burial 9, Brisley Farm, Kent, burial 19, Owslebury, Hampshire, burial 39 and St Lawrence, Isle of Wight (Stead 2006, 45, 178–9, no. 114–17, fig. 81, 114, 116; 82, 117). The buttoned ring belongs to Stead's type iv, where the button is mounted on a stem set on the ring (*ibid.*, 52).

Shield

The shape of the Adanac Park shield is not known. The shape found most frequently in Iron Age Britain is animal hide-shaped, with four extended corners, but oval and rectangular examples are also known (Ritchie 1969; Stead 1991a; Fitzpatrick 2007, 342–4). As the early bronze-faced shield from the River Witham, Lincolnshire, illustrates, the handle and boss of rectangular shields need not have been placed centrally.

Handle

A flat, slightly waisted, strip 126 mm long, 13 mm wide, and 4 mm thick. Only part of one expanded terminal is present. The strip was found approximately centrally in the grave at the waist aligned north–south and it seems likely that this is part of a handle for a shield.

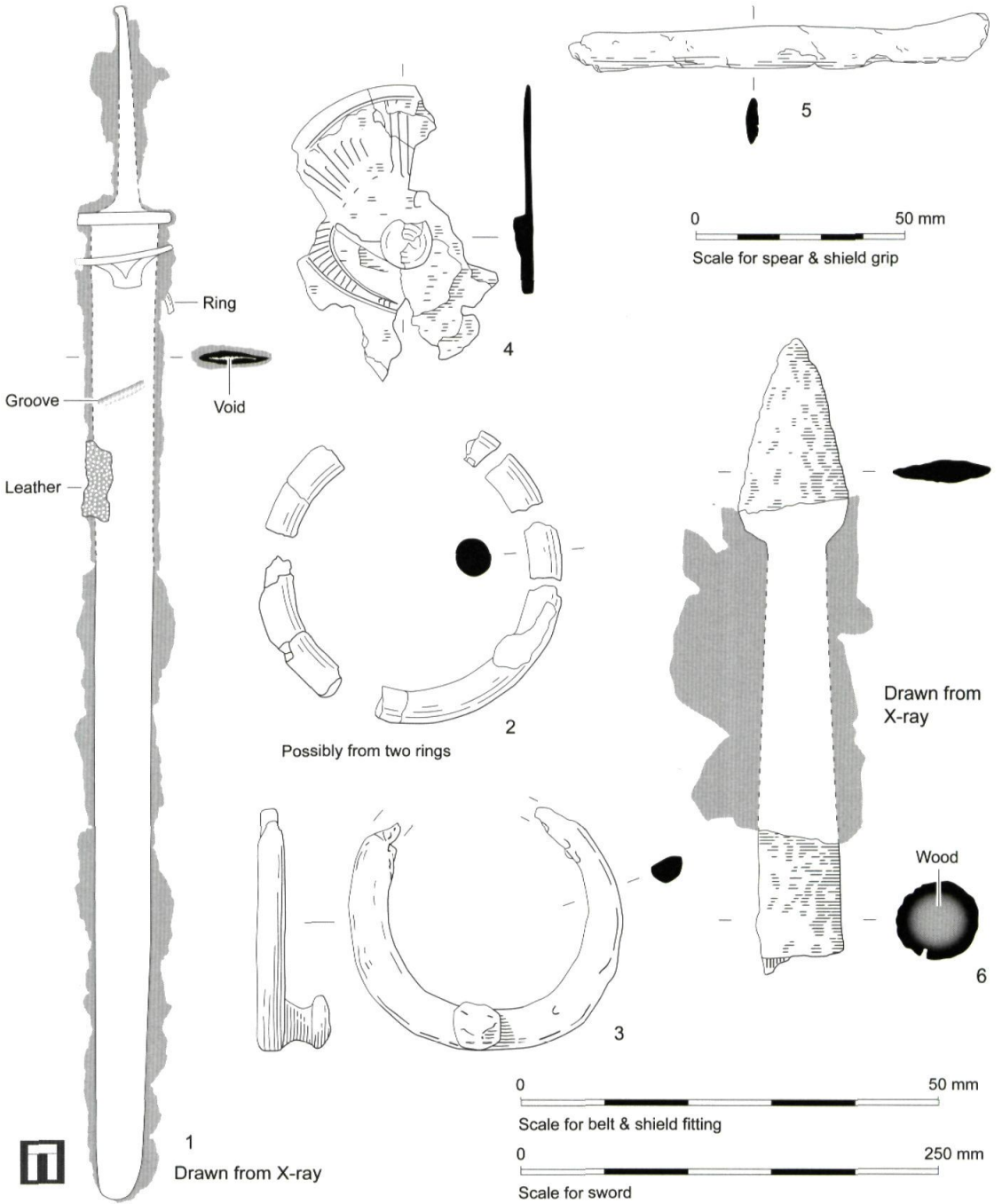


Fig. 5 Metal objects from Barrow 3: 1 sword; 2 fragmentary baldric ring(s); 3 studded baldric ring; 4 ornamental mount; 5 shield handle; 6 spearhead

The handle was found with a decorative mount that may have decorated the boss.

Metal fittings from shield handles are not common finds in Iron Age Britain. Apart from elaborate copper alloy handles from the bronze-faced shield from the River Thames at Battersea and the bronze shield from an oxbow of the Thames at Chertsey, handles seem to have usually been made entirely from wood. However, simple strip handles attached by rivets that can be compared with examples commonly found in continental Europe are present on almost all of the miniature shields from the Salisbury hoard (Stead 1991a, 22).

Shield boss ornament

A wafer-thin disc estimated to be *c.* 46 mm in diameter survives as a 'ghost' of replaced minerals and its character was established only by meticulous investigative conservation. Approximately half of the object has been preserved and it is likely, but not certain, that it was originally circular. A central copper alloy stud attached the mount to the board of the shield which would have been of wood or leather.

The mount was found in proximity to the handle fitting which suggests that it was sited near to the centre of the shield. While it is possible that the mount was a roundel that decorated the face of the shield it is more likely that it adorned the boss possibly as a decorative washer. This need not mean that the boss was circular in shape, only that it had a circular decorative field.

In Britain circular bosses have been found in burials of 1st century AD date at burial 19, Brisley Farm, Kent (Stevenson and Johnson 2004, 492), Snailwell, Cambridgeshire (Lethbridge 1953, 32; Stead 1985, 39, fig. 15) and Stanway, Essex, though here the terminal is decorated (Crummy *et al.* 2007, 180–1, 445–7, fig. 85–6, BF64.23b) but several continental European finds date to the mid-1st century BC (Stead 1985, 37–9). That the shape of the boss is not necessarily a chronological indicator is shown by the miniature shields from the Salisbury hoard. These shields are mainly hide-shaped and while most have spindle-shaped

bosses, some have circular ones (Stead 1991a, 11, fig. 16, 19–20, 22).

The surviving part of the Adanac Park mount is decorated with a pelta-shaped decorated field. The field is bounded by an incised line and infilled with parallel hatched lines. This form of decoration is best known on late Iron Age mirror plates where the overall layout of the fields is often symmetrical and on this basis it is likely that there was a similar pelta-shaped field on the lost part of the mount.

The best parallels for the overall style of the Adanac Park mount come from the Tal-y-llyn, Merionethshire hoard of metalwork which was deposited early in the Romano-British period, probably in the later 1st century AD, and which is largely comprised of copper alloy shield fittings (Savory 1964; 1966a; 1966b; Spratling 1966). One of the larger copper alloy pelta-shaped plates that flanked a shield boss is incised with a decorated circular field *c.* 80 mm in diameter (Savory 1964, 454–9, fig. 3, pl. III, 2). The upper surfaces of the two copper alloy shield bosses in the hoard also have *repoussé* decorated circular fields (*op. cit.*, 452–4, 459–61, fig. 1; 5; pl. 1, 2; 2; iv).

The layout of the decoration within the circles on the ornaments from Tal-y-llyn is certainly or probably based on a three-legged triskele. An unprovenanced decorated copper alloy mount of Late Iron Age date from Hampshire is also likely to be made as a triskele (Portable Antiquities Scheme 2001, 30, fig. 33) and it too may have been a decorative mount for a shield.

Spear

A small iron spearhead 185 mm long was found at the south-eastern corner of the grave suggesting that it was placed by the left shoulder. Mineral-replaced remains of wood in the socket suggest that the spear shaft was of hazel (*Corylus* sp.)

There is considerable variety in the size of British Iron Age spears but they are often quite short (Stead 1991b, 74–8), the examples in the Owslebury and Whitcombe graves are 310 mm and 172 mm long respectively (Collis 1973, 126, fig. 4, 1; Stead 1990, 73, fig. 10, 6). There

is also considerable diversity in where they were placed in the grave but the Owslebury example was found by the left shoulder of the 40–50 year old man buried in the grave, though it was suggested, due to the presence of a metal ferrule, that the shaft had been broken (Collis 1973, 126).

Discussion

Where it has been possible to identify the sex of the person with whom weapons were placed in Iron Age graves it has always been male though the occurrence of a shield, a sword and a mirror, which is usually associated with female burials, in the grave at Bryher, Isles of Scilly may be noted (Johns 2002–3). It is relatively rare to find the panoply of shield, sword and spear in burials in Iron Age Britain, with only six finds being known (Sealey 2007, 36).

Swords are generally found on the right hand side of the body. A rare example from Britain of a sword placed on the left side is Brisley Farm burial 19 where the sword was inverted (Stead 2006, 53; Stevenson and Johnson 2004, 492). Spears are rarely found with swords in burials in southern England but at Owslebury it was by the left shoulder. The fact that the shield fittings and the baldric were found together suggests that the centre of the shield was placed at the man's waist.

The weaponry from grave 2451 provides the best dating evidence for the use of the cemetery. While small Iron Age spearheads were in use for much of the Iron Age, type D swords first appeared in the later 2nd century BC and continued in use until at least the middle of the 1st century AD. The Owslebury sword may date to the middle or earlier 1st century BC but the Whitcombe example may be almost a century later in date (Stead 2006, 53–4). A closer dating for grave 2451 than the later 1st century BC or earlier 1st century AD is not currently possible on typological grounds alone.

Pottery by Matt Leivers

The prehistoric pottery assemblage consists of 3,138 sherds weighing 32,488 gr. The majority

of the material dates to the Late Bronze Age, with very much smaller quantities of Middle and Late Iron Age pottery recovered. Only very small amounts of Romano-British and later ceramics were present. The prehistoric assemblage was dominated by sherds in moderate to poor condition, with very few even partially reconstructable profiles. The material was analysed in accordance with the nationally recommended guidelines of the Prehistoric Ceramics Research Group (PCRG 1997).

Pottery by chronological period

Some 11 fabric groups were defined for the prehistoric material, which have been grouped into three chronological periods. All of the fabrics are period-specific. The breakdown of ceramics by fabric group and chronological period is given in Table 5. Fabric descriptions are available in the site archive.

Late Bronze Age

The near-total absence of decoration and the reconstructable vessel forms suggest a Post Deverel-Rimbury plainware assemblage.

Seven fabric types have been defined, five flint-tempered (F1–4 and F16), one sandy (QU1) and one vesicular (V1). The vesicular fabrics are light and corky, and undoubtedly originally contained calcareous inclusions of some kind which have subsequently been completely leached out.

Within the fabrics there is a wide range of coarseness, and a very broad distinction between finewares – defined here on the basis of a combination of fabric type, surface treatment (predominantly smoothing), and the presence of decoration (which is rare) – and coarsewares.

The range of inclusion types is consistent with a local source of raw materials, although some variation in the presence and frequency of naturally occurring inclusions such as iron oxides suggests that different clay sources were exploited within this local area.

The range of vessel forms which can be identified is rather restricted (Figs 6 & 7), and is limited to jars of varying sizes and profiles. Most are known only from rims (most of which

Table 5 Prehistoric pottery fabrics by chronological period

<i>Date</i>	<i>Fabric</i>	<i>No. sherds</i>	<i>Weight (gr)</i>	<i>ASW (gr)</i>
LATE BRONZE AGE	FL1	257	2052	7.98
	FL2	468	5991	12.80
	FL3	975	6707	6.88
	FL4	1269	16790	13.23
	FL6	1	4	4
	QU1	15	124	8.27
	VI	26	142	5.46
Sub-total LBA		3011	31810	10.56
MIDDLE IRON AGE	QU2	112	490	4.37
	SH1	2	50	25
Sub-total MIA		114	540	4.73
LATE IRON AGE	FL5	1	54	54
	GR1	12	84	7
Sub-total LIA		13	138	10.61
TOTAL		3138	32488	10.35

are plain) and upper bodies (which tend to be globular). There are few reconstructable jar profiles but forms are likely to have been mainly S-profiled.

As a whole, the incidence of decoration within the assemblage is low, and is restricted to individual examples of a rim with fingertip impression, a vertically finger-fluted exterior surface, an applied cordon, and two instances of finger-tip impression on shoulders.

Middle Iron Age

A small number of sherds (from Barrow 5, Barrow 7, posthole 2534, pit 2650 and grave 2658) could be later than the bulk of the assemblage. Fabrics are predominantly sandy (two sherds are shell-tempered), and the group

includes angled, shouldered and convex forms, and a single fragment of a proto-bead rim. One has the remains of a lug, and some have been burnished. This group is probably Middle Iron Age. The group of 60 sherds from grave 2658 appears to represent a single Middle Iron Age shouldered jar (Fig. 7.11), presumably deliberately deposited as a grave good.

Late Iron Age/Romano-British

Iron Age activity on the site was clearly very sporadic, and this continued into the Late Iron Age and Romano-British period. Sherds in grog-tempered and flint-tempered fabrics, including everted rim and bead rim jars, are of a Late Iron Age ceramic tradition which continued into the early Romano-British

period; these came from Barrow 5 and ditch 2735. A Late Iron Age–early Romano-British date for Barrow 5 is confirmed by the presence of wheelthrown greyware sherds from a single everted rim jar. A single sherd of samian was found in ditch 2174 (also Barrow 5).

Post-Roman

A small sherd of medieval sandy ware was recovered from the excavation, from the ditch of Barrow 5 (presumably intrusive in this context). This can be added to the small quantity of medieval (coarsewares and finer sandy wares) and post-medieval pottery (Verwood-type earthenware, German stoneware) recovered from the evaluation (Wessex Archaeology 2008a).

Catalogue of illustrated pottery (Figs 6 & 7)

Late Bronze Age:

- 6.1 T-shaped rim sherd from a small open bowl of unknown diameter, feature 2017;
- 6.2 Two joining sherds from the upper body of a hook-rimmed jar of unknown diameter, feature 2017;
- 6.3 Two joining sherds from the pointed rim of an open ?bowl 180 mm in diameter, feature 2017;
- 6.4 Joining sherds from the inturned, rounded rim and body of a closed bowl or tub 140 mm in diameter, feature 2087;
- 6.5 A sherd from the out-turned rim of a shouldered jar, 120 mm in diameter, feature 2087;
- 6.6 A sherd from the flaring rim of an open ?bowl, 120 mm in diameter, feature 2381;
- 6.7 Three sherds from the inturned, rounded rim of a closed bowl or jar, 340 mm in diameter, feature 2087;
- 6.8 A squat closed jar, 350 mm in diameter, feature 2106;
- 7.9 Three sherds from the rim/upper body and much of the base of a closed jar, 380 mm in diameter, feature 2106;
- 7.10 Upper body/flat rim and much of the base of a straight-walled open jar with an applied, finger-pressed cordon, 330 mm in diameter, feature 2610.

Middle Iron Age:

- 7.11 Numerous fragments of a small shouldered jar, 80 mm in diameter, feature 2658.

Other finds by Kayt Marter, Matt Leivers and Lorraine Mephram (*geological identifications* by Kevin Hayward)

A total of 133 predominantly abraded, undiagnostic fragments (3,169 gr) of fired clay was recovered. Identifiable objects comprise two horizontally perforated, pyramidal loomweight fragments from posthole 2017 in Structure 3 (Fig. 8.2). There was a concentration of fired clay (almost half the assemblage) within features associated with Structure 4 (pits 2191; 2371; postholes 2335; 2446).

The worked stone includes one whetstone, six quern fragments and one piece of roofing slate. Two sarsen saddle quern fragments and an ironstone whetstone came from posthole 2017, Structure 3 (Fig. 8.1), with another ironstone quern fragment in pit 2610. The remaining three quern fragments are in glauconitic sandstone (pits 2097, 2106, posthole 2330). All the stone utilised is of probable local origin (within 50 km); sarsen outcrops are found within the Tertiary/Quaternary deposits of the Hampshire Basin and Wiltshire (Stanier 2000, 19), glauconitic sandstone has a suggested provenance in the Lodsworth Greensand (Peacock 1987) and ironstones typical of the Agglestone Grit (Barton Beds) from the Swanage/Poole area have been identified north of Studland Bay (Arkell 1947, 224–233). Comparable ironstone saddle quern and whetstone fragments were recently found at a multi-period site at Waterlooville, Hampshire (Wessex Archaeology 2008b).

A small group of 65 pieces of struck flint, predominantly flakes, with three flake cores, a core fragment and two pieces with marginal retouch, is unlikely to be older than the later Neolithic. There is a basic division between pieces which appear to result from a planned reduction sequence intended to produce formal blanks or tools on the one hand, and those which seem to result from very much more expedient, unskilled or casual knapping on the other. This latter group includes two of the flake cores (fairly large, very crude, one littered with incipient cones of percussion, the

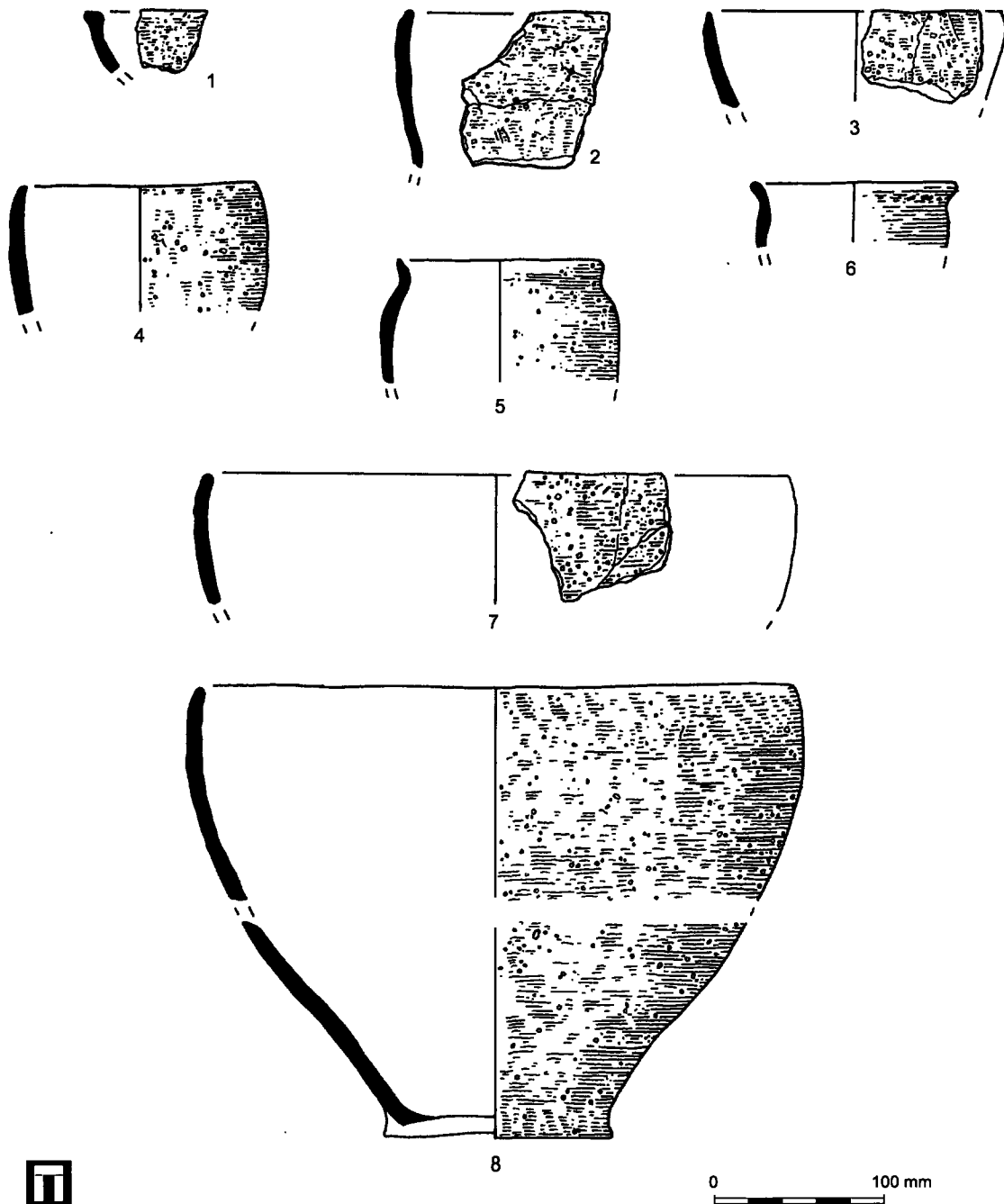


Fig 6 Pottery

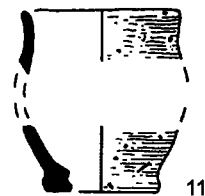
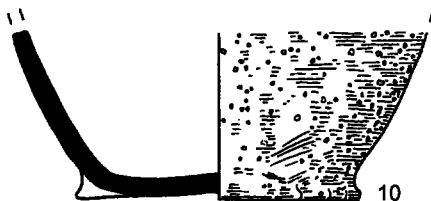
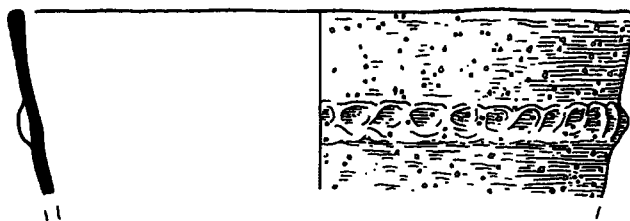
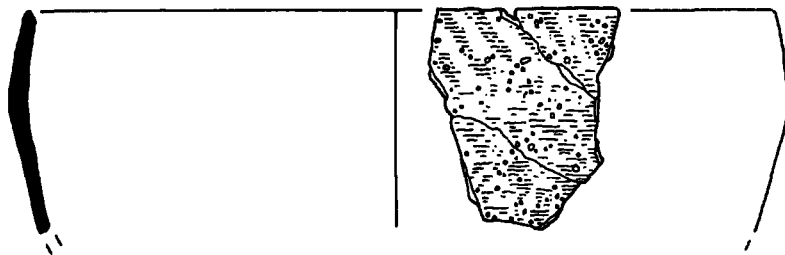


Fig 7 Pottery

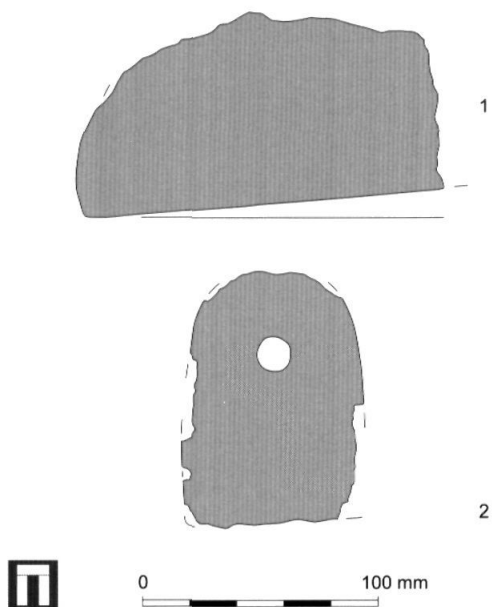


Fig. 8 Other finds: 1 sarsen quern fragment, feature 2017; 2 perforated clay loomweight, feature 2017.

other possibly intended as a basic chopping tool), the core fragment and some of the flake debitage. Quantities are too small to allow any significant inferences.

Two pieces of glass were recovered – one possibly a Romano-British vessel fragment (ditch 2184 around Barrow 5) and one tiny clear fragment, of uncertain date and probably intrusive (Late Bronze Age posthole 2335). Very little animal bone survived, presumably due to adverse soil conditions, and the condition of the fragments recovered from the excavation is very poor, and none is identifiable to species. Two small fragments from pit 2610 are burnt. Seven small fragments of burnt human bone (total weight 1 gr) came from pit 2709, associated with Late Bronze Age pottery. Burnt, unworked flint (just over 5 kg from the site), indicative of prehistoric activity was recovered primarily from features dated to the Middle or Late Bronze Age, although there were no significant concentrations.

ENVIRONMENTAL EVIDENCE

Charred plant remains by Ruth Pelling

In contrast to the chalklands of northern Hampshire and Wiltshire, few sites in southern Hampshire have produced significant evidence for the cereal economy in the Late Bronze Age or Iron Age. In part this is a reflection of the nature of archaeological activity in the region being largely restricted to salvage work or watching briefs. The excavation of a Late Bronze Age settlement site offered a rare opportunity to examine aspects of the cereal economy for the region. Routine sampling for charred plant remains and charcoal at the site produced a total of 38 bulk samples, of which 17 produced charred plant remains. While the majority of features produced small amounts of material indicative of background scatters of cereals and cereal processing waste, deposits from three postholes and a pit produced samples within which charred grain and/or chaff and weed seeds were found to be abundant.

Methodology

Bulk samples were processed by standard flotation methods, with flots collected on a 0.5 mm mesh. Dried flots were assessed under a stereo-binocular microscope. In total 38 samples were processed and assessed from a range of pits, postholes and cremation deposits. On the basis of the assessment four samples were selected for more detailed analysis of their seeds and chaff, while five samples were selected for identification of charcoal. Sample selection was made on the basis of content (ie. useful quantities of charred seeds, chaff and charcoal) and availability of dating and phasing information. Samples selected for analysis of their charred plant remains were taken from three postholes, and one pit. Samples and 1 mm residue fractions were sorted under a stereo-binocular microscope for the extraction of charred seeds including cereal grains, and chaff. One sample from a posthole (feature 2534) produced a particularly large flot which contained large numbers

of grain and chaff. The fraction held in the 4 mm mesh was sorted in full. A measured 10% fraction from each sieve of the remaining flot was sorted down to 0.5 mm. Identification was based on gross morphological criteria and by comparison with modern reference material held at Wessex Archaeology. Nomenclature and taxonomic order of weed seeds follows Stace (1997). Given the inherent difficulties in the identification of cereal grain the identification of hulled wheat grain to species was only attempted when glume bases remained attached. The identification of cereal chaff is regarded as more reliable. Counts given for grain are based on whole grain or the embryo end of grain fragments. The chaff part identified is given. The term 'spikelet' refers to pairs of grain and chaff where still retained in their growth position. 'Spikelet fork' refers to the chaff, where one spikelet fork is composed of two glume bases.

The four samples selected for detailed analysis were rich in plant remains, each producing in excess of 300 items (where one spikelet fork is counted as two glume bases). Posthole 2534 produced a particularly substantial assemblage given only 10% of the flot was sorted, the entire flot containing in excess of 6000 items generated by 3 litres of sediment. These flots are in contrast to the majority of samples from the site which produced background scatters of cereals and cereal waste (chaff and weed seeds). This distribution of remains suggests that cereal processing and/or storage was clearly taking place on the site but was only occasionally entering the archaeological record, presumably due to occasional chance catastrophic burning events, and that day to day processing of cereals was not leaving a significant mark on the archaeological record. The four samples examined are not from directly related features, all four being from different parts of the site. Any similarities in the assemblages therefore are a reflection of repeated, similar behaviour rather than a single event resulting in one deposit entering several features.

Two samples, from postholes 2298 and 2534 produced very similar flots in which cereal

grain dominated and weeds were rare. The material from posthole 2534 was particularly well-preserved, containing several complete or nearly complete spikelets of hulled wheat, of which emmer wheat (*Triticum dicoccum*) was positively identified. A number of spikelets retained only minimal remains of chaff, although the grain was fused together, clearly having been burnt while still contained within its chaff. Such preservation demonstrates the differential survival of grain and chaff, the chaff having largely been burnt away while the grain is still intact. The differential survival of grain and chaff is well documented (Boardman and Jones 1990) although it is unusual to find such well illustrated examples. The ratio of wheat grain to glume bases in the 10% sorted fraction of this sample is 1:1 (157:157), consistent with the presence of spikelets (or ears) of wheat. Assuming some of the indeterminate grain is also derived from hulled wheat, the total number of grains would clearly outnumber the total glume bases, although given the differential survival rate this would be expected even if spikelets were present. In posthole 2298 the ratio of wheat grain to glume bases is nearer to 1:1.5 although this is still potentially consistent with spikelets if indeterminate grain is taken into account.

Both posthole samples also contained grain of barley, the barley outnumbering wheat in posthole 2534. Of particular interest was the fact that this sample included a cluster of six-row barley grains still in their growth positions as if in the ear, despite there being no trace of rachis remaining. A small number of loose rachis internodes were counted. It is possible therefore that this sample contained both spikelets of emmer wheat and ears (or even sheaves) of barley and that the chaff of barley in particular had been almost completely destroyed. The number of weeds in these posthole samples was negligible and included common arable or ruderal species (*Chenopodium album*, *Fallopia convolvulus* and *Vicia/Lathyrus* spp.).

Two radiocarbon dates were obtained on material from posthole 2534, one each on a barley grain and an emmer spikelet. Both

produced Late Bronze Age dates of 1050–850 cal. BC (2805 ±30 BP, SUERC–27932) and 1110–900 cal. BC (2825 ±30 BP, SUERC–27933). The calibration curves (using Oxcal 4.0) for both dates suggest a high probability that they both fall within a 100 year period between 1000 and 900 BC.

In contrast a sample from posthole 2278 produced an assemblage dominated by weed seeds, with fairly frequent chaff (mostly glume bases) and only rare grain. This sample appears therefore to be dominated by processing debris of hulled wheat, probably emmer (chaff and weed seeds). The occasional grain of wheat may simply represent accidental losses. A small number of grains of barley may have entered the deposit from a different source, or may also represent occasional grains lost in processing. The weed seeds are dominated by large seeded species such as black bindweed (*Fallopia convolvulus*), goosegrass (*Galium aparine*) and vetches/tares (*Vicia/Lathyrus* sp.). Black bindweed is particularly dominant in the sample and as a binding plant is likely to have been difficult to avoid at harvest. Seeds of Chenopodiaceae including fat hen (*Chenopodium album*) are also common. The species present are generally common on disturbed soils including both cultivated and ruderal habitats and are commonly associated with early prehistoric cereal assemblages. Seeds of spikerush (*Eleocharis palustris*) and sedges (*Carex* spp.) suggest some cultivation of somewhat wetter ground. A fairly large number of indeterminate seeds were poorly-preserved and damaged or fragmentary.

The sample examined from pit 2610 produced a grain-rich sample, similar to the posthole samples, although with slightly more rachis of barley and more weed seeds. A large number of the weed seeds were of vetches or tares (*Vicia/Lathyrus* sp.) and are likely therefore to have come from a single plant. The majority of the remaining weed seeds were of indeterminate species. Given the preservation of the grain and chaff in this sample which was generally good, it is possible that these poorly preserved weed seeds originate from a separate source. Generally it is possible that this sample

again derives from processed spikelets of emmer and ears of barley, but retains slightly more impurities than the posthole samples, presumably reflecting the more mixed nature of the context. Two radiocarbon dates from this feature give slightly differing dates. An emmer wheat spikelet produced a date of 1050–800 cal. BC (2805 ±30 BP, SUERC–281121), identical to one of the dates from posthole 2534. A barley grain from the same feature produced a slightly earlier date of 1270–1040 cal. BC (2945 ±30 BP, SUERC–27931). These dates therefore suggest that some residual material was present in the pit.

The samples not examined in detailed produced small quantities of grain, chaff and weed seeds (often fewer than five items). Hulled wheat and barley were noted. It is likely that such material derives from background scatters of cereals and cereal processing waste and much of it can be significantly reworked. Occasional fragments of hazelnut shell may indicate the use of wild food resources, while some may originate from wood collected for fuel.

Discussion

While charred plant remains were present in large quantities in very few samples, the density of remains in those samples is such that they demonstrate the use of cereals at the site. Both processed spikelets and grain and processing waste are represented indicating that storage and processing of cereals was taking place. The material recovered therefore provides an important contribution to our understanding of the cereal economy of this area of southern Hampshire, an area for which little evidence has previously been recovered. It provides an important comparison for the better known region of the Hampshire chalk lands in the Danebury Environs (Campbell 2000). The samples examined date from the Late Bronze Age, and suggest a well structured cereal economy by this date. Importantly the presence of large deposits of cereal remains from a site where the majority of deposits produced only traces of remains does indicate that the paucity

of good archaeobotanical assemblages from Late Bronze Age sites in southern Hampshire may simply be a reflection of preservation. While variation in the size of grain assemblages between sites is undoubtedly in large part due to the scale of cereal related activity in the past, this does not imply in itself that cereals played only a minor role on those sites producing limited cereal remains (van der Veen and Jones 2006). Even small-scale farmsteads are likely to have processed, stored and consumed fairly significant quantities of grain. The fact that three of the four samples examined produced evidence for processed spikelets, presumably accidentally charred during storage or at a late stage of processing, suggests some degree of cooperation and organisation in both processing and storage, and that this was not a chance occurrence. The presence of processing waste further suggests that processing was taking place on site and that the waste may have been utilized as fuel.

Two cereals were cultivated at the site: emmer wheat (*Triticum dicoccum*) and hulled barley (*Hordeum vulgare*). There is some slight evidence for spelt wheat (*Triticum spelta*) from posthole 2278 in the form of one glume base and two hexaploid rachis internodes. While there is evidence for spelt wheat from the Middle Bronze Age in southern Britain (Pelling 2003), the presence of such small quantities of chaff is inconclusive of its presence locally and may derive from later activity on the site.

The presence of processed spelt spikelets and barley grain suggests that this deposit derived from material accidentally burnt in storage. It is of interest that the posthole deposits on the site have produced evidence for clean deposits of processed spikelets/ears of grain, while the pit has produced a much more mixed assemblage, presumably containing waste from more than one episode of burning.

The storage of hulled wheats (emmer and spelt wheat) as spikelets is well documented. The cereals are threshed and may be cleaned of straw and weed seeds, but are commonly stored with the grain still within spikelets protected from fungal and insect attack by the dense, woody chaff. Conversely,

barley (*Hordeum vulgare*) is a free-threshing cereal in which the grain is separated from the chaff relatively easily following threshing and is therefore assumed to have been stored as processed grain. The presence of grain, apparently burnt within the ear, would suggest storage of barley as sheaves or at least ears in the past, but that the differential survival of grain and chaff is sufficiently extreme that it is rarely possible to demonstrate this. Examination of barley grains and accompanying photographs of pit sections from Middle Bronze Age pits from Poundbury, near Dorchester (Pelling 2011) and micro-excavation of Iron Age barley deposits at Ham Hill, also in Dorset (Ede 1999) would suggest that this may have been much more widespread than is generally recognised. The storage of barley in ears is more difficult to explain than that of spikelets of hulled wheats as barley falls from the ear relatively easily. This would require being harvested slightly under ripe to prevent grain falling loose from the ear. Alternatively whole sheaves may have been stored, although this does not appear to have been the case at either Poundbury or Ham Hill.

The absence of weeds in the deposits would suggest their removal before storage. The paucity of weeds in the postholes samples (both features 2534 and 2298) is such that it also raises the possibility that both the emmer wheat and the barley were harvested by plucking the ear or that separate reaping of ears and straw took place. Barley is a free-threshing wheat which is usually stored as processed grain. It is unlikely that weed seeds could be separated from the barley without it breaking into individual grains. Therefore if barley was stored in the ear, this would imply weeds had not been harvested in the first place. The storage of barley in the ear has been suggested for Adanac Park on the basis of the presence of a small number of grain in ear formation, although the majority of grain is loose.

Against this interpretation is the presence of a large number of weed seeds in posthole 2278. A large number of weed seeds were also present in the sample from pit 2610. However, the weeds in this example were composed

largely of indeterminate species or vetches/tares (*Vicia/Lathyrus* sp.) which may have derived from one or two plants. The harvesting of binding varieties like vetches is possibly more closely associated with reaping lower on the straw or uprooting, and pulling the binding plant up with the straw.

Conclusions

The examination of the charred plant remains from Adanac Park has raised some interesting issues. The presence of large deposits of cereal remains from postholes demonstrates the importance of sampling postholes, despite difficulties in the interpretation of their assemblages. The small number of large deposits of spikelets and grain on a site which otherwise has produced only limited remains demonstrates the significance of chance preservation of deposits. Locally the principal wheat species cultivated was emmer wheat in the Late Bronze Age with no evidence for the shift to spelt wheat from the site.

Charcoal by Ruth Pelling

Methodology

Charcoal fragments retained in the 4 mm and 2 mm sieves were extracted from the flots and residues. Charcoal fragments from each sample were assessed following Loney and Casteel (1975) and Gale and Cutler (2000). Slides were examined using an incident-light microscope at magnifications of up to $\times 400$. Identification was made according to anatomical characteristics described by Schweingruber (1990) and Hather (2000). Identification was to the highest taxonomic level possible, usually that of genus, while nomenclature follows Stace (1997). When anatomical differences between related genera are too slight to enable positive identification to genus level the group name is given. All fragments retained in the 4 mm sieve were identified. Fragments were identified in the 2 mm sieve until a fully representative range of taxa in each sample had been identified (generally in the region of 100 fragments). The preservation was variable, with some

fragments being particularly friable or having a coating of sediments on the walls of the cells, often obscuring diagnostic details.

Postholes

Three charcoal samples were examined from postholes (features 2223, 2278 and 2534). Of these, two posthole samples (features 2278 and 2534) had also been examined for charred plant remains. Oak (*Quercus* sp.) dominated samples from features 2223 and 2534. The presence of other species suggests that the contents do not consist solely of the remains of the posts. Fragments of hazel (*Corylus avellana*) and less well preserved hazel/alder (*Corylus/Alnus* sp.) were present, including occasional round wood in posthole 2534. Other taxa noted were ash (*Fraxinus* sp.), alder (*Alnus glutinosa*), Pomoideae type (hawthorn, *Crataegus* sp.; apple, *Malus* sp., pear, *Pyrus* sp.; whitebeam/service tree, *Sorbus* sp.) and willow/aspens (*Salix/Populus* sp.).

Posthole 2278 produced a smaller assemblage in which oak and hazel or hazel/alder were present in similar quantities. A number of the hazel fragments derived from round wood showing five to six years growth, and generally retaining the sapwood. A small number of Pomoideae fragments were also present.

Pits

Charcoal was examined from two pits: features 2472 and 2610. Both deposits produced assemblages dominated by oak heartwood but also containing a range of other taxa. Hazel was also well represented. A single fragment tentatively identified as birch (*Betula* sp.) was present in pit 2472, while Pomoideaceous wood was identified, five fragments of field maple (*Acer campestre*) and two fragments of blackthorn/plum/cherry type (*Prunus* sp.) roundwood, showing at least six years growth. A slightly more limited range of taxa was present in pit 2610 including hazel, possible willow/aspens and Pomoideae.

Discussion

Charcoal was present in a range of features at the site, often in quite large quantities. The samples selected for analysis were chosen because they

produced good sized assemblages from well phased features. The mixed assemblages from the pits and possibly from posthole 2278 are likely to represent spent fuel discarded from hearths. The oak from postholes 2223 and 2534 may derive from the structural posts although this is difficult to establish in the absence of a sample from a clear post-pipe. Assuming the grain recovered from posthole 2534 derives from stored produce held with a raised structure which fell into the posthole during a fire event, or was swept into it following a fire, it would be reasonable to assume the other charcoal present originated from the same event. Hazel and willow or aspen for example could derive from wattle fencing or structural panels. Roundwood was better represented in posthole 2278, much of which appeared to be from five to six year old growth, which would be consistent with coppiced poles.

Some environmental indicators are provided by the charcoal and the range of taxa represented. The site is situated on a slight slope, close to the floodplain and is subject to seasonal flooding. The underlying geology is varied but consists of London Clay to the west and Bagshot Sands to the east, overlain with Valley Gravel and Brickearth in places. The range of tree species represented by the charcoal would all occur naturally in this environment and the charcoal is presumed to be largely locally derived. Oak is likely to have formed the dominant large tree cover in the local woodland and the dominance of oak in particular in the charcoal assemblage is likely to be largely a reflection of availability. Members of the Pomoideae group (hawthorn, apple, pear, whitebeam, service tree etc), the blackthorn/cherry type species (*Prunus* sp.) and hazel are typical of woodland edge or understory species. Alder and willow prefer damp or marshy ground and will have been growing on the floodplain. Aspen is anatomically indistinguishable from willow but also tends to favour damp or seasonally wet meadows.

Conclusions

Significant quantities of charcoal were recovered by flotation from a number of Late

Bronze Age features at Adanac Park. Much of the material is likely to derive from mixed, spent fuel and therefore is of limited analytical value. The range of species identified did however provide a useful indicator of local vegetation patterns, suggesting the presence of oak woodland with an understory or scrubby areas of hazel, blackthorn/cherry type, Pomoideae species (hawthorn, apple, pear, whitebeam, service tree etc) and alder, willow and/or aspen on wetter parts of the floodplain. While it has not been possible to demonstrate the practice of coppicing at the site the presence of regularly sized hazel roundwood does suggest it was possible locally. Charcoal recovered from the postholes raises the possibility that it derived from structural remains including oak posts and possible hazel panelling, fencing or wattle.

DISCUSSION by Matt Leivers, AP Fitzpatrick and Catriona Gibson

The excavation provided evidence of what was basically a two-period inhabitation of the landscape: a settlement of Late Bronze Age date and an Iron Age cemetery or cemeteries.

Late Bronze Age settlement

The Bronze Age settlement was focused on the higher gravel terrace, and is likely to represent a small farmstead which may have extended to the north of the excavated area. In southern England, Late Bronze Age settlements tend to be small, represented by a few roundhouses (Brück 2007) and the Adanac Park structures fit into this model. Radiocarbon dates on a pit and a four-post structure indicate occupation in the early first millennium BC.

The six circular post-built structures are unlikely to have been either functionally uniform or contemporary. Roundhouse 1 and Structure 2 overlap and assuming complete circuits for each, the buildings cannot have stood simultaneously. There are no stratigraphic relationships to indicate a sequence; the only suggestion of phasing is that the south-

east facing porch of Roundhouse 1 would have been very close to the wall of Structure 3 had those two buildings stood simultaneously, suggesting that Roundhouse 1 belongs to a separate phase to Structures 2 and 3.

Apart from this instance, there is no reason why all of the structures could not be contemporary. As far as types are concerned, Roundhouses 1 and 6 appear to be typical roundhouse dwellings with south-east facing entrances, and the same is likely to be true of Structure 3. Structure 2 is ambiguous, as the plan is somewhat unclear, but Structures 4 and 5 appear to be smaller ancillary buildings. The ubiquity of a very few types of material in pits and postholes (pottery, fired clay, some worked stone) precludes the assignation of different functions to individual structures. A pair of four-post granaries and the presence of quernstones in pits imply an agrarian economy; it seems most likely that the settlement as a whole represents a small farmstead with a mixed economic base. The absence of any faunal remains means that it is not possible to determine whether there was any seasonal pattern to activity.

Although there is no evidence that the settlement was enclosed, there does appear to have been at least one division of space: a fenceline situated east of the circular structures is aligned north of north-east to south of south-west. What lay to the east of this boundary is difficult to assess, since the area was later occupied by the Late Iron Age barrow cemetery, but south of the cemetery's apparent limits are square four-post granaries, none of which were identified west of the fence, suggesting that there may have been distinct activity areas.

It is clear that the Late Bronze Age settlement at Adanac Park did not exist in isolation. Recent excavations in the immediate vicinity at Testwood Lakes, Totton, have revealed an important Middle and Late Bronze Age landscape, including timber bridges (Ellis in prep.). Testwood Lakes lie only *c.* 2.5 km to the north-west of Adanac Park and it is possible that the inhabitants of the settlement at Adanac used the bridges at Testwood to cross the numerous channels in the floodplain of the Test and Blackwater rivers.

The lower Test valley appears to have been subject to relatively widespread utilisation of the higher, well-drained gravel terraces. Evaluations and watching briefs at Church Lane, Nursling (Rees 1993), Dairy Lane (Adam *et al.* 1997), Franconia Drive (Beamish and Hearne 1994), Frogmore Lane (Morton pers. comm.) and Nursling Gravel Quarry (Rees 1993) have encountered various elements of a farmed and inhabited landscape, including field boundary ditches and at least one further roundhouse. This landscape appears to span the Middle and Late Bronze Age. Environmental evidence from the Dairy Lane site suggests limited arable activity and cereal production (Adam *et al.* 1997, 28).

Iron Age cemetery

The absence of any diagnostically Early Iron Age pottery indicates that the settlement had been abandoned before the end of 8th century BC, following which there is no discernible human activity on the site for at least three hundred years. The next identifiable phase of activity is in the Middle Iron Age, and includes at least one of the unenclosed flat graves and a nearby pit. Quantities of redeposited Middle Iron Age pottery are very small, implying that whatever settlement was served by the cemetery was not in the immediate vicinity. The absence of skeletal or other remains from the other unenclosed graves means that it is impossible to determine if they too are Middle Iron Age, or whether some of them are of different dates, perhaps contemporary with the later barrow cemetery. Discounting the possibilities that some graves are very much earlier or later, three possibilities arise: either the Middle Iron Age cemetery is entirely separate from the Late Iron Age barrows; or the former turns into the latter with no break; or only a single grave dates to the Middle Iron Age, with all other mortuary activity being later and forming a single cemetery containing both unenclosed graves and barrows.

As Iron Age inhumation burials are not common finds it is considered likely that all the grave-like features belong to a single phase.

While there is little dating evidence from the burials, it is consistent. The weaponry from Barrow 3 dates to the first centuries BC or AD. A pot of Middle Iron Age type was placed as a grave good in grave 2658 (Fig. 6.11). This grave was cut by ditch 2735, which contained pottery of a Late Iron Age type that continued in use into the Romano-British period. Similar pottery also found in the upper fills of the second phase ditch of Barrow 5. Pottery of Middle Iron Age type was also found in the ditch of Barrow 7. A pit on the eastern edge of the excavation area (2650) also contained a small amount of pottery of Middle Iron Age type.

Ditch 2735 runs north-south across the excavation area, and stratigraphic and other dating evidence (above) suggests that it is later than the burials and that it may respect the linear arrangement of the barrows.

A pit on the eastern edge of the excavation area (2650) also contained a small amount of pottery of Middle Iron Age type while grave 2658 was cut by one of the postholes of an undated roundhouse. This hints at the possible presence of a settlement to the east of the cemetery which may have been partly contemporary with it. Alternatively, this structure (Roundhouse 7) could be related in some way to mortuary activities, although its position east of ditch 2735 and cutting grave 2658 makes this less likely.

Inhumation burials

The discovery of a Late Iron Age inhumation cemetery in southern Hampshire was quite unanticipated. In southern England Late Iron Age inhumation burials are best known in the Cornwall and the Isles of Scilly where the so-called 'south west cist burials' are found (Whimster 1977a; 1977b; 1981, 60–74; Nowakowski 1991) and in southern Dorset, where *Durotrigian* burials are found (Whimster 1977b; 1981, 37–59). In these areas inhumation appears to be the most common burial rite. To the east, cremation burial is more common in the Late Iron Age but inhumation burials are found in small numbers (Hamilton 2007, 90) and there is a large cemetery at Mill Hill, Deal, Kent (Parfitt 1995). In this regard

the Adanac Park cemetery adds to the growing evidence for the practice of inhumation burial in southern England and also in the Channel Islands (Cunliffe 1996; Fitzpatrick 2010).

The graves are broadly oriented in two directions, east–west and north–south. Most of the east–west oriented graves are found in the northern part of the excavated area and the north–south ones in the southern part. In the absence of human remains the significance of these different orientations and whether they relate to, for example, age, sex, kin, status or date, is unknown. The four east–west aligned graves on the west of the cemetery (2539, 2568, 2625 and 2642) form a discrete cluster.

The graves in Barrows 5 (graves 2572 and 2431) and 7 (grave 2448) and grave 2197 immediately west of Barrow 3 are all over 3 m long, noticeably larger than the other graves. This might suggest that these contained some form of structure, perhaps a wooden chamber. The recutting of graves as seen in Barrow 5 is not a common feature of Iron Age burials but graves that contain two individuals are not uncommon. In some cases the burials are clearly superimposed (e.g. Cockey Down, near Salisbury, Wiltshire; Lovell 1999, 35). The occasion of the second burial in Barrow 5 saw the rebuilding of the monument which might suggest that there was a close relationship between the people buried in the two graves.

Barrows

Barrows are not a regular component of the cemeteries mentioned above but at Adanac Park there are seven in a linear arrangement. As only a small arc of the ditch of Barrow 4 survives it is possible that other burials were covered by small barrows.

Although individual funerary monuments are regular though not frequent discoveries with Late Iron Age Aylesford-type cremation burials in south-east England, they are usually represented by small ditched enclosures that are either square or rectangular (Fitzpatrick 1997, 236; Hill *et al.* 1999, 265–6, fig. 14).

Square Barrow 5 is unusual in apparently having two phases that may be associated with the successive central burials. It is unknown if

the four pits that survive from the first phase were linked by gullies or ditches, with the second phase representing a recutting or enlargement of them. It seems likely that the four pits supported uprights and while this is unusual in a British context, a structure with four posts is known on the southern coast at Westhampnett, West Sussex. In that case the central burial was a cremation and the four posts were surrounded by a small square ditch (Fitzpatrick 1997, 40, 236, fig. 33).

Circular monuments are found much less frequent but a cemetery with at least five round barrows, each between 4 and 6 m in diameter, is known at Hinxton, Cambridgeshire. The central cremation burials are of late 1st century BC/early 1st century AD date while some adjacent inhumation burials *might* be contemporary (Hill *et al.* 1999, 250–1). Another excavated example is grave 123 in the 'south-west' inhumation cemetery at Mill Hill, Deal, Kent, which was surrounded by a shallow ring ditch, *c.* 4.5 m in diameter. The burial was accompanied by a brooch of Late Iron Age type (La Tène III) (Parfit 1995, 99, 105, 166 fig. 60).

Until the discovery of the Adanac Park barrows the evidence for Iron Age barrows in Wessex was modest (Whimster 1981, 391–6). At Blagden Copse, Hurstbourne Tarrant, Hampshire, a *c.* 9 m diameter barrow had a central cremation burial that dates to the middle of the 1st century AD and there are also three square barrows nearby (Hawkes and Dunning 1930, 303–9, fig. 30–2, pl. i; Stead 1968, 82, 88–9, fig. 1; Ian Stead pers. comm.). At Handley, Cranborne Chase, Dorset, a barrow also *c.* 9 m in diameter covered a possible cremation burial that was associated with Late Iron Age pottery. The barrow lay within a 15 m square ditched enclosure (White 1970). At Beaulieu Heath, *c.* 15 km south-west of Adanac Park, the circular turf mound was 4.5 m in diameter and was surrounded by a ring ditch. No grave was found but large quantities of timber could derive from a chamber. A single copper alloy ring 37 mm in diameter was suggested to date to the Early Iron Age and while other fragments of copper alloy and iron show that the burial is

Iron Age or later in date, its precise age is not known (Piggott 1953, 21).

Some continental European influences may be reflected in the Adanac Park barrows. Square post-built funeral monuments are well known in the Late La Tène of northern France and very occasionally the posts were linked by gullies (e.g. Bucy-le-Long 'Le Fond du Petit Marais', Asine; Lambot *et al.* 1994, 132, fig. 73). However, this is not the case with the circular barrows and while such monuments are well known in France, they are principally of Early La Tène date (5th–4th centuries BC).

Grave goods

Only two burials were certainly accompanied by grave goods, the pot in burial 2658 and the weaponry in Barrow 3. An oval soil stain noted in grave 2591 in Barrow 6 and a circular one in flat grave 2658 could derive from grave goods of some sort. The presence of a single burial with weapons in a cemetery with up to 18 graves is useful in indicating the frequency of such burials as many earlier discoveries, such as that from St Lawrence on the Isle of Wight (Jones and Stead 1969), have been isolated finds. At Owslebury, 15 km to the north-east of Adanac Park, the earliest burial in the cemetery was an inhumation burial of mid-1st century BC date accompanied by weapons and up to nine cremation burials are suggested to date to the 1st century BC. In southern England Late Iron Age burials with weapons are typically inhumations (Collis 1973; Johns 2002–3; Hunter 2005; Fitzpatrick 2007) but as noted above the presence of a shield, spear and sword is less common (Sealey 2007).

Regional context

The discovery of the Adanac Park cemetery demonstrates that inhumation burial was practised close to the River Solent in the Late Iron Age. Its appearance may be broadly contemporary with that of the *Durotrigian* rite *c.* 80 km to the west in Dorset (Sharples 1990). As such it may represent another innovation in religious practice along the southern coast of England in the Late Iron Age, other examples of which include the appearance of the unique

cremation burial cemetery and religious site at Westhampnett near Chichester (Fitzpatrick 1997) and the temple at Hayling Island in Portsmouth Harbour (King and Soffe 2001).

While some aspects of the rites practised at Adanac Park have their best parallels within Britain, for example the circular barrows, the first, post-built, phase of Barrow 5 has clear continental European parallels. Given the intensity of cross-Channel contact in the 1st century BC, which included trade and exchange and the Caesarian invasions of Gaul and Britain (Cunliffe and de Jersey 1997; Creighton 2000, 55–64) such links might be anticipated.

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