Excavation of Prehistoric and Romano-British Sites

at Marnel Park and Merton Rise (Popley) Basingstoke, 2004-8

Specialist Reports

By James Wright, Andrew B. Powell and Alistair Barclay

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Wessex Archaeology 2009

Published 2009 by Wessex Archaeology Ltd
Portway House, Old Sarum Park, Salisbury, SP4 6EB

http://www.wessexarch.co.uk/

http://www.wessexarch.co.uk/projects/hampshire/popley

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PART 1. FINDS

HUMAN BONE

by Jacqueline I. McKinley

Introduction

Human bone was recovered from Areas A and D. Unburnt human bone was collected from two features in Area A South; one deposit represented the probable *in situ* remains of a neonatal burial made in a Late Iron Age/early Romano-British quarry pit (A55555), and the other consisted of redeposited bone from an early Romano-British ditch (A55642) (Table HB1). Bone was found in Areas D North and South. The only unburnt bone from Area D was redeposited in a Romano-British ditch fill (ditch D1804) in Area D North. Three early–mid Romano-British cremation graves containing the remains of five urned burials were also recovered from Area D North (Table HB2). Two other deposits of uncertain date may represent the remains of an unurned burial and redeposited pyre debris respectively. Three cremation-related deposits from Area D South (one, D2903, from an evaluation trench just to the east) included the remains of one unurned burial with redeposited pyre debris, possibly a second, and a deposit of pyre debris.

Methods

Osteological analysis of the cremated bone followed the writer's standard procedure (McKinley 1994a, 5–21; 2004a). Seven of the cremation-related contexts had been excavated as sub-contexts (three of the urned burials as 3–6 spits and three of the unurned deposits as quadrants) to enable details of their formation processes to be analysed. These divisions were maintained throughout analysis, though only the data for the overall context in each case is presented in Table HB2.

The degree of erosion to the unburnt bone was recorded using the writer's system of grading (McKinley 2004b, fig. 7.1–7). Age (cremated and unburnt bone) was assessed from the stage skeletal development (Scheuer and Black 2000), and the patterns and degree of age-related changes to the bone (Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (Gejvall 1981; Buikstra and Ubelaker 1994).

Results

Summaries of the results are presented in Tables HB1 (unburnt bone) and HB2 (cremated bone); full details are held in the archive.

Table HB1 Summary of results from analysis of unburnt human bone

Feature	Context	Deposit type	Quantification	Age/sex	Pathology
Area A South					
A55169	A55171	redeposited	*c.* 3% s.	adult *c.* 30–45 yr male	
A55642 (cut A55555)	A55557	*in situ*	*c.* 32%	neonate *c.* 1–4 weeks	?scurvy
Area D North					
D1804	D1805	redeposited	*c.* 3% s.	adult *c.* 25–45 yr ?female	

KEY: s. – skull (skeletal areas recovered where all not represented)

Table HB2 Summary of results from analysis of cremated bone (all Area D)

Cut	Context	Deposit type	Bone weight (g)	Age/sex	Pathology	Pyre goods
Area D South						
D2903	D2904	?rpd	1.5	juvenile/subadult *c.* 5–15 yr		
D5082	D5083	un. burial + rpd	105	adult *c.* 25–45 yr ??female	enthesophytes – patella	?grave good – u/b animal tooth
D5095	D5096	un. burial + rpd/?rpd	67.1	1) adult >25 yr ?2) neonate		
Area D North						
D4208	D4209	?rpd/?un. burial + rpd	35.7	subadult/adult >15 yr		0.5 g ?animal bone
D5567	D5182 ** vessel D8043	urned burial	871.2	adult *c.* 23–40 yr		1.2 g ?animal + u/b tooth
	D5183 ** vessel D8044	urned burial	1311.9	adult *c.* 25–45 yr ?male	enthesophytes – finger phalanx, patella, tibial tuberosity; Schmorl's node – 3 thoracic	Fe staining – rib & foot phalanx, Fe hobnails fused to bone; 2.4 g animal bone
	D5184 ** vessel D8045	urned burial	266.3	juvenile/subadult *c.* 10–14 yr		3.2 g bird bone
D5637	D5185 * vessel D8049	urned burial	876	adult *c.* 40–60 yr female		0.2 g animal/bird bone; u/b Cu alloy frags.
D5661	D5186 vessel D8051	urned burial	130.1	adult >18 yr male		
D5738	D5740	?rpd	3.3	>infant (>5 yr)		

KEY: un. – unurned; rpd - redeposited pyre debris; u/b – unburnt ** intact, * slight damage but loss of bone unlikely

Disturbance and condition

The neonatal burial from the fill of quarry pit A55555 was not recognised in excavation (hence the relatively low skeletal recovery) and, consequently, there is little detail regarding the deposit. The bone itself is in excellent condition though many of the skeletal elements are not complete. The other unburnt bone was redeposited in ditch fills and is heavily fragmented with old, dry bone breaks. Both deposits comprised only skull elements. Neither skull is heavily abraded or eroded suggesting they were not subject to repeated episodes of deposition in the ground, but the bone from Area D North (ditch D1804) is slightly polished and darkly discoloured which implies it may at some stage have been in a partially waterlogged organic environment (unlike the upper ditch fill in which it was found).

The surviving depth of features that contained cremation-related deposits varied from *c.* 0.05–0.23 m, all having apparently been truncated to some degree either in antiquity and/or recent times, or during machine stripping of the site. The urned burials from graves D5567 and D5637 (0.18 m and 0.23 m deep, respectively), both in the northern (downslope) part of Area D), had survived intact or with just slight damage to the vessel rims. All the other deposits had survived to a depth of 0.12 m or less and it is possible that bone from some or all was removed as a result of disturbance.

Some or all of the cremated bone from several of the deposits is slightly worn and chalky in appearance, indicative of deposition within an acidic (silty clay) burial environment. Only the less well oxidised bone from two of the intact urned burials is affected; the well oxidised bone also being affected in the disturbed urned burial and the unurned deposits. Trabecular bone is generally the first to be lost in acidic soil conditions (McKinley 1997, 245; Nielsen-Marsh *et al.*

2000). Some trabecular bone was recovered from all except three of the uncontained deposits, the intact urned burials including relatively substantial amounts. It is probably that some trabecular bone has been lost from most of the uncontained deposits as a result of poor preservation.

Demographic data

A minimum of three individuals are represented within the unburnt bone assemblage (Table HB1). The redeposited adult bone (A55171 – adjoining fragments of the back of the skull; D1805 – adjoining fragments of the frontal bone), whilst recovered from Romano-British fills, may relate to the Late Bronze Age/Early Iron Age occupation in the area and have derived from long disturbed graves within the vicinity. It is also possible, given that both deposits include parts of skulls, that they represent the remains of curated material. The neonatal remains are likely to be contemporaneous with the Late Iron Age/early Romano-British activity in Area A.
A minimum of seven individuals (MNI) were identified within the cremated bone assemblage, one from each of the five urned burials and one from the unurned burial within grave D5082 (Table HB2). A few fragments of probable neonatal bone were identified from one of the deposits of uncertain type and has been included within the minimum number count as the only individual within this age range in the assemblage.

The nature of several of the deposits is open to debate. D5096, from which the neonatal remains derived, is most likely to represent the truncated remains of an unurned burial with redeposited pyre debris, and if so would add another adult to the MNI, though the date of this deposit is uncertain. One other deposit may represent an unurned burial with redeposited pyre debris, but the small quantity of bone and dispersed distribution within the charcoal-rich fill suggest it is more likely to represent a deposit of pyre debris. This, together with the bone from two other deposits interpreted as probably being redeposited pyre debris, may have derived from the same cremation as bone recovered from recognised burials within the assemblage and therefore already be included in the MNI.

With the exception of the small group of three burials made within grave D5567, there is no grouping of graves and individual burials were made across a dispersed 250–300 m area, generally external to the enclosures. The Romano-British burials are all likely to relate to the same small domestic settlement; those made, apparently contemporaneously, within grave D5567, potentially deriving from the same immediate family group (see below).

Pathology

Slight pathological changes were observed in the remains of three individuals, one from the unburnt bone assemblage and two from the cremated bone assemblage (Tables HB1–2); the small proportion within the latter group is a reflection of factors associated with the mode of disposal rather than the presence/absence of pathological conditions in the living individual (eg, McKinley 2000a).

Slight new bone formation in the right (left not recovered) orbital vault of the neonate A55557 is suggestive of a case of scurvy (Vitamin C deficiency; Roberts and Cox 2003, 104). Since the dietary needs of the infant would have derived from its mother's milk, the condition, if correctly diagnosed, suggests a nutritional deficiency in the mother. Schmorl's nodes (a pressure defect resulting from a rupture in the intervertebral disc; Rogers and Waldron 1995, 27; Roberts and Manchester 1997, 107) commonly affect young adult spines. Shallow, circular lesions were observed in three of the 16 vertebrae (seven thoracic) from D5183. The causative factors of enthesophytes (bony growths at tendon and ligament insertions) can include advancing age, traumatic stress, or various diseases (Rogers and Waldron 1995, 24–5); the lesions seen in the two individuals from this site are likely to be low-grade stress related.

Pyre technology and cremation ritual

Although the majority of the surviving bone is white in colour, indicating a high level of oxidation (Holden *et al.* 1995a; 1995b), a substantial proportion of bone from all the urned burials was incompletely oxidised bone (brown, black blue, or grey in colour). In each case variations were seen in numerous skeletal elements from all four main skeletal areas (skull, axial skeleton, upper and lower limb). Complete skeletal elements were rarely, if ever, affected, the interior of the bone (the diploe of the skull and the central portion of long bone shaft cross-sections) frequently being less well oxidised than the outer/inner portions of the bone. In two cases – D5182 and D5185 – there is some indication that one side of the skull was less well oxidised than the other (right and left respectively), though in general there is no distinct pattern of involvement on the basis of skeletal element or side. A small proportion of bone from two of the uncontained deposits was also poorly oxidised, only skull elements being affected in each case.

Factors affecting the efficiency of oxidation have been discussed elsewhere by the writer (McKinley 1994a, 76–8; 2004c, 293–5; 2008a). In the cases discussed here, the variations seen in the urned burial are generally substantial and extensive, the pattern of involvement indicating insufficient time to effect full oxidation of the bone. This is likely to be related to a shortfall in the quantity of wood used to construct the pyres – which influences both time for cremation and temperature sustained; though it should be remembered that full oxidation of the organic components of the bone may not have been considered a necessary part of the rite (McKinley 2008a). The preferential poor oxidation of one or other side of the skull seen in two cases may be indicative of the lay of the head on the pyre and/or the possible muffling effect (oxygen depravation) from some form of cap/hood. The suggested variation between the urned and uncontained deposits could be misleading; the remains from the latter had generally suffered more post-depositional destruction as a result of the acidic burial environment that that from the urned burial (see above), and poorly oxidised bone may have been lost via this mechanism. If however, the variation is a true reflection of oxidation it may be indicative of a temporal variation (the date of the unurned deposits is not formally established) or a variation in the mortuary rite.

The most reliable view of the quantity of bone originally included in the burial is provided by the least disturbed deposits (Table HB2). The undisturbed urned adult burials have a weight range of 871.2–1311.9 g, average 1019.7 g, the latter representing *c.* 63.7% of the average expected from an adult cremation (McKinley 1993). The weights from the unurned burial or possible burials is substantially lower, but all have been subject to some disturbance and potential bone loss as a result of several mechanisms (see above). The range and average for the undisturbed burial is within the upper range recorded from contemporaneous cemeteries, falling closest to those from St Stephen's cemetery, St Albans (mean 899.6 g; McKinley 2004c, table 6.6), and Each End, Ash (mean 947 g; Anderson 1998).

A variety of intrinsic and extrinsic factors may influence the weight of bone recovered from a burial and wide ranges in bone weights are common (McKinley 1993; 2000a); no consistent pattern has yet been demonstrated for the variable weights recovered within the Romano-British period. Although in this case the male sex of the individual with the highest weight of bone may have been a contributory factor (relatively large, robust individual), it is not one which is consistently evident within cremation burials of this or any other date.

The degree of fragmentation to cremated bone is also affected by a variety of intrinsic and extrinsic factors (McKinley 1994b; 2004c); the deposit type and level of disturbance are both frequently noted as being of significance, as demonstrated by the figures from this site. The range (24–31 mm) and mean (26.7 mm) of maximum-sized fragments from the unurned deposits is substantially lower than for the urned burials, (38–61 mm, mean 52 mm); the mean for the latter rising to 56.7 mm including only the undisturbed deposits. The majority of the

bone (average 62.6% by weight) was recovered from the 10 mm sieve fraction for three of the urned burials, and the 5 mm fraction in the remaining two (50.5%) and the uncontained deposits (63.6%). Although the maximum fragment sizes are only within the median range of those commonly recorded, there is no conclusive evidence to support there being any deliberate fragmentation of the bone prior to burial.

Cremation burials usually including a range of bone fragments from all skeletal areas with a substantial proportion of undistinguished fragments of long bone shaft and, where soil conditions allow, trabecular bone. The proportion of identified skull elements is generally high due to the ease of identification and, conversely, there is often an under-representation of axial skeletal elements (see above; McKinley 2004c, 298–9). Many of the deposits from this site are deficient in elements from the axial skeleton, the undisturbed unurned burial D5183 in grave D5567 showing the closest to 'normal' distribution by weight of elements within the four skeletal areas (McKinley 1994a, 6) with 18.6% skull elements, 18.50% axial skeletal, 17.4% upper limb and 45.5% lower limb. The undisturbed urned burial D5182 has a lower proportion of axial elements (6.8%) and 5184 a high proportion of skull (52.4%) than may be expected from deposits of this type and condition, and both may suggest an emphasis on the recovery of particular areas for the skeleton for burial; though whether or not this would have been deliberate cannot be stated with any confidence.

The frequency of tooth roots and the small bones of the hands and feet within cremation burials (of all periods) is believed to offer some insights into the mode of recovery of bone from the pyre site for burial (McKinley 2000a; 2004c, 299–301). The urned burials each contain between 2 and 43 (average 18) such elements, both the maximum and minimum numbers being recovered from the graves of adult males. A shorter range (2–11) was found within the uncontained deposits, but there were fewer such deposits and the variation may be of no significance. The figures suggest a variety of collection mechanisms may have been employed for different cremations including both collection of bone for burial via raking-off and winnowing of the cremated remains (easing the recovery of the smaller skeletal elements) and individual hand-recovery of fragments.

Small quantities (<4 g) of cremated animal/bird bone were recovered from three, possibly four of the urned burials and possibly one of the uncontained deposits (*c.* 57% burials; Table HB2; see Grimm, below, for species). The inclusion of cremated animal remains in Romano-British burials is relatively common, although there is wide variation between different cemeteries in the number of burials involved ranging from *c.* 3.5% to *c.* 80% (McKinley 2004c; 2008b, 136–7). Fragments of unburnt animal tooth from two of the graves may have been intrusive or represent the remains of grave goods in addition to the pyre goods. Evidence for artefactual goods was recovered in osteological analysis from two urned burials in the form of unburnt fragments of copper alloy (grave D5637) and iron hobnails fused to bone (including the plantar surface of a foot phalanx). It is uncertain whether these represent the remains of pyre goods or materials only added at the time of burial. The lack of obvious burning to the copper alloy does not necessarily exclude its inclusion on the pyre since its position may have shielded the object from the heat. The fusion of the hobnails to the foot phalanx could be fortuitous but does suggest the deceased was cremated with their shoes/boots on. All the surviving evidence for pyre goods should be viewed as a minimum. Since it was a characteristic of the rite that not all the human remains were collected for burial, it is probable that the remains of pyre goods were also overlooked (accidentally or deliberately) in this secondary part of the mortuary rite.

The recovery of redeposited pyre debris from Romano-British grave fills is relatively common and its presence is believed to indicate the relatively close proximity of the pyre sites to the place of burial (McKinley 2000b; 2004c, 304–6). It generally appears to be more common within graves containing the remains of unurned burials, which could be indicative of such burials being undertaken closer to the pyre sites or, perhaps in some cases, of the secondary part

of the rite – the burial – being routinely undertaken immediately after cremation with little or no time interval between the two events (McKinley 2006).

This could be a pertinent observation in the case of grave D5567, in which three urned burials had been made, containing the remains from three separate cremations. The vessels sat in a line on the base of the grave, just touching. The northern (ON8045) and central (ON8044) vessels have a date range of AD 50–150, that at the south being late 2nd century, probably AD 160 onwards (see Seager Smith, below). No evidence was recorded in excavation to suggest disturbance to the vessels. A variety of possibilities may be indicated in the formation process of this grave fill. The two early Romano-British vessels could have been kept for several decades before they were used as cinerary urns and all three vessels could have been in contemporaneous use. The three individuals could have died within a short space of time of each other, even, particularly if members of the same household, as a consequence of the same infectious disease; they may then have been cremated (on separate pyres) and buried together within a short time interval. Alternatively, one or two of the individuals may have died and been cremated, their remains thereafter being retained for some time, possibly even several years, before contemporaneous burial together with the others. A third possibility is that the two 1st–early 2nd century vessels represent the remains of a earlier, potentially contemporaneous burial, the grave either being sealed to exclude soil or subsequently carefully re-opened for the later burial to be inserted.

Graves containing the remains of multiple burials (not the same as single burials of the remains from a dual cremation) are rare in Romano-British cemeteries (McKinley 2004c; 2004d; forthcoming), the example from this site is the only one with three individuals currently known to the writer. The demographic combinations within this type of grave may including immature individuals with adults, and adults of the same or both sexes. It has been suggested that such graves may represent a less elevated form of the 'burial plots' or 'sepulchres' for the burial of 'family' members or burial club members attested from epigraphic evidence (eg, Saller and Shaw 1984; Toynbee 1971, 54–5).

In two of the uncontained deposits (D5083 and D5096) the quadranted excavation of the fills showed almost 60% of the bone to be concentrated in one quadrant with small amounts of bone (as little as 4.3% of the total) in other quadrants. This suggests the fills represented not single deposits but separate events – the concentration of bone collected for burial (perhaps in an organic container) and pyre debris (inclusive of cremated bone) which subsequently infiltrated the burial remains masking the formation process.

In the two urned burials (D5182 and D5183) where sufficient detail was recorded in excavation, neither vessel had been used to full capacity (both 170 mm high, filled to 100 mm and 120 mm respectively). In the former, the bone was concentrated (73% by weight) in the lower 60 mm and in the latter 74% of the bone lay in the central 60 mm (possibly partly influenced by the shape of the vessel (ON D8044) and/or the presence of some subsequently lost organic material within the lower 40 mm). In both cases there is no evidence for ordered deposition of the remains by skeletal element, with an apparently random distribution throughout each deposit.

COINS

by Nicholas Cooke

Seventeen Roman coins were recovered during the excavations, one from Area C and 16 from Area D (Table C1). In general, their condition is poor, and many are heavily corroded; a number were already worn at their time of loss or deposition suggesting that they had been in circulation for some time.

Of the coins from Area D, 15 are small denomination copper alloy coins of the late 3rd or 4th centuries, with the only earlier coin (ON D8026) being a *Sestertius* of Marcus Aurelius (AD 161–180). The later coins comprise a single radiate copy of the late 3rd century, 12 4th century coins including a number of small irregular copies, and two illegible coins (ONs D8027 and D8039).

Nine of the coins (ONs D8015, D8016, D8017, D8018, D8019, D8020, D8021, D8022, and D8023) were recovered from a single deposit – layer D5042, a dark organic-rich layer. Two of these were struck in the 330s (ONs D8019 and D8022), the rest dating to the Valentinianic period. It is possible that they represent a small disturbed hoard deposited in the last quarter of the 4th century.

The only coin recovered from Area C was an irregular radiate copy, probably of a coin of Tetricus I (AD 270–273), found from the rut of a trackway. These contemporary copies are thought to have been struck between 270 and 296, and seem to have circulated in the same fashion as official coinage, but they are unlikely to have remained in circulation after the resumption of regular supplies of coins in *c.* 330.

Table C1. The coins

Object no.	*Context*	*Metal*	*Denom*	*Diam (mm)*	*Wt (g)*	*Issuer*	*Description*	*Issue date*	*Reference*
Area C									
C6	C3	Cu alloy	Antoninanus	16	1	Radiate copy	Stylised radiate copy, probably of coin of Tetricus I (AD 270–273). Worn.	AD 270-296	-
Area D									
D8015	D5042	Cu alloy	Nummus	16	1.8	House of Valentinian	Securitas Reipublicae type. Mint uncertain. Very worn	AD 364-378	As LRBC II, 280
D8016	D5042	Cu alloy	Nummus	16	2	House of Valentinian	Securitas Reipublicae type. Mint uncertain. Corroded	AD 364-378	? Copy as LRBC II, 280
D8017	D5042	Cu alloy	Nummus	16	1.5	House of Valentinian	Securitas Reipublicae type. Mint uncertain. Corroded	AD 364-378	As LRBC II, 82
D8018	D5042	Cu alloy	Nummus	17	2.3	House of Valentinian	Gloria Romanorum type. Mint uncertain. Worn	AD 364-378	As LRBC II, 78
D8019	D5042	Cu alloy	Nummus	16	1.3	House of Constantine	Constantinopolis type. Lyons. Slightly worn	AD 331	LRBC I, 191
D8020	D5042	Cu alloy	Nummus	19	1.9	House of Valentinian	Gloria Romanorum type. Mint uncertain. Worn and corroded	AD 364-378	As LRBC II, 78
D8021	D5042	Cu alloy	Nummus	17	2.3	House of Valentinian	Gloria Romanorum type. Mint uncertain. Worn	AD 364-378	As LRBC II, 78
D8022	D5042	Cu alloy	Nummus	14	1.5	Constantine II	Gloria Exercitus type, 2 soldiers 1 Standard. Trier. Worn	AD 335-45	Copy of LRBC I, 88
D8023	D5042	Cu alloy	Nummus	17	2.3	Valentinian I	Gloria Romanorum type. Mint uncertain. Very worn	AD 364-378	As LRBC II, 279
D8024	-	Cu alloy	Antoninanus	16	1	Radiate copy	Stylised radiate copy. Corroded.	AD 270-296	-
D8025	D5027	Cu alloy	Nummus	17	1.4	House of Valentinian	Gloria Romanorum type. Mint uncertain. Corroded	AD 364-378	As LRBC II, 279
D8026	D5832	Cu alloy	Sestertius	26	18.7	Marcus Aurelius	Female figure standing l with cornucopia (?Felicitas). Rome	AD 161-180	-
D8027	D5832	Cu alloy	Nummus	12	0.5	Unknown Roman Emperor	Illegible. Corroded	C4	-
D8039	D5669	Cu alloy	Nummus	12	0.8	Unknown Roman Emperor	Illegible. Corroded	C4	-
D8041	D5669	Cu alloy	Nummus	21	3	Magnentius/Decentius	Emperor spearing fallen barbarian, Gloria Romanorum type. Mint uncertain. Corroded	AD 350-353	As LRBC II, 214
D8050	D5650	Cu alloy	Nummus	17	1.2	House of Valentinian	Securitas Reipublicae type. Mint uncertain. Corroded	AD 364-378	As LRBC II, 82

METALWORK

by Rachael Seager Smith

Copper alloy

Items of personal adornment and dress included three Late Iron Age brooches, two from Area D and one from Area A South. The first was represented by a finely-made bow probably of true Nauheim type (Fig. CA1.1) found in ditch D5295 in Area D South. The decoration and ogee-shaped sides as the bow leads into the spring are both appropriate for the type, but without the diagnostic open-framed catchplate the piece cannot be assigned with full confidence.

The other two were Nauhiem derivatives, both of the wire bow variety. One (Fig. CA1.2) was found in a late Romano-British dark earth deposit (D5029) in Area D South. Its spring and pin were missing but the wire bow was circular in cross-section with a moulded collar just below the bend, while the catchplate was triangular and open. The collar is an early trait derived from the La Tène II brooches and is unlikely to have continued in this position beyond the end of the 1st century BC, tending to move up closer to the spring (Mackreth 1995, 964). The second (Fig. CA1.3) survived complete and was the only artefact from pit A55108 in Area A South. The knobbed foot and sharply curved profile of this piece probably place it within Hull's type 10E or F (Bayley and Butcher 2004, 230). The curved profile is also reminiscent of the earlier La Tène II brooches, suggesting that it belongs within the early part of long lifespan of this type, probably within the late 1st century BC (*ibid.,*, 147).

Although found residually, the presence of these brooches indicates activity during the second half of the 1st century BC, perhaps extending into the early 1st century AD, a period not easily recognised from the ceramics. Brooches of true Nauheim type (Hull's type T9) are relatively uncommon finds in Britain, their homeland being in southern Gaul (Mackreth 1995, 965). Their *floruit* was during the middle of the 1st century BC, perhaps *c*. 70/60–30/25 BC (Feugère 1985, 223–6), although a few may have continued in use into the early decades of the 1st century AD. Similarly, a brooch from Canterbury, comparable to Fig. CA1.2, is dated to the middle of the 1st century BC (Mackreth 1995, 964, fig. 404, 31) while others are known from Silchester (Corney 2000, 323, fig. 149, 2) and Skeleton Green (Mackreth 1981, 132–3, fig. 69, 27). Fig. CA1:3 can also be paralleled by a more fragmentary but potentially similar example, associated with the pre-Flavian buildings and surfaces at Silchester (*ibid*., 325, fig.149, 12).

An almost complete Rosette brooch (Fig. CA1.4; Hull's type T26B) was found in pit A55482 (recut of larger pit A55481) in Area A North, although at some point it has lost its larger decorative disc (if it ever had one). Locally, three examples are known from Silchester (Corney 2000, 330, fig. 152, 48–50), and in general the type is moderately well-represented in southern Britain, largely dating to the second quarter of the 1st century AD (Bayley and Butcher 2004, 150). Although the manufacture of these brooches had probably ceased by *c.* AD 45/50 (Mackreth 1995, 973), the type does occur in post-Conquest deposits in Britain, perhaps as curated items (Bayley and Butcher 2004, 150).

A two-piece Colchester (Colchester derivative) brooch (Fig. CA1.5; T92–93; Hawkes and Hull 1947, type IV, 310–11) was found inside a jar (Fig. RB3.32) that had contained human remains (cremation burial D5637) in Area D North. Although now broken with part of the pin missing, this piece does not show any sign of exposure to heat (eg, melting or distortion) and probably represents a grave offering rather than being worn by the deceased at the time of cremation. These brooches were especially common in the south-eastern counties of Britain (Bayley and Butcher 2004, 194, fig. 170), occurring locally at Silchester (Corney 2000, 334, fig. 154, 70 and 71), and Brighton Hill South (Corney 1995, 33, fig. 21, 3), probably dating to

the third quarter of the 1st century AD (Crummy 1983, 12). After this, brooches seem to have fallen from fashion at this and other sites in the vicinity. Although the investigations were relatively small-scale, no brooches were found at Worting (Pre-Construct Archaeology 2007, 165) and Viables Two (Gibson 2004), for example, while the five brooches from Brighton Hill South also pre-dated the early Flavian period (Corney 1995, 33; Richards 2005, 57, fig. 9, 3). Likewise, the Silchester forum/basilica sites produced relatively few mid–late Flavian brooches and none post-dating the middle of the 2nd century. This may be due, at least in part, to the nature of the deposits (Corney 2000, 336–8) but only one late 2nd–mid-3rd century brooch was found at the amphitheatre (Corney 1989, 127, fig. 58, 2).

However, one late Romano-British disc brooch (Fig. CA1. 6) was found in hollow D5675 in Area D North. The battered blue glass setting bears the cast impression of a winged creature, perhaps an eagle, while the remains of an iron coiled spring may be a replacement of the original. Similar brooches are known from Richborough and Barrington, Cambridgeshire, and the type is considered to be a British product of 3rd or 4th century date (Bayley and Butcher 2004, 135, fig. 101, 389). Part of a plain finger ring probably of 1st or early/mid-2nd century date (cf. Crummy 1983, fig. 50, 1741) was also found residually in this hollow. Other personal objects comprised a small scoop (Fig. CA1.7) with a detached suspension loop from ditch D5286 in Area D South, and the handle (Fig. CA1.8) from a bar-and-loop handle (Crummy 1983, 62, fig. 67, 1943) found unstratified in Area D. Both were probably from toilet sets, although it is just possible that the 'handle' represents a distorted buckle loop like one from Silchester (Boon, 2000, 340, fig. 157, 7).

Part of a D-shaped terret or rein-guide (Fig. CA1.9) was found with late 1st–early 2nd century pottery in ditch D5828 in Area D North. Traces of iron surviving at the broken ends of this piece indicate that it was formed from a horizontal iron bar with the half circle of bronze cast on (Stead 1979, 43, fig. 24, 1–2). Such items formed part of the draught-pole and yoke system of Celtic chariots and although typically of Late Iron Age date, in some parts of Britain they continued to be used into the 2nd century AD (Jope 2000, 157); two were found in Romano-British contexts at Colchester (Crummy 1983, 106, fig. 109, 2542–3), for example. Household items comprise a single sheet metal fragment, now much folded and reworked but probably cut from a vessel of some kind, from dark earth deposit D5042.

Illustrated catalogue (Fig. CA1)

1. Nauheim brooch; flat, tapering bow with grooved decoration, the upper triangle infilled with three rows of punched dots; catchplate, most of spring and pin missing. Ditch D5295 (evaluation cut D3708), context D3709.
2. Nauheim derivative; wire bow circular in cross-section with moulded collar; triangular, open catchplate; spring missing. Dark earth deposit D5029, context 5103.
3. Nauheim derivative; complete; wire bow circular in cross-section, sharply curved 4. profile, solid catchplate and knobbed foot; four-coil spring and an internal chord. Pit A55108, context A55138.
4. Rosette brooch with a lozenge-shaped plate cast in one with the bow; six-coil spring; the cover decorated with short, incised diagonal lines (in opposite directions on either side of the bow) inside a rectangular border with two additional horizontal grooves above. The flat-profiled bow is decorated with longitudinal grooves and flares out slightly towards the foot; the lower part of the plate has an incised border groove with a semi-circle infilled with chevrons at the junction of bow and plate but no clear evidence for an additional applied, perhaps repoussé, plate. Triangular catchplate, with a single perforation; tip of pin missing. Pit A55482, context A55488.
5. Two-piece Colchester brooch (T92–3; Hawkes and Hull 1947, type IV, 310–11). Now in three pieces with part of pin missing (broken during excavation). Spring has at least eight coils, an axial bar and is affixed by passing the cord through a pierced

crest; the wings appear plain but the bow is ribbed and the catchplate pierced. Fill of vessel 8049 (Fig. RB3.32), cremation grave D5637, context D5185.

6. Disc brooch; the central blue glass setting is flat-topped with the cast impression of a winged creature, perhaps an eagle, now very battered. Faint traces of interlinked sss or circles decorating the outer ring while the inner ring is ribbed. Part of a four-coil iron pin survives, perhaps representing a replacement, fitting into a hole through the single lug. No surviving evidence for tinning or gilding. Hollow D5675, context D5671.
7. Small scoop with a detached suspension loop. Ditch D5286, context D5305.
8. Small handle or possibly a buckle loop, now bent and distorted; square in cross-section, the terminals have been beaten flat and each have a single perforation. Area D, unstratified find.
9. Terret or rein-guide; half circle of bronze cast onto a horizontal bar of iron only traces of which survives. Three mouldings survive on ring. Worn. Ditch D5828 (evaluation cut D1204), context D1213.

Iron

Iron objects were concentrated in Area D (156 objects, 964 g) with only 41 pieces from Areas A–C. Material from Area D North included approximately 40 hobnails, probably from a nailed boot or shoe thrown into corn drier D5611; two other hobnails or tacks were associated with the cremated human remains contained within the flat-rimmed jar (Fig. RB4.35) in burial D5567. The only tool was found in rubble foundation D5104 in Area D South and probably represents a broken knife.

Otherwise, the iron consisted largely of nails, mostly in a corroded condition. The majority belonged to Manning's (1985, 134) type 1b, the general purpose, handmade nail up to 15 mm in length with a round head and a tapering, square-sectioned shank used throughout the Roman period and beyond. One example of a nail with a flat, triangular head (*ibid.*, 135, type 2) was found in hollow D5675 while a possible lost-head fastener with a tapering stem (Richards 2000, 376, fig. 173, 166) came from tree-throw hole D5754, both in Area D North. Loop-headed spikes (Manning 1985, 130) were also found in pit A55108 (Area A South) and ditch D5828 (evaluation cut D4202, Area D North); these could be driven into masonry or timber, the loop providing an attachment which could then serve a multitude of purposes.

Lead

A small perforated weight (*c.* 38 g) with a domed upper surface and a flat base was found unstratified in Area D. While not certainly of Roman date, the nine waste scraps from this area are indicative of small-scale lead working.

Slag

Fifty-four pieces, weighing just over 1200 g, were recovered. Twelve (31 g), from pit A55079 (Area A South) and ditches D5100 and D5818 (Areas D South and North), were fuel ash slag. Those from the ditches were associated with early Romano-British pottery, but the slag itself was of a type more commonly associated with Late Bronze Age/Early Iron Age pyrotechnical activities (P. Andrews pers. comm.) and may therefore be residual in these contexts.

Elsewhere, slag was generally found with Romano-British pottery, providing evidence for small-scale iron smithing, perhaps the intermittent repair and rejuvenation of tools rather than their initial manufacture, although it is possible that it was brought to the site as aggregate. The more diagnostic pieces included a hearth bottom from pit D5221 (Area D South) and fragments of hearth lining from gully A55643 (Area A South) and ditch D5827 (Area D North).

WORKED FLINT

by Philippa Bradley and Matt Leivers

A total of 1869 pieces of worked flint (and *c.* 258 kg of burnt unworked flint) was recovered from the excavations. The assemblage is largely composed of debitage and little typologically diagnostic material was recovered. However, it has been possible to identify several phases of activity spanning the Neolithic and Bronze Age by the few diagnostic pieces that are present and by a study of the technological traits of the material. A few possible Mesolithic pieces have also been identified. The flint is summarised in Table WF1 and selected groups are examined in more detail. Further details of the assemblage may be found in the site archive. Selected pieces of flint are illustrated in Fig. WF1 and described in the catalogue.

Table WF1. Summary of worked flint from all areas

Area	Flakes*	Blades, blade-like flakes	Chips	Irregular debitage	Cores, core fragments	Retouched forms	Total
Area A East	467	8	_	_	8	11	494
Area A N-S	219	_	_	6	7	6	238
Area B	88	_	_	_	_	5	93
Area C	336	1	175	121	26	6	665
Area D	104	6	3	1	4	13	131
Area E	34	_	23	_	1	2	60
Area F	144	8	15	1	6	14	188
Total	*1392*	*23*	*216*	*129*	*52*	*57*	*1869*

* includes crested and core rejuvenation flakes

Raw materials

The assemblage consists of nodular flint of variable quality although much of it is relatively poor with inclusions and incipient thermal fractures. Cortex, where present is thin, white or buff and occasionally abraded. The general appearance of the flint suggests locally available flint nodules either from the chalk ridge or from superficial deposits further afield. The assemblage is almost entirely corticated often very heavily to a cream or white colour. The few uncorticated pieces are mid brown in colour. A few pieces of flint are rolled and edge-worn, although material from some sites remains fresh with sharp edges; some possible use-wear was also noted. Calcium carbonate concretion was noted on much of the assemblage particularly from Area C where the encrustation was so heavy as to obscure much of the characteristics of the flint precluding detailed analysis.

The burnt unworked flint is generally a grey or white colour and has been very heavily burnt. A few pieces of worked flint were also burnt.

Flintworking

There are a few possible Mesolithic pieces present, including two scrapers from Area A, with some blades also being recovered from Areas A, C, and D. However, none of these pieces is particularly distinctive and could equally be of Early Neolithic date. The quantity of material is also relatively small, suggesting that any early activity left very few traces. The Late Neolithic activity is represented at Areas A East and C. Individual artefacts of probable Neolithic or Early Bronze Age date were also recovered from several sites (Areas A North and South and Area C). These consist of scrapers, serrated flakes and piercers which are not chronologically diagnostic but which on typological grounds are likely to be earlier than the Middle Bronze Age in date. Midddle–Late Bronze Age activity was fairly widespread across

the whole site although Area C produced a more significant assemblage. Selected groups are discussed in more detail below by period.

Neolithic

Neolithic activity was identified on Areas A East and C, and possibly Areas E and F, and although few typologically diagnostic pieces were recovered several coherent groups have been identified; some of these have been dated by the presence of Grooved Ware pottery (eg, material from pit A50384).

The composition of flint from Grooved Ware pit A50384 is summarised in Table WF2. The flint all comes from the initial fill (A50385) together with other domestic debris. The flint is in good condition, and the edges are sharp and fresh with some use-wear noted. The assemblage is dominated by flakes, many of which are cortical, and eight have been heavily burnt. No small chips were recovered indicating that this was not *in situ* knapping debris. The feature was sampled so the absence of chips is a genuine one. The flint had been fairly carefully worked with platform edge preparation noted on many of the flakes. The cores both have two platforms at right angles to each other (Fig. WF1.1). A few almost blade-like removals were noted amongst the flakes, some of which have use-wear. The scrapers have been quite neatly worked, one having been made on a side trimming flake (Fig. WF1.2).The miscellaneous retouched piece may have been from a knife (Fig. WF1.3).

In addition to this flint, a relatively sizeable assemblage from working hollow A50197 is likely to be of Late Neolithic date and compares well with the material from the Grooved Ware pit described above. Dating evidence for this material is limited; although much of the ceramic assemblage from this feature is Early Iron Age in date, the flint is technologically earlier. Several groups stand out as having more than 20 pieces of worked flint (Table WF1). It can be seen that few diagnostic pieces were found, but by comparing the technology of the material with that from the Grooved Ware pits it is possible to suggest that they are contemporary. The material is dominated by flakes, although a few blades and blade-like pieces were noted. Many of the flakes are cortical with plain, cortical or simply prepared butts. Limited platform edge abrasion was recorded although some care was taken during knapping; a single core rejuvenation flake was recovered from context A50243. The flint from the hollow has fresh edges and has suffered limited post-depositional damage, and it seems likely that these groups of material came originally from earlier features that were later truncated by the Early Iron Age activity. A few of the flakes are more irregular and less well flaked and may be later in date, although there are too few to be certain.

Two scrapers from the topsoil in Area C evaluation trench 93 are also probably of Late Neolithic date. A neatly worked scraper from Area E (context E2502, colluvium) may be Neolithic or Early Bronze Age in date; other material from this area is later Bronze Age (see below). A small quantity of possible Neolithic or Early Bronze Age flint was recovered from Area F and included three blade fragments, a roughly worked blade core, two neatly worked scrapers. Some of the finer flakes from this Area may also be contemporary. It is just possible that the blade core and broken blades are Mesolithic, as might a flake with a dorsal blade scar, but given the absence of any diagnostic material this is difficult to prove. This material mainly came from the fills of later features or the topsoil and no focus of activity was identified. Later Bronze Age flintwork was also found in this area (see below).

Table WF2. Summary of selected Late Neolithic groups from Areas A East and C

Feature	Context	Flakes	Cores, core frags	Retouched forms	Total
Area A East					
Grooved Ware pit 50384	A50385	76	2 with platforms at right angles	2 end & side scrapers 1 end scraper 1 miscellaneous retouch	82
EIA working hollow 50197	A50227	70	2: 1 multi-platform, 1 core fragment	1 scraper	73
	A50247	23			23
	A50243	32 including 1 core rejuv. flake	3: 1 keeled, 1 multi-platform, 1 single platform		35
	A50214	22 including 1 core rejuv. flake	1 multi-platform	1 knife	24
	A50247	23			23
	Other contexts	44			44
Working hollow A50445	Various fills	32	1 irregularly worked flake core		33
Area C					
Topsoil (eval. trench 93)	C9301			2 end & side scrapers	2
	Total	322	9	8	339

Beaker

Three pits containing Beaker flint were identified on Area A South (Table WF3). Few diagnostic pieces were recovered and the material is dominated by flakes; fragments from a keeled core and a single platform core were also recovered. A few flakes have been heavily burnt and some use-wear was also noted. Three small neatly worked end scrapers (Fig. WF1.4) and three edge-damaged flakes were the only tools recovered, and although not typologically distinctive they do accord with the Beaker pottery from two of the features.

Table WF3. Summary of flint from Area A South Beaker pits

Pit	Context	Flakes	Cores, core fragments	Retouched forms	Total
A55227	A55228	11			11
A55243	A55244	18 including 1 crested flake	1 core fragment	3 end scrapers	22
A55245	A55246	49	1 core fragment	3 edge damaged flakes	53
	A55286	5			5
	Total	83	2	6	91

Middle–Late Bronze Age

There seems to have been a general spread of Middle-Late Bronze Age flintwork across the areas excavated. It is very distinct from the Neolithic and Beaker assemblages described above, and its general characteristics are well known (see for example Ford *et al.* 1984; Young and Humphrey 1999). It often occurred as a residual element, but in a couple of areas more coherent groups of material were found.

Area B: A small assemblage of worked flint came from the fills of ditches, pits, other features and a burnt spread, some of which produced Middle and Late Bronze Age pottery. The assemblage is dominated by debitage with a few minimally worked retouched pieces and a hammerstone (Table WF1). The flakes are generally quite irregular and hard-hammer struck. Technologically this material is entirely consistent with a Middle–Late Bronze Age date.

Area C: The vast majority of the assemblage (603 pieces) from this area came from the fill (C8704) of tree-throw hole C8703. This group consists entirely of unretouched debitage: flakes, a single blade, cores, core fragments, chips and pieces of irregular waste. It was noted that all elements of the reduction sequence were represented but that primary flakes are under-represented. Hard-hammer percussion dominates and the material has been roughly worked. The cores are all very irregularly and unsystematically worked. A single core rejuvenation flake was recovered, but other than this piece there seems to have been little effort made to maintain platform edges. All of the flint is very heavily corticated and covered in a thick deposit of calcium carbonate concretion. The latter was so thick on some pieces that the characteristics of the material were hard to discern making further analysis and refitting difficult. It appears that this group consists of the debris from one or more knapping events that was probably gathered up and disposed of rather than *in situ* knapping. A crude chopping tool from Early Iron Age ditch C1 (context C906) is also probably of Middle–Late Bronze Age date.

Area D: A small assemblage of mainly debitage, was recovered. The characteristics of the debitage are consistent with a Middle–Late Bronze Age date. Little effort has been made to maintain platform edges and the cores have been worked expediently. The retouched forms include three crudely worked scrapers made on partly cortical flakes, minimally retouched flakes probably used as simple cutting tools and a few miscellaneous retouched pieces. Much of this assemblage was redeposited in Romano-British features, but a little came from contemporary Late Bronze Age pit D5001 (fills D5002–3) and included flakes, a core and a scraper.

Area E: The small assemblage of worked flint was recovered mainly from topsoil, colluvium, tree-throw holes or the fills of later features. With the exception of a finely worked scraper of probable Neolithic date from a layer of colluvium (context E2502) (see above), the assemblage is of later Bronze Age date. The flakes are generally fairly crudely worked with little evidence for care during knapping. A crudely worked scraper (context E2502) is typical of later Bronze Age forms.

Area F: A little flint of probable Neolithic and Early Bronze Age date was recovered from Area F. Diagnostic pieces are scarce but a broken blade with a polished dorsal face has probably been knapped down from a polished implement. A few blades are probably contemporaneous. A possible knife of Early Bronze Age date was also recovered but its form cannot be identified due to heavy post-depositional damage. Two minimally retouched flakes are not typologically diagnostic but have been made on fairly thin flakes.

Other material from this area is characterised by crudely worked flakes and core fragments. A piercer and seven retouched flakes have perfunctory retouch typical of later Bronze Age flintworking (cf, Ford *et al*. 1984; Young and Humphrey 1999). Many trimming flakes were noted suggesting that nodules were being worked on site although in rather an unsystematic fashion. As with Area E most of this material seems to have been redeposited.

Discussion

The worked flint has provided evidence for activity during the Neolithic–Early Bronze Age and the later Bronze Age. There was very slight evidence for possible Mesolithic activity, although no diagnostic artefacts were found and the material was distributed thinly across the area excavated. More coherent Neolithic activity was identified, in the form of Grooved Ware associated flintwork from Area A. The composition and technology of the material is typical of Grooved Ware associated assemblages. Both used and burnt pieces were noted as well as flakes in very fresh condition, a feature that has been noted elsewhere (Bradley 1999, 214–7). It is likely that this material represents the residue of domestic activity. No small chips were recovered, so this appears to represent a deposit of collected debris, the smallest elements of

which are not represented. No obvious structuring of the material was noted. A series of intercutting pits on the same site produced a larger assemblage of comparable flint, although the pottery from these features suggested a Middle–Late Bronze Age date. Few retouched forms came from these features but those that were recovered, a scraper and a knife, are consistent with a Late Neolithic date. A keeled core was also recovered; a type that is frequently associated with Late Neolithic assemblages (Healy 1985). A little other Neolithic flint from Areas C, E, and F suggests that these were not isolated features.

A little flint was recovered from pits in Area A which also produced Beaker pottery. Much of this material is not particularly diagnostic, with few tools being recovered. Without the ceramic evidence it is doubtful that a Beaker attribution would have been made, just reinforcing the difficulty of identifying this type of material when the ubiquitous barbed and tanged arrowheads, thumbnail scrapers and scale-flaked knives and scrapers are not recovered.

Slightly more widespread was Middle–Late Bronze Age flintwork. Many sites produced roughly worked flakes and irregularly flaked cores. Retouched pieces are generally perfunctorily worked and are mainly scrapers and retouched flakes. Retouch was being used for functional rather than aesthetic reasons, which explains the limited retouched forms recovered. These are characteristics of Middle–Late Bronze Age assemblages that have been recognised at other sites (eg, Wallingford Bypass, Brown and Bradley 2006, 62). Good groups of Middle–Late Bronze Age flint were identified on a couple of sites, for example Area C, where a hollow seems to have been used to dump knapping debris. No retouched pieces came from this deposit and primary flakes were underrepresented, suggesting that nodules were being partially worked and the debris dumped into the hollow. Useable flakes and possibly partially worked cores were removed for use and further knapping elsewhere. Other sites produced crudely worked scrapers, a chopping tool and retouched flakes, probably used as cutting tools.

Illustrated catalogue (Fig. WF1)

Areas A East and A South

1. Core, flake removals; Middle-Late Neolithic; context A50385, pit A50384.
2. End scraper made on a side trimming flake; Middle–Late Neolithic; context A50385, pit A50384.
3. Miscellaneous retouched piece, possibly a knife fragment? Middle–Late Neolithic; context A50385, pit A50384.
4. End scraper; Beaker; context A55244, pit A55243.

PREHISTORIC POTTERY

by Alistair Barclay

Introduction

The various phases of archaeological investigation produced a total of 1015 sherds (*c*. 11 kg) of prehistoric pottery, ranging in date from Early Neolithic to Early Iron Age (Table PP1). However, most of the pottery can be assigned a Middle Bronze Age (252 sherds) or Late Bronze Age to Early Iron Age date (LBA/EIA). Overall the assemblage is characterised by a high degree of brokenness and although featured sherds are quite numerous, the number of re-constructible profiles is relatively low. Middle Bronze Age (Deverel-Rimbury style) pottery was found in Areas A and B mostly in association with domestic features. Pottery of transitional Late Bronze Age/Early Iron Age (Earliest Iron Age) and Early Iron Age date (665 sherds) was found in close association with a series of post-built roundhouses in Areas A and F. Amongst this pottery is an interesting group of heat damaged sherds that could have been associated with the deliberate destruction of a building. Pottery of Late Neolithic and Early Bronze Age date was mostly recovered from a small number of pit deposits and was widely scattered across Areas A–F. Part of a Food Vessel is heat damaged possibly as a result of contact with a cremation pyre, and perhaps significantly this was recovered near to the site of a possible 'barrow'.

Table PP1: Breakdown and quantification of the prehistoric pottery assemblage

Period	Count	Weight (g)
Early Neolithic	2	6
Late Neolithic	19	185
Beaker/Early Bronze Age	8	53
Middle Bronze Age	252	4213
Middle/Late and Late Bronze Age	53	372
Late Bronze Age/Early Iron Age and Early Iron Age	665	6111
Indeterminate prehistoric	16	26
Total	1015	10,966

Methods

The assemblage was analysed using a standard system developed for the recording of prehistoric pottery and in accordance with the guidelines of the PCRG (1992). The assemblage was quantified by sherd count (fresh breaks excluded) and by weight (g). Featured sherds were noted and a record was made of decoration, surface treatment, average sherd thickness, diameter, firing colour, the presence of food residues, and condition. Fabrics were recorded using a standardised alpha-numeric coding system where letters are assigned to the principal inclusions (A=sand, B=black sand, F=flint, G=grog, S=shell) and a number is used to differentiate variations in the frequency and size of inclusions. In the absence of featured sherds dates were assigned on the basis of fabric analysis. 'R' was used as a prefix where sherds had been heat damaged.

Fabrics

Fabric codes and descriptions can be found in Table PP2. In general Early and Middle Neolithic (4000–2850 cal BC) fabrics are typically flint-tempered (AF1/EN, F8/EN, and F1/MN), while pottery of Late Neolithic (2900–2200 cal BC) and Early Bronze Age (2200–1600 cal BC) date occur in a range of grog-tempered fabrics (AG1/LN, G1/LN, SG1/LN, G1-4/EBA, VG1/EBA), although flint inclusions also occur (AFO1/EBA, F1/EBA, FG1EBA). Middle Bronze Age (1600–1150 cal BC) ceramics typically occur in a range of flint-tempered

fabrics (F1–3/MBA) with the typical correlation between finer fabrics (F1/MBA) and Globular Urns and coarser fabrics and Bucket Urns (F2–3/MBA). One fabric that contained both grog and flint inclusions (FG1/MBA) could be of either this date or slightly earlier (Final EBA 1700–1500 cal BC) (see below). It is possible that these fabrics continued into the early part of the Late Bronze Age (1150–950 cal BC) as vessels found in Area D appear to be of transitional Middle-Late Bronze Age date.

Late Bronze Age/Early Iron Age and Early Iron Age fabrics (800–400 cal BC) occur in a range of fabrics that are principally tempered with sand (A1–2/LBA/EIA, B1/LBA/EIA), sand and flint (AF2/LBA/EIA, FA1–2/LBA/EIA), flint (F4–7/LBA/EIA) or shell (SA1/LBA/ EIA). Some vessels had been manufactured from fabrics that appear to contain no added temper (NAT1/LBA/EIA).

Table PP2: Prehistoric pottery fabrics

Fabric	Description
Early Neolithic	
AF1/EN	hard fabric with sparse coarse quartz sand (<1 mm), rare ill-sorted angular flint (1–4 mm).
F8/EN	Hard fabric with sparse illsorted angular calcined flint (1–3 mm)
Middle Neolithic	
F1/MN	Hard fabric with illsorted sparse angular mostly white flint (1–5 mm)
Late Neolithic	
Sand and grog-tempered	
AG1/LN	hard fabric with sparse coarse quartz sand, rare subangular grog (<4 mm), very rare natural flint and very fine, small (<1 mm) shell platelets
Grog-tempered	
G1/LN	soft fabric with sparse angular grog (<3 mm), some vesicules (?leached shell)
Shell and grog-tempered	
SG1/LN-	soft fabric with sparse very fine shell-platelets, rare angular grog (up to 4 mm), occasional very rare chalk and flint
Beaker/EBA	
Sand, flint and organic-tempered	
AFO1/EBA	hard fabric with rare quartz sand (<0.5 mm), rare angular flint (<1 mm) and sparse burnt out organic matter
Flint, flint and grog-tempered	
F1/EBA	hard fabric with abundant angular white flint (0.5–3 mm)
FG1/EBA	hard fabric with sparse ill-sorted angular grey calcined flint (1–4 mm) and rare angular grog (1–4mm).
Grog-tempered	
G1/EBA	hard fabric with sparse sub-angular grog (<4 mm), some burnt out organic matter and rare angular flint (1 mm)
G2/EBA	hard fabric with sparse sub-round grog (1–3 mm)
G3/EBA	hard fabric with sparse fine (0.5 mm) grog and rare flint (3–5 mm)
G4/EBA	hard fabric with sparse fine (0.5 mm) grog and rare quartz sand
VG1/EBA	soft vesicular fabric (fine leached ?shell) with rare subangular grog. The sherd is pale grey in colour and relatively light in weight. It is possible that it has been overfired or refired
Middle–Late Bronze Age	
Flint-tempered	
F1/MBA	hard fabric with common well-sorted fine calcined flint (1–2 mm)
F2/MBA	Hard fabric with common ill-sorted calcined flint. The clay matrix contains both fine flint (0.5 mm) and coarser flint (2–4 mm) as well as rare gravel flint
F3/MBA	Hard fabric with common well-sorted mostly white calcined flint (2–4 mm)
FG1/MBA	hard fabric with moderate ill-sorted grey calcined flint (2–6 mm) and sparse angular reddish-brown grog (2–3 mm)
Late Bronze Age/Early Iron Age	
Sand-tempered	
A1	Hard fabric with sparse to moderate quartz sand, very rare flint and rare lenticular voids
(RA1)/LBA/EIA	(?burnt out plant matter

Fabric	Description
A2/LBA/EIA	hard fabric with moderate coarse sand (0.5–1 mm) (white, colourless & ironstone) with rare larger grits (1–3 mm)
Sand and flint-tempered	
AF2 (RAF2)/LBA/EIA	hard fabric with moderate coarse sand (0.5–1 mm) (white, colourless and ironstone) with sparse angular flint (1–3 mm)
B1/LBA/EIA	Hard fabric with abundant subround (<0.5 mm) black sand (glauconite) and rare colourless quartz sand
Flint-tempered	
F4/LBA/EIA	F4 (RF4) Hard fabric with moderate well-sorted fine white angular flint (1–2 mm) and occasional larger fragments (up to 4 mm)
F5/LBA/EIA	F5 Hard fabric with sparse to moderate ill-sorted flint (1–4 mm)
F6/LBA/EIA	F6 Hard fabric with moderate fine calcined flint (0.5–2 mm) with occasional larger fragments (up to 5 mm)
F7/LBA/EIA	F7 Hard fabric with sparse fine flint (1 mm) with occasional naturally occurring inclusions of fine shell, quartz, ferruginous pellets and larger flint grit
Flint, sand and/or organic-tempered	
FA1 (RFA1/LBA/EIA)	Hard fabric with sparse to moderate angular flint (1–2 mm) and sparse to moderate coarse quartz sand (0.5 mm), and/or very rare lenticular voids (?burnt out plant matter)
FA2/LBA/EIA	Hard fabric with sparse to moderate angular flint (1–4 mm) and sparse to moderate coarse quartz sand (0.5 mm)
Shell and sand/grog-tempered	
SA1/LBA/EIA	Hard fabric with sparse to moderate crushed shell and quartz sand.
No added temper	
NAT1 (RNAT1)/LBA/EIA	Hard fabric with a fine sandy texture and no visible added temper/inclusions.

Early Neolithic

Two sherds of Early Neolithic (4000–3350 BC) pottery were recovered as redeposited material. One sherd (fabric AF1) was recovered from Grooved Ware pit A50387 (Area A East) and the other was from a posthole of Early Iron Age date (Area F).

Middle Neolithic Peterborough Ware

Two small and worn Peterborough Ware (3500–2850 BC) body sherds (8 g) in a flint-tempered fabric were recovered from a tree-throw hole (F7080) cutting gully F7078 in Area F4. Both sherds (not illus.), probably from the same vessel, are decorated with twisted cord impressions that on the larger sherd appear to form part of a herring bone motif. As no rim is present it is not possible to assign the sherds to a particular substyle. The sherds are likely to represent residual surface material that has been incidentally incorporated due to the disturbance of the immediate ground surface by the tree throw.

Late Neolithic Grooved Ware

A small assemblage (19 sherds, 185 g) of Grooved Ware (2900–2250 cal BC) was recovered from pits A50382, A50384 and A50387 (Area A East). Plain Grooved Ware sherds were recovered from pit A50387 and a single small sherd of possibly Grooved Ware or Beaker was recovered from Pit A50382.

Pit A50384 layer A50385 contained 14 sherds (160 g) from approximately six different vessels that were manufactured from a range of fabrics that contained inclusions of grog and shell/sand (AG1/LN, G1/LN, and SG1/LN). The assemblage was made up of decorated body and/or base sherds. The decoration consists of relatively wide and shallow grooves, incised lines, finger-nail impressions and deeper shorter grooved lines. Both thin-walled (5–7 mm) and thick walled vessels (10–11 mm) are present. Motifs include infilled panels (Fig. PP1.1 and 3) and all-over herringbone (Fig. PP1.2). An incised decorated vessel (Fig. PP1.3)

appears to show infilled vertical panels separated by one or more pairs of incised lines. A similar, albeit finer, vessel (not illus.) is represented by a second sherd in the same fabric. No complete profiles are represented, although it is possible to suggest that one base (Fig. PP1.3) derives from a probable jar, while a second base (not illus.), at a shallower angle, is from a bowl. Overall the forms and decoration can be accommodated within the Durrington Walls substyle (Longworth 1971, figs 47–8).

There is relatively little Grooved Ware from this area of Hampshire or indeed from the adjacent areas of Wiltshire, Berkshire and Surrey (Longworth and Cleal 1999; Barclay 1999; Cotton 2004, 26). To the north of the Basingstoke area, in the Upper Kennet valley, it is virtually absent, and when it does occur it tends to be found in small quantities (Barclay 2004, 57–8; Cleal 1991–3, 19).

Beaker/Early Bronze Age

Beaker and possible Beaker sherds (53 g) were recovered from three pits (A55227, A55243, and A55245) within Area A South and as residual material from elsewhere.

Two sherds were recovered from fill A55228 (pit A55228). One sherd (Fig. PP1.4) is from a rusticated vessel (fabric FG1) decorated with rows of plastic finger-nail impressions. A second sherd (Fig. PP1.5) has an incised geometric pattern, probably floating lozenges. This sherd is from the neck of a Southern style long necked Beaker (Clarke 1970). The rusticated sherd could be from a similar style of vessel.

Four sherds are from an all-over aplastic finger-nail impressed vessel (Fig. PP1.6). Three of the sherds could be from a slight globular belly, while a forth appears to be from the waist and has the suggestion of a possible straight neck. The actual profile can not be precisely ascertained, although there is the hint that it equates to the long necked or Southern styles (Clarke 1970, 294, fig. 121).

Two plain sherds (12 g) from fill A55246 of pit A55245 in fabrics AFO1 and F1 are of uncertain date and at least one (fabric AFO1) would be difficult to accommodate within the Beaker style. The smaller sherd in fabric F1 is relatively thin-walled (6 mm) with highly burnished reddish-brown surfaces and a black core. It has the well-made appearance and 'sealing-wax' colour that is found in some Beakers of, in particular, the Wessex/Middle Rhine group (Clarke 1970). Plain Beaker vessels occur but are generally rare and may be early within the overall sequence (see Needham 2005). A single small and thin-walled sherd (5 mm) in fabric G4 (tree throw fill 4707, Area A South evaluation, not illus.) with all-over aplastic finger-nail impressions in an oxidised grog-tempered fabric has close affinities with Beaker pottery and is similar in appearance to sherds from pit A55243 (described below).

Beaker pottery has a long currency from 2400–1700 cal BC (see Needham 2005). The sherds with aplastic finger-nail impressions could be early within this sequence, as vessels with this type of decoration are known to occur throughout the later 3rd millennium cal BC (eg, Bury St Edmunds, Suffolk and Chilbolton, Hampshire (3780±80 BC, 2340–1940 cal BC; OxA-1073): Needham 2005, figs 5.10 and 10.2). In contrast the sherd with floating lozenge motif and the one with plastic finger-nail impressed decoration are possibly later in date and on typological grounds are more likely to belong to the early 2nd millennium cal BC (see Needham 2005).

Early Bronze Age

A single large shoulder sherd (30 g) (Fig. PP1.7) from a decorated Food Vessel of probable bipartite vase form was recovered from the fill of tree-throw hole C3510 (Area C2). The sherd appears to have been overfired/refired, which could indicate that it has come into contact with

a cremation pyre (see Barclay 2002). The same context also produced four fragments of fired clay (25 g).

Food Vessels are generally found throughout Britain, although they are less common in southern England. This sherd, with its relatively sparse decoration, can be accommodated within the Southern Bipartite Vase group (Burgess 1980, 87). The stopped shoulder groove is a feature of the so-called Yorkshire Vase style (Burgess 1980, 87 and fig. 3.1:5–6).

Middle Bronze Age, Deverel-Rimbury

Two hundred and fifty two sherds (4213 g) are from Deverel-Rimbury style vessels. With the exception of a few thin-walled sherds in fine flint-tempered fabric F1 from probable Globular Urns, all are from relatively thick-walled (10–16 mm) Bucket Urns. With the exception of one semi-complete vessel, no vessel profiles are present and featured sherds are rare.

In Area A East Deverel-Rimbury style pottery (76 sherds, 2037 g) was recovered from six pits (A50149, A50203, A50332, A50334, A50354, and A50376) and from three post-holes (A50361 within possible roundhouse A50199; as redeposited material in post-hole A50080 within roundhouse A50100; and in post-hole A50401). With the exception of a single thin-walled (5 mm) Globular Urn sherd manufactured from fabric F1, all of the sherds are from relatively thick-walled (up to 16 mm) Bucket Urns, most of which were manufactured from the coarse flint-tempered fabric F3. One vessel (form pit A50376) was unusual in that it also contained grog in its fabric (FG1). This vessel is represented by a number of plain sherds, although some of these have a thickened profile indicating that they could be from the neck or a collar and while it is possible that they could derive from another type of urn (eg, Biconical Urn) the association with a fine-ware sherd in fabric F1 (likely to derive from a Globular Urn) suggests that its identification as a Bucket Urn is probably correct. Fabric F2 is associated with relatively thin-walled (10 mm) vessels, there are no featured sherds and it is possible that they belong to either coarse Globular Urns or relatively small Bucket Urns.

Post-hole A50399, part of possible roundhouse A50199, contained 30 sherds (372 g) from one or more Bucket Urns, while related post-hole A50361 contained only a single Bucket Urn sherd. Nearby pit A50376 contained five Bucket Urn sherds as well as a sherd from a Globular Urn. Pit A50354 contained two sherds from the rim and shoulder of a Bucket Urn (Fig. PP1.10), while pit A50149 contained over 50 sherds (1085 g) possibly from a single vessel. Pits A50332 and A50334 contained no more than two Bucket Urn sherds. A relatively large group of Bucket Urn sherds (66, 1314 g) was recovered from pit A50203. In addition, a small number of Middle Bronze Age sherds were recovered from Iron Age contexts, most notably from the two groups of intercutting pits, working hollows A50197 and A50445.

Possible post-hole A55308 (in Early Iron Age roundhouse A55292, Area A South) produced a single sherd of probable Deverel-Rimbury pottery.

A total of 140 sherds (2170 g) of Deverel-Rimbury style pottery were recovered from Area B. Pottery of this date came from a shallow pit (B15, fills B35–6) and an adjacent arc of postholes (roundhouse B49) in Area B3, and from a layer of colluvium (B206) beneath the burnt flint layer (B14205) in Area B4. Featured sherds include a rim (Fig. PP1.9) from B206, a fragmentary plain Bucket Urn from B36 (Fig. PP1.8), the lower part of a second smaller Bucket Urn (base and wall sherds diam. 100–110 mm plus sinuous crack across base – classic shrinkage crack), sherds from a third vessel that may also have been undecorated and a base fragment with impressed finger dimples on the interior surface.

From Area C two sherds from Wessex Linear ditch C1 (cuts C4515 and C910) and one from ditch C11 (cut C3545) are of uncertain Middle–Late Bronze Age date. The two small sherds from C1 could be from Globular Urns or Late Bronze Age fineware vessels, the flint-

tempered base sherd from C11 is from a thick-walled coarse jar. All of this material could be redeposited.

Transitional Middle/Late Bronze Age

Seven sherds (40 g) mostly in a worn condition were recovered from working hollow A50197 (fills A50214, A50227, A50243, and A50247) in Area A East. These sherds could belong to either Deverel-Rimbury or post-Deverel-Rimbury vessels.

A further 28 sherds (168 g) were recovered from pit D5001 (Area D South) with a single rim sherd coming from one of the post-holes of the adjacent roundhouse structure (D5004). Pottery from pit D5001 includes 20 sherds from a thick-walled coarseware jar, the rim from a small ovoid-shaped vessel (Fig. PP1.11) and a finger-tip impressed sherd from a relatively thin-walled vessel; three other sherds are of similar character. A simple rim (from roundhouse 5004) in a coarse flint-tempered fabric could also be from an ovoid jar. The small size of this assemblage and the lack of diagnostic featured sherds make any dating uncertain. The rims are likely to derive from small ovoid jars, which could have affinities with either Deverel-Rimbury assemblages of the Middle Bronze Age (1600–1150 cal BC) or Plain Ware assemblages of the Late Bronze Age (1150–900 cal BC). It is not possible to say whether the sherd with finger-tip impressions is from a straight sided vessel or one that is weakly shouldered. It could derive from a thin-walled Bucket Urn.

A single thin-walled flint-tempered sherd came from one of the posthole fills of roundhouse F7207 (Site F4) and a redeposited rim from an ovoid jar in the same fabric came from one of the postholes of adjacent Early Iron Age roundhouse F7169. Similar sherds from at least two vessels with simple rims, also probably ovoid jars, were recovered from a tree throw hole (E502) during the Area E evaluation.

In addition, a small number of rims could be from Late Bronze Age vessels, including an incurving rim (Fig. PP2.31) and two slightly hooked rims (from pit D50001; not illus.) from ovoid jars. A few heavily flint-tempered sherds could be of Late Bronze Age rather than Early Iron Age date, although in the absence of featured sherds the dating of this material remains ambiguous (Area A East – working hollow A50197, contexts A50214, A50243 and A50247; working hollow A50445, context A50314; and post-holes A50066, A50072 and A50076 in roundhouse A501007; Area A South – post-hole A55371; Area F2 – post-hole F7142).

Late Bronze Age/Early Iron Age, and Early Iron Age

Six hundred and sixty five sherds (6111 g) can be described as belonging to the Late Bronze Age/Early Iron Age or Early Iron Age. Forms include bipartite vessels and tripartite jars and bowls manufactured from a range of predominantly flint- or sand-tempered fabrics.

Fabrics

In total, 12 fabrics were identified based on the identification of principal inclusions. The fabrics of heat damaged sherds were given the prefix R (eg, RA1) and where possible were equated to the descriptions given below (see Table PP2).

Forms, decoration and surface finish

The assemblage contains relatively few complete or near complete vessel forms (minimum of 37), which can be compared with material recovered from Late Bronze Age and Early Iron Age sites near Basingstoke (Winklebury: Smith 1977; Cowdery's Down: Thompson 1983; Brighton Hill South: Morris 1992) and further afield (Dunston Park, Thatcham: Morris and

Mepham 1995 and Green Park (Reading Business Park): Bradley and Hall 1992; Morris 2004).

Forms include fineware tripartite bowls with upright or slightly flaring rims. These tend to have smoothed or burnished surfaces (working hollow A50197, context A50214 burnished black), some (at least six vessels) have red finish (heamitite coating) (sherds from hollow A50197, fill A50247 (rim and neck) and a sherd from ditch C1 (cut C910, fill C907) (Area C4) and/or are decorated either with incised lines (Fig. PP1.13) or furrows (Fig. PP1–2.15, 22, 26–7, 29). A red finished furrowed bowl (Fig. PP2.27) is the only vessel to be manufactured from the black sand (glauconitic) fabric B1, and occurs alongside a second furrowed bowl fragment that has a black finish (Fig. PP2.26). Other furrowed vessels with a black finish include one from pit F6303 (Area F1) (Fig. PP1.22). There are at least two base fragments from bowls of this type (from posthole A50068 in roundhouse A50029, and fill A50214 in working hollow A50197) (omphalos). Two examples of cups/small bowls of tripartite form (from Area A East topsoil and roundhouse A50029) are represented by rim and shoulder fragments (Fig. PP1.17). Other decorated bowls occur, although most are represented by single sherds, and include a neck sherd with incised lozenge pattern infilled with a herringbone motif consisting of oblique stab marks (Area A south post-hole A55330, not illus.) and a neck sherd with horizontal incised lines (A50214).

Jars occur in a variety of forms, although most are tripartite with upright rims. There is a single example of a fineware globular jar with upright rim (Fig. PP1.14) that is similar to vessels from north Wiltshire (All Cannings Cross: Cunliffe 1974; fig A:2 and Potterne: Gingell and Morris 2000 figs 51:47). Other fineware jars have more typical shouldered profiles with upright rims. One is decorated with oblique tooled lines (Fig. PP1.20) and another has a more angular tripartite profile with a short stepped shoulder (Fig. PP1.12) and unusual decorative motifs – vertical bands of incised lines infilled with end-to-end diamond motifs. This vessel is without close parallel. Another jar is represented by a flared rim with internal flange (context A50207 in working hollow A50197, not illus.).

Both plain and decorated coarseware shouldered jars occur. Decoration tends to occur on the shoulder and mostly consists of finger-tip impressions (Fig. PP1–2.16, 21, 23, and 28), oblique tooled lines (Fig. PP1.18) and slashed lines (working hollow A50197 fill A50227, not illus.). More rarely finger-tip/nail impressed decoration occurs on the rim (Fig. PP1.16) or just below it (Fig. PP1.19 and 25) (eg, Winklebury Camp; Smith 1977, fig. 27.11 & 20). There is a single example of a jar with impressed triangular shaped marks on the shoulder (Area F1 pit F6305, not illus.) that has also been refired, and a thickened shoulder with finger-tip impressed decoration (refired). There is also a single example of a slightly flaring rim with finger-tip impressed decoration on the rim edge (pit F6305 not illus.). Plain jars also occur and tend to have slack shoulders, upright or slightly incurving rims.

Deliberately flint-gritted bases occur and were recovered from working hollow A50197 (fills A50248 and A50227) (refired). This type of treatment appears to be deliberate and was used during the final Late Bronze Age and Early Iron Age.

Heat damaged pottery

A total of 58 sherds (621 g) of heat damaged Late Bronze Age/Early Iron Age pottery in a range of fabrics (RA1, RFA1, RF2–3, RF5; Table PP2) was found in Areas A, F, and C.

Heat damaged pottery, either from overfiring or refiring, has been noted on a number of prehistoric sites but appears more common on sites of Late Bronze Age and Earliest Iron Age date (Barclay 2002; 2006, 81–2; Morris 1992, 13–16; 2004, 90). The refired/overfired pottery from Area A is varied in character. Some sherds are simply discoloured grey, have a powdery surface texture and where present oxidised surfaces that are generally light yellowish-brown

or reddish-brown. In other sherds cracking and slight distortion also occur. There are also sherds that show more severe signs of heat damage with the sherd surface or section showing either partial or total alteration (bloating) resulting in the sherd exhibiting a vesicular texture. Vesicules tend to be quite small (0.1–2 mm) in sherds exhibiting partial alteration to large (0.2–1 mm) where alteration is complete. In the case of the latter, the sherds have expanded widths, are much lighter in weight and are sometimes distorted.

Thirty-two sherds (331 g) of refired/overfired pottery were recovered from features on Area A. In the post-holes of both roundhouses (A50029 = 4 sherds, 39 g; A50100 = 20 sherds, 179 g, and A50101 = 1 sherd, 15 g) and in smaller quantities from the working hollows A50197 (4 sherds, 66 g) and A50445 (3 sherds, 32 g). Featured sherds include the flaring rim from a fineware bowl/jar (roundhouse A50101, post-hole A5014), flint-gritted base sherds (working hollow 50197, fill 50227), finger-tip impressed shoulder sherds (roundhouse 50029/100, post-hole 50008), and a distorted neck sherd (roundhouse 50100, post-hole 50048).

There is a single refired body sherd from a post-hole in Area C (C11908), while the remainder of the sherds were recovered from Area F. This included six sherds from a coarseware jar from pit F6303 (additional sherds from roundhouse F7169, post-hole 7092, and six-post structure F7199, post-holes F7061 and F7034).

Chronology and affinities with other assemblages

With the exception of a small number of sherds that are almost certainly derived from Late Bronze Age vessels, the assemblages from, in particular, Areas A (South and East) and F can be placed within the earliest or early Iron Age as defined by Cunliffe (1991) and more specifically for Hampshire and Wiltshire by Brown (2000).

The Late Bronze Age vessels are represented by relatively heavy flint-tempered sherds and a small number of simple and slightly incurving rims that are assumed to come from jars of straight-sided or ovoid form. Such forms are likely to belong to the Plain Ware phase of the Late Bronze Age (1150–850 BC). Comparable vessel forms are known from sites near to Reading (eg, Green Park: Morris 2004, 66–7; Aldermaston Wharf: Bradley 1980, 234 and fig 11) and from Winnall Down, Winchester (Hawkes 1985, 61 and fig 51: 2–8).

Overall the Early Iron Age pottery is typically defined by tripartite bowls and generally slack-shouldered coarseware jars, manufactured from a range of fabrics that are predominantly tempered with either sand or flint inclusions or an admixture of the two. A relatively high number of fineware bowls are decorated with furrows of which a high proportion have red finish. Other decorated bowls have been decorated with incised motifs or more rarely with stamped dots. Coarseware jars are typically decorated with finger-tip impressions set on the shoulder and more rarely on or below the rim. More unusual is a fineware jar decorated with a complex geometric pattern that is without local parallel. The assemblage is similar to ones from other sites within the Basingstoke area most notably the earlier pottery from Winklebury Camp (Smith 1977) and Cowdery's Down (Thompson 1983), to the small assemblage from Brighton Hill South (Morris 1992) and further afield Winnall Down (Hawkes 1985, 61–2 and figs. 52–3). Such assemblages are generally thought to be no earlier than the late 8th or 7th century BC and with a currency that lasted until the 6th century. On typological groups the assemblage from This site is likely to largely post-date sites like Potterne that had slightly earlier beginnings, perhaps in the 10th or 9th century BC (see Morris 2000 but note Bayliss 2000, 41 and the limitations of the published radiocarbon dating programme). Typologically there is little evidence from at this site for material of the late 6th–5th centuries, while Middle Iron Age forms are completely absent.

Discussion: context groups

Area A South: Most of the pottery from area A was recovered from the post-hole fills of two of the four roundhouses (A55292-3) and as redeposited material within Late Iron Age/early Romano-British enclosure ditch A55639. A group of 27 sherds (382 g) of Early Iron Age pottery (Fig. PP1.18–21) was recovered from post-hole A55224 (fill A55226), although it is unclear whether this belongs to structure A55292 or A55293. A small number of sherds were recovered from at least three further post-hole fills, including a decorated neck sherd from a fineware bowl (not illus.) (post-hole A55330, fill A55331). A residual Middle Bronze Age sherd was recovered from the fill of one of the porch post-hole pits (A55308) of structure A55292. A single small and very worn sherd in fabric AF1 was recovered from one of the post-holes that define structure A55631.

A second relatively large group (23 sherds, 178 g) of Early Iron Age pottery was recovered from isolated post-hole A55391. Within this group at least eight vessels are represented by featured sherds including coarseware jars with finger-tip decorated shoulders and decorated fineware bowls (one furrowed with red finish and another with stamped dot decoration). Where present rims are upright and slightly flared.

Small numbers of sherds were recovered from tree-throw holes (contexts A55508 and A55367) or as residual material within features of known Late Iron Age/early Romano-British date.

Area A East and Area F: Pottery was recovered from all three Early Iron Age roundhouses in Area A East. The highest quantity, 36 sherds weighting a total of 371 g, was recovered from the post-hole fills of structure A50100, while only low quantities of pottery were recovered from structures A50029 (7 sherds, 66 g) and A50101 (5 sherds, 49 g). Diagnostic pottery could all be attributed to the Early Iron Age (eg, Fig. PP1.16–17). Refired pottery was found in all three structures (see above). In contrast to the relatively small assemblages from the roundhouses, working hollow A50197 produced a total of 223 sherds (1986 g) of mostly Early Iron Age pottery, which included a small number of semi-complete and freshly broken vessels (Fig. PP1.12, 14–15) that could represent placed or special deposits rather than simple discard of everyday refuse.

Early Iron Age pottery was found in various features across Area F1. Six-post structure F7199 (post-holes 7034 (fill 7035), 7044 (fill 7045), 7046 (fill 7047), 7061 (fill 7062), 7063 (fill 7064), 7196 (fills 7197–8)) was associated with a small group of Early Iron Age pottery (34 sherds, 201 g) including two rims, a decorated shoulder sherd, the shoulder from an angular vessel and a small number of heat damaged sherds. Most of the pottery was in a worn condition. Similar pottery was also recovered from two pits (F6303 and F6305) near to structure F7199. Pit F6303 contained a small group of pottery (9 sherds, 159 g) including the fragmentary remains of a jar that had been heat damaged and two sherds from a small furrowed bowl (Fig. PP1.22). Pit F6305 (fills F6306–7) produced a relatively large group of pottery that includes parts two large shouldered jars (Fig. PP2.23–4), a decorated rim (Fig. PP1.25), decorated shoulder sherds from other coarseware jars, an omphalus base, and 13 heat damaged sherds.

In addition small quantities of Early Iron Age pottery were recovered from pits F7038 (recut F7040, fill F041) (4 sherds, 41 g) and oval pit F7048 (fill 7049) (produced a finger-tip decorated shoulder sherd.

In Area F2, pit F903 (fill F904) contained a small group of pottery (31 sherds, 230 g) that includes neck sherds from two furrowed bowls (Figs PP2.26–7) and sherds from a finger-tip impressed coarseware jar. Pit F7180 (fill F7181) contained a small group of Early Iron Age pottery (14 sherds, 47 g), the only featured sherd being a shoulder sherd from a fineware bowl

decorated with horizontal incised lines (not illus.). Relatively small quantities of Early Iron Age pottery were recovered from pits F7142 and F7146, and post-holes F1003 and F1007 in an adjacent evaluation trench.

In Area F3, the sherd recovered from roundhouse F7201 was a single shoulder sherd from a burnished fineware bowl of Early Iron Age date (fill F7193, post-hole F7192 not illus.).

From the two roundhouses (F7169 and F7202) in Area F4, only a single worn sherd (2 g) was recovered from the fill (F7083) of post-hole F7082 (roundhouse F7202). The date of this sherd is uncertain as in terms of fabric and thickness it could belong to either a Middle Bronze Age Globular Urn or a thin-walled vessel of Late Bronze Age date. However, a single radiocarbon date (KIA-37130, 3255±25 BP, 1610–1450 BC) on a piece of charred *Prunus spinosa* (sloe) indicates that the former is more likely. The sherd is similar in character and certainly fabric and wall thickness to a hooked rim of Late Bronze Age date that was recovered from one of the post-holes of roundhouse F7169. With the exception of a residual Late Bronze Age rim (Fig. PP2.31) only plain body sherds in fabrics (FA1 and AF1) that are considered to be of Early Iron Age date were recovered from the fills of post-holes F7123 and F7092 belonging to roundhouse F7169. A flint-gritted base fragment form post-hole F3003 (fill F3006, from the evaluation and considered to be part of this structure) could also be of this date.

Pit F7067 contained a group (49 sherds, 442 g: plus an intrusive Roman sherd of New Forest ware) of Early Iron Age pottery including part of a furrowed bowl, a simple shouldered bowl, a finger-nail impressed rim, a shoulder sherd with oblique linear incised decoration, and another with finger-tip impressions. A minimum of eight vessels are represented and these occur in either principally sand (A1, AF2) or flint-tempered fabrics (FA2, F4–5). It is probable that the pit is contemporaneous with structure F7169 rather than F7202 (as indicated by the radiocarbon dates, see below and Table RC1). No refired pottery was recovered from the pit or from structures F7202 and F7169.

The Wessex Linear ditch (Area F): The section in evaluation trench F11 produced a small group of pottery (21 sherds, 165 g) (mostly from secondary fill) of Early Iron Age date, including sherds from at least three coarseware shouldered jars. Two of these vessels were decorated with finger-tip impressions on the shoulder and one had similar impressions on the rim edge (not illus.). The upper secondary fill of ditch section F1503 contained two sherds of abraded Early Iron Age pottery and a relatively unabraded sherd of Late Iron Age Silchester ware.

Illustrated catalogue (Figs PP1–2:1–31)

1. Late Neolithic, Grooved Ware, Durrington Wall substyle. Body sherd (12 g). Grooved panel with finger-tip impressions. Fabric SG1/LN. Firing: oxidised reddish-brown ext., black int. Condition average. Pit A50384, Area A East.
2. Late Neolithic, Grooved Ware, Durrington Wall substyle. Single sherd with grooved herringbone pattern (20 g). Fabric SG1/LN. Firing: patchy black to brown ext., core and int. black. Condition average. Pit A50384, Area A East.
3. Late Neolithic, Grooved Ware, Durrington Wall substyle. two refitting sherds from the base of a decorated jar (80 g). Incised panel decoration. Fabric SG1/LN. Colour: oxidised reddish-brown throughout. Condition worn. Pit A50384, Area A East.
4. Beaker, body sherd with plastic finger-nail impressed decoration (5 g). Fabric FG1/EBA. Fired reddish-brown throughout. Condition worn. Pit A55228, Area A South.
5. Beaker sherd, probably from near the base of the neck, with incised lozenge motifs (10 g). Fabric F1/EBA. Condition worn. Pit A55228, Area A South.

6. Beaker, five body sherds with aplastic finger-nail impressed decoration (25 g). Vessel form uncertain. Fabric G1/EBA. Firing: reddish-brown throughout. Condition fair to worn. Pit A55243, Area A South.
7. Food Vessel. Ridged Shoulder sherd with stop-groove and impressed finger-nail herringbone pattern decoration (30 g). Fabric VG1/EBA. Firing: greyish brown throughout. Condition poor. Tree-throw hole C3510, Area C2.
8. Fragmentary Bucket Urn. Fabric F3/MBA. Firing: yellowish-brown surfaces with a black core. Condition worn. Pit B15, Area B3.
9. Bucket Urn rim. Fabric F3/MBA. Firing: yellowish-brown surfaces with a grey/black core. Condition worn. Colluvium B206, Area B4.
10 Bucket Urn rim and cordoned shoulder sherd with finger-tip printing (88 g). Fabric F3/MBA. Firing: black surfaces with grey core. Condition worn. Pit A50354, Area A East.
11. Middle/Late Bronze Age. Simple rim from an ovoid jar. (17 g). Fabric FG2/MLBA. Firing: black surfaces with grey core. Condition worn. Pit D5001, Area D South.
12. Early Iron Age. Tripartite jar with zonal incised decoration (20 sherds, 530 g); Fabric F7/EIA. Firing: reddish-brown ext., core black, int. brown. Condition good. A50245 and A50249, working hollow A50197, Area A East.
13. Early Iron Age. Incised decorated neck sherd from a tripartite bowl (5 g). Fabric NAT1/EIA. Firing: ext. dark grey, core and int. grey brown. Condition worn. A50214, working hollow A50197, Area A East.
14. Early Iron Age. Refitting sherds from a globular-shaped jar with upright rim. Decorated with oblique furrowed lines (109 g). Burnished surfaces. Fabric AF1/EIA. Firing: surfaces red-brown, core black. Condition worn. A50249, working hollow A50197, Area A East.
15. Early Iron Age. Refitting sherds from a tripartite furrowed bowl with red-finish (64 g). Fabric FA1/EIA. Firing: surfaces reddish-brown, core black. Condition worn. A50216, working hollow A50197, Area A East.
16. Early Iron Age. Simple slack shouldered jar with finger-tip impressed decoration on the rim and shoulder (19 g). Fabric AF1/EIA. Firing: surfaces brown/black, core black. Condition worn. Post-hole 50019, roundhouse A50101, Area A East.
17. Early Iron Age. Refitting shoulder sherds from a small cup/bowl (diam = 90 mm) (21 g). Fabric FA1/EIA. Firing: ext. reddish-brown, core black, int. brown. Condition worn. Post-hole A50070, roundhouse A50029, Area A East.
18. Early Iron Age. Decorated rim and shoulder sherd with oblique grooves from a large jar (81 g). Fabric FA2/EIA. Firing: ext. brown/black, core grey, int. brown. Condition worn. A55226.
19. Early Iron Age. Simple upright rim with finger-tip impressed decoration set below (12 g). Fabric F5/EIA. Firing: reddish-brown throughout. Condition worn. Post-hole A55224, roundhouse 55292, Area A South.
20. Early Iron Age. Neck sherd with oblique grooved pattern from a coarseware jar (42 g). Fabric FA2/EIA. Firing: ext. dark brown, core grey, int. black. Condition worn. Post-hole A55224, roundhouse 55292, Area A South.
21. Early Iron Age. Shoulder sherd with finger-tip impressed decoration (22 g). Fabric AF2/EIA. Firing: surfaces brown, core grey. Condition worn. Post-hole A55224, roundhouse 55292, Area A South.

Areas E-F

22. Early Iron Age. Two sherds (20 g) from a small furrowed bowl. Fabric NAT1/EIA. Firing: black throughout. Condition average to worn. Pit F6303, Area F1.
23. Early Iron Age. Rim and five shoulder sherds (114 g) from a decorated coarseware jar. The rim edge is decorated with finger-tip impressions as is the shoulder. Fabric F5/EIA. Firing: ext. reddish-brown, core black, int. yellowish-brown. Ext. has an iron rich slip which has been smoothed. Condition worn. Pit F6305, Area F1.

24. Early Iron Age. Rim and shoulder sherds (198 g) from a plain coarseware jar. Fabric F5/EIA. Firing: ext. and int. reddish-brown, core grey. Ext. surfaces have been smoothed. Condition worn. Pit F6305, Area F1.
25. Early Iron Age. Decorated rim sherd. The rim had been folded to form a slight cordon, which has then been decorated with finger-tip impressions (11 g). Fabric A2/EIA. Firing: reddish-brown throughout. Condition worn. Pit F6305, Area F1.
26. Early Iron Age. Shoulder sherd from a furrowed bowl (18 g). Fabric A1/EIA. Firing: ext: black, core and int. greyish-brown. Smoothed ext.. Condition worn. Post-hole F903, Area F2.
27. Early Iron Age. Shoulder sherd from a furrowed bowl (21 g). Fabric B1/EIA. Firing: ext. reddish-brown, core and int. grey. Burnished red-finish ext. and smoothed int. Condition very worn. Post-hole F903, Area F2.
28. Early Iron Age. Shoulder sherds from a coarseware jar (22 g). Decorated with finger-tip impressions. Fabric A2/EIA. Firing: ext. reddish-brown, core and int. black. Condition worn. Post-hole F903, Area F2
29. Early Iron Age. Shoulder sherd from a furrowed bowl (75 g). Fabric A1/EIA. Firing: ext. dark brown/reddish-brown, core black, int. black/brown. Burnished ext. and smoothed int. Condition average. Pit F7067, Area F4.
30. Early Iron Age. Rim and shoulder sherds from a small bowl (166 g). Fabric F5/EIA. Firing: ext. dark/reddish-brown, core and int. black. Condition average. Pit F7067, Area F4.
31. Late Bronze Age. Rim sherd from an ovoid jar (9 g). Fabric F1/LBA. Firing: greyish-brown throughout. Condition worn. Roundhouse F7169, post-hole F7096, Area F4.

LATE IRON AGE AND ROMANO-BRITISH POTTERY

by Rachael Seager Smith

The Late Iron Age and Romano-British pottery (and the small quantity of imported pottery) survives in moderate condition, with edge damage and surface abrasion largely the result of post-depositional soil conditions. The average sherd weight is 13 g. The fabrics and vessel forms indicate that activity was well-established by the middle of the 1st century AD, if not before, continuing on into the 4th, possibly even early 5th centuries. The overall quantities of sherds from each area are shown in Table RB1.

Table RB1. Total number and *weight (g)* of Late Iron Age-Romano-British sherds by fabric and Area

Ware	Area A		Area B		Area C		Area D		Total	
	No.	Wt (g)	No.	Wt (g)	No.	Wt (g)	No.	Wt (g)	No.	Wt (g)
Samian	–	–	–	–	–	–	42	462	42	462
Other import	–	–	–	–	–	–	8	27	8	27
Amphora	1	60	–	–	–	–	9	561	10	621
Ring and dot beaker fabric	–	–	–	–	–	–	2	7	2	7
Nene valley colour coat	–	–	–	–	–	–	1	9	1	9
New Forest colour coat	–	–	–	–	–	–	28	367	28	367
Oxon colour coat	–	–	–	–	1	4	44	492	45	496
Oxidised ware	42	355	1	7	–	–	144	1701	187	2063
Oxon Whiteware	–	–	–	–	–	–	10	308	10	308
New Forest parchment ware	–	–	–	–	–	–	2	12	2	12
Verulamium region whiteware	–	–	–	–	–	–	12	180	12	180
Whiteware	45	630	–	–	–	–	99	485	144	1115
Grog-tempered wares	257	2971	–	–	6	–	326	5679	589	8714
Silchester-type wares	1514	35077	8	46	2	11	491	7624	2015	42758
Fine flint-tempered	–	–	1	10	–	–	30	260	31	270
Early sandy wares	280	2236	3	30	10	14	8	58	301	2338
Greywares	459	4612	–	–	24	117	4031	42261	4514	46990
Black Burnished ware	–	–	–	–	–	–	572	4948	572	4948
Overwey/Tilford	–	–	–	–	–	–	37	410	37	410
Total	*2598*	*45941*	*13*	*93*	*43*	*210*	*5896*	*65851*	*8550*	*112095*

In this area, the assignation of pre- (Late Iron Age) or post- (early Roman) Conquest dates to ceramics is hampered by the continuation of the indigenous ceramic traditions well into the late 1st or early 2nd centuries AD. The grog-tempered, early sandy, and flint-tempered Silchester-type wares all formed part of this indigenous tradition, with varying degrees of continuity into the Romano-British period. The grog-tempered wares, for example, are more characteristic of the century before the Conquest, occurring at Silchester in pre-Conquest levels, while sherds from later deposits are considered residual (Timby 2000, 232).

Silchester-type wares are known from sites in north Hampshire and south Berkshire dating to the 1st century AD (Charles 1979); its dominance at Silchester itself during this period suggests a local source, but other centres in the region are likely to have made similar wares for local markets. At Silchester, the wares superseded the grog-tempered wares in popularity around the middle of the 1st century AD, declining thereafter as the proportion of the more Romanised sandy wares increased (Timby 2000, 307). In the assemblages from this site, and although predominantly hand-made, the early sandy wares were often difficult to distinguish from the highly varied range of greywares produced by the Alice Holt industry (Lyne and Jefferies 1979, 18) and other local centres from the second half of the 1st century AD onwards, especially when only represented by small body sherds. The early sandy wares as quantified, then, must therefore be regarded as a minimum count.

Vessel forms are relatively restricted; bead rim jars commonly occur in all three fabrics while slightly everted rims jars and upright, necked jars, often cordoned, imitation Gallo-Belgic platters and butt beakers are made in grog-tempered wares. One sherd from pit A55108 (Area A South) had been made into a spindle-whorl or bead. The Silchester-type wares also include everted rim jars, lids and large storage jars comparable with examples from Silchester itself (Timby 2000, figs 126–7). One flat, jar-type base has multiple, small pre-firing perforations (Fig. RB2.12), so presumably fulfilled a straining function of some kind, while a grog-tempered jar from ditch D5818 (Area D) has post-firing perforations made in its base, suggesting a change of use. Similarly, the large hole in the base of the bead rim jar from ditch A55642 (Fig. RB1.7) may also have been deliberate.

Pre-Conquest imports are limited to a rim from a Dressel 1B Italian wine amphora (Peacock and Williams 1986, class 4), dating from the mid–late 1st century BC (*ibid*., 90), although occurring residually here, with late 1st–early 2nd century material in humic deposit D5308 (evaluation context D3203) in Area D South. The samian is mostly from Central Gaul, and therefore of 2nd century date, but three Southern Gaulish sherds including two from form 18 platters, belong within the third quarter of the 1st century AD or shortly after, and were found in Area D. Other imports consist of a Cam 16 rim (*c*. AD 45–85) and an additional Terra Nigra body sherd, four Central Gaulish black-slipped ware sherds, one of Moselkeramik and one of Cologne colour-coated ware, all of 2nd–3rd century date. Other amphorae consist of Dressel 2–4 (wine) and 20 (olive oil) types, also falling within the 1st –3rd centuries.

Overall, the assemblage is dominated by the characteristically 'Roman' range of wheelmade, sandy greywares. These are predominantly from the Alice Holt industry, located on the Surrey/Hampshire border, although other production centres, perhaps including those at Hampstead Marshall and Shaw cum Donnington, Berkshire and Shedfield, Hampshire (Swan 1984, fiche 1.215–18 and 2.348–9), may also be represented. Large-scale production at Alice Holt began around AD 60 (Lyne and Jefferies 1979, 20) and products of this 'early' industry (*c*. AD 60–150) replicated the Late Iron Age types – necked, cordoned jars, flat and bead rim jars, Atrebatic bowls, reeded rim bowls, imitation Gallo-Belgic platters, flagons, and lids.

Sherds from a bead rim jar and a carinated bowl (Seager Smith and Davies 1993, 231–3, types WA 7 and 15) indicate that small amounts of South-east Dorset Black Burnished ware reached the area during the 1st century AD. Meanwhile, the oxidised and whitewares provided a range of medium-quality table and serving vessels, mostly flagon and bowl forms. One globular-bodied flagon in an unsourced oxidised fabric from ditch D5623 (cut D5823, Area D North) has a large hole knocked through the centre of its base. Traces of white-slip survives on a minority of the unsourced oxidised ware sherds and it is probable that others may originally have been mica-dusted or red-slipped. One particularly good group of these vessels (Fig. RB3.25–8), including a small, deep stamped bowl in a virtually inclusion-free whiteware fabric probably of North Gaulish origin, were found in ditch D5828 (evaluation cut D4202, Area D north). Locally, similar stamped vessels have been found in burials at Neatham (associated with samian dated to *c.* AD 130–165) and in Winchester, as well as in mid-1st century AD contexts on the Continent (Millett 1986, 72, fig. 50, 26). Three whiteware butt beakers were also found in ditch A55642 (Area A South) (Fig. RB1.4–6). This form was most common in Claudio-Neronian levels (*c.* AD 40–50/60) at Silchester, although present in small numbers from the last quarter of the 1st century BC onwards (Timby 2000, 205 and 262). Sherds from a ring-and-dot decorated beaker (Fig. RB3.30), probably of Flavian date, can also be paralleled at Silchester (*ibid*., 262, fig. 136, 732). The *Verulamium* region whiteware sherds mostly derived from a single-handled flagon (Fig. RB3.29); the rim is missing but its neck may have been deliberately trimmed to prolong the life of the vessel. Mortaria are poorly represented during this period, although sherds from an Oxfordshire whiteware vessel, dated to *c*. AD 100–170 (Young 1977, type M2) were found in ditch D5683 (cut D5823).

Greater quantities of Black Burnished ware arrived after the expansion of the industry around AD 120, the mid-2nd to 4th century forms including everted rim jars, shallow, plain rimmed dishes, and flat-, incipient-, and dropped flanged bowls/dishes, but Alice Holt remained the major coarseware supplier. Cordoned and necked jars, flat, everted, triangular and hooked rim jars, flasks, storage jars with squared, undercut rims, flat and triangular rimmed bowls, dropped flanged bowls, strainers, shallow dishes, and lids all arrived from this industry, its products also including sherds of the distinctive 4th century Overwey/Tilford variant. A small group of Wessex grog-tempered ware sherds, including dropped flanged bowls and a shallow, convex-sided dish, dated to the later 3rd and 4th centuries (Fulford 1975, 286–92) was also recognised. The Black Burnished wares also include a similar convex-sided dish (Fig. RB3.31), a highly unusual form for this industry. These vessels can be paralleled at Silchester (Timby 2000, 258, fig. 134, 675–6) and at Porchester Castle in groups post-dating AD 345 (Cunliffe 1975, 344, fig. 187) and it is possible that they continued into the 5th century (M. Lyne pers. comm.). During the late Romano-British period, fine and medium quality wares were provided by the Oxfordshire (mostly bowls and mortaria) and New Forest (beakers) industries. Several of the Oxfordshire forms (eg, Young 1977, types C100, C113, stamped bowl sherds and, from pit D5772 (Area D North), a complete necked bowl – type C75) were exclusively of 4th century AD date. The letter 't' graffito, incised into the underside of the base of a necked bowl (Fig. RB4.41) probably represents an owner's mark.

Distribution and dating

Overall, the Late Iron Age/Romano-British pottery was distributed across the site in relatively small groups; more than 50 sherds were found in only 31 of the 182 features containing pottery of this date. The majority (69%) of sherds were from Area D, with just less than one-third (30%) being from Areas A North and South. Such minimal quantities were found in Areas B and C that they will not be discussed further here.

In Area A North and South, there were relatively few contexts where the three potentially Late Iron Age fabrics occurred in any quantity alone, without other, more characteristically 'Romanised' wares, perhaps suggesting a start date spanning the Conquest period rather than earlier in the Late Iron Age. The high proportion of Silchester-type ware (58% of the sherds) compared with the smaller quantities of grog-tempered (10%) and early sandy (11%) wares, supports a date after the middle of the 1st century AD, based on the relative proportions seen at Silchester itself (Timby 2000), although the large, thick-walled nature of many of the Silchester-type vessels may over-emphasise their importance within the assemblage. The activity seems to have been relatively short-lived, however, the absence of samian and Black Burnished ware perhaps suggesting that this area had been abandoned by *c.* AD 120. Only six features (summarised in Table RB2) contained more than 50 sherds.

Table RB2. Pottery fabrics (percentages) in features in Area A containing more than 50 sherds

Feature	No.	Wt. (g)	Av. wt. (g)	Silch'r -type	Grey ware	Early sandy	Grog-tempered	Oxidised ware	White ware
North encl. A55402	88	1321	15	68%	28%	2%	1%	-	-
Pit A55482 (A55481)	149	1158	8	34%	5%	59%	1%	-	-
Northern droveway ditch A55636/A55646	199	2948	15	38%	54%	-	2%	4%	-
Northern droveway ditch recut A55642	1146	24735	22	74%	2%	2%	15%	2%	4%
South encl. A55638	99	662	7	3%	14%	79%	-	-	-
Quarry A55650	433	8835	20	66%	17%	7%	9%	-	-

The very low proportion of Silchester-type wares from the southern enclosure ditch (A55638) may suggest that this was the earliest group, especially as nine of the 14 greyware sherds

derived from a single, recently broken base and most of the early sandy wares were also from one vessel. However, the low average sherd weight, coupled with the three Late Bronze Age sherds from ditch section A55529, may indicate that this is, in fact, an earlier feature, the Late Iron Age/early Romano-British sherds only becoming accidentally incorporated as the ditch filled up.

Similarly, there was limited evidence to suggest that the primary fills of the ditch of the northern enclosure (A55402) contained only wares in the native ceramic tradition, while the upper fills also contained wheelmade, more Romanised greywares, but this is based on very small context groups, mostly composed of unfeatured sherds. The low sherd weight from pit A55482, a recut of pit A55481 which cut the enclosure ditch, may indicate that this material was largely derived from the ditch, and in character, the assemblage closely mirrored that of the other four groups which all belonged within the mid to late 1st century AD.

Numerous complete and semi-complete profiles were recovered from the recut (A55642) of trackway ditch A55636 (Fig. RB1–2.1–10), which together with a Silchester-type ware lid from pit A55458 (Fig. RB2.11), typify the range of mid–late 1st century AD fabrics and forms from this part of the site.

The far smaller proportion of fabrics in the native tradition in Area D, coupled with the predominance of the wheelmade greywares (Table RB2), suggests that activity started here slightly later although still probably within the 3rd quarter of the 1st century AD. Here, the Silchester-type and other flint-tempered wares, grog-tempered, and early sandy wares together represented just 14% of the sherds, compared with 79% in Area A. The majority of context groups were fairly small and only 26 of the features contained more than 50 sherds. Of these more reliably dated groups, ten comprised sherds of later 1st century AD date, perhaps extending into the first two decades of the 2nd century. These included feature D1903, ditches D5818 (evaluation cut D3109), D5828 (evaluation cut D4202), D5822, D5623, D5826, and D5299, and ditch D5295 (evaluation cut D3703), suggesting that these were out of use and filling up by this time, although this may have taken place over a considerable period as ditches D5295, D5828 and D5826 also contained small numbers of 4th century sherds, presumably from their uppermost fills. The high average sherd weight and wide range of fabrics and forms, including complete profiles (Fig. RB2–3.12–31), from ditch D5828 suggests that this represents a primary dump of domestic debris, rather than sherds accidentally incorporated as the ditch filled up.

Cremation graves D5637 and D5567 also date to this period. The human remains from grave D5637 were contained within a greyware necked cordoned jar (Lyne and Jefferies 1979, 20–4, early class 1), accompanied by a small, whiteware flagon of uncertain provenance (Fig. RB3.32–3). A brooch (Fig. CA1.5) found inside the jar indicated a date in the 3rd quarter of the 1st century AD for this burial. Grave D5567 contained the urned remains of three separate individuals and there is some evidence from the vessels themselves and their positioning within the grave to suggest that the burials were made sequentially. The earliest appears to have been the sharply carinated pedestal bowl (Fig. RB3.34), wheelmade in a light grey sandy fabric. No direct parallels have been found although it probably belongs within an uncommon group of 'jars with pedestal bases' made by the early (*c*. AD 60–150) Alice Holt industry (Lyne and Jefferies 1979, 25, class 2) while more sharply carinated examples are known from Neatham (Millett 1986, fig. 57, 39 and fig. 63, 84). These may have developed from the carinated bowls of Late Iron Age type seen at Winnall Down (Hawkes 1985, fig. 57, 89 and 91), for example. A second burial was contained in a flat-rimmed jar (Fig. RB4.35; Lyne and Jefferies 1979, 20–4, early class 3A), a type introduced around AD 90, continuing into the middle of the 2nd century, and the time lapse, if any, between these two burials is therefore difficult to estimate. The third burial was contained in a South-east Dorset Black Burnished ware jar (Fig. RB4.36). The everted rim of this vessel suggests a 2nd century date; the use of burnished wavy line around the neck, a feature which died out in the late 2nd century

(Holbrook and Bidwell 1991, 95) together with right-angled lattice decoration (the change from acute- to right-angled lattice also occurred in the late 2nd century (*ibid.,* 96)), indicating a date in the 2nd half of this century, perhaps several decades later than other two. Similar vessels from Dorset (Lyne 2002, 66, fig.10, 58; Lyne forthcoming, fig. 126F, 19) have been dated to *c.* AD 160/180–200. Another cremation grave containing pottery were less easy to date; the human remains from grave D5661 were contained in a small to medium-sized greyware jar (Fig. RB4.37) but the vessel had been badly truncated during machining and only the base survived

Pit D5695, which contained a large quantity of charcoal but no cremated human bone, contained a miniature vessel with a beaded rim (Fig. RB4.38). A number of similar vessels found on Frensham Common in Surrey (Howe, Jackson and Maloney 2001, 349) may originally have contained cannabis (Surrey Archaeological Society Bulletin 2003).

Pits D5107, D5221 and D5270 and ditches D5651 and D5828 contained sherds of mid-2nd to 3rd century date, and it is probably that the more mixed Romano-British groups from roundhouse gully D5289 and four-post structure D5176 also belonged within this period. Smaller assemblages from pits D5267 and D5270 were also of mid-2nd to 3rd century date, suggesting that this whole complex of features was broadly contemporaneous. The material from ditch D5651 included sherds from the base and body of a fairly large, globular jar, the underside of the base and base angle of which showed considerable abraded wear, not present elsewhere on the pot, as if it had been repeatedly rubbed or moved across rough surfaces during use.

Although only one segment was investigated, ditch D5291 contained sherds predominantly of later 3rd–4th century date, while two semi-complete vessels of late Roman date (Fig. RB4.39 and 40) were deposited in the upper fill (context D5106) of pit D5107. Other groups of late Roman date were recovered from ditches D5117 and D5288, feature D5725, pit D5790, hollow D5675, corndrier D5611 and layer D5194. The presence of fabrics and vessel forms such as the Overwey/Tilford and Wessex grog-tempered wares, bowls with stamped decoration and other forms in Oxfordshire red colour-coated ware (eg. Fig. RB4.41) and the convex-sided dishes (eg. Fig. RB4.42) in a variety of coarseware fabrics indicate that activity in this area continued well into the second half of the 4th, perhaps even the early 5th, century.

Illustrated catalogue (Figs RB1-4. 1-42)

1. Bead rim jar; grog-tempered ware. Section A55075 of ditch recut group A55642, context A55076
2. Bead rim jar; Silchester-type ware. Section A55075 of ditch recut group A55642, context A55076
3. Large, everted rim storage jar; Silchester-type ware. Section A55075 of ditch recut group A55642, context A55076
4. Butt beaker; whiteware. Section A55075 of ditch recut group A55642, context A55076
5. Butt beaker; whiteware. Section A55075 of ditch recut group A55642, context A55076
6. Butt beaker; whiteware. Section A55075 of ditch recut group A55642, context A55076
7. Bead rim jar; Silchester-type ware; hole in base maybe a deliberate perforation. Section A55169 of ditch recut group A55642, context A55171
8. Large, everted rim storage jar; Silchester-type ware. Section A55169 of ditch recut group A55642, context A55171
9. Facetted bead rim jar; Greyware, probably early Alice Holt. Section A55169 of ditch recut group A55642, context A55171

10. Imitation butt beaker; grog-tempered ware. Section A55169 of ditch recut group A55642, context A55281
11. Lid; Silchester-type ware. Pit A55458, context A55462
12. Strainer base; Silchester-type ware. Section D4202 (eval) of ditch D5828, context D4204
13. Necked, cordoned jar; early Alice Holt greyware (Lyne and Jefferies 1979, 20, class 1). Section D4202 (eval) of ditch D5828, context D05204
14. Narrow necked, cordoned jar; early Alice Holt greyware (Lyne and Jefferies 1979, 24, class 1A). Section D4202 (eval) of ditch D5828, context D4204
15. Imitation butt beaker; early Alice Holt greyware (Lyne and Jefferies 1979, 25, class 3. Section D4202 (eval) of ditch D5828, context D4204
16. Flat-rimmed jar; early Alice Holt greyware (Lyne and Jefferies 1979, 25–7, class 3A). Section D4202 (eval) of ditch D5828, context D4204
17. Flat-rimmed jar; early Alice Holt greyware (Lyne and Jefferies 1979, 25–7, class 3A). Section D4202 (eval) of ditch D5828, context D4204
18. Bead rim jar; early Alice Holt greyware (Lyne and Jefferies 1979, 28, class 4). Section D4202 (eval) of ditch D5828, context D4204
19. Bead rim jar; early Alice Holt greyware (Lyne and Jefferies 1979, 28, class 4). Section D4202 (eval) of ditch D5828, context D4204
20. Atrebatic style bowl; early Alice Holt greyware (Lyne and Jefferies 1979, 31, class 5). Section D4202 (eval) of ditch D5828, context D4204
21. Flagon; early Alice Holt greyware (Lyne and Jefferies 1979, 33, class 8). Section D4202 (eval) of ditch D5828, context D4204
22. Storage jar; early Alice Holt greyware (Lyne and Jefferies 1979, 33, class 9). Section D4202 (eval) of ditch D5828, context D4204
23. Small jar or bowl; greyware, probably early Alice Holt. Section D4202 (eval) of ditch D5828, context D4204
24. Small pedestal base with a post-firing graffiti X on underside; greyware. Section D4202 (eval) of ditch D5828, context D4204
25. Small, deep bowl with a vertical flange (Marsh 1978, 170, type 37); illiterate stamp in base; fine whiteware. Section D4202 (eval) of ditch D5828, context D4204
26. Carinated bowl (Marsh 1978, 170, type 36); oxidised ware. Section D4202 (eval) of ditch D5828, context D4204
27. Curved wall platter or dish (Marsh 1978, 154, type 24); oxidised ware. Section D4202 (eval) of ditch D5828, context D4204
28. Curved wall platter or dish (Marsh 1978, 154, type 24); oxidised ware. Section D4202 (eval) of ditch D5828, context D4204
29. Flagon, rim possibly trimmed after initial breakage; *Verulamium* region white ware. Section D4202 (eval) of ditch D5828, context D4204
30. Ring-and-dot decorated beaker; fine oxidised ware. Section D4202 (eval) of ditch D5828, context D4204
31. Dish with slightly curved sides, a beaded rim and a chamfered base; South-east Dorset Black Burnished ware. Section D4202 (eval) of ditch D5828, context D4204
32. Necked, cordoned jar; early Alice Holt greyware (Lyne and Jefferies 1979, 20, class 1). Cremation grave D5637, context D5638, ON 8049
33. Small flagon; whiteware. Cremation grave D5637, context D5638
34. Sharply carinated bowl; greyware, possibly early Alice Holt (Lyne and Jefferies 1979, 25, class 2). Cremation grave D5567, context D5568, ON 8045
35. Flat-rimmed jar; early Alice Holt greyware (Lyne and Jefferies 1979, 27, class 3A). Cremation grave D5567, context D5568, ON 8044
36. Slightly everted rim jar; South-east Dorset Black Burnished ware (Seager Smith and Davies 1993, 231, type WA2). Cremation grave D5567, context D5568, ON 8043
37. Small-medium sized jar base; greyware. Cremation grave D5661, context D5662, ON 8051
38. Miniature globular pot with a beaded rim. Pit D5695, context D5696

39. Everted rim jar; late Alice Holt greyware. (Lyne and Jefferies 1979, 42, class 3B). Pit D5107, context D5106
40. Everted rim jar; late Alice Holt greyware. (Lyne and Jefferies 1979, 42, class 3B). Pit D5107, context D5106
41. Necked bowl with full, curved body; incised 't' graffito on underside of base; Oxfordshire red colour-coated ware (Young 1977, 164, type C75). Pit D5772, context D5768
42. Shallow, slightly convex-sided dish; Overwey/Tilford ware (Lyne and Jefferies 1979, 48, class 6A.9-11). Topsoil D0801

WORKED STONE

by Kevin Hayward

Sixty-four pieces of stone (*c*. 28 kg) were retained (Table WS1). Most were from Area D with smaller amounts from Areas A (15 pieces, 5008 g) and B (8 pieces, 84 g). The site lies on the northern edge of the Upper Chalk and within 5 km of younger Tertiary sediments.

With the exception of sarsen from the Tertiary deposits, few of the local rocks were sufficiently hard, coarse-textured, or evenly grained to be suitable for use as querns. Querns were therefore imported, probably along the roads radiating out from Silchester, Winchester, and Chichester, which connected this area to the rest of the Roman province. As at other sites in the area (Keevill 1993, 49, Wooders 2000; Hayward unpublished data; Pre-Construct Archaeology 2007, 169; and site PPB 92/93), Greensand querns from the Lodsworth-Pulborough area of West Sussex (Peacock 1987), some 50–70 km distant, were especially common (19 examples, 8.5 kg). Production of saddle querns began during the Late Bronze Age, with the rotary stones introduced during the Middle Iron Age (*ibid*., 67). Ceramic evidence from Danebury dates this introduction to no earlier than the 4th century BC and highlights the continuous, although declining, use of saddle querns throughout the Iron Age (Brown 1984, 418). At this site, the earliest Lodsworth Greensand quern fragments (of uncertain type) were found in ditch D5097 (Area D South). The site was certainly receiving Lodsworth querns during the Iron Age, evidenced by the large saddle quern (Fig. SO1.1) found residually in ditch D5119. Rotary quern fragments were more numerous, and one with a spindle hole (Fig. SO1.2) may subsequently have been re-used as a saddle quern. Where sufficiently complete, several of the lower rotary stones (eg, Fig. SO1.3) showed the distinctive rounded profile characteristic of those from the Lodsworth centre. Two other Greensand rotary quern fragments, from pit D5107 and ditch D5818 (cut D5522), derived from a different source, probably the Culham area of Oxfordshire. Querns from this district are comparatively rare in the Basingstoke region.

Five rotary quern fragments, two whetstones, and a smoothed piece of uncertain purpose were made from Millstone Grit. These were probably imported from Derbyshire or south Yorkshire, Some 300 km away, although an alternative but less likely source could be the Mendips (Brown 1984, 407). Distinctive chisel marks survived on one of the whetstones (Fig. SO1.4). In general, Millstone Grit querns are comparatively rare in southern England, forming about 2.5% of the stone from Danebury (Brown 1984, 407), while Romano-British examples are known from Silchester (Wooders 2000), and site PPB 92/93 in Basingstoke. It is likely that large rural sites (eg, Earith and Langdale) bordering the Fens near Cambridge formed a major nodal point in the distribution of this stone to sites in southern and eastern England (Hayward unpublished), with the Thames perhaps acting as an important supply route. Even more distant sources are represented by fragments from a Neidermendig lavastone quern in pit D5232, a type that is found in some quantity at Silchester, that derives from the Andernach region of the Middle Rhine, over 800 km away (Wooders 2000).

Part of a weathered sarsen saddle quern, later re-used as rubble, was found unstratified in Area A East and sarsen was also used for a sharpening stone (Fig. SO1.5) and for the two riders or hammerstones, from pit D5232 (Area D South) and the enclosure ditch (A55402) in Area North. Similar sarsen stone, probably obtained from local sources on the Tertiary gravels, was also used for quern stones and riders found at Worting, Basingstoke (Pre-Construct Archaeology 2007, 169). Part of an ironstone conglomerate saddle quern was found in pit D5001 (Area D South), associated with Late Bronze Age pottery. This too, may have been obtained from the Tertiary gravels, suitable outcrops occurring on the Silchester Gravels some 20 km to the north. Another quern fragment of uncertain type in an iron-rich sandstone, probably from a similar source, was found with late Romano-British pottery in ditch D5113 (Area D South). At Danebury, Tertiary sandstones, including ferruginous sandstones, were

used for saddle querns, rubbing stones and whetstones but only rarely for rotary querns (Brown 1984, 407). The local Upper Chalk was also used for a spindle whorl (Fig. SO1.6), probably of early Roman date. In addition, unworked lumps of Upper Chalk, sarsen and various types of local Greensand, probably from the Kingsclere area of Berkshire, were utilised as building rubble. These include a distinctive pink, shelly Greensand used in quantity as walling rubble from Insula IX at Silchester (Hayward 2007).

Illustrated catalogue (Fig. SO1.1-6)

1. Saddle quern; Lodsworth Greensand; ditch D5119, fill D5120, Area D South
2. Rotary quern with spindle hole; Lodsworth Greensand; pit D5107, fill D5106, Area D South
3. Lower rotary quern stone; Lodsworth Greensand; dark soil layer D5719, Area D North
4. Whetstone with chisel marks; Millstone Grit; section D5151 of ditch D5291, fill D5152, Area D South
5. Sharpening stone; sarsen; pit D5763, context D5764, Area D North
6. Spindle whorl; 25g; Upper Chalk; well A55101, context A55102, Area A South

Table WS1 Stone catalogue

Context	ON	Type of object	Dimensions	Weight (g)	Stone Type	Geological source
Area A East						
+	A52002	Saddle quern fragment in rubble	160 x 120 x 100	2315	Light grey very quartz-rich sugary sandstone	Unclear – probably local weathered sarsen
A50218		Unclear part-worked blocks – rubble ?	120 x 70 x 70	570	As above	As above
A50412		Unclear part-worked blocks	80 x 55 x 50	335	As above	As above
Areas A North and South						
A55051		Cobble or hammerstone reused	105 x 75 x 50 thick	815	Reddened very fine quartz-rich sandstone very hard Sarsen	Local Silchester Gravels
A55102	A56501	Spindle whorl	35 x 35 x 15 thick hole 10 mm diam.	25	Chalk	Upper Cretaceous, local area
A55170		Burnt rotary quern fragment, lower stone	75 x 45 x 62 thick	290	Medium/coarse-grained Millstone Grit	Upper Carboniferous, probably Derbyshire/South Yorkshire
A55461		Rotary quern fragment, lower stone	95 x 50 x 48 thick	425	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough, West Sussex
A55557		Rotary quern fragment, burnt, highly corroded	60 x 45 x 35 thick	155	Medium/coarse-grained Millstone Grit	Upper Carboniferous, probably Derbyshire/South Yorkshire
A55568		Rotary quern fragments x 6, burnt, highly corroded	Largest 45 x 25 x 20 thick	75	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough, West Sussex
Area D						
+		Rotary quern fragment lower (under stone), distinct rotary marks	92 x 149 across x 41 thick	785	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough, West Sussex
D5002	D8081	Quern fragment	145 x 105 across x 41 thick	1015	Iron-rich concretionary quartz conglomerate	Probably local, surrounding Tertiary gravels
5027		Small saddle quern fragment	107 x 93 across x 49 tapering down to 22	610	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough, West Sussex
D5036		Probable small quern fragment in rubble	35 x 35 x 30	35	As above	As above
D5098		Small quern fragment	40 x 28 x 55	70	As above	As above
D5098		Rubble x 2		85	Chalk	Upper Cretaceous, local area
D5103		Fragment of smooth stone	28 x 21 x 18	20	Fine-grained Millstone Grit	Upper Carboniferous, probably Derbyshire/South Yorkshire

Context	ON	Type of object	Dimensions	Weight (g)	Stone Type	Geological source
D5105		Rubble x 2	25 x 25 x 10 largest	20	Fine-grained Greensand	Local, Lower Greensand surrounding district
D5106		Part of upper (nether) stone of a rotary quern, spindle hole	208 x 95 x 48 thick	1310	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough, West Sussex
D5106		Quern fragment	35 thick	245	Culham Greensand ?	Lower Greensand, Oxfordshire ?
D5115		Quern fragment	91 x 80 x 30	290	Fine-grained iron-rich Greensand	Unclear – probably local Lower Greensand
D5120		Large saddle quern fragment	195 x 168 across x 83 on edge to 38 mm in middle	2845	Lodsworth Greensand	Lower Greensand, Lodsworth-Pulborough West Sussex
D5152		Rubble	100 x 95 x 68 thick	735	Pink shelly Greensand	Local, Lower Greensand, surrounding district possibly Kingsclere or further afield – Oxfordshire or South Downs
D5152		Sharpening stones x 2 – chisel indents visible on one	110 x 100 x 58 thick largest	1265	Fine-grained Millstone Grit	Upper Carboniferous, probably Derbyshire/South Yorkshire
D5152		Quern fragments x 2	Largest 121 x 70 across x 44 thick	735	Lodsworth Greensand	Lower Greensand Lodsworth-Pulborough West Sussex
D5152		Quern fragment or smooth stone	105 x 80 x 42 thick	465	Fine to Medium Grained Millstone Grit	Upper Carboniferous probably Derbyshire/South Yorkshire
D5226		Hammerstone	150 x 130 x 30	1465	Sarsen Tertiary	Tertiary – Silchester Gravels
D5229		Rotary quern fragments x 2	60 x 55 x 28 thick largest	100	Hard dark grey lavastone	Tertiary lavastone – Neidermendig Type Andernach Region Rhine
D5237		Probable quern fragment in burnt rubble	85 x 70 x 55 thick	370	Lodsworth Greensand	Lower Greensand Lodsworth-Pulborough West Sussex
D5511		Quern fragment lower rotary rounded quern edge	95 x 95 x 50 thick	430	As above	As above
D5519		Probable quern fragment in rubble	40 x 35 x 20	55	Very fine Greensand with very large hard black chert inclusions/pebbles 15 mm	Unclear maybe a Culham Greensand
D5719		Quern fragment, lower rotary rounded quern edge	170 x 110 x 41 grading to 24 mm	755	Lodsworth Greensand	Lower Greensand Lodsworth-Pulborough, West Sussex
D5764		Sharpening stone	70 x 60 x 55	525	Sarsen Tertiary	Tertiary – Silchester Gravels
D5768		Quern fragment in rubble	45 x 40 x 38 thick	75	Lodsworth Greensand	Lower Greensand Lodsworth-Pulborough, West Sussex
D5787		Quern fragments x 2	65 x 55 x 45 largest	300	Medium/coarse-grained Millstone Grit	Upper Carboniferous probably Derbyshire/South Yorkshire

CORAL BEAD

by Alistair Barclay

A small irregular oblate (8 x 6.5 mm) whitish-grey bead (1 g) manufactured from a fossil coral (Fig. CB1) was recovered from the upper fill (F7041) from pit F7038 (recut F7040). The bead has a slightly trunconic perforation (3 mm narrowing to 2.5 mm) that shows possible damage or wear on one side.

MISCELLANEOUS FINDS

by Rachael Seager Smith

Ceramic building material

Small amounts of ceramic building material (CBM) were found in Areas A (3 pieces, 238 g) and C (4 pieces, 1133 g), with greater quantities from Area D (160 pieces, weighing just less than 13 kg). In general, this material was abraded and fragmentary (average fragment weight 86 g) but includes *tegula* and *imbrex* roof tile fragments, pieces of the smaller, thinner Roman bricks, and one or two pieces of flue tile. The assemblage from Area D includes a sample (7 pieces, *c*. 10.5 kg) of the CBM found *in situ*, forming the flue arch of corndrier D5611. These comprise an *imbrex* fragment, two bricks (43–5 mm thick) and four pieces of *tegula*, three of which had 'rainbow' finger-smeared 'signatures'. The surviving lower cut-ways suggest that the *tegula* were manufactured between *c*. AD 140 and 260 (1 piece) and *c*. AD 240 onwards (2 pieces; Warry 2006, fig. 1.3), suggesting that the corndrier itself was built during the late Roman period. There is no indication from the retained fragments to suggest that these bricks and tiles were previously used in any other structure.

Elsewhere, no particular concentrations of CBM were noted, although it was most commonly associated with late 3rd–4th century pottery, implying a similar, late Roman, date. In the quantities recovered, it is unlikely to be indicative of a substantial, Romanised structure in the immediate vicinity, perhaps being brought to the site as part of manuring or as (unused) rubble for hardstanding.

Fired clay

with comments on the cylindrical loomweight by Alistair Barclay

Fired clay was recovered from all the excavated areas, most commonly in Area D (229 pieces, 3633 g) and Area A (214 pieces, 2995 g). The majority were small, featureless fragments in a range of sandy, flint, and grog tempered fabrics as well as virtually inclusion-free clay. Most were probably from oven/hearth linings or wattle-and-daub structures. Some in a heavily chalk tempered fabric can probably be defined as 'cob'. These were most frequent in Area A South, where three from the northern droveway ditch A55637 preserved wattle impressions. Another, from a possible buried soil horizon D5308) (evaluation context D3202) in Area D South, had wattle impressions and a small area of white-surfaced plaster or render. Associated finds, especially pottery, suggest that most were of Romano-British date, although small groups (fewer than 10 pieces each) associated with Late Neolithic and Early Bronze Age pottery were found in pit A50384 (Area A East) and tree-throw hole C3510 (Area C2) respectively, while groups from working hollow A50197 and roundhouse A50029 (Area A East), and ditches B3 (Area B1), C1 (Area C), and D5097 (Area D South), were probably of Early Iron Age date.

A large fragment from a cylindrical weight (Fig. FC1.1) was found with Late Bronze Age pottery in pit D5001 (Area D South). It was manufactured from untempered silty clay containing occasional red pellets and rare flint and ironstone inclusions. The surviving edges are spalled, possibly through use. These weights are fairly common on Middle–Late Bronze Age sites, although they are generally only found in relatively small numbers. It is estimated that this example weighed around 850 g when complete, and as such it would have been of medium size (this type usually range from *c*. 400 g up to 2 kg; De Roche pers. comm.).

These weights were probably used in an upright, warp-weighted wooden framed loom (Burgess 1980, 278); the most convincing evidence comes from the settlement at Cock Hill, Sussex where ten loomweights were found in a line in a large oval pit within a building, along

with perforated flints (thread toggles) and a perforated sheep metapodial (shuttle or bobbin), while a piece of charred timber was interpreted as part of the loom. At Trevisker, loomweights were associated with paired post-holes that could have been emplacements for the loom uprights (*ibid.*).

Pieces from two triangular loomweights, one in a fine, virtually inclusion-free fabric (Fig. FC1.2), were found in ring gully D5584 (Area D North), while fragments from perforated objects, probably weights of this type, came from ditches D5291 and D5299 in Area A South and D5828 in Area A North. Although characteristically of Iron Age date, the use of triangular weights continued well into the Roman period and they are frequent finds on sites in the area (eg, Oliver and Applin 1978, 78, fig. 29; Poole 1984, 401–6; Rees 1995, 47). Part of square-sectioned, slightly tapering bar or pedestal in a fine flint and sand tempered fabric (Fig. FC1.3) was also found in ditch D5299. There was nothing to suggest the function of this object but it may have formed some sort of oven support (Swan 1984, 62) or even a pestle or other rubber.

Illustrated catalogue (Fig. FC1.1-3)

1. Cylindrical weight with central perforation; 40% complete, min. height 72 mm, radius 55 mm, weight 347 g; untempered silty clay containing occasional red pellets and rare flint and ironstone inclusions. Pit D5001, context D5002, Area D South
2. Triangular loomweight; 30% complete, weight 525 g; fine, virtually inclusion-free fabric. Ring gully D5584, context D5571, Area D north
3. Square-sectioned, slightly tapering bar or pedestal; fine flint and sand tempered fabric. Ditch D5299, context D5045, Area D South

Other finds

Pieces of blue/green Romano-British vessel glass were found in Area D South in ditch D5113 and pit D5232, and in Area D North in ditch D5818 and dark soil D5789, indicating at least limited access to this relatively exotic material type. Only one piece, from the dark soil, could be more closely identified as the base of a square bottle, with a flower design in relief on its base, dated to the mid-1st to late 2nd centuries AD (Price and Cottam 1998, 194–8).

Part of a plain shale armlet with a D-shaped cross-section was found in ditch D5651 (Area D North) while a fragmentary lathe core, perhaps used as a spindle whorl, was also found in Area D. Two pieces of worked bone were found in the vicinity of roundhouse D5289; these comprised an antler tine with cut-marks around the base from the top fill of pit D5107 and a polished pin or needle shank fragment from pit D5221.

The oyster shell (37 pieces, 360 g) probably derived from food resources brought to the area during the Roman period. Most (20 pieces) were found in features in Area D South although the largest single concentration, consisting of just ten shells, was recovered from a dark earth deposit D5760 in Area D North.

Post-Roman finds

Finds of medieval and later date occurred in all areas but were most concentrated in Area A and, to a lesser extent, in the dark earth deposits in Area D. Of the 14 sherds (122 g) of medieval pottery, 12 were from Area A. Most were Newbury B ware, dated to the late 11th–13th centuries (Vince 1997; Hawkes 1997). The post-medieval pottery (Border ware, stoneware, red earthenware and refined white ware) was more evenly spread with six pieces from Area A, one from Area B, eight from Area C, and two from Area D. Small pieces of medieval/post-medieval roof tile were also found in topsoil contexts in Areas A (18 pieces, 344 g) and C (11 pieces, 231 g).

Part of an iron horseshoe with a folded calkin, lobate edges, and one clench in place was recovered from dark earth deposit D5675. This belongs to Clark's (1995, 86) type 2A, and is probably of 12th or 13th century date (*ibid.*, 95–6). A small copper alloy ring or washer and a flat disc, 56 mm in diameter, with a central rectilinear perforation surrounded by an applied flower petal motif also came from dark earth layer D5027. The function of the disc is uncertain but it bears certain similarities to a late 16th century dagger plate from London (Egan 2005, 188, fig. 176, 1065) although it could also be part of decorative plate fitted to the cheek piece of a bridle bit (Clark 1995, 48, fig. 35, 2) or other harness fitting (Egan 1995, 53–4), probably of late medieval date. A piece of lead shot, 14 mm in diameter, was also found unstratified in Area D while lead disc decorated with an incised lattice motif from a lynchet in Area B evaluation trench B133 probably represents a token of post-medieval date.

These items represent generalised activity in the area; the pottery and ceramic building material probably derived from the practice of manuring fields with domestic waste while the metal items are likely to be casual losses.

PART 2: ENVIRONMENTAL REMAINS

ANIMAL BONE

by Jessica M. Grimm

Methods

Animal bone was present in Areas A, D, and E. As some periods yielded insufficient bones for full analysis (Table AB1) prehistoric bones are described as finds per period. Moreover, as species proportions differ little from the Late Iron Age/early Romano-British until the late Romano-British period, these assemblages were grouped together. Only six bone fragments, from cattle and sheep/goat, were dated to the medieval period, and these are not further considered here.

For each bone fragment, the following characteristics were recorded where applicable: species, bone element and side, fusion, mandible wear stages (following Grant 1982), sex and measurements (following Von den Driesch 1976). For the distinction between sheep and goat, the data published by Prummel and Frisch (1986) were used and to identify foetal bones of the domesticate, Prummel (1987). The positions of butchery marks and burnt areas were described using the pictorial system of Lauwerier (1988). Withers heights were calculated using von den Driesch and Boessneck (1974, cows), Teichert (1975, sheep), Vitt (1952, horses), and May (1985, horses) and ages estimated using Habermehl (1975). Evidence of gnawing, condition (on a scale of 1–5) and zonation using the system of Dobney and Reilly (1988) were also recorded.

Conjoining fragments were counted as one bone in order to minimise distortion. Fragments that could not be identified to species or family were recorded as small, medium or large mammal or bird.

Table AB1 Number of fragments of animal bone per period

	Horse	Cattle	Sheep/ goat	Pig	Dog	Bank vole	Hare	Red deer	Bird	?	Total	NISP
Late Neol.	-	4	-	1	-	-	-	-	-	25	30	5
EBA	-	-	1	-	-	-	-	-	-	-	1	1
MBA	-	6	6	4	-	-	-	1	1	24	42	18
LBA/EIA	1	4	4	2	1	-	-	1	-	29	42	13
LIA/ERB	3	39	18	8	1	-	-	-	1	46	116	70
ERB	1	239	133	22	-	-	1	-	8	158	562	404
LRB	-	17	14	2	1	-	-	1	-	151	186	35
RB	21	139	117	17	12	-	-	2	2	563	873	310
ME	-	3	2	-	-	-	-	-	-	1	6	5
undated	1	45	51	1	-	1	-	2	-	26	127	101
Total	27	496	346	57	15	1	1	7	12	1001	1985	963

Results

Taphonomy

The overall condition of the bones is poor with many newly occurred breaks; this is reflected in the percentage of identified bones (51%). There are only 9% complete bones of which many are teeth, carpals/tarsals, and phalanges. Gnawing by canids has marked only 4% of the bones, and proportion of loose teeth is relatively low (7%). The material from the prehistoric

contexts is particularly badly preserved with very high proportions of root etching. There is also better preservation in material from Area D (late Romano-British and Romano-British) than bone in Area A.

Only 8% shows signs of contact with fire and, as all were small fragments, most are assigned to the large or medium sized mammal categories. Most were calcined, indicating temperatures of 550–800 °C (Wahl 1981), and as bone does not discolour when meat is cooked or roasted, this material had been burnt on a fire. Early Romano-British cremation grave D5567 (Area D North) contained two calcined medium mammal fragments.

Prehistoric

Late Neolithic Grooved Ware pit A50384 (Area A East) contained 30 animal bone fragments, including parts of a cattle cranium, mandibula, pelvis, and metatarsus, as well as a pig calcaneus. The cattle mandible belonged to a young animal, all other bone derived from mature animals. In Area A North, Beaker pit A55243 contained part of the shaft of a sheep/goat tibia; Beaker pit A55227 (context A55228) contained part of a pig humerus, and three mandibular teeth of a subadult animal; and pit A55245 contained part of an adult cattle humerus and part of the beam and tine of a red deer, the tine displaying a circumcision of parallel horizontal cut marks where it was separated from the rest of the beam.

Middle Bronze Age pit A50203 (Area A East) contained fragments of a cattle mandible, maxillary tooth, costa and lumbal vertebra, as well as part of a sheep horncore and fragments of sheep/goat mandibula, maxillary teeth, and a thoracic vertebra. One of the cattle mandibula fragments belonged to a neonate and the sheep/goat mandibula belonged to an animal of about 19–36 months (Jones 2006). All other bones came from adult animals. Part of a tibiotarsus of chicken from post-hole B25 (roundhouse B49, Area B3) is probably intrusive as chickens were not introduced to Britain before the Iron Age.

Working hollow A50197 (Area A East) contained a horse maxillary tooth of an adult animal, a cattle mandibular tooth belonging to a subadult animal, and both mandibles of aged cattle whose teeth were very worn and the second premolar missing on both sides (probably congenital). Layer A50249 contained the distal part of a sheep/goat humerus; as the epiphysis had fused, the animal was older than 3–4 months when it died. The hollow also contained the beam and possible tine of a red deer antler; no working marks were observed.

Three possible Late Bronze Age bones came from Wessex Linear ditch B7 – a canine mandibular tooth and two maxillary teeth from cattle – both animals were mature when they died.

Late Iron Age/Romano-British

Faunal list

Most of the identifiable remains were of domesticates: cattle, horse, sheep/goat, pig, dog, and domestic fowl; where possible, a distinction between sheep and goat was made, indicating only sheep. Wild species, comprising hare, red deer, and crow, were not important in the diet; the red deer remains consist of antler only and so do not indicate hunting, and crows are attracted by settlement waste, although it is possible that the juvenile specimen in droveway ditch A55642 (Area A South) represents part of a meal.

Of those identified to species, cattle bones were the most common, followed by sheep/goat and pig (Table AB2), although the poor preservation conditions probably had a greater affect on the less resilient pig and sheep/goat bones. However, the MNI shows that cattle and sheep/goat were probably kept in equal numbers supplemented by a fair proportion of pig, a few horses, and dogs. Beef, therefore, was probably the main meat eaten, followed by smaller proportions of mutton and pork. The

disarticulated nature of the horse remains indicates that they were also eaten. Although the Romans bred and imported donkeys, mules and hinnies to Britain, none of the teeth were indicative of donkey or of a crossbreed (Davis 1976; Armitage and Chapman 1979; Baxter 1998).

Table AB2 Late Iron Age/early Romano-British animal species list according to number of identified specimen (NISP), bone weight (BW) and minimum number of individuals (MNI)

Species	NISP		BW		MNI	
	n	%	g	%	n	%
Cattle (*Bos Taurus*)	433	25	15285	72	13	31
Horse (*Equus caballus*)	25	1	2038	10	2	5
Sheep (*Ovis aries*)	14	1	198	1	14	33
Sheep/Goat (*Ovis*/*Capra*)	269	15	1212	6		
Pig (*Sus domesticus*)	49	3	759	4	6	15
Dog (*Canis familiaris*)	16	1	41	0	2	5
Hare (*Lepus europeus*)	1	0	3	0	1	2
Red deer (*Cervus elaphus*)	3	0	47	0	1	2
Birds						
Crow (*Corvus sp*)	6	1	0	0	1	2
Domestic fowl (*Gallus gallus* dom.)	5	1	4	0	2	5
Classes						
Large mammal	442	25	1206	6		
Medium mammal	474	27	364	1		
Total	1737	100	21157	100	42	100

The presence of juvenile domestic fowl indicates poultry keeping, but the unfavourable soil conditions probably account for the small number of other bird bones and the absence of fish remains.

Anatomical elements

Although the poor preservation has meant that the dense, resilient parts of long bones and the jaws are especially well represented, the presence of most skeletal elements suggests that animals were slaughtered and their products processed on site.

Age analysis

While the bones of juvenile animals are less likely to have survived, some juvenile cattle jaws were recovered, and the presence of a broad age spectrum points to the production of both meat and secondary products like milk, manure and traction (the epiphyseal fusion data provides similar results). The presence of old cattle, even if over-represented, probably indicates dairy activities, the use of cattle as beasts of burden, and the possible fattening oxen before slaughter.

There is a similar variety of ages evident in the sheep/goat mandibles, pointing again to the production of meat, milk, and wool, as well as manure, and although the fusion data suggest that sheep with mandible wear stage F9/10 were closer to the 3.5 year (Jones 2006) than to the 6 year mark, this is probably due to the feeding practices, with silicate rich soils being more abrasive than others. The presence of a foetal sheep/goat metatarsus from pit A55108 indicates that at least some delicate bone survived (Prummel 1987); its greatest length suggests that the animal was at 110–20 days of the gestation period (birth at 145 days).

The majority of pigs died at around 2 years, an ideal age for butchering. An upper canine belonged to a sow of over 3.5 years (Habermehl 1975), Varro (cited by Benecke 2003) stating that the Romans used sows for breeding from 20 months up to 7 years. As sows can be served twice a year from the age of 1 year until the age of 7, most of the pigs from the site could have been used once or twice for breeding.

Apart from the remains of a possible neonate puppy from corndrier D5611 (Area D North), and the left dog mandible from ditch D5113 (Area D South) which had practically unworn teeth indicating a young animal of a medium-sized breed, all dog remains derive from adult animals. All horse teeth were significantly worn and all epiphyses fused, indicating only adult animals.

Breed

Horn cores, and skulls with traces of horn cores, indicate horned breeds of sheep and cattle. The cattle were of the typical short-horned variety analogous to the modern day Dexter, Kerry, and Welsh Black breeds used for dairying and meat production (Cool 2006).

Four cattle bones gave an estimated height at the withers of 1.07–1.16 m, while two horse bones, one from a small and the other from a large animal gave estimated heights at the withers of 1.35 m and 1.56 m. The single measurable sheep metatarsus belonged to an animal with a height at the withers of 0.57 m.

Butchery marks

The poor preservation of the bone cortex mean that finer cut marks were probably obscured, and only eight definite butchery marks were observed – on cattle, sheep/goat, and pig bones. Most of them were made with a cleaver, probably during filleting, which was the standard Romano-British method of butchering in order to maximise the utilisation of the meat, used in towns, military settlements and on rural sites (Cool 2006). A sheep horn core was chopped at the base indicating horn working.

Bone distribution

Cattle and horse remains were more numerous in ditches, while sheep/goat and pig bones were more numerous in pits; the pits also contained bones of domestic fowl. While this may reflect genuine difference in deposition and discard it could also reflect differential preservation; waste dumped in pits may have been less exposed to the elements or scavenging. As the same anatomical elements were found in both types of context, it is not possible to distinguish between the discard of butchery waste and kitchen refuse.

The assemblage contained many cattle skulls, but their heavily fragmented nature hampers their identification, as summarised below (Table AB3).

Table AB3: Cattle skulls

Context	Comment
Ditch A55402 (section A55403)	The occipital region of an adult cattle
Ditch A55637	Part of a left maxilla
Ditch A55642 (section A55075)	The snout part of a mature cattle
Ditch A55642 (section A55095)	The right maxilla of a mature cattle
Ditch A55642 (section A55169)	At least two fragmented partial skulls of which one belongs to a subadult animal
Ditch A55646 (section A55092)	The snout part of a subadult cattle
Pit A55101	Part of the left side of the skull
Pit A55108	The occipital region and the possible corresponding maxilla of an adult cattle
Tree hollow A55503	The right maxilla of a mature cattle
Quarry A55650 (cut A55521)	Probably one complete horned skull of a mature cattle; depressions on the horns might be related to traction
Ditch D5100	Part of the occipital region and part of the left skull
Ditch D5117	The snout part of a calf
Pit D5107	The snout part of a mature cattle

Only quarry A55650 (Area A South) contained a complete cattle skull, hinting at special deposition. The other finds might just be butchery waste where the occipital region (back of the head) was chopped of to reach the brain, although as this part of the skull is very dense, it has a better than average chance of survival. The high instance of maxilla might also be the result of better survival, as these contain the very dense and easily recognisable teeth; after removing the tongue, this part of the skull is useless and would have been thrown away.

Fragments of calcined boned were recovered from a number of the cremation urns from Romano-British cremation graves in Area D North. From grave D5567, urn D5182 (contained the remains of an adult) produced enamel flakes of a cattle tooth, as well as some very small unidentifiable calcined fragments of bird and mammal bone. Urn D5183 (an adult male? 25–40 years), contained the calcined bone fragments of birds and probably pig, the latter consisting of shaft fragments of metapodials, one of which shows two parallel cut marks suggesting that it was skinned before being burnt. Urn D5184 (a juvenile/subadult, 10–14 years), contained part of what had probably been a complete chicken burnt on the pyre – the proximal part of a humerus, the distal part of the left ulna, proximal part of the left carpometacarpus, the proximal articulation of both femora and part of a distal tibiotarsus. From grave D5637, urn D5185 (an adult female, 40–60 years) contained some unidentified bird bone and part of the distal articulation of what appears to be the right coracoid of a chicken. These possibly represent the remains of a complete chicken burnt on the pyre.

The much larger Iron Age cemetery from the King Harry Lane site at *Verulamium* (St Albans, Hertfordshire) mainly had pigs associated with the cremation burials, although interestingly, pig trotters were absent in this assemblage (Davis 1989, 251). One instance of a galliform bird was probably chicken (*ibid*., 250). Chicken remains also dominated among the inhumation grave goods at the later Romano-British cemetery at Alington Avenue, Dorchester, Dorset (Maltby 2002, 170), while the late Romano-British inhumation graves at Poundbury, Dorset, contained sheep/goat and chicken remains (Buckland-Wright 1993, 111).

Summary of the Romano-British assemblage

In urban and military settlements across the Roman empire, but excluding rural sites, diet changed in general from one with high sheep percentage in the Late Iron Age to one with high cattle and pig percentages (King 1999). Pork-rich diets were originally a feature of Rome and its hinterland, reflecting a concentration of wealth from the imperial exploitation of the provinces, and it seems that people who copied aspects of Roman life also copied the diet (King 1991). This was evident in three animal bone assemblages from Dorchester where the highest social group, who lived in a central *insula* probably near the forum, ate quality meat from young animals with a high proportion of wild birds and pigs (Maltby 1993). The intermediate group, living in the south-west corner of the town, ate similar proportions of meat as the elite, but it came from considerably older animals. The lowest social group, living in a more rural setting outside the gate, kept to their Iron Age diet and ate primarily mutton (Hamilton-Dyer 1993).

Basingstoke falls within the 'Wessex and Central Southern England' region, as defined by Hambleton (1999) in her study of animal husbandry regimes in Iron Age Britain. During the Late Iron Age the region is generally dominated by sheep, with slightly fewer cows and a low percentage of pig (based on NISP), and this comes close to the proportions at this site, as seen in the pits where preservation was slightly better; it also reflects species proportions according to the MNI.

The combination of husbandry strategies evident at this site would complement arable farming, with manure being used to fertilise the fields, and cattle could be used to pull the plough. Across the region, cattle were kept primarily for dairying and other secondary products, as reflected in a high percentage of mature cattle in assemblages; this characteristic is also seen at this site and is thus not necessarily a result of poor preservation. Although meat was an important element of the Roman dinner, the *cena* Gerlach (1986, 19–21), the preference for the tender meat of young animals was not shared by the occupants of this site, and most beef would have been rather tough. It is no surprise that cooking jars, ideal for slow cooking of stews, are common in the pottery assemblage from sites in the region (Cool 2006).

Diary products like cheese were important in the Roman diet, especially cheese from sheep milk, and much of the milk was probably converted into butter and cheese, especially hard cheeses that would have been storable.

After the arable harvest, sheep could be grazed on the fields to feed on the stubble and manure the field at the same time. It is likely that excess yearlings would have been killed before they could loose condition during the winter. Keeping the animals close to the settlement during winter would facilitate feeding them and collecting manure to subsequently spread on the fields. In the spring, sheep could be grazed on the pastures further away from the settlement, and this could explain the low numbers of neonate bones, as lambing would have taken place away from the settlement. The regional pattern for sheep, with most animals dying at the brink of adulthood and with low incidences of neonatal and infant mortality, also fits well with the assemblage fro this site.

Pigs were mainly exploited for their meat and killing them on the brink of adulthood reflects this. Cool (2006) argues that the low pig percentages in rural settlements might be the result of pigs being eaten only on special occasions, or being the subject of a food taboo. The consumption of chicken was also probably influenced by Roman customs, with their proportions rising after the Conquest, but forming only a minority or being absent from rural settlements. As well as meat, chickens would have been reared for their eggs and feathers, but they also fulfilled an important role in religious practices, being found in (rural) cemeteries (Cool 2006).

It is likely that horse meat ended up on the table as well. Although their low proportion in this assemblage shows that horses were not reared solely for meat, they eventually would have been slaughtered after their useful life as riding animals and as beasts of burden; again, their tough meat would have needed prolonged cooking.

In summary, the small Late Iron Age/Romano-British assemblage from this site is characteristic of a rural settlement, whose inhabitants were engaged in arable farming and stock raising, undertaking mixed husbandry regimes in order to maximise the yield in primary and secondary products and to spread risks, and so be largely self-sufficient.

MOLLUSCS

by Sarah Wyles

Wessex Linear ditch B7/C1, running along the lower part of a dry valley slope, is thought to date from the Late Bronze Age, although it was possibly still in use (or had been recut) during the Romano-British period. Mollusc remains were analysed from two samples from section C1772 (contexts C1775 and C1778) in Area C5, in order to provide information on the local environment and the land-use of the surrounding area, and any major changes between the ditch's construction and abandonment.

Methods

Two samples of 1500 g were processed following standard methods (Evans 1972). The molluscan remains were extracted from the flots and residues and were identified using a x10-x40 stereo-binocular microscope. The results are tabulated below (Table M1) and the nomenclature of Kerney (1999) is followed.

Results

The ditch fills were as follows:

C1778 Mid-brown silty clay with 25% sub-angular–angular <10–100 mm flint nodules and <1% chalk flecks. Diffuse interface. Tertiary fill. Topsoil derived material deposited in a series of low–medium energy events principally from the north.

C1777 Mid-brown silty clay with 2% sub-angular–angular 10–80 mm flint nodules and <1% rounded <10 mm chalk pieces. Diffuse interface. Tertiary fill. Topsoil derived material with low energy deposition.

C1776 Mid-brown silty clay with 20% sub-angular–angular 50–120 mm flint nodules and 5% sub-rounded <10–20 mm chalk pieces. Some sorting of the inclusions with flint nodules concentrated in southern end of deposit. Slightly diffuse interfaces. Tertiary fill. Topsoil derived material and tumble of stones principally from the north.

C1774 Mid-grey silt loam with 15% sub-angular 10–100 mm flint nodules and 15% sub-rounded <10 mm chalk pieces. Slightly diffuse interfaces. Tertiary fill. Contained reworked chalk wash and a tumble of stones probably principally from the north.

C1775 Pale grey brown silt loam with 2% angular 10–20 mm flint nodules and 30% sub-rounded <10–20 mm chalk pieces. Includes patches of reworked chalk wash. Secondary fill. Topsoil and redeposited natural chalk derived material from the south.

C1773 Pale grey silt loam with 30% sub-angular 10–50 mm chalk pieces and 40% rounded <10 mm reworked chalk wash. Slightly diffuse interface. Primary fill. Principally reworked chalk wash, probably derived from the erosion of the sides of the feature and upcast material, with high energy deposition from mainly the north but also from the south too.

The mollusc assemblage from secondary fill C1775, relating to the period when the ditch was in use, comprised of 807 shells from 24 taxa. Although open country species are dominant, they only represent 38% of the assemblage. The Vallonias are predominant, with *Vallonia excentrica* outnumbering *V. costata* by two to one. There are also significant numbers of *Helicella itala* and *Pupilla muscorum*, and a small number of *Vertigo pygmaea*. The intermediate species are dominated by *Pomatias elegans*, which represented 20% of the entire assemblage. Other intermediate species include *Cochlicopa lubrica, Punctum pygmaeum*,

Limacidae, *Trichia hispida* and *Cepaea*. Nearly 30% of the assemblage is comprised of shade-loving species, with *Carychium tridentatum* and *Discus rotundatus* being dominant. Other taxa include the rupestral species *Ena obscura*, *Acanthinula aculeata*, *Cochlodina laminata*, *Clausilia bidenta*, *Helicigona lapicida* and the Zonitidae *Vitrea contracta*, *Aegopinella nitidula*, *Aegopinella pura*, and *Oxychilus cellarius*.

Table M1: Summary of molluscs from ditch C1

Ditch section	**C1772**	
Context	**C1775**	**C1778**
Sample	**1**	**2**
Depth (cm)	**Spot**	**Spot**
Weight (g)	**1500**	**1500**
Pomatias elegans (Müller)	161	14
Carychium tridentatum (Risso)	72	20
Carychium spp.	12	5
Cochlicopa lubrica (Müller)	23	3
Cochlicopa lubricella (Porro)	1	-
Cochlicopa spp.	15	12
Vertigo pygmaea (Draparnaud)	12	20
Vertigo spp.	-	11
Pupilla muscorum (Linnaeus)	47	57
Vallonia costata (Müller)	64	48
Vallonia excentrica Sterki	112	90
Vallonia spp.	4	5
Acanthinula aculeata (Müller)	20	1
Ena obscura (Müller)	3	-
Punctum pygmaeum (Draparnaud)	11	-
Discus rotundatus (Müller)	68	6
Vitrea contracta (Westerlund)	4	2
Aegopinella pura (Alder)	23	5
Aegopinella nitidula (Draparnaud)	17	3
Oxychilus cellarius (Müller)	8	1
Limacidae	38	27
Cecilioides acicula (Müller)	35	286
Cochlodina laminata (Montagu)	1	1
Clausilia bidentata (Ström)	2	4
Helicella itala (Linnaeus)	70	36
Trichia hispida (Linnaeus)	12	7
Helicigona lapicida (Linnaeus)	1	+
Cepaea nemoralis (Linnaeus)	1	-
Cepaea hortensis (Müller)	1	-
Cepaea/Arianta spp.	4	3
Taxa	24	19
TOTAL	807	381
Shannon Index	2.548	2.331
Brillouin Index	2.487	2.241
Shannon Index – Brillouin Index	0.061	0.091
Delta 2	0.8976	0.8720
Delta 4	8.8686	6.9549
% Shade-lovng species	28.6	12.6
% Intermediate species	33.1	17.3
% Open country species	38.3	70.1

Indications of the environment and local landscape may be determined from the analysis of the mollusc assemblage from tertiary fill C1778, from when the ditch had fallen into disuse. This contains 381 shells from 19 taxa, and is heavily dominated by the open country component (70%). The Vallonias are again dominant, with *Vallonia excentrica* being predominant. There is a significant increase in the percentages of *Pupilla muscorum* and *Vertigo pygmaea*, while that of *Helicella itala* remains around the same level. The intermediate species only account for 17% of the assemblage. Although there is generally a similar range of species recovered, the level of *Pomatias elegans* has greatly decreased to

only 4%. Around 12% of the assemblage is represented by the shade-loving element, with *Carychium tridentatum* being the most significant species followed by *Discus rotundatus*. The remaining species are both rupestral, including *Acanthinula aculeata*, *Cochlodina laminata* and *Clausilia bidentata*, and the Zonitidae such as *Aegopinella pura* and *Aegopinella nitidula*.

The open country environment reflected in these assemblages remains broadly the same; it is only when the habitat is very open do fauna of the restricted open-country type occur (Evans, 1972). The predominance of *Vallonia excentrica,* together with *Vallonia costata*, *Helicella itala*, and *Pupilla muscorum,* is indicative of very open conditions, probably short-turved grazed grassland. The increase in *Vertigo pygmaea* may be a result of the landscape becoming more stable and the increase in *Pupilla muscorum* indicates that it is unlikely to represent a complete change from grazing to cultivation, as this species dislikes intensive agriculture although *Vallonia excentica* and *Helicella itala* are both frequently found in ploughed deposits (Evans 1972).

The significant intermediate species recovered is *Pomatias elegans*, which favours shaded habitats with broken ground, and its presence in abundance is generally indicative of disturbed ground, possibly a result of clearance of trees. It is possible that some clearance took place while the ditch was still in use, as reflected in the number of shells of *Pomatias elegans* in context C1775. If so, this clearance is likely to have been to the south, down slope of the ditch. By the time the ditch goes out of use, there is no longer any evidence for clearance.

The shade-loving element of the assemblage from context C1775 is indicative of proper shady environments in the vicinity, rather than just niche micro-habitats within the ditch. *Carychium tridentatum* is particularly abundant in leaf litter on woodland floors and at the base of the leaves of ungrazed grassland while *Discus rotundatus* thrives in woodland in leaf litter, under logs and in hedgerows. The Zonitidae occur in leaf litter and long grass areas, while the rupestral species favour true woodland. The amount of true shady environments in the vicinity is likely to have decreased by the time of the abandonment of the ditch.

The mollusc evidence, therefore, indicates the possibility of stands of trees along the slope (rather than a hedgerow) with some longer grass near the edge of the ditch within an open environment probably of short-turved grassland. There may have been clearance of some of the trees, creating areas of disturbed ground, during the period of the ditch's use, but by the time the ditch was abandoned the landscape had become both more stable and open. It is not possible, however, at this resolution of analysis, to discern any slight fluctuations between arable and pasture, as has been done in studies elsewhere in the region, such as on Salisbury Plain (Bradley *et al.,* 1994; Fulford *et al*., 2006).

CHARRED PLANT REMAINS

by Ruth Pelling

A series of bulk samples was taken for the extraction of biological material including charred plant remains, from a range of features including pits, post-holes, ditches, and gullies, cremation-related deposits, and tree-throw holes dating from the Late Neolithic/Early Bronze Age to the Romano-British period.

Methods

Bulk samples were processed by mechanical flotation and the flots collected onto 0.5 mm sieves. The volume of deposit processed for each sample ranged from 0.4 litres to 150 litres, but was generally in the region of 10–20 litres. Dried flots were assessed and samples selected for the detailed analysis of charred plant remains. Each sample selected was sorted under a binocular microscope at x10 to x20 magnification for the extraction of quantifiable seeds and chaff. Identification was based on morphological criteria and by comparison with modern reference material. Nomenclature and taxonomic order of weed seeds follows Clapham *et al.* (1989). Fully quantified results are given in Tables CP1–3 Reference to samples not fully sorted is based on the assessment.

Results

Late Neolithic/Early Bronze Age

A single sample (sample A1036) was examined from a Late Neolithic Grooved Ware pit (A50384, Area A East). The flot produced a large number (743) of fragments of *Corylus avellana* (hazel) nut shell. Seeds of *Chenopodium album* (fat hen) were found to be recent.

Early–Middle Bronze Age

The Early–Middle Bronze Age samples continue to be characterised by the presence of hazel nut shell fragments with rare cereal remains. From Area A South, one sample was examined in full (sample 2020, Beaker pit A55227), producing hazel fragments and three indeterminate cereal grains. Further hazel nut shell fragments were noted at assessment stage in samples A2021 and A2022, also from Beaker pits (A55243 and A55245).

Middle Bronze Age

Six samples of Middle Bronze Age date were examined: two from pits A50354 and A50149 (samples A1034 and A1037) in Area A East, and four from post-holes B16, B21, B44, and B45 in roundhouse B49 (Area B3). Occasional poorly preserved grain and or glume bases of *Triticum* or *Triticum spelta/dicoccum* (spelt/emmer wheat), and rare weed seeds were present in the pit samples and one post-hole sample. Sample B2 (post-hole B16) produced a flot of slightly different character producing a relatively large number of weed seeds (72 weed seeds to 1 grain and 4 chaff items). Taxa identified included *Chenopodium album* (fat hen), *Atriplex* sp (orache)., *Vicia/Lathyrus* sp. (vetches/tares), *Odontites verna* (red bartsia/eyebright) and *Tripleurospermum inodorum* (scentless mayweed). Samples B3002 and B3006 (post-holes B44 and B45 = evaluation features B15106 and B15112) were noted at assessment stage to contain a similar range of weed seeds (*Rumex* sp. (docks), *Stellaria media* (chickweed), fat hen, orache, vetches/tares, red bartsia/eyebright *Galium aparine* (cleavers), and scentless mayweed) with occasional glume bases and grains. While cereal remains are poorly represented in this period there is clearly a presence of weeds typical of arable activity on the site.

Early Iron Age

One sample of Early Iron Age date was examined from a post-hole in four-post structure A50370 (sample A1033) in Area A East. Charred remains are poorly represented consisting of two indeterminate cereal grains, one glume base (identified as *Triticum spelta/dicoccum*) and a single seed of *Rumex* sp. (docks). Other samples dating to this period, including those from roundhouses A50101 and A50029 in Area A East, and roundhouse A55292 and possible four-post structure A55619 in Area A South, were found in assessment to contain recent weed seeds with occasional fragments of charred indeterminate grain, rare weed seeds or hazel nut shell. There is therefore only very limited evidence for arable activity, in terms of the charred plant remains, on the site for this period.

Romano-British

Fourteen samples were examined from pits and ditches/gullies of Romano-British date, of which five are from features recorded as early Romano-British. A broadly consistent range of charred plant remains is represented in the samples, tending to be dominated by chaff with variable quantities of weed seeds and cereal grain. The grain is generally poorly preserved as in previous phases with significant pitting and distortion. This may be the result of local soil conditions or to physical damage prior to deposition, for example if material had been exposed for some time before burial. Such chaff rich assemblages are typical of cereal processing waste rather than stored or prime grain. Sample A2057 was taken from a vessel within droveway ditch A55642 (cut A55169). This sample produced a slightly smaller assemblage than some of the other samples, with a higher proportion of grain to chaff or weed seeds, although still indicative of a mixed assemblage of cereal grain and processing waste. The preservation of grain is poor as in other samples. This sample does not have the character of a special deposit of some kind, being broadly comparable with the other samples from the period. The remaining samples of this period which were not examined beyond assessment stage produced smaller but similar assemblages of *Triticum* sp. and *Hordeum* grain (barley), *Triticum spelta/dicoccum* (spelt/emmer wheat) glume bases and weed seeds. Such samples are typical on arable sites of this period and are likely to derive largely from background scatters of cereal processing waste. Similarly the poor level of preservation of the grain would be more consistent with small scale deposits rather than large burning episodes and is typical of routine burning in domestic fires.

Two samples were taken from the corndrier (D5611) in Area D North, including one from the flue. The samples produced a few glume bases of spelt wheat with occasional grain and rare weed seeds, and were not processed further. These samples are not comparable to the sometimes dense concentrations of remains found within corndriers and are more characteristic of background scatters of remains often found in the backfill of features. They consequently do not provide any evidence for the nature of the use of the corndrier.

Both spelt and barley were identified in the Romano-British samples, while occasional grain of *Avena* sp. (oats) may be from wild species given the presence of *Avena fatua* floret bases. Occasional sprouted grain of both wheat and oats is more consistent with occasional damaged grains rather than deliberate germination for malting. Given the presence of short grain spelt it is likely that other short *Triticum* grains are of spelt rather than *T. aestivum* (bread type wheat). As in the proceeding period it is likely that the variation in grain shape is largely due to natural variation within the ancient crops although could derive from a separate short grained variety.

The chaff in all samples is dominated by glume bases of spelt/emmer and spelt. As no examples of emmer were positively identified it is assumed that spelt is the only species represented. The occasional rachis fragments are likely to derive from the lower parts of the ear as they are broken up, some of which remained with the spikelets. Rare rachis of oats was

also identified as well as awn fragments and floret bases of *Avena* sp. which are likely to derive from weed varieties.

In addition to the cereal remains occasional pulses were present. The preservation of the pulses was such that identification was not possible. While the numbers are small they do suggest that pulses formed some part in the economy of the site. Occasional fragments of hazel nut shell were also present.

The range of weed species was slightly increased from earlier periods, possibly reflecting the greater density of remains as well as changes in arable practice and the evolution of the corn field flora. Seeds of grasses were particularly dominant in the early Romano-British samples, while seeds of docks, vetches/tares, and medick/clover/trefoil were also numerous. The arable weeds suggest the cultivation of lighter sandy, possibly slightly acidic, soils (*Valerianella dentata*(corn salad), *Rumex acetosella* (sheeps' sorrel), and scentless wayweed) as well as dry calcareous soils (*Bromus* sect *Eubromus* (brome gass), *Lithospermum arvensis* (corn grmwell), and *Sherardia arvense* field madder)). Occasional seeds of *Montia Fontana* (blinks), *Eleocharis palustris* (spike rush) and *Carex* spp. (sedges) indicate some utilisation of at least seasonally wet ground although such species may also have entered the site with grassland flora. There is only very limited evidence of the cultivation of heavy clay soils, in particular seeds of *Anthemis cotula* (stinking mayweed), a widespread cornfield weed on heavy soils is rare in the samples. It is likely that cultivation occurred on the lighter soils of the Reading beds or the chalk ridge rather than the clay. The majority of the weed flora consists of common arable or ruderal weeds and grassland flora. Occasional tree/leaf buds are likely to have derived from fire wood. A single charred tuber of *Arrhenatherum elatius* ssp. *bulbosum* (false oat grass) was noted in a cremation related deposit in pit D4208 (sample D104) in Area D North. While the presence of such tubers is more common on Bronze Age cremation pyres it may simply derive from uprooting of the local vegetation, this being a species of rough grassland and a common coloniser of arable fields once abandoned (Robinson 1988).

Discussion

The archaeobotanical samples provide some useful evidence for the development of agriculture at the site over time. The Late Neolithic and Early Bronze Age pit and post-hole samples produced hazel nut fragments with only very rare cereal grains. While exceptions exist (Jones 2000; Fairweather and Ralston 1993), such deposits are typical of the Neolithic and Early Bronze Age in Britain (Robinson 2000b; Moffett *et al. 1*989). The ubiquity of small numbers of cereal remains on sites of this period does suggest some cereal cultivation, although it is not possible to satisfactorily assess the scale. Similarly the role of wild resources is difficult to establish although it is the case that hazel nut shell fragments tend to occur in much lower concentrations on later sites suggesting them to have been more significant in the economy of the Neolithic/Early Bronze Age. The paucity of remains would support the archaeological evidence for only limited settlement activity on the site at this time.

There appears to be a change in arable activity in the Middle and Late Bronze Age despite the scant remains. Hazel nut shell was absent and there is a slightly more prominent presence of cereal grains. In addition, a deposit of typical arable weed seeds in roundhouse sample B2 suggests some cereal processing activity may have been taking place. Hulled wheat is the only cereal recognised although it was not possible to establish if spelt or emmer wheat was represented. There appears to be little arable activity in the area of the site where only background scatters of possibly re-deposited material was recovered.

The Romano-British samples demonstrate a well established arable economy by the Roman period. The cereals cultivated were spelt wheat and barley, in common with other sites in Hampshire at this time (Jones 1984; de Moulins 1995; Carruthers 1989; 1991; Monk and

Fasham 1980; Monk 1985; 1987; Green 1981; Campbell 2000a). The evidence for crop processing activities in the form of chaff, particularly glume bases and weed seeds, indicates the final stage of crop processing (dehusking and final sieving) were taking place on the site. Hulled wheat is best stored in spikelet form in which the grain is protected by the glumes. The final stages of processing are therefore conducted immediately prior to milling.

The scale of arable production and grain processing is difficult to establish. The assemblage as a whole is typical of a build up of day to day processing waste (eg, Stevens 2003; van der Veen 2007) and is very different in scale to assemblages which have been recovered from, for example, Roman military granaries such as South Shields (van der Veen 1988) or villa sites such as Barton Court Farm, Oxfordshire (Jones 1986) or Bancroft, Milton Keynes (Pearson and Robinson 1994). The presence of a corndrier and four post-structures in Area D raises the possibility of cereal processing and storage on some scale although this might not necessarily be more than domestic requirements for one or two extended families. The low density of archaeobotanical remains may be a product of the scale of cereal-based activities, or it may simply be a matter of preservation.

Few archaeobotanical reports from Romano-British period sites in the local region have been published to date. Where they have been published they tend to consist of a few samples on otherwise earlier sites, such as at Micheldever Wood and Winnall Down, near Winchester (Monk 1987; 1985). In both these examples the few Romano-British samples appear to indicate a continuation of the Iron Age cereal economy with a broadly similar range of weed seeds and the dominance of spelt wheat and barley with occasional pulses including peas. Neither site has produced evidence to suggest a dramatic increase in scale of production or organisation, and they appear, at least superficially, to be comparable to this site. In contrast, a Romano-British corndrier at Houghton Down, Danebury Environs, produced a large deposit of spelt wheat chaff and sprouts suggesting its use for malting (Campbell 2000b, 154) and large deposits of charred grain were recovered from an aisled building at Grateley, Danebury Environs (Campbell, unpublished), suggesting a much greater scale of production in some areas of the country. The small town at Neatham to the south of Basingstoke produced waterlogged seeds of a range of fruits and other food plants including apple, plum, cherry, walnut, and coriander, in addition to a range of wild fruits, and grassland and ruderal weed species (Murphy 1986, 149–50). A similar range of fruits, nuts and condiments have been recovered from a range of small towns such as Farmoor, Oxfordshire (Lambrick and Robinson 1979), and military sites including Bath (Pelling 2007) and Alchester, Oxfordshire (Robinson 2000a), as well as large towns such as London (Wilcox 1977; Straker 1984) and Colchester (Murphy 1984). It is not yet possible to establish how much the presence of more 'exotic' fruit and condiments is related to preservation conditions and the presence of waterlogged deposits or to higher status or military sites.

Conclusions

The archaeobotanical assemblage has provided some clues as to the arable activity at the site over time. The evidence for the early activity would be consistent with the paucity of occupational archaeology, although some cereal cultivation and use of wild resources is suggested as found across Britain in the Neoltihic/Early Bronze Age. Arable activity may have been more extensive in the Middle–Late Bronze Age, but is not well attested until the Roman period. While it is difficult to establish the scale and nature of arable activity in the Roman period it may have remained essentially unchanged from the Iron Age, with the cultivation of spelt and barley on the lighter soils rather than the heavier clay, and no evidence for the fruits or condiments often associated with more urban or higher status sites at this time.

Table CP1 Prehistoric charred plant remains from Areas A and B

		Phase	LN	EBA			MBA		LBA/EIA
		Area	A East	A South	A East	A East	B3	B3	A East
		Feature type	Pit	Pit	Pit	Pit	R-house posthole	R-house posthole	4-Poster
		Feature	A50384	A55227	A50354	A50149	B16	B21	A50371
		Context	A50385	A55228	A50355	A50150	B26	B22	A50347
		Sample	A1036	A2020	A1034	A1037	B2	B3	A1033
Cereal grain									
Triticum sp.	Wheat grain		-	-	-	1	-	-	-
Cerealia indet	Indeterminate grain		-	3	1	1	1	-	2
Cereal chaff									
Triticum spelta/dicoccum	Spelt/Emmer wheat glume base		-	-	-	-	2	-	1
Cerealia indet	Indeterminate rachis		-	-	-	-	2	-	-
Other food plants									
Corylus avellana L.	Hazel nut shell		743	95	-	-	-	-	-
Weeds									
Cruciferae			-	-	-	-	2	-	-
Chenopodiaceae			-	-	-	-	7	-	-
Chenopodium album L.	Fat hen		-	-	-	-	1	-	-
Atriplex sp.	Orache		-	-	-	-	9	-	-
Vicia/Lathyrus sp.	Vetch/Vetchling/Tare etc		-	-	-	-	4	-	-
Medicago/Trifolium/Lotus type	Medick/Clover/Trefoil		-	-	1	-	-	-	-
Umbelliferae	Large seeded		-	-	-	-	4	-	-
Fallopia convolvulus (L.) A. Love	Black Bindweed		-	-	-	-	1	-	-
Rumex sp.	Docks		-	-	-	-	1	1	1
Odontities verna (Bell.) Dumont/Euphrasia sp.	Red Bartsia/Eyebright		-	-	-	-	8	-	-
Compositae	Indet		-	-	-	-	1	-	-
Tripleurospermum inodorum (L.) Schultz Bip.	Scentless Mayweed		-	-	-	-	3	-	-
Gramineae	Grass, small seeded		-	-	-	-	1	-	-
Ignota			-	-	-	-	30	1	-
Total grain			0	3	1	2	1	0	2
Total chaff			0	0	0	0	4	0	1
Total weeds			0	0	1	0	72	2	1
Total other food plants			743	95	0	0	0	0	0

Table CP2 Early Romano-British charred plant remains from Areas A North and South

		Feature type	Pits		Ditch		
		Feature	A55091	A55108	A55642 (cut A55169)		
		Context	A55089	A55112	A55170	A55171	
		Sample	A2001	A2004	A2006	A2023	A2057*
Cereal grain							
Triticum spelta L.	Spelt wheat, short grain		-	-	-	1	-
Triticum spelta L.	Spelt wheat, short grain, germinated		-	-	-	-	-
Triticum spelta L.	Spelt wheat grain		1	-	-	-	-
Triticum spelta L.	Spelt wheat, germinated grain		9	-	-	-	-
Triticum cf. *spelta* L.	cf. Spelt wheat grain		-	-	-	2	-
Triticum spelta/dicoccum	Spelt/Emmer wheat grain		-	-	1	-	-
Triticum sp.	Wheat, short round grain		-	-	-	-	-
Triticum sp.	Wheat grain		10	-	4	-	1
Hordeum vulgare L.	Barley, hulled, asymmetric grain		-	-	-	-	-
Hordeum vulgare L.	Barley, hulled straight grain		-	-	-	-	-
Hordeum vulgare L.	Barley, hulled straight germinated grain		1	-	-	-	-
Hordeum vulgare L.	Barley, hulled grain		6	2	-	2	-
Hordeum vulgare L.	Barley, grain		10	4	2	3	3
cf. *Hordeum vulgare* L.	cf. Barley grain		-	-	-	-	-
Avena sp.	Oats		10	3	-	-	-
Cerealia indet	Indeterminate grain		86	35	26	77	33
Cereal chaff							
Triticum spelta L.	Spelt wheat glume base		18	55	7	55	15
Triticum spelta L.	Spelt wheat spikelet fork		-	1	-	1	-
Triticum spelta/dicoccum	Spelt/Emmer wheat glume base		222	163	15	97	7
Triticum spelta/dicoccum	Spelt/Emmer wheat spikelet fork		17	11	-	8	1
Triticum spelta/aestivum type	Wheat, hexaploid (spelt/bread) rachis		-	-	-	-	-
Triticum sp.	Wheat rachis internode		-	-	-	1	1
Triticum sp.	Wheat, basal rachis node		-	-	-	-	-
Hordeum vulgare L.	Barley rachis		1	6	-	8	1
Hordeum vulgare L.	Barley rachis node		-	8	-	-	-
Avena sp.	Oats, awn fragments		15	-	-	-	-
Avena fatua L.	Wild Oats, floret base		4	2	-	-	-
Cerealia indet	Indeterminate rachis		-	-	-	-	-
Cereal size	Culm node		1	1	-	-	-

		Feature type	Pits		Ditch		
		Feature	A55091	A55108	A55642 (cut A55169)		
		Context	A55089	A55112	A55170	A55171	
		Sample	A2001	A2004	A2006	A2023	A2057*
Cereal size	Srpouted coleoptile		2	1	-	-	-
Cereal size	Detached embryo		5	-	-	-	-
Other food plants							
Vicia/Pisum sativum L.	Bean/Pea		-	1	8	-	5
Corylus avellana L.	Hazel nut shell		1	-	-	-	1
Weeds							
Ranunculaceae							
Ranunculus acris/repens/bulbosus L.	Buttercup		1	-	-	-	-
Cruciferae			-	-	-	-	-
Caryophyllaceae			-	-	-	-	-
Stellaria media (L.) Vill.	Chickweed		-	-	-	-	-
Stellaria graminea L.	Lesser Stichwort		-	-	-	-	-
Montia fontana subsp. *chondrosperma* (Fenzl) S.M. Walters	Blinks		-	-	1	-	-
Chenopodiaceae			-	1	1	-	-
Chenopodium album L.	Fat hen		2	-	-	1	1
Atriplex sp.	Orache		-	1	1	3	-
Vicia/Lathyrus sp.	Vetch/Vetchling/Tare etc		7	14	7	8	3
Medicago/Trifolium/Lotus type	Medick/Clover/Trefoil		1	6	1	4	1
Potentilla sp.	Cinquefoil		-	-	-	-	-
Umbelliferae	Large seeded		-	-	-	-	-
Polygonaceae			-	-	-	-	-
cf. *Polygonum aviculare* L.	cf. Knotgrass		-	2	-	-	-
Polygonum aviculare L.	Knotgrass		-	-	-	2	1
Fallopia convolvulus (L.) A. Love	Black Bindweed		2	-	-	-	-
Rumex acetosella L	Sheep's Sorrel		-	3	-	-	-
Rumex sp.	Docks		1	-	4	10	2
Rumex sp.	Docks, tubicle		-	-	-	-	-
Urtica dioica L.	Stinging/Common nettle		-	-	-	-	-
Populus/Salix type	Leaf bud		-	-	-	4	-
Anagallis arvensis L. type	Scarlet Pimpernel		-	-	-	-	-
Lithospermum arvense L.	Corn Gromwell, silica		-	4	-	1	-
Odontites verna (Bell.) Dumont/Euphrasia sp.	Red Bartsia/Eyebright		2	-	-	-	-
Prunella vulgaris L.	Self heal		-	1	-	-	-
cf. *Lamium* sp.	Dead-nettle		-	-	-	-	-
Plantago media/lanceolata L.	Plantain		-	-	-	-	-

		Feature type	Pits		Ditch		
		Feature	A55091	A55108	A55642 (cut A55169)		
		Context	A55089	A55112	A55170	A55171	
		Sample	A2001	A2004	A2006	A2023	A2057*
cf. *Sherardia arvensis* L.	Field Madder		-	1	-	3	-
Galium aparine L.	Goosegrass/Cleavers		2	1	1	4	3
Sambucus nigra L.	Elder flower (not charred)		-	-	-	-	-
Valerianella dentata (L.) Pollich	Narrow-Fruited Corn Salad		-	1	-	-	-
Compositae	Indet		-	-	-	2	-
Anthemis cotula L.	Stinking Mayweed		-	-	-	-	-
cf. *Anthemis cotula* L.	cf. Stinking Mayweed		-	-	-	1	-
Tripleurospermum inodorum (L.) Schultz Bip.	Scentless Mayweed		3	-	-	-	1
Leucanthemum/Chrysanthemum sp.	Corn Marigold/Ox-eye Daisy		2	-	-	-	-
Centaurea sp.	Knapweed/Cornflower		-	-	-	-	-
cf. *Centaurea* sp.	Knapweed/Cornflower		-	-	-	-	-
cf. *Lapsana communis* L.	Nipplewort		-	-	-	-	-
cf. *Eleocharis palustris* agg.	cf. Common Spikerush		-	-	-	-	-
Eleocharis palustris agg.	Common Spikerush		1	-	-	1	-
Carex sp.	Sedge, 3-sided nutlet		-	-	-	-	-
Gramineae	Grass, large seeded		42	11	5	26	1
Gramineae	Grass, small seeded		22	8	1	19	-
Gramineae	Grass, intermediate seeds		-	19	-	1	-
Festuca/Lolium type	Fescue/Rye-grass		6	13	3	8	3
Bromus subsect *Eubromus*	Brome grass		10	1	3	6	2
Indet	Capsule tips		2	-	-	-	-
Indet	Bud		1	-	-	-	-
Ignota			7	13	-	4	2
Total grain			133	44	33	85	37
Total chaff			275	256	22	179	26
Total weeds			114	100	28	108	20
Total other food plants			1	1	8	0	6

Samples marked * indicate those examined at assessment stage only

Table CP3 The Romano-British charred plant remains from Area D

		Feature	Ditch	Ditch	Ditch	Pit	Pit	Pit	Ditch	Pit	Pit	Corndrier
		Context	D1003	D4202	D5840	D5725	D5725	D5232	D5291	D5107	D5270	D5611
		Sample	D1006	D4204	D5703	D7052	D5727	D5227	D5152	D5200	D5271	D5573
			D102	D101	D7043	D7052	D7053	D7070	D7079	D7081	D7087	D7089*
Cereal Grain												
Triticum spelta L.	Spelt wheat, short grain		-	1	-	-	-	-	-	-	-	-
Triticum spelta L.	Spelt wheat, short grain, germinated		-	-	-	1	-	-	-	-	-	-
Triticum spelta L.	Spelt wheat grain		-	-	-	-	1	-	-	-	-	-
Triticum spelta L.	Spelt wheat, germinated grain		-	-	-	-	-	-	-	-	-	-
Triticum cf. *spelta* L.	cf. Spelt wheat grain		1	6	-	-	4	-	-	1	-	-
Triticum spelta/dicoccum	Spelt/Emmer wheat grain		-	-	-	1	-	-	1	-	-	6
Tiriticum sp.	Wheat, short round grain		-	-	-	-	-	-	-	-	-	-
Triticum sp.	Wheat grain		-	3	1	11	6	2	-	2	1	-
Hordeum vulgare L.	Barley, hulled, asymmetric grain		-	-	-	-	-	-	-	-	-	-
Hordeum vulgare L.	Barley, hulled straight grain		-	-	-	-	-	-	-	-	-	-
Hordeum vulgare L.	Barley, hulled straight germinated grain		-	-	-	-	-	-	-	-	-	-
Hordeum vulgare L.	Barley, hulled grain		-	-	-	2	-	-	-	-	-	-
Hordeum vulgare L.	Barley, grain		1	-	-	11	2	-	-	1	1	1
cf. *Hordeum vulgare* L.	cf. Barley grain		-	2	-	-	-	-	-	-	-	-
Avena sp.	Oats		-	-	-	-	-	1	-	-	-	-
Cerealia indet	Indeterminate grain		1	42	2	41	32	5	6	4	11	-
Cereal chaff												
Triticum spelta L.	Spelt wheat glume base		17	5	3	173	71	17	6	36	3	23
Triticum spelta L.	Spelt wheat spikelet fork		-	-	-	-	1	-	-	1	-	-
Triticum spelta/dicoccum	Spelt/Emmer wheat glume base		28	54	14	291	200	62	42	87	14	-
Triticum spelta/dicoccum	Spelt/Emmer wheat spikelet fork		1	3	1	20	3	2	4	4	-	-
Triticum spelta/aestivum type	Wheat, hexaploid (spelt/bread) rachis		-	-	-	5	-	1	-	-	-	-
Triticum sp.	Wheat rachis internode		-	-	-	-	-	-	-	1	-	-
Triticum sp.	Wheat, basal rachis node		-	-	-	3	-	-	-	-	-	-
Hordeum vulgare L.	Barley rachis		-	3	-	2	-	-	-	2	-	-
Hordeum vulgare L.	Barley rachis node		-	-	-	2	-	-	-	-	-	-
Avena sp.	Oats, awn fragments		-	1	-	-	-	8	-	-	-	-
Avena fatua L.	Wild Oats, floret base		-	1	-	-	-	3	-	-	-	-
Cerealia indet	Indeterminate rachis		1	-	-	-	-	1	-	3	-	-
Cereal size	Culm node		-	1	-	1	-	-	-	-	-	-
Cereal size	Srpouted coleoptile		1	-	-	1	-	-	-	-	-	-

		Feature	Ditch	Ditch	Ditch	Pit	Pit	Pit	Ditch	Pit	Pit	Corndrier
		Context	D1003	D4202	D5840	D5725	D5725	D5232	D5291	D5107	D5270	D5611
		Sample	D1006	D4204	D5703	D7052	D5727	D5227	D5152	D5200	D5271	D5573
			D102	D101	D7043	D7052	D7053	D7070	D7079	D7081	D7087	D7089*
Cereal size	Detached embryo		-	-	-	-	-	1	-	1	-	-
Other food plants												
Vicia/Pisum sativum L.	Bean/Pea		-	1	-	1	-	-	-	-	-	-
Corylus avellana L.	Hazel nut shell		-	-	-	-	-	-	-	-	2	1
Weeds												
Ranunculaceae											1	-
Ranunculus acris/repens/bulbosus L.	Buttercup		-	-	-	-	-	3	-	1	-	-
Cruciferae			-	-	-	-	-	-	-	-	-	-
Caryophyllaceae			-	-	-	1	-	-	-	-	-	-
Stellaria media (L.) Vill.	Chickweed		-	1	-	-	-	-	-	-	-	-
Stellaria graminea L.	Lesser Stichwort		-	-	-	-	1	2	-	-	-	-
Montia fontana subsp *chronodosperma* (Fenzl) S.M. Walters	Blinks		-	-	-	-	-	-	-	-	-	-
Chenopodiaceae			-	-	-	-	-	-	1	-	-	-
Chenopodium album L.	Fat hen		-	-	-	1	2	-	-	-	1	-
Atriplex sp.	Orache		-	-	-	-	-	-	-	-	-	-
Vicia/Lathyrus sp.	Vetch/Vetchling/Tare etc		-	2	-	1	2	1	-	5	-	-
Medicago/Trifolium/Lotus type	Medick/Clover/Trefoil		1	3	-	4	1	10	1	9	1	-
Potentilla sp.	Cinquefoil		-	-	-	-	-	-	-	-	-	1
Umbelliferae	Large seeded		-	-	-	-	-	-	-	-	-	-
Polygonaceae			-	-	-	-	-	-	1	-	-	-
cf. *Polygonum aviculare* L.	cf. Knotgrass		-	-	-	-	-	-	-	-	-	-
Polygonum aviculare L.	Knotgrass		-	-	-	-	-	-	-	-	-	-
Fallopia convolvulus (L.) A. Love	Black Bindweed		-	-	-	-	-	-	-	-	-	-
Rumex acetosella L	Sheep's Sorrel		-	-	-	-	-	-	-	-	-	-
Rumex sp.	Docks		-	10	-	14	2	5	-	2	3	-
Rumex sp.	Docks, tubicle		-	-	-	-	-	1	-	-	-	-
Urtica dioica L.	Stinging/Common nettle		-	-	-	1	-	-	-	-	-	-
Populus/Salix type	Leaf bud		-	-	-	-	-	-	-	-	-	-
Anagallis arvensis L. type	Scarlet Pimpernel		-	-	-	1	-	-	-	1	-	-
Lithospermum arvense L.	Corn Gromwell, silica		-	-	-	-	-	-	-	-	-	-
Odontities verna (Bell.) Dumont/Euphrasia sp.	Red Bartsia/Eyebright		-	-	1	1	-	-	-	1	-	-
Prunella vulgaris L.	Self heal		-	-	-	-	-	-	-	1	-	-

		Feature	Ditch	Ditch	Ditch	Pit	Pit	Pit	Ditch	Pit	Pit	Corndrier
		Context	D1003	D4202	D5840	D5725	D5725	D5232	D5291	D5107	D5270	D5611
		Sample	D1006	D4204	D5703	D7052	D5727	D5227	D5152	D5200	D5271	D5573
			D102	D101	D7043	D7052	D7053	D7070	D7079	D7081	D7087	D7089*
cf. *Lamium* sp.	Dead-nettle		-	-	-	-	1	-	-	-	-	-
Plantago media/lanceolata L.	Plantain		-	-	-	1	-	-	-	1	-	-
cf. *Sherardia arvensis* L.	Field Madder		-	-	-	-	-	-	-	-	-	-
Galium aparine L.	Goosegrass/Cleavers		-	-	-	-	-	-	-	-	-	-
Sambucus nigra L.	Elder flower (not charred)		-	-	-	-	-	-	-	1	-	-
Valerianella dentata (L.) Pollich	Narrow-Fruited Corn Salad		-	-	-	-	-	-	-	-	-	-
Compositae	Indet		-	-	-	-	-	-	-	-	-	-
Anthemis cotula L.	Stinking Mayweed		-	-	-	-	-	-	-	1	-	-
cf. *Anthemis cotula* L.	cf. Stinking Mayweed		-	-	-	-	-	-	-	-	-	-
Tripleurospermum inodorum (L.) Schultz Bip.	Scentless Mayweed		-	-	1	-	-	-	-	-	-	-
Leucanthemum/Chrysanthemum sp.	Corn Marigold/Ox-eye Daisy		-	-	-	-	-	-	-	-	-	-
Centaurea sp.	Knapweed/Cornflower		-	-	-	1	-	-	-	-	-	-
cf. *Centaurea* sp.	Knapweed/Cornflower		-	1	-	-	-	-	-	-	-	-
cf. *Lapsana communis* L.	Nipplewort		-	-	-	-	-	1	-	-	-	-
cf. *Eleocharis palustris* agg.	cf. Common Spikerush		-	-	-	-	-	-	-	-	1	-
Eleocharis palustris agg.	Common Spikerush		-	-	-	-	-	-	-	-	-	-
Carex sp.	Sedge, 3-sided nutlet		-	1	-	1	1	-	-	1	-	-
Gramineae	Grass, large seeded		-	4	-	7	3	2	-	-	1	-
Gramineae	Grass, small seeded		-	1	-	18	8	1	8	19	3	-
Gramineae	Grass, intermediate seeds		-	-	-	-	-	4	-	-	-	-
Festuca/Lolium type	Fescue/Rye-grass		-	1	-	-	-	1	-	-	-	-
Bromus subsect *Eubromus*	Brome grass		-	2	-	7	-	-	-	2	-	-
Indet	Capsule tips		-	-	-	-	-	-	-	-	-	-
Indet	Bud		-	-	-	-	-	-	-	-	-	-
Ignota			-	1	2	3	4	-	2	5	-	-
Total grain			3	54	3	67	45	8	7	8	13	7
Total chaff			48	68	19	516	279	85	56	139	17	23
Total weeds			1	27	4	62	25	31	13	50	11	1
Total other food plants			0	1	0	1	0	0	0	0	2	0

Samples marked * indicate those examined at assessment stage only

CHARCOAL

by Catherine Barnett

Individual fragments of wood charcoal >2 mm from seven samples from the site were prepared according to the standard methodology of Leney and Casteel (1975) and examined using epi-illuminated microscopy. Identification was undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980), with nomenclature according to Stace (1997).

As shown in Table CH1, the wood charcoal assemblages from all the samples analysed are relatively simple in terms of species composition. They are considered and interpreted below in chronological order. All taxa represented are common deduous types which favour open deciduous woodland and hedgerows.

Table CH1. Charcoal

Area	**A East**		**A South**		**B2**	**D North**	**D South**
Phase	**LN/EBA**	**EBA**	**EBA**	**LBA/EIA**	**EIA**	**LBA**	**RB**
Feature type	**Pit**	**Pit**	**Pit**	**Posthole**	**Hearth in ditch B7**	**Pit**	**Dark earth**
Feature	**A50384**	**A55227**	**A55245**	**A55586**	**B42**	**D5562**	**D5029**
Context	**A50385**	**A55228**	**A55246**	**A55288**	**B43**	**D5563**	**D5105**
Sample	**A1036**	**A2020**	**A2022**	**A2053**	**B8**	**D7023**	**D7022**
Weight charcoal >2mm (g)	**2**	**4**	**2**	**42**	**34**	**25**	**12**
Weight ID (g)	**>1.5**	**3**	**>1.5**	**20**	**18**	**8**	**7**
% ID by weight	**>75**	**75**	**>75**	**48**	**53**	**32**	**58**
Acer campestre (field maple)	-	-	-	-	2	-	10
Alnus glutinosa	55	4	1	-	-	-	-
Betula pendula/ pubescens (birch)	1		-	-	-	-	-
Corylus avellana (hazel)	8	12	15	-	-	-	9
Fraxinus excelsior (ash)	-	-	3	-	-	-	2
Quercus sp. (oak)	2	9	25	119	-	47	30
Quercus sp. (oak) roundwood (2-4 yrs)	-	-	-	-	-	60	2
Prunus spinosa (blackthorn)	-	-	-	-	-	4	10
Prunus cf. *avium* (cherry)	-	-	-	-	-	2	-
Prunus sp.	-	6	-	-	3	-	2
Pomoideae (pomaceous fruits)	3	11	6	-	-	1	32
Pomoideae *Crataegus* type (hawthorn)	-	-	-	-	95	-	-
Salix/ Populus sp. (willow/ aspen)	-	-	-	-	-	1	-
Ulmus sp. (elm)	-	2	3	-	-	-	-
Unid twigwood	1	-	-	-	-	-	1
Unid (vitrified)	2	1	4	1	-	-	4
Total no. frags	72	45	57	120	100	115	102

Late Neolithic-Early Bronze Age

The samples from three pits, representing the earliest contexts analysed, were small at 2–4 g each. As such, meaningful interpretation is difficult; however local presence and availability of the following tree and shrub types is demonstrated for this period: Alder (*Alnus glutinosa*), oak (*Quercus* sp.), hazel (*Corylus avellana*) and pomaceaous fruit wood (Pomoideae) were common to all three contexts of this period, with alder particularly plentiful in the assemblage from pit A50384 (Grooved Ware). Pits A55227 and A55245 (both Beaker associated) contained small quantities of elm (*Ulmus* sp.); the former also contained *Prunus* sp., which might be of blackthorn or cherry type, while the latter also contained the only occurrence of ash (*Fraxinus excelsior*).

The selection of alder indicates a wet environment such as the rivers edge or floodplain was exploited for fuel wood but a range of locally growing dryland tree and large shrub types were also taken, rather than targeting or managing any one wood resource.

Late Bronze Age/Early Iron Age

The copious wood charcoal fragments from post-hole A55586, part of a probable four-post structure (A55619), are exceptionally large at up to 45 mm long. That they are solely of mature oak is strongly suggestive that this represents structural wood, oak being a good choice due to its strength and durability. The quantity and the vitrification indicate the post(s) burnt *in situ* at a high temperature.

The charcoal from the burnt layer in pit D5562 (900–800 cal BC; 2685±25 BP; KIA-34936) is also dominated by oak at 93%, but in this case at least half the oak pieces are of roundwood cut at 2–4 years. The use of managed, probably coppiced oak stands as a fuel source in the Late Bronze Age is indicated. This context also contained the only occurrence of cherry (*Prunus* cf. *avium*) and willow/aspen (*Salix/Populus* sp.) along with a few fragments of blackthorn (*Prunus spinosa*).

Early Iron Age

The largest assemblage, from a hearth dump (context B43) in Wessex Linear ditch B7/C1, is heavily dominated by a single taxon, with 95% pomaceaous fruit wood of hawthorn (*Crataegus*) type (producing a radiocarbon date of 510–440 cal BC; 2345±25 BP; KIA-34937), with lesser field maple (*Acer campestre*) and *Prunus* sp. Use of open scrub or hedgerow as a source of fuel is indicated for this period.

Romano-British

The charcoal assemblage from Romano-British dark earth soil D5029 is somewhat more varied, with a minimum of seven species represented. Pomaceous fruit wood and oak each form 30% of the assemblage, with *c.* 10% each of field maple, blackthorn, and hazel and occasional ash. The types represented are indicative of hedgerow growth or open canopy tree and shrub stands.

RADIOCARBON DATING

by Alistair Barclay and Chris J. Stevens

Five radiocarbon dates (as well as one failed sample) were obtained to help clarify the date of selected archaeological features that were either of ambiguous date or had produced no datable artefacts. The dating was undertaken by the Leibniz Laboratory, Kiel and the sample details and results are presented in Table RC1. The results have been calibrated using the OxCal 4.0 programme.

The results of the radiocarbon dating programme support the suggestion that roundhouse F7202 (KIA-37130) in Area F4 is of an early type that could belong to the beginning of the Middle Bronze Age (*c*. 1600 BC) and that at least one of the charcoal rich pits (KIA-34936) is of Late Bronze Age date. The results also indicate that pit 7067 (KIA-37131) probably belongs with roundhouse 7169 and not with 7202. Both dates (KIA-37131-2) fall within the Early Iron Age (750–400 BC) and provide approximate dates for an assemblage of pottery that includes furrowed bowl. A single result (KIA-34937) from a dump of hearth material (42) from the middle fill of ditch 7 supports the interpretation that this could be at least Early Iron Age in date and possibly older. Unfortunately a sample from an antler pick associated with a deposit of MBA/LBA material failed.

Table RC1. Radiocarbon results

Lab ref	Sample	Conventional age	C(‰) δ13	95% calibrated date BC
KIA-37130	Roundhouse F7202, posthole F7082 charcoal *prunus spinosa*	3255±25 BP	-23.17	1610–1450
KIA-34936	Pit D5562 charcoal *quercus* roundwood	2687±26 BP	-25.70	900–810
KIA-37131	Pit F7067 charcoal *Hordeum* sp	2449±25 BP	-24.36	750–410
KIA-37132	Roundhouse F7169, posthole F7134 charcoal *Prunus spinosa*	2430±25 BP	-25.68	750–400
KIA-34937	Hearth deposit B42 in ditch B7 charcoal *Pomoideae*	2344±25 BP	-25.01	510–380
KIA-34938	Pit D5001 antler pick	Insufficient carbon		

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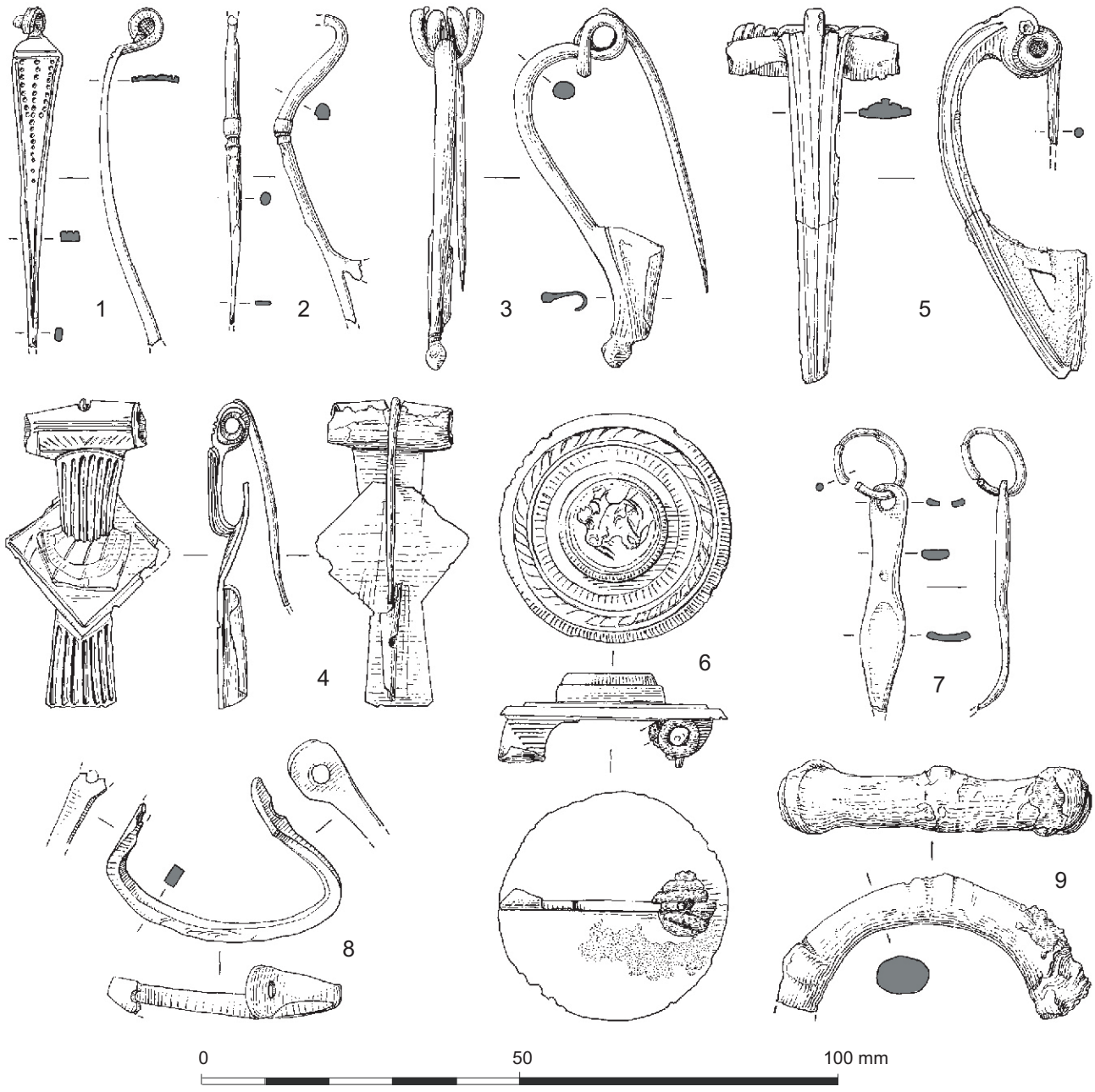

Figure CA1 Copper alloy objects: 1-9

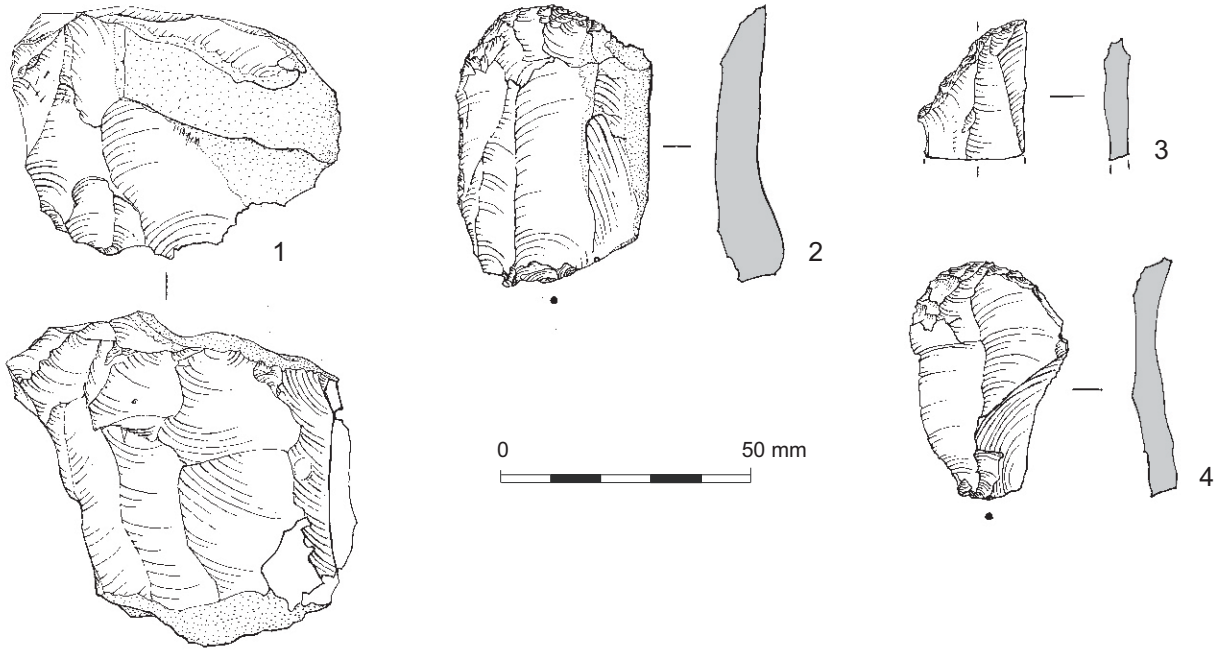

Figure WF1 Worked flint: 1-4

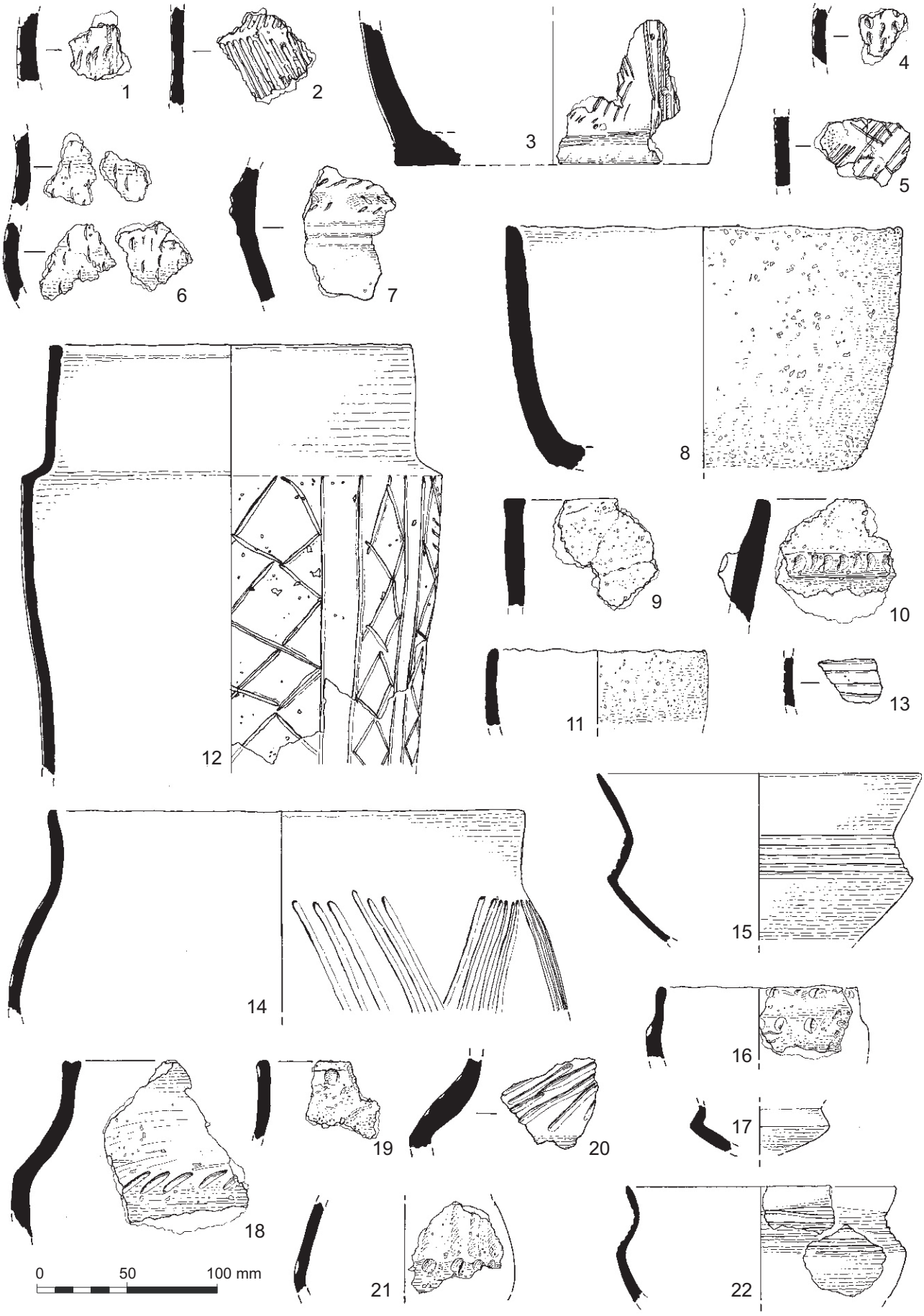

Figure PP1 Prehistoric pottery: 1-22

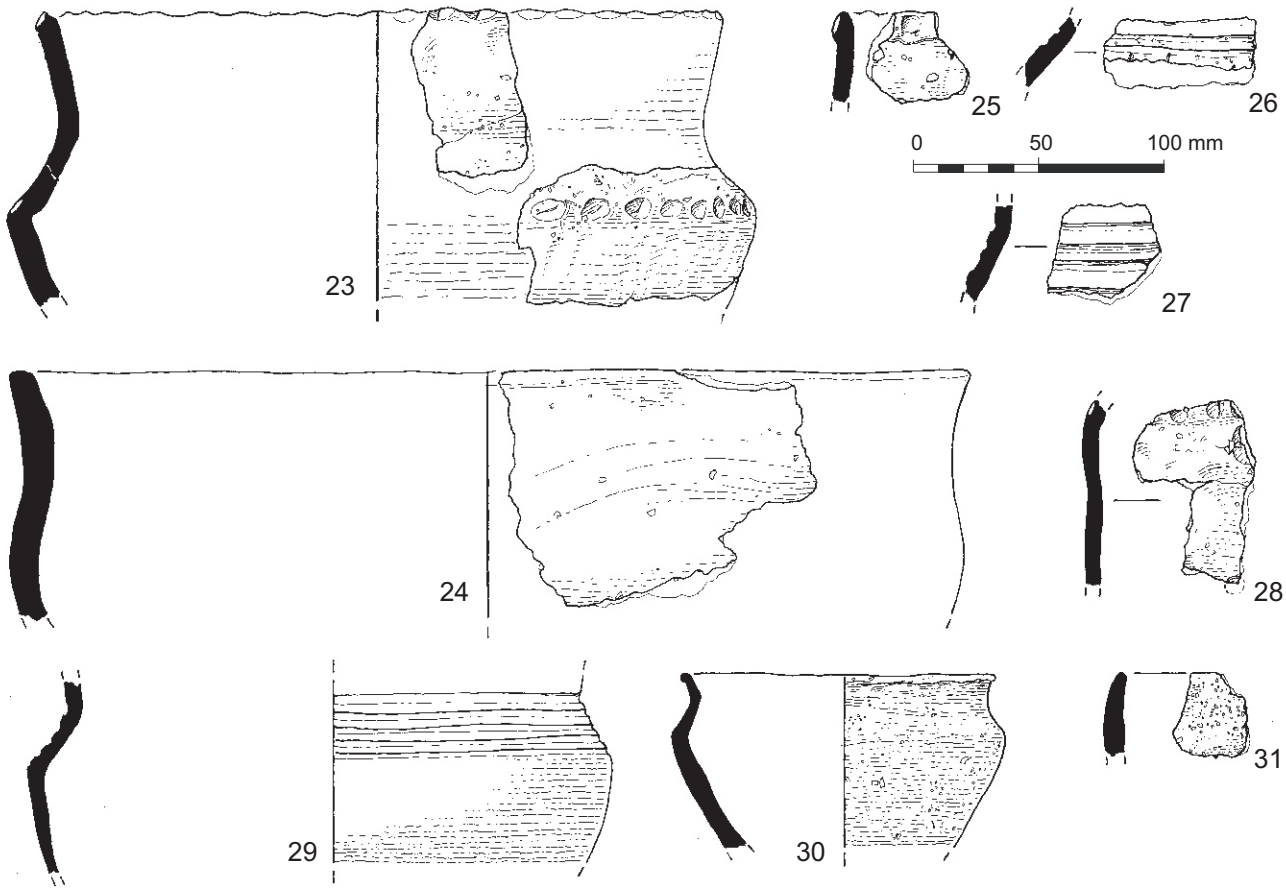

Figure PP2 Prehistoric pottery: 23-31

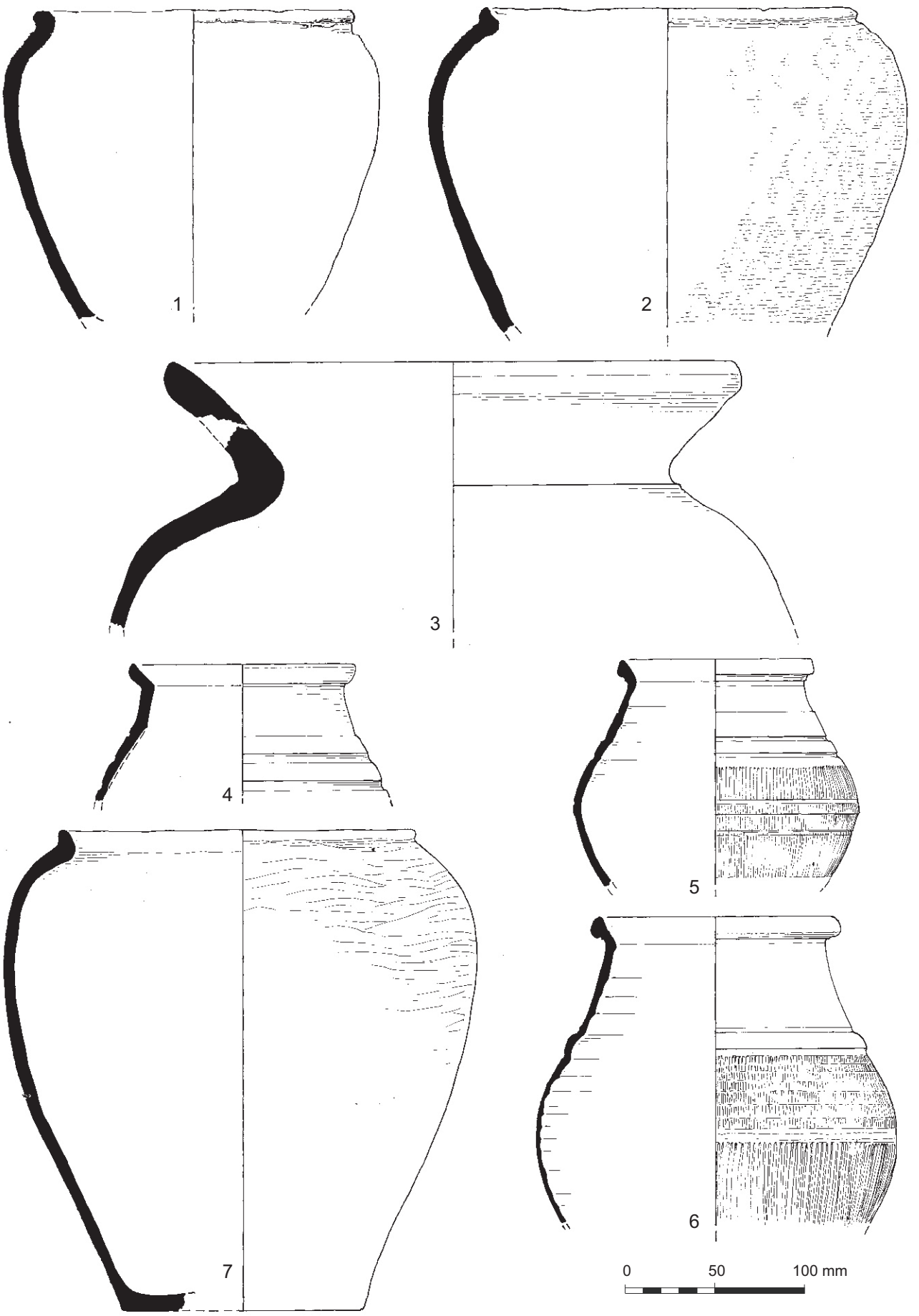

Figure RB1 Romano-British pottery: 1-7

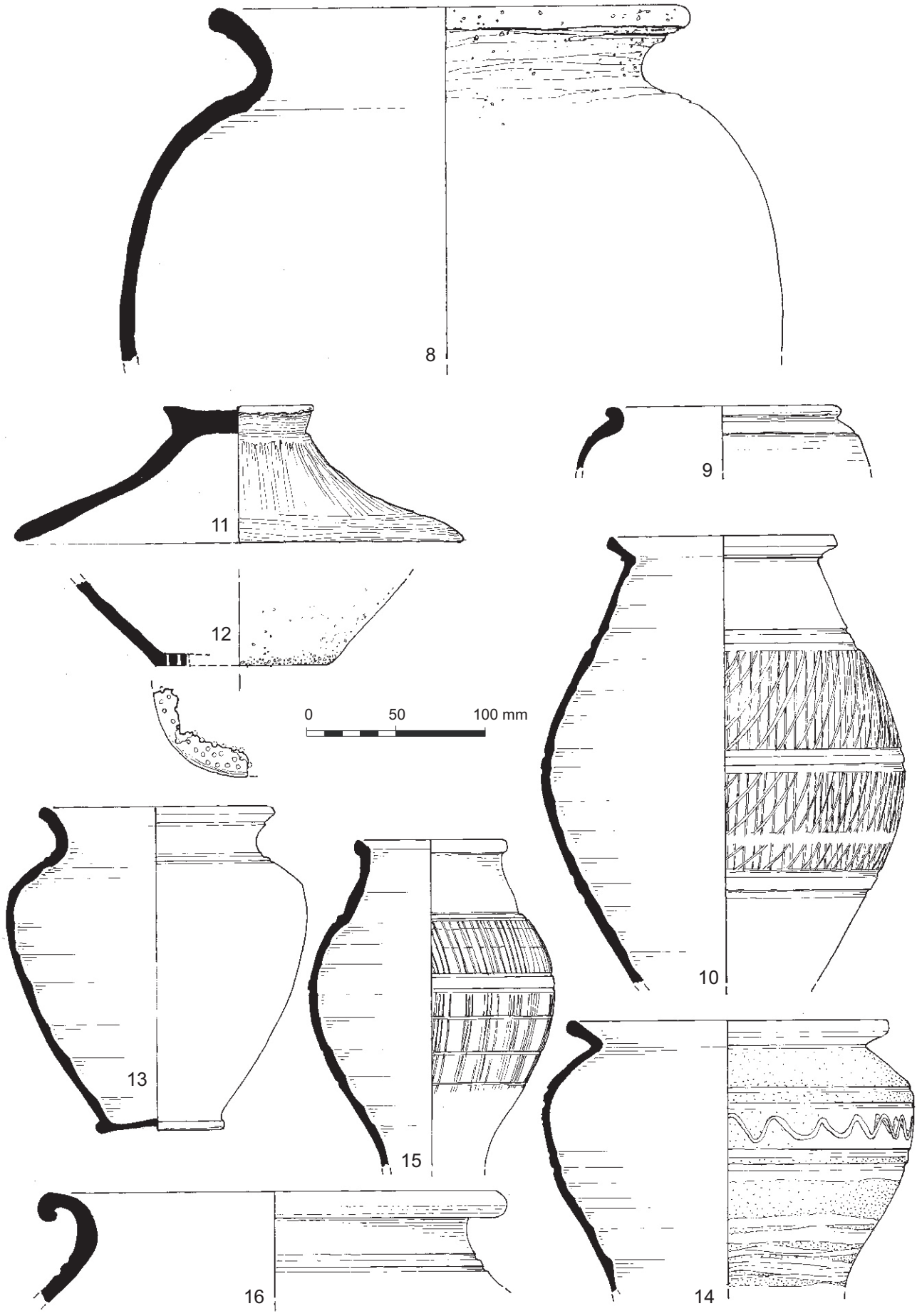

Figure RB2 Romano-British pottery: 8-16

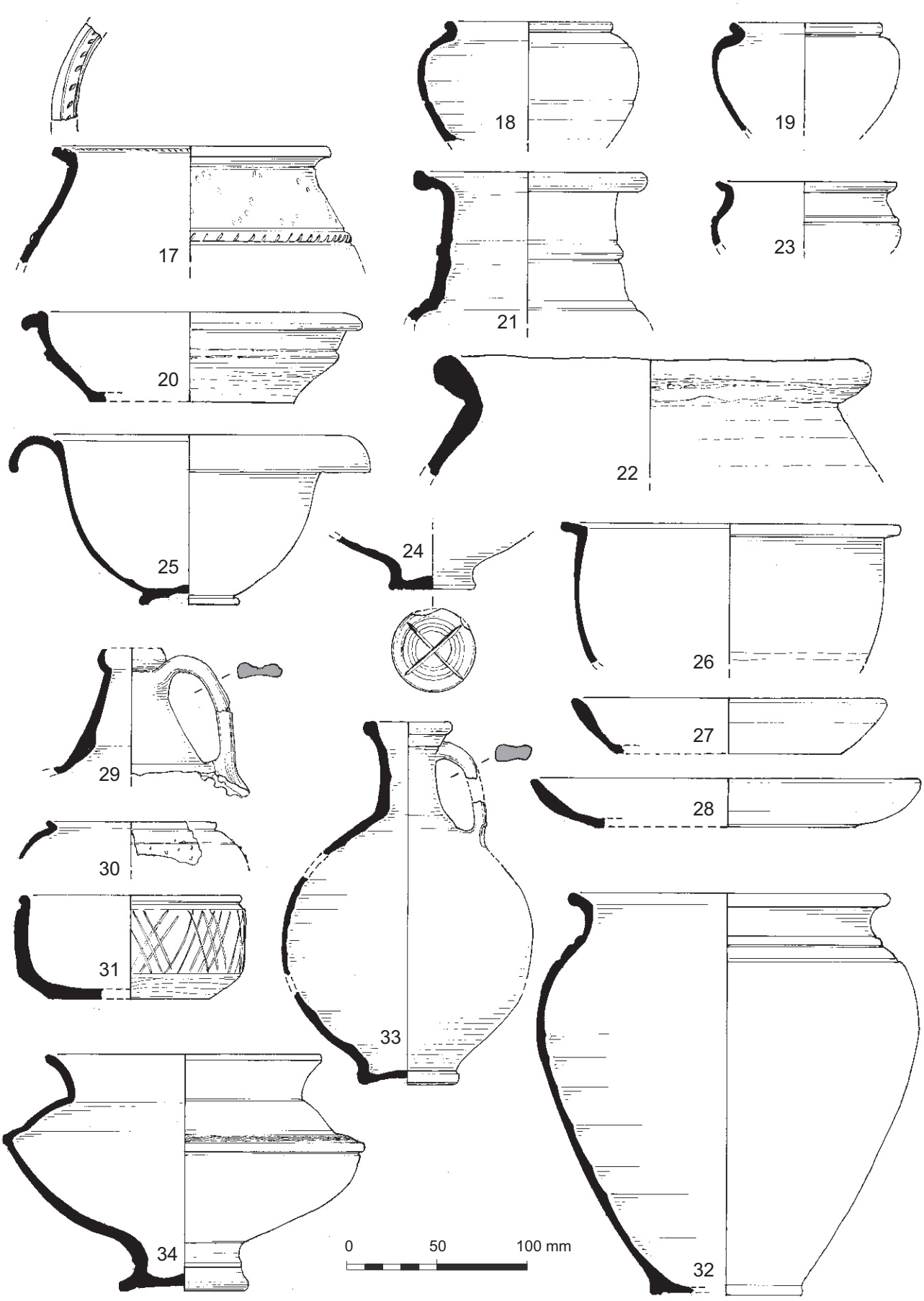

Figure RB3 Romano-British pottery: 17-34

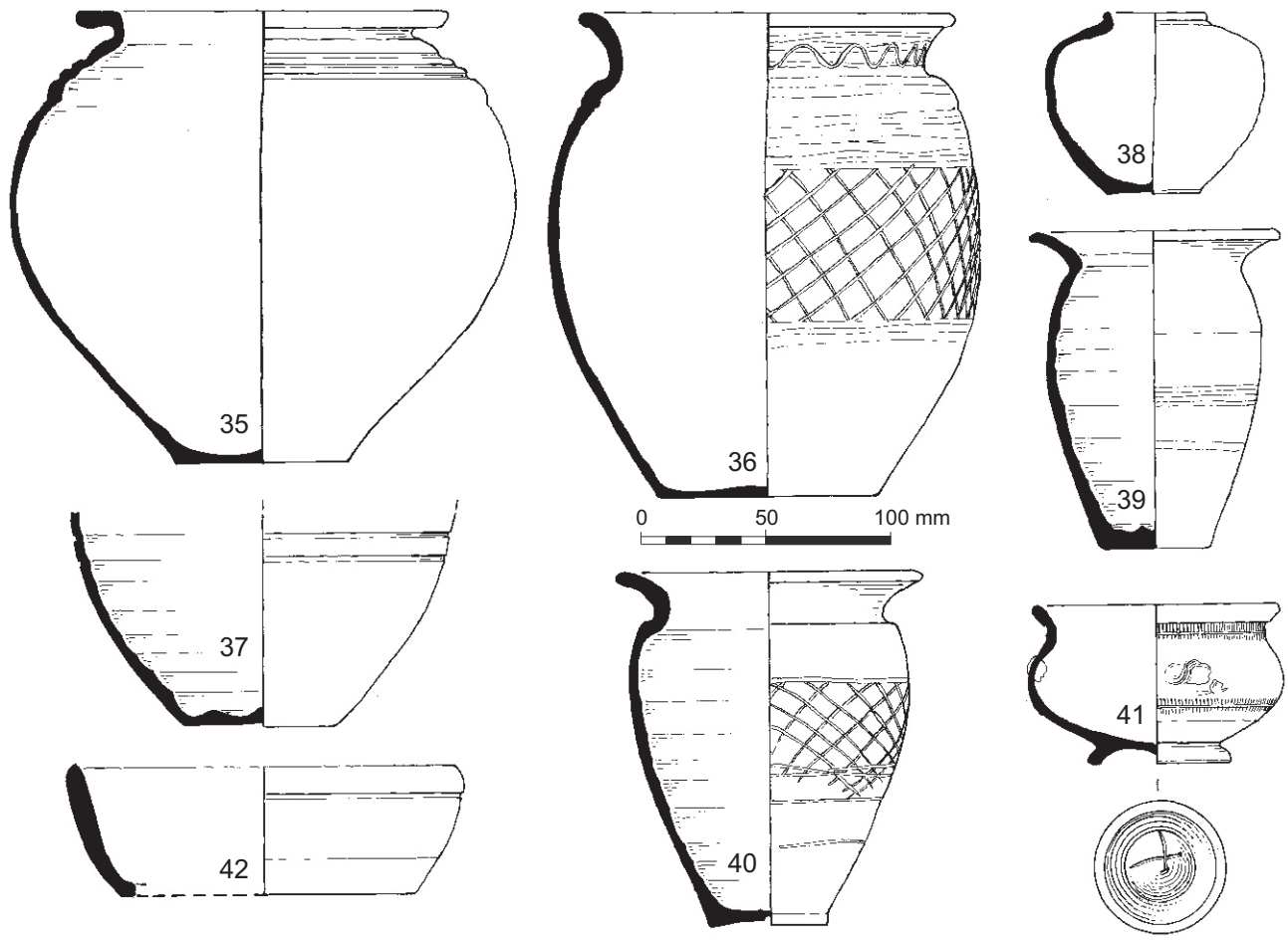

Figure RB4 Romano-British pottery: 35-42

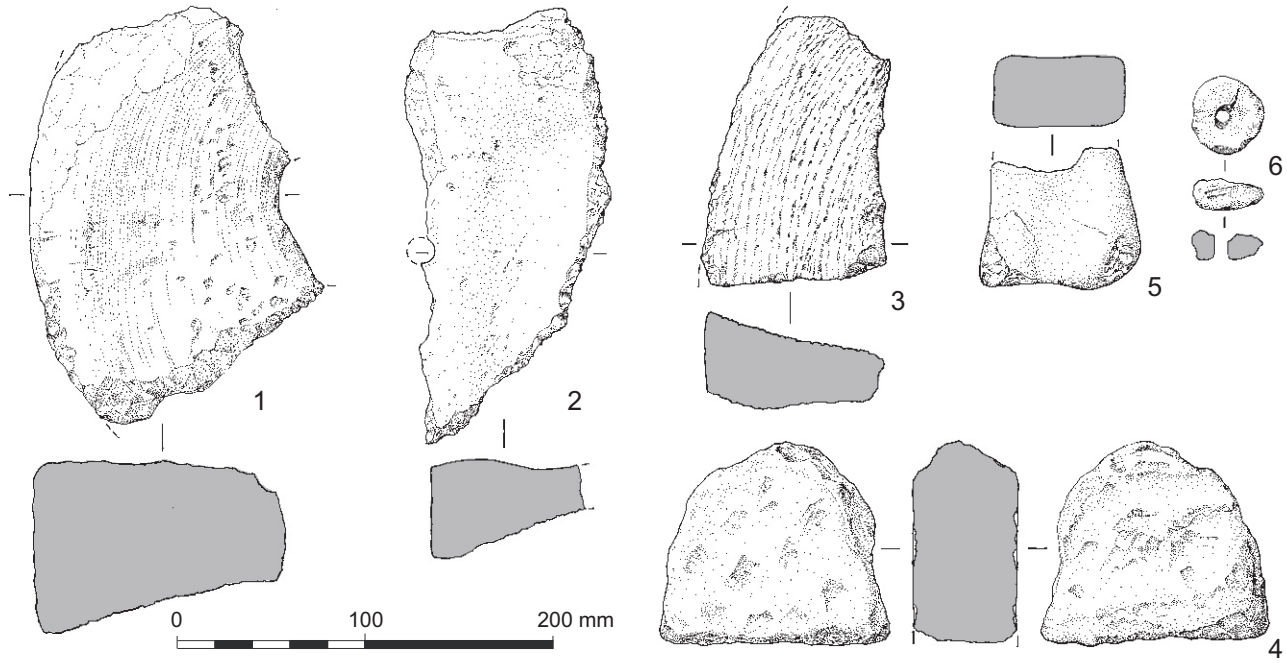

Figure SO1 Stone objects: 1-6

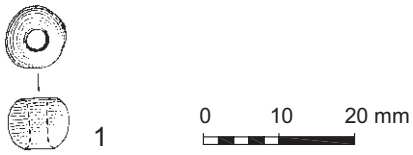

Figure CB1 Coral bead

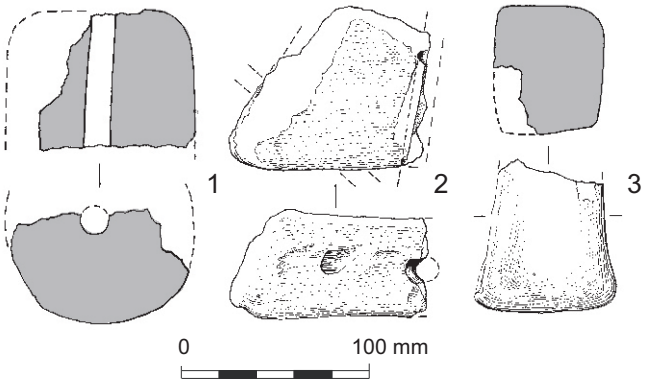

Figure FC1 Fired clay: 1-3

The archaeological investigation of 59 ha of mostly chalk downland revealed traces of human activity from the Neolithic through to the late Roman period, beginning with occasional pits containing domestic refuse and both Grooved Ware and Beaker pottery, the latter with evidence for cereal cultivation.

Permanent settlement occurred from about 1500 BC onwards with a series of open settlements including at least 15 buildings, mostly post-built roundhouses, of Middle Bronze Age to Early Iron Age date, whose inhabitants were involved in cereal cultivation and largescale land division. The Late Iron Age witnessed the creation of new settlements, enclosures, and trackways. Field lynchets and evidence for field clearance indicate that some earlier pasture was converted to arable. Short-lived, specialised enclosures, probably for animal husbandry, on the chalk contrasted with a long-lived complex of enclosures on poorer draining soils. The apparently low status settlement situated on these poorer soils exhibited only partly Romanised and mostly rural characteristics. The settlements were abandoned in the 4th century.

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