Proc. Hampshire Field Club Archaeol. Soc. 52, *1997, 1–58 (Hampshire Studies 1997)*

AN EARLY ROMANO-BRITISH SETTLEMENT AND PREHISTORIC FIELD BOUNDARIES AT DAIRY LANE, NURSLING, SOUTHAMPTON

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ABSTRACT

Excavations in 1993 at Dairy Lane, Nursling, recorded evidence for Mesolithic, Neolithic, Bronze Age and Roman activity. Residual worked flint of Mesolithic, Neolithic and Early Bronze Age date was recovered and three Middle Bronze Age field ditches. An early Roman ditched field system and associated settlement activity dating to AD 60–130 represents the remains of a small rural community involved predominantly in pastoral farming. The Roman discoveries are of some interest because of their proximity to the Roman settlement remains recorded at Nursling in the 19th century.

INTRODUCTION

The parish of Nursling and Rownhams lies to the north-west of Southampton in the lower Test Valley (Fig. 1). The settlement of Nursling, clustered around the church of St Boniface, lies in the west of the parish and close to the River Test. Its character has altered considerably in recent years due to extensive gravel quarrying to the north and south of the village, the construction of the M27 and M271 motorways, and the development of Nursling Industrial Estate.

The archaeological potential of the Nursling area is considerable and is reflected in the number and range of entries recorded for the parish in the County Sites and Monuments Record. Recent work has highlighted this potential (Rees 1993), although the circumstances of discovery of many sites and findspots has not been ideal. In 1992 the proposed construction of a large distribution warehouse in the north of Nursling Industrial Estate provided an opportunity to examine 14 hectares of land and a programme of archaeological investigation was undertaken. This programme culminated in the large scale excavation of an area of 2.7 ha. The excavation, post-excavation, and publication programme have been funded entirely by Tesco plc.

Prehistoric and Romano-British Sites and Findspots in Nursling

Archaeological discoveries in the lower Test Valley in and around the parish of Nursling and Rownhams span almost every archaeological period. Many of these discoveries date from the 19th century and early part of the 20th century and are poorly provenanced and documented, although recent work has re-emphasised the potential richness and diversity of the area (Green 1991; Rees 1993).

A summary of the principal archaeological sites and findspots in the vicinity of the site is given in Fig 2. Palaeolithic, Mesolithic, and Neolithic activity on this gravel terrace is represented by the recovery of single or small collections of worked flint. In the wider area, important evidence of Mesolithic exploitation of the lower Test Valley has recently been demonstrated with the discovery of putative Late Mesolithic 'structures' on the west side of the Test at Bowman's Farm (Green 1991) and the recovery of an important organic sequence spanning the Mesolithic period at Sharveshill Farm (Smith & Allen 1993).

Bronze Age and Early Iron Age material is particularly well-represented (Rees 1993) and includes a hoard of palstaves from the Nursling Industrial Estate. A Bronze Age barrow, now destroyed, was recorded 300 m to the west of the site. Bronze Age finds have also recently been recorded in the Industrial Estate at Franconia

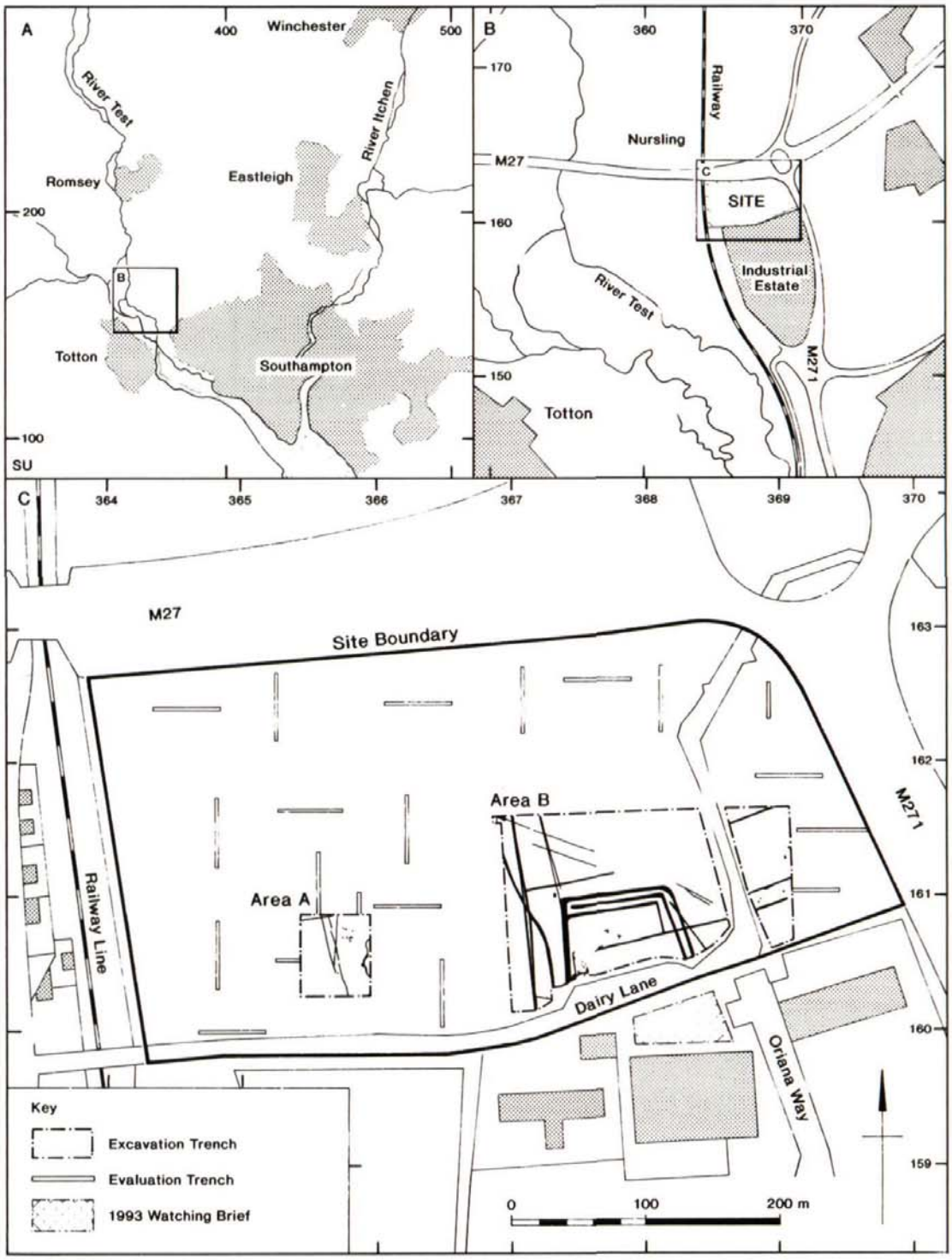

Fig 1 Site location

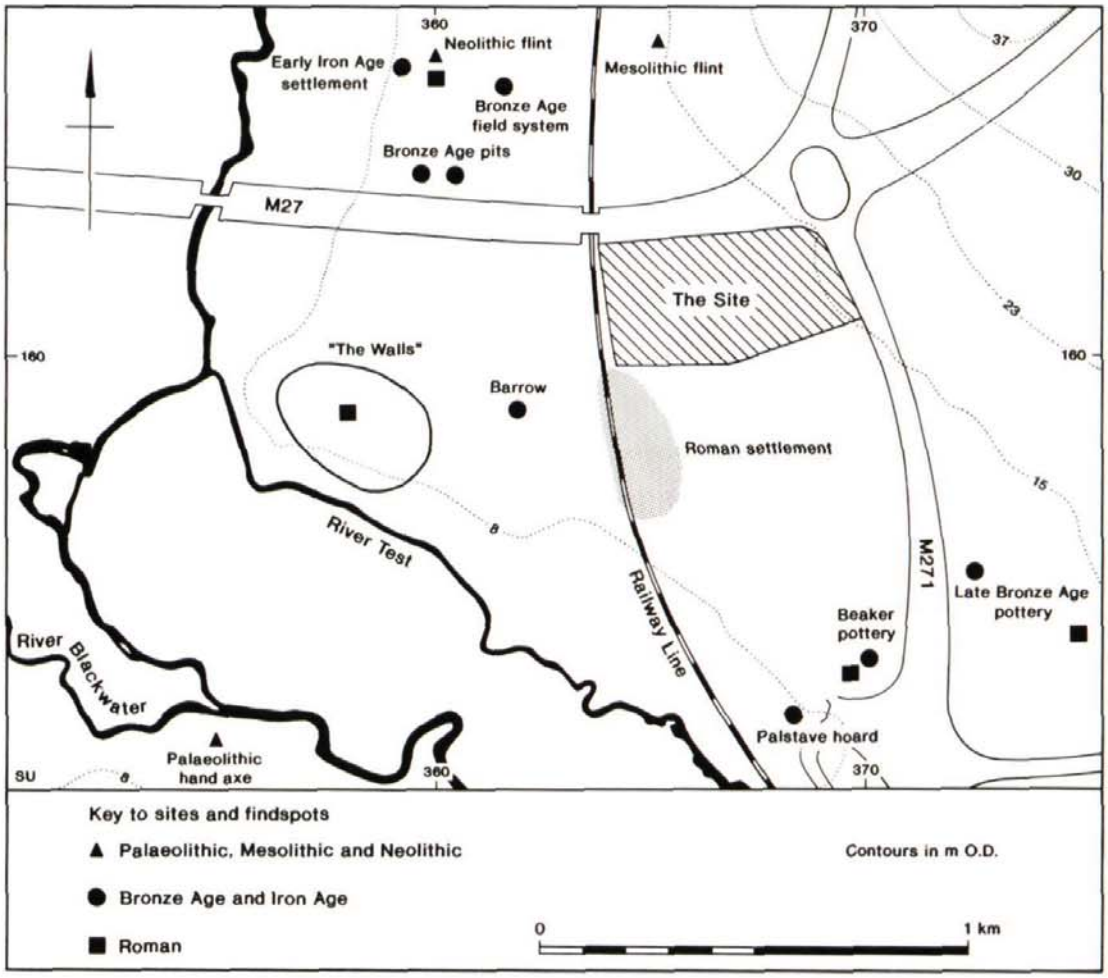

Fig 2 Site location and principal archaeological sites and findspots in the Nursling area

Drive, where a Beaker and Middle and Late Bronze Age pottery were recovered (Beamish & Hearne 1995).

Of particular interest to the excavation site is the proximity of a number of discoveries of Romano-British material in the 19th century along and adjacent to the line of the Southampton to Salisbury railway line. The discoveries, including many pits and three wells along with over 70 coins, bronze brooches and an ornamental weight, 'testify to more wealth and civilisation than we might expect in a village' (VCH 1900, Vol. 1, 311). The Victoria County History summarises the 19th century references for these discoveries, which were used to suggest that the Nursling settlement was the '*Onna*' of the Ravenna Cosmography (Richmond *et al.* 1949, 43). The potential importance of the site was supported by a proposed series of Roman roads (see Fig. 25), linking Nursling with Bitterne Manor and *Venta Belgarum* (Winchester) to the east and north-east respectively, and the New Forest, Ringwood, and the site of a possible port at Lepe via a crossing of the River Test to the west (Wake Smart 1881; 1885). Little archaeological evidence has been found to support these proposed routes, although a Roman

road, the nearest recorded section of which occurs 2.5 km to the north-east near Rownhams, probably linked the Nursling settlement with *Venta Belgarum*.

Many of the finds from the 'Roman settlement' are now held by Southampton Museums Service. Unfortunately, the provenance of many of these finds is unknown and cannot be precisely established from contemporary accounts. Recent research by the Nursling and Rownhams History Group has not been able to establish the site of their discovery beyond a general location and recent fieldwork appears to confirm that the ballast quarrying that brought many of these finds to light has totally destroyed any archaeological features that might otherwise have survived (Keevill 1993).

The location of the Roman settlement on a gravel spur projecting across the floodplain of the River Test has been used to infer that the site was both settlement and port as well as river crossing (Crawford 1913, 38). Crawford also records an earthwork enclosure, 'The Walls', and a promontory fort, both now totally destroyed by quarrying, suggesting the importance of this spur location in the prehistoric period. Unfortunately no archaeological record or dating evidence was recovered from these earthworks prior to their destruction.

Geology and Topography

The site (centred on NGR SU 3660 1615) comprises a rectangular plot of land limited to the north and east by the M27 and M271 motorways respectively, to the west by the Southampton to Salisbury railway line, and to the south by Dairy Lane and Nursling Industrial Estate. The site lies on a west-facing slope around the 10 m OD contour with a fall of around 7 m from east to west. There is a sharp fall in the very west of the site caused by the now infilled Andover to Southampton Canal (Course 1977), the cutting for which was subsequently enlarged in 1857 with the construction for the Salisbury-Southampton railway line.

The site is on river terrace deposits comprising brown sandy clay and gravelly clay on fine to coarse grained sand and gravel. The site lies on the first terrace which forms a wide and extensive outcrop between Romsey and Nursling (Edwards & Freshney 1987, 79). The natural topography of the site has been somewhat altered by developments in the vicinity, and in particular by extensive gravel quarrying to the west of the site. This quarrying has obscured a former gravel spur projecting across the floodplain of the River Test, which is tidal to this point. The floodplain to the west of Nursling is also the lowest fording point across the Test (Crawford 1913, 38). The soils of the site area comprised deep, well-drained loamy soils (Hamble 2 Association) and, prior to the excavation, all the plots within the site were in pasture.

THE EXCAVATION

Excavation Strategy

In view of the archaeological potential of the site and following the advice of the County Archaeological Officer, an archaeological evaluation of the 14 ha site was undertaken in January 1992 by the Oxford Archaeological Unit (1992) in advance of the development scheme. The evaluation involved the examination and recording of 39 machine-excavated trenches, totalling 0.27 ha, or a 2% sample, of the site area (Fig. 1). The evaluation concluded that there were three areas of archaeological interest within the site: a Mesolithic flint scatter in the west; an area of Late Neolithic or Early Bronze Age activity in the east; and an extensive area of Late Iron Age and Roman occupation in the south.

In view of these results, the County Archaeological Officer advised that a programme of archaeological excavation and recording should be carried out prior to development. Details of the excavation strategy, which is summarised below, are held in the project archive.

The Mesolithic Flint Scatter

The evaluation suggested that there was a concentration of Mesolithic activity in the west of the site. A collection of worked flint was recovered from a worm-sorted horizon at the base of the topsoil, and

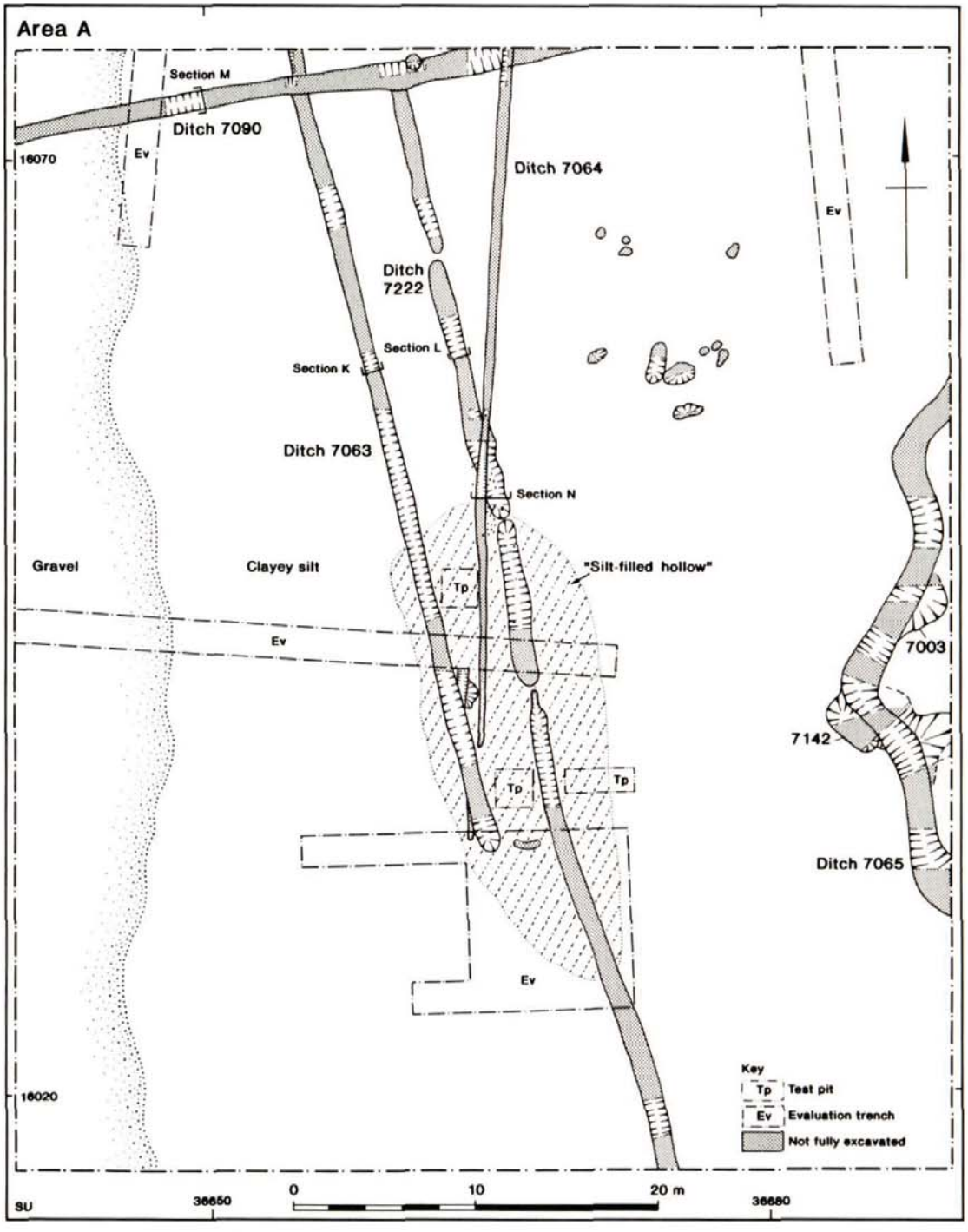

Fig 3 Area A – plan of all archaeological features

also from a 'silt-filled hollow' and a number of other features, including treeholes and ditches, sealed below topsoil and cut into the subsoil. The excavation strategy was designed to examine and recover worked flint from these various locations.

Excavation Area A (Figs 1 & 3), totalling 0.3 ha, was centred on the Mesolithic flint scatter. The greater depth of topsoil was removed by machine, with the lowest 0.05 m hand-excavated in 4 m^2 test pits set out on a regular grid basis, covering 10% of Area A. Preliminary assessment suggested that the basal topsoil contained a generally plough-damaged worked flint assemblage, less than 20% of which could be positively attributed a Mesolithic date. On this basis, the remaining basal topsoil was machine stripped from Area A and all subsoil features, including the 'silt-filled hollow' were subsequently hand-excavated, sampled, and recorded. Details of test pit locations and finds by test pit are held in the archive.

Prehistoric and Romano-British Features

In the south and east of the site, excavation Area B, split between two areas east and west of Dairy Lane (Figs 1 & 4), was centred on the prehistoric and Romano-British features recorded during the evaluation. Topsoil was stripped by machine from a total area of 2.4 ha. Preliminary cleaning and recording confirmed the results of the evaluation and that archaeological features largely consisted of discrete features cut into the subsoil. Hand-excavation of archaeological features maintained a minimum of a 10% sample of linear features and a 50% sample of other features.

Watching Brief

The fieldwork programme was concluded with a watching brief during construction. The watching brief was originally proposed for areas immediately adjacent to Area B, although limited observations and recording were undertaken throughout the site area.

The excavations were undertaken by Wessex Archaeology between April and July 1993, with the watching brief undertaken in July and August 1994. The full project archive, including the finds, has been deposited with Hampshire County Museum Service under the site code W584. A microfilm copy of the site archive has also been deposited with the National Monuments Record.

THE SITE by Neil J Adam

Early Prehistoric Activity

Although the evaluation had suggested that it had a high potential for the recovery of Mesolithic artefacts the 'silt-filled hollow' recorded during the evaluation in Area A proved to be entirely natural and produced no artefacts. A mixed assemblage of residual worked flint of Mesolithic, Neolithic and Bronze Age date was recovered, mostly from Area A. No *in situ* deposits, as suggested by the evaluation, were identified during the excavation.

Later Prehistoric Activity

The earliest dated archaeological features on the site were three ditches, probably field boundaries, in Area B (Figs 4 & 5). All three ditches were aligned south-east to north-west. Ditch 3657 was 1.1 m wide with steep sides and a flat base and averaged 0.5 m deep. It was filled with a dark yellowish brown silty clay loam with sparse gravel and flint inclusions (Fig. 5, Section A). Ditches 3657 and 3639 (Figs 4 & 5, Sections B and C) were 28 m long, 0.36 m wide and up to 0.16 m deep. They were 1.5 m apart but converged in the north-west and then petered out (Fig. 4).

Sherds of globular urn, barrel urns, and a possible accessory vessel were recovered from ditch 3657 (Fig. 5, Section A), and a radiocarbon date of 910–800 cal BC (2695 ± 65 BP, AA-14701) was obtained from charcoal in the fill (this date has been calibrated using CALIB 2.0 and is expressed at the 95% confidence level with the end points rounded outwards to 10 years following the form recommended by Mook (1986)). Globular urn sherds were also reocovered from ditch 3637.

Middle Bronze Age and Late Bronze Age/Early Iron Age pottery sherds also occurred in residual contexts across the site.

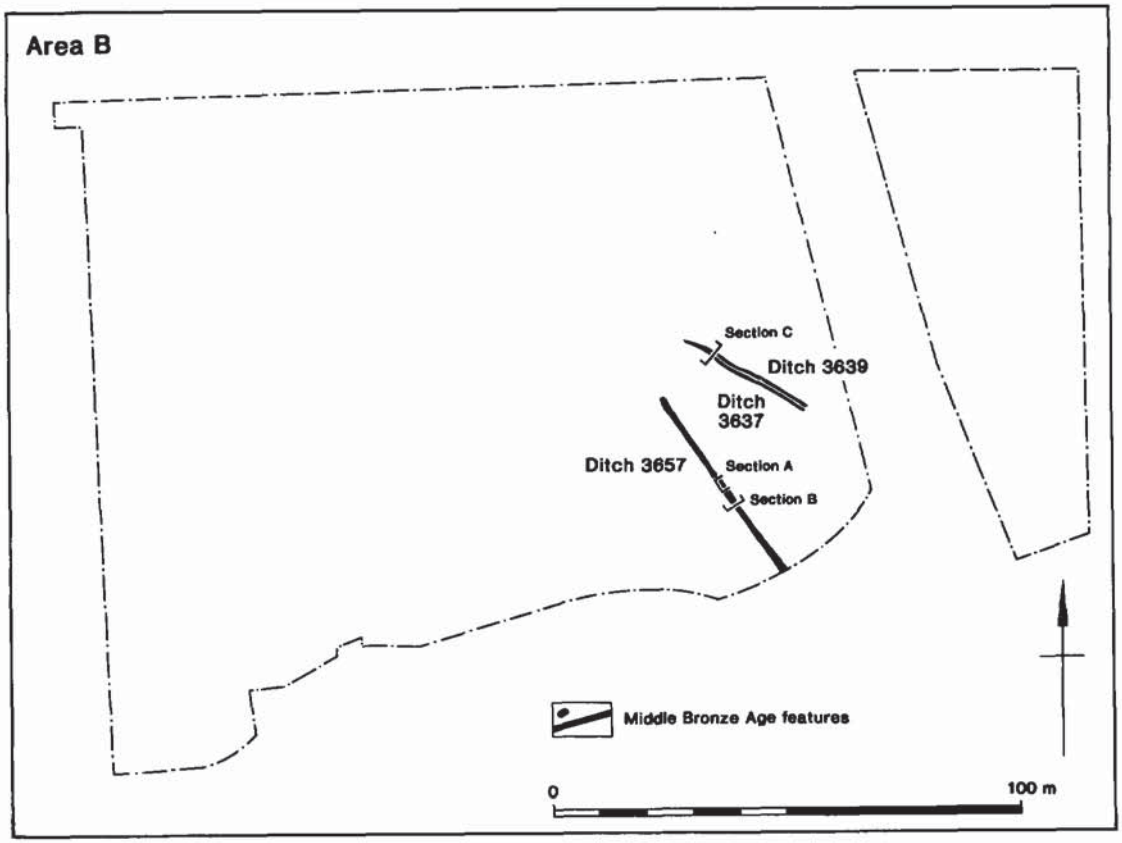

Fig 4 Area B – Middle Bronze Age: plan of features

Romano-British

Most of the excavated features can be dated to the early Romano-British period, *c.* AD 60–130. Limited stratigraphic relationships indicate at least three principal, but probably overlapping, phases of activity with no ceramic differentiation between them. A date of *c.* 60 AD for the beginning of the sequence is suggested by a single sherd of Neronian samian. An end date of *c.* 130 AD is suggested by the absence of Dorset Black Burnished Ware (BB1) and by the general paucity of 'Romanised' pottery forms.

Phase 1: Features pre-dating the Phase 2 ditched field system (Fig. 6)

Curvilinear ditch 3579, 1.1 m wide and 0.6 m deep, was U-profiled, with steep sides and a flat base. It had been recut at least once along part of its length (Fig. 7, Section D) and was filled with two sandy silt deposits. One hundred and fifty sherds of small and abraded Roman pottery, including fragments from three bead rim jars (Fig. 17, 1–3) were recovered. Pit 3566, 2.2 m long, 1.4 m wide, and 0.25 m deep (Fig. 7, Section E) also contained sandy silt with some charcoal. Most of the pottery is sherds of amphora, including a strap handle (Fig. 20, 25). Both features were cut by Phase 2 field ditches.

Phase 2: The ditched field system (Fig. 8)

A rectilinear field system was laid out across most of the site. It was represented by a series of generally shallow ditches, oriented north-west to south-east or north-east to south-west, which de-

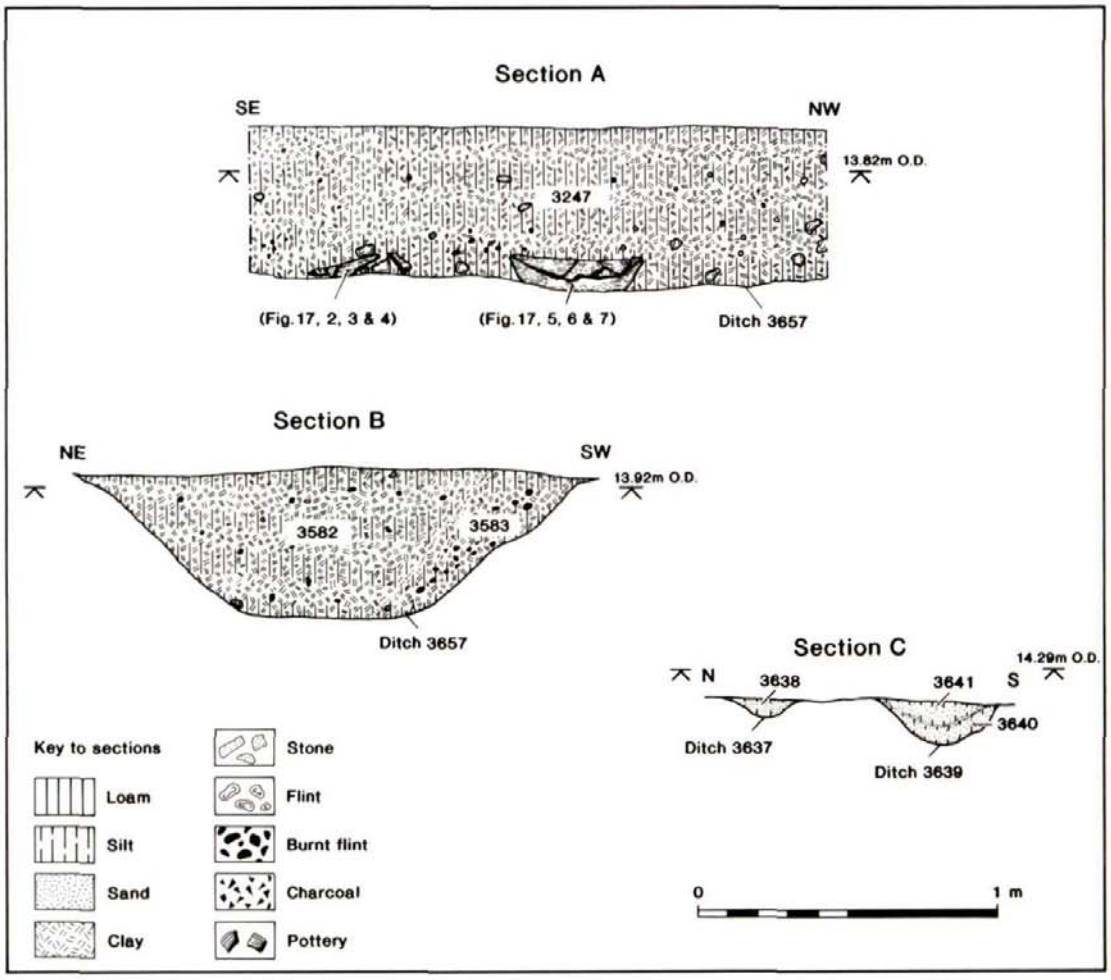

Fig 5 Area B – Middle Bronze Age: ditch sections

fined rectangular plots or fields covering an area of at least 4 ha. Ditches 3633 and 3656 probably marked boundaries to one of these fields with another, to the north, marked by ditches 3124/3272 and 3656. The broadly parallel ditches 3198 and 3124/3633, *c.* 30 m apart, may have marked a droveway immediately to the west of these fields, with ditch 3263 a later modification to this layout.

The field ditches were generally continuous 0.9–1.0 m wide, 0.2–0.5 m deep, U-profiled, and filled with dark yellowish brown clayey silts with occasional flint gravel (Fig. 7). A gap of *c.* 15 m at the north and west ends of ditches 3633 and 3656 and another between ditches 3124 and 3633 may represent entrances. Ditch 7222 in Area A was apparently deliberately excavated as a series of short lengths (Fig. 3). Some of the ditches were partly or more extensively recut at least once, for example ditch 3656 (Fig. 7, Section F), or re-established on a new alignment, for example ditches 3124 and 3272 in Area B (Fig. 8) and ditches 7222 and 7063 in Area A (Fig. 3).

Generally low numbers of small and abraded

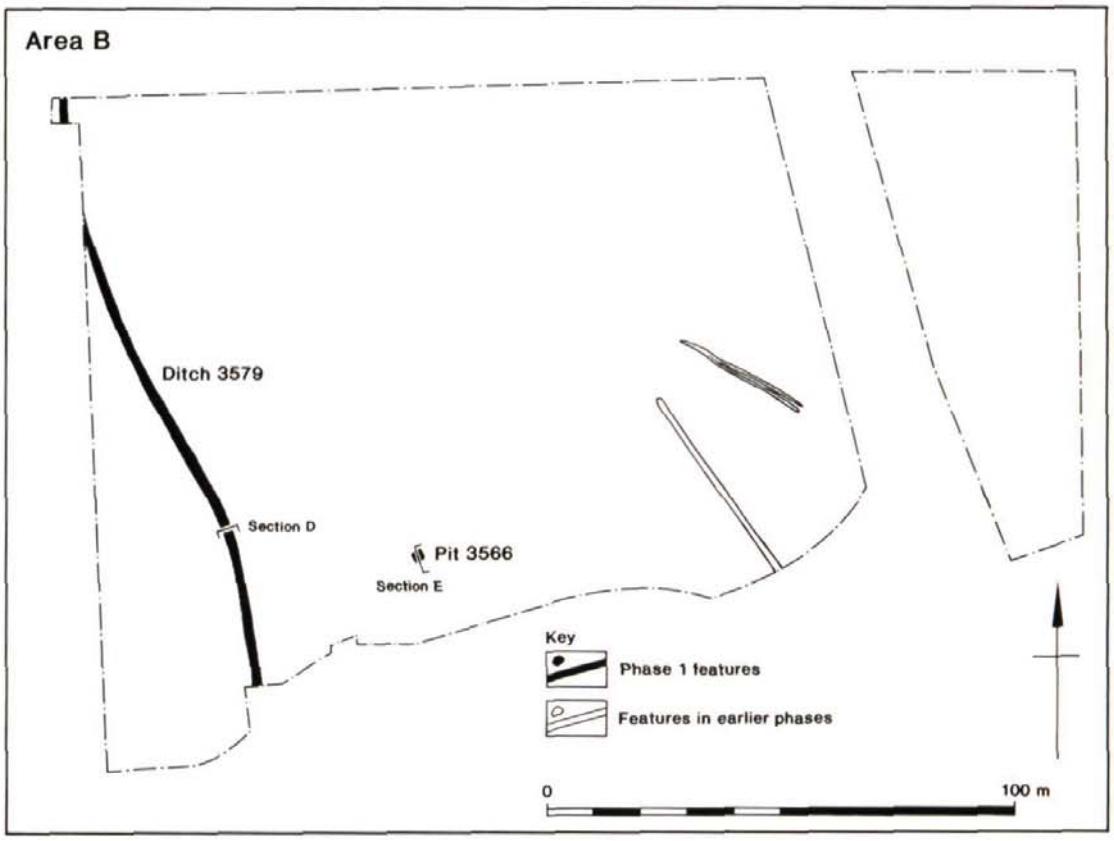

Fig 6 Area B – Early Roman Phase 1: plan of features

sherds of Roman pottery were recovered from the field ditches, particularly from those in Area A and the east of Area B. A concentration of pottery in ditch 3124 suggests that it was still open when the Phase 3 enclosure was established.

Phase 3: enclosure and settlement features (Fig. 9)
A rectangular, ditched enclosure superseding the Phase 2 field system may have been set within it. Three parallel ditches (3335, 3319 and 3283) are interpreted as successive enclosure ditches, defining an increasingly larger area though contemporaneity of some sections of them is also possible. A number of settlement features, including pits and post-holes, were recorded in the enclosure. Elements of the Phase 2 field system may have continued in use and not become finally infilled until Phase 3. The most convincing evidence for this is provided by the coincidence of the west limb of the enclosures and earlier field ditch 3124/3633, and of the south-east end to enclosure ditch 3335 and the line of earlier field ditch 3656 (see Fig. 9).

The proposed sequence of enclosure ditches indicates that the enclosed area increased in size through time and was enclosed by increasingly substantial ditches. The first, enclosure ditch 3335, was only 1 m wide and 0.3 m deep (Fig. 10, Section K) and enclosed an area of *c.* 0.16 ha; the second, enclosure ditch 3319 (Fig. 10, Sections L, O), was generally wider and deeper, enclosing *c.* 0.33 ha with an entrance in the north-west

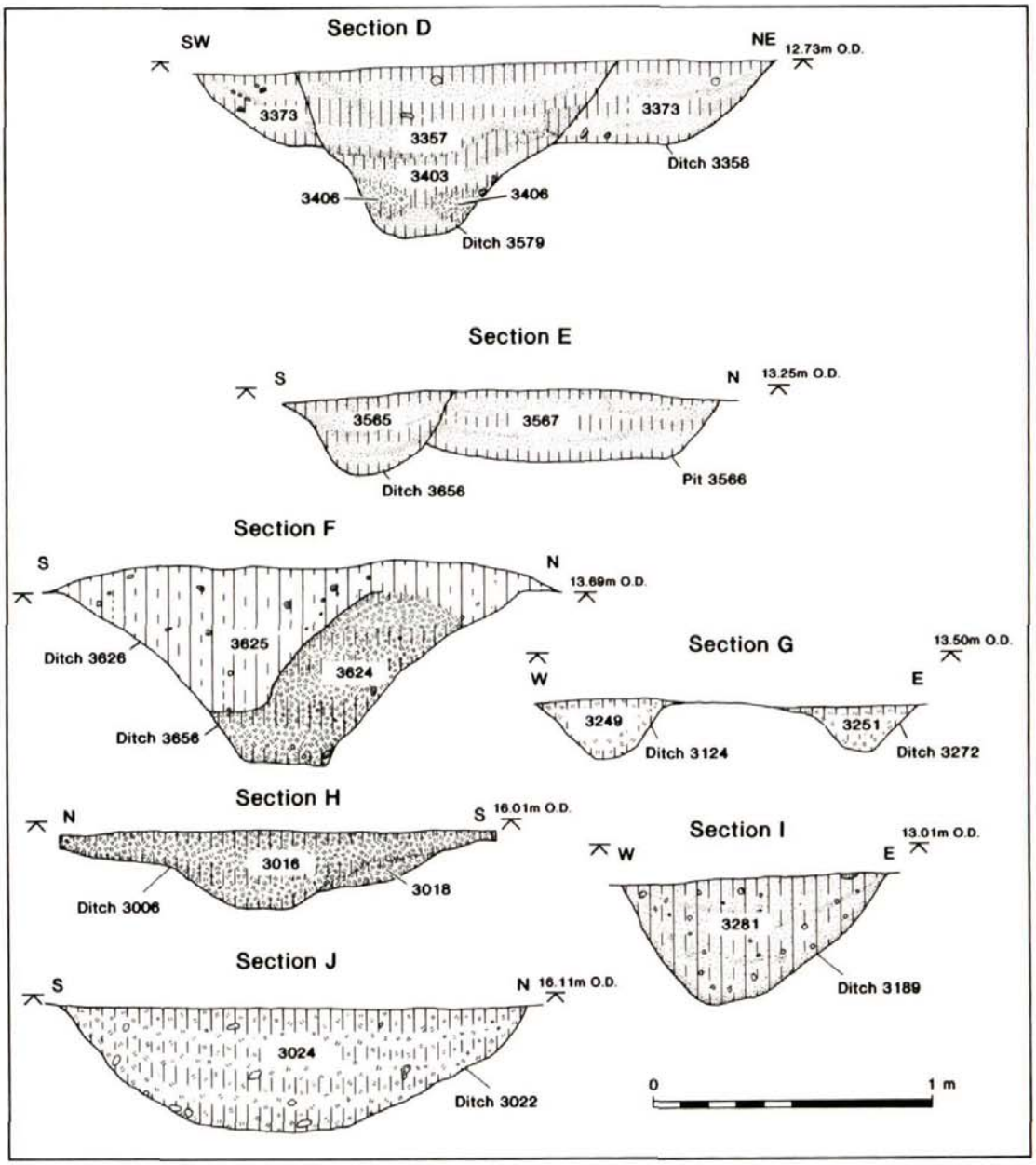

Fig 7 Area B – Early Roman Phases 1 and 2: ditch and pit sections

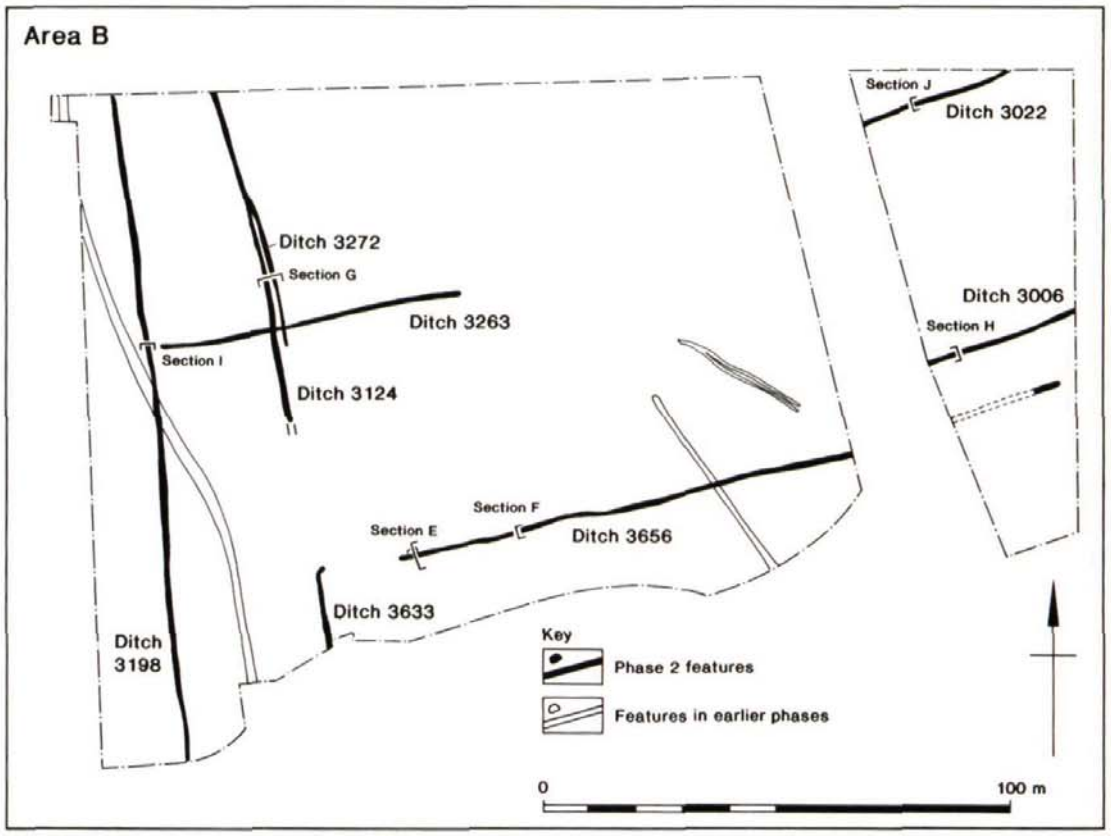

Fig 8 Area B – Early Roman Phase 2: plan of the ditched field system

corner; and the third, enclosure ditch 3283 (Fig. 10, Sections M, N), was *c.* 2 m deep, 1.1 m wide, with evidence for one or more recuts in its variable profile, and enclosed an area of 0.4 ha. The entrance to this enclosure was probably from the south. These dimensions are approximate as survival of the ditches across the site was variable, some lengths having been destroyed by subsequent features and some probably lying beyond the extent of the excavation.

Sections excavated across ditch 3283 showed a different sequence of fills and recuts in each limb of the enclosure (compare Fig. 10, Sections M and N). An homogeneous deposit of light grey clay silt sealing the basal fill in the west limb may represent a deliberate infilling (Fig. 10, Section M) not apparent elsewhere. Most of the fills indicated deposition from within the enclosure suggesting the presence of an internal bank.

Early Roman pottery occurred in all the ditches with a concentration (311 sherds) in ditch 3335 which may represent the deliberate disposal of domestic debris. Fragments from two possible saddle querns were also recovered from ditch 3283.

A comparatively small number of features, including pits and post-holes, was recorded within the Phase 3 enclosures, either in the south-west, immediately adjacent to the west ditch, or in the centre. The low density of archaeological features was confirmed by careful hand-cleaning of most of the interior of the enclosure and by subsequent

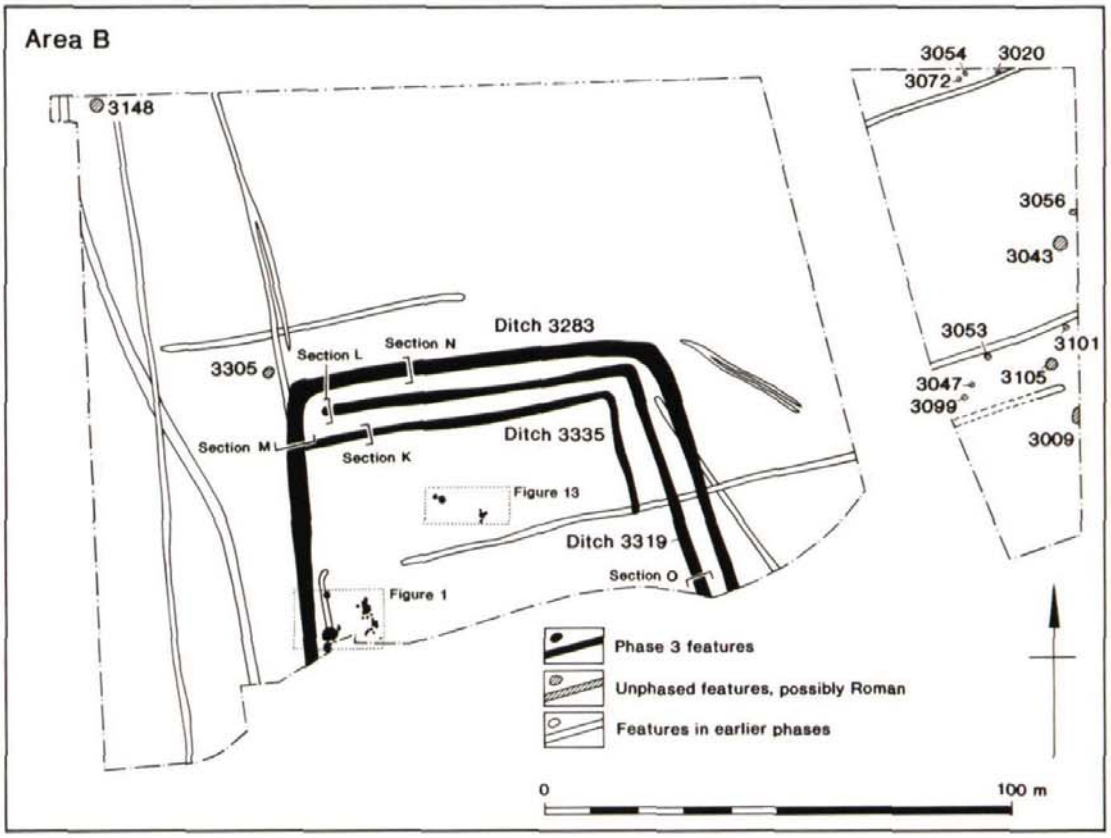

Fig 9 Area B – Early Roman Phase 3: plan of enclosure and settlement features and unphased, possibly Roman features

observations made during the watching brief. Finds from the pits and post-holes are again of early Roman date but they cannot be assigned to any one phase of enclosure ditch.

Five pits (Fig. 11, 3420, 3516, 3534, 3631, and 3632) lay immediately inside enclosure ditch 3283 though they were not necessarily contemporary with it. These ranged in diameter between 1 m and 2.6 m and were 0.16–0.65 m in depth. Homogeneous silty clay upper fills in pits 3516, 3534, and 3631 (Fig. 12, Sections P–R) suggest deliberate infilling of partly filled features and pit 3632 also seemed to have been deliberately backfilled above a thin layer of charcoal.

Five metres to the east of these pits was a group of at least 12 post-holes, none of which formed a recognisable pattern or structure (Fig. 11). The post-holes were U-profiled, 0.25 m–0.45 m in diameter and 0.1–0.25 m deep. They were filled with silty clay with deposits of charcoal and, on occasions, burnt flint but only one sherd of pottery was recovered, from post-hole 3462. Several further pits and post-holes were found, again not in any coherent pattern, in two groups towards the centre of the enclosures (Fig. 13). Concentrations of charcoal and burnt flint occurred in some of the pits with Roman pottery and some Roman tile fragments in the post-holes.

Pit 3291 was circular in plan and barrel-shaped in section, measuring 1.4 m in diameter and 1.6 m deep (Fig. 13, Section U). Above 0.5 m dark greyish-brown clayey silt, with a high inclusion of

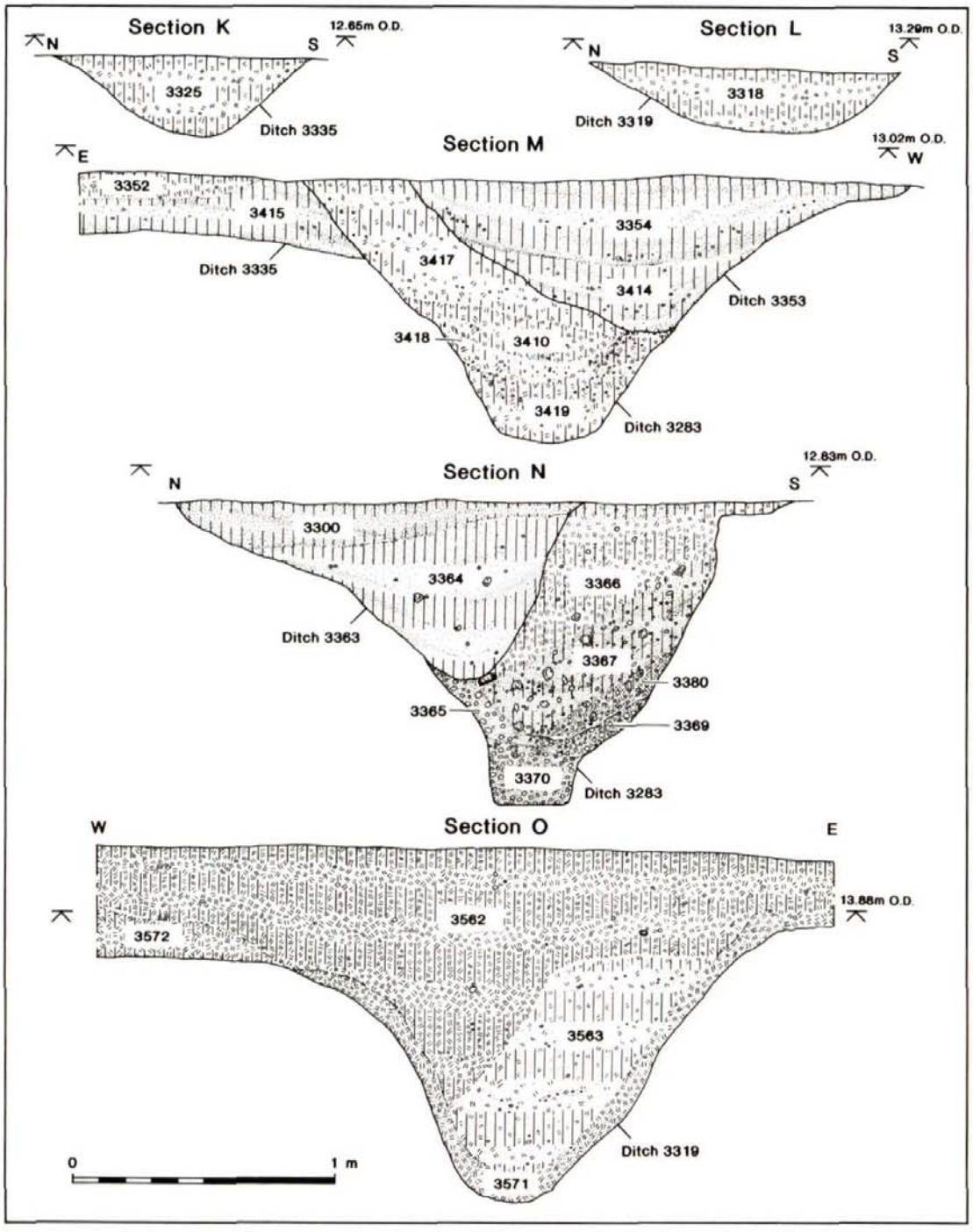

Fig 10 Area B – Early Roman Phase 3: enclosure ditch sections

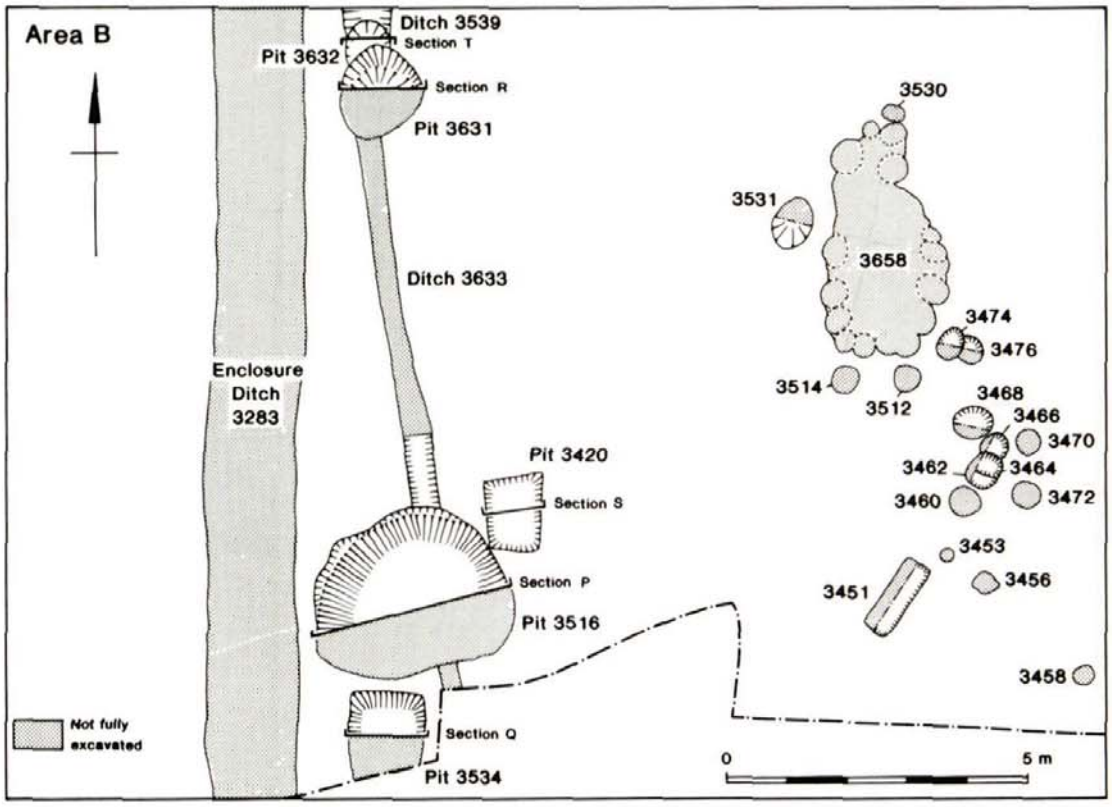

Fig 11 Area B – Early Roman Phase 3: plan of features in the south-west of the enclosure

gravel and sherds of Roman coarseware and some fragments of white flagon, was 0.55 m of greyish-brown 'cess' (field interpretation by Dr M.J. Allen), with occasional lenses of gravel and a dump of large pottery sherds at its base. This material included many sherds of Roman coarseware, flagons, some samian and amphorae fragments (Figs 21, 36–45), and fragments of a Greensand rotary quern. The upper 0.5 m of the feature was filled with cess-like material.

Pit 3292, rectangular and flat bottomed, measured 1.6 m by 1.5 m and was 0.4 m deep (Fig. 13, Section U). It was cut by pit 3291. Large amounts of early Roman coarse and finewares included fragments of flagon and beaker, and imported samian and Lezoux ware (Fig. 22, 46–57; Fig. 24, 58). The pottery suggests a marginally later date for these two pits than for most features on the site.

The only later Roman material came from a 0.07 m thick layer of light brown clay loam (3628) in the south-west of the enclosure which produced some later 2nd century pottery and a ?4th century copper alloy enamelled brooch.

Unphased (?Romano-British) and Later

A number of stratigraphically isolated features were recorded that contained very small quantities of Roman pottery or no datable material at all. These include ditches 7065 and 7064 in Area A, which produced one sherd each of possibly Saxon organic-tempered pottery, and several pits and other small features in Area B. A small amount of medieval and later pottery was also recovered and post-medieval and modern field ditches recorded. Post-medieval and modern features included two post-medieval field boundaries (Fig. 14, 3127 and 3584) and two modern ceramic field drains in Area B.

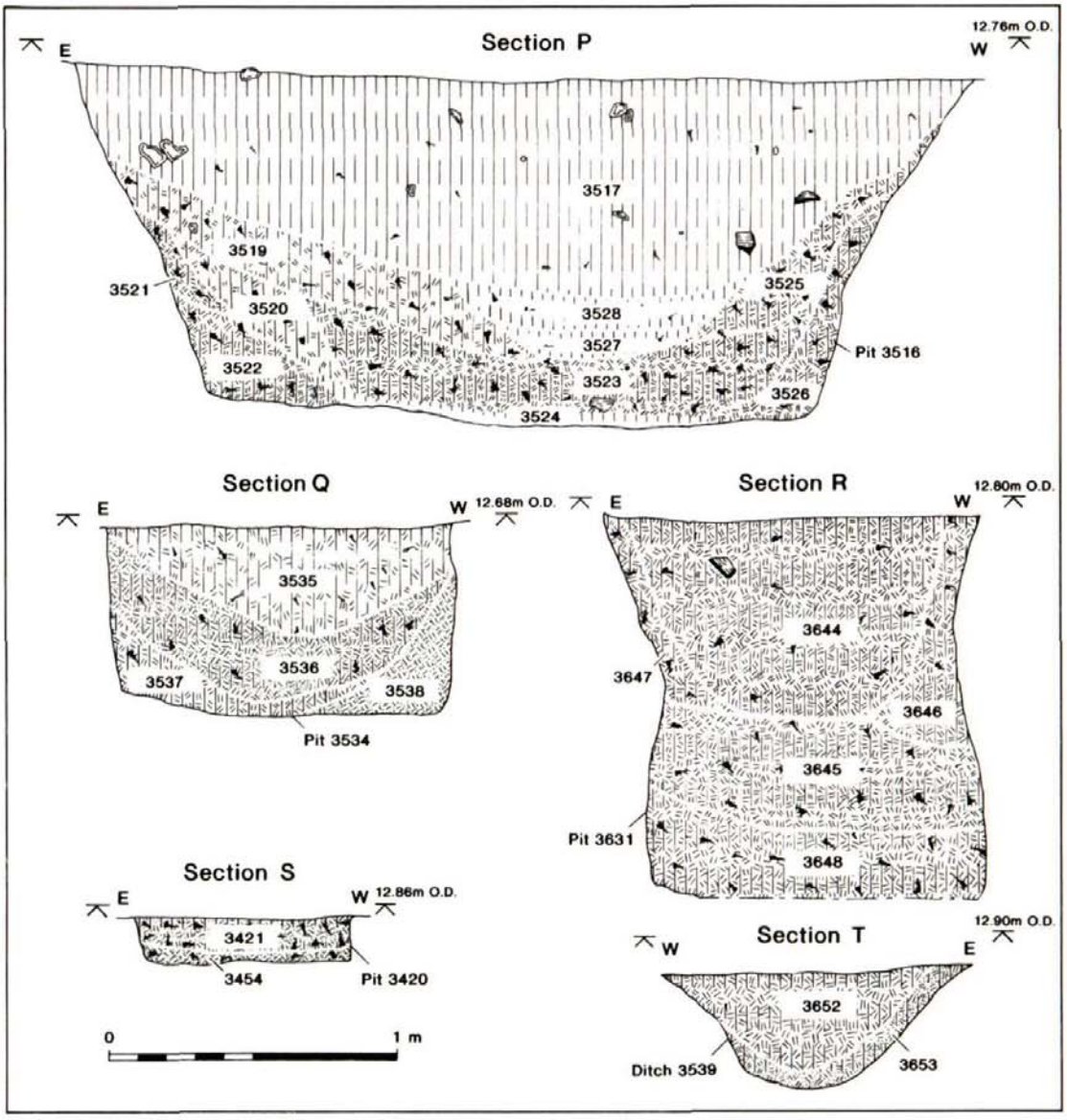

Fig 12 Area B – Early Roman Phase 3: sections of pits features in the south-west of the enclosure

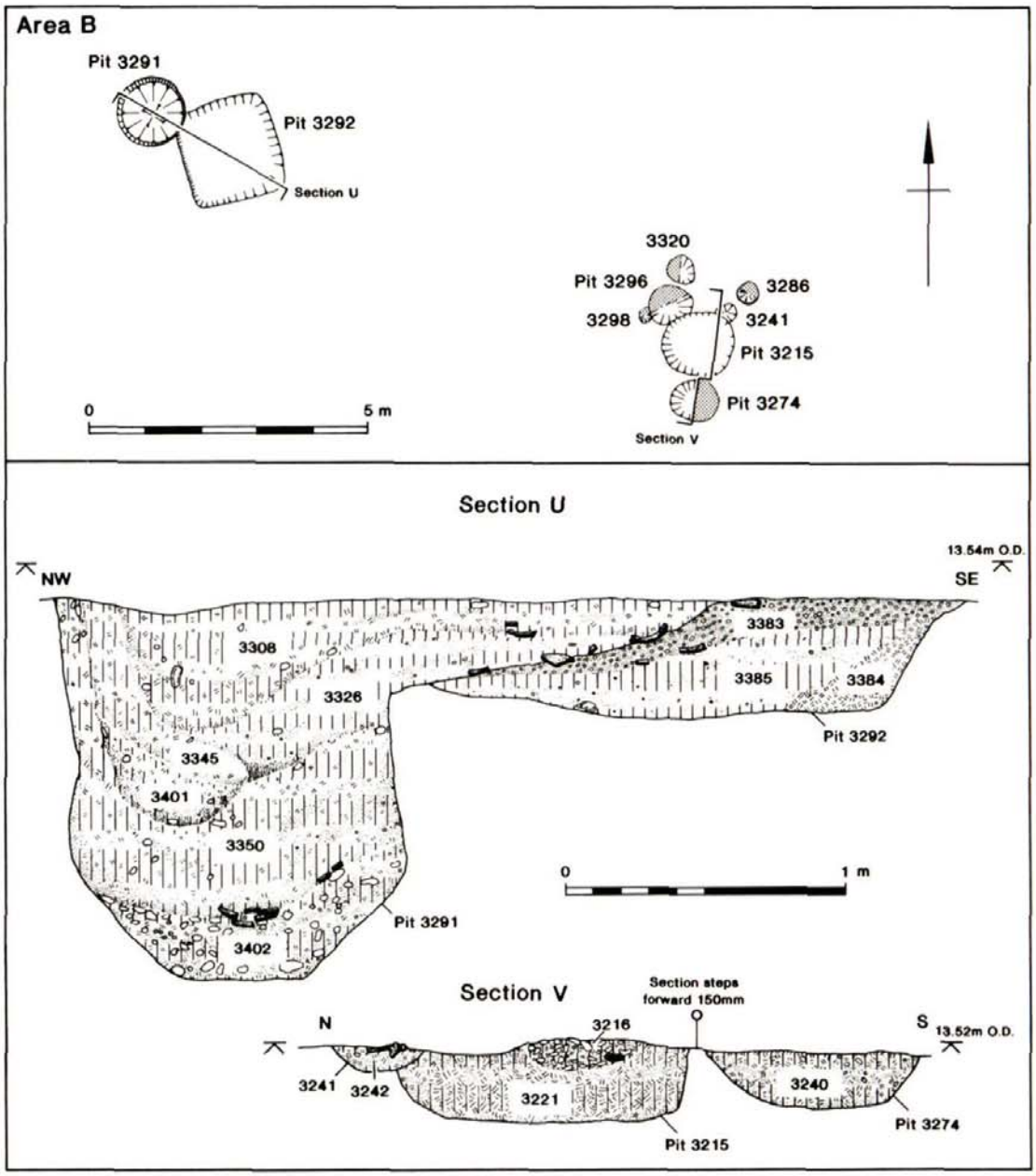

Fig 13 Area B – Early Roman Phase 3: plan and sections of features in the centre of the enclosure

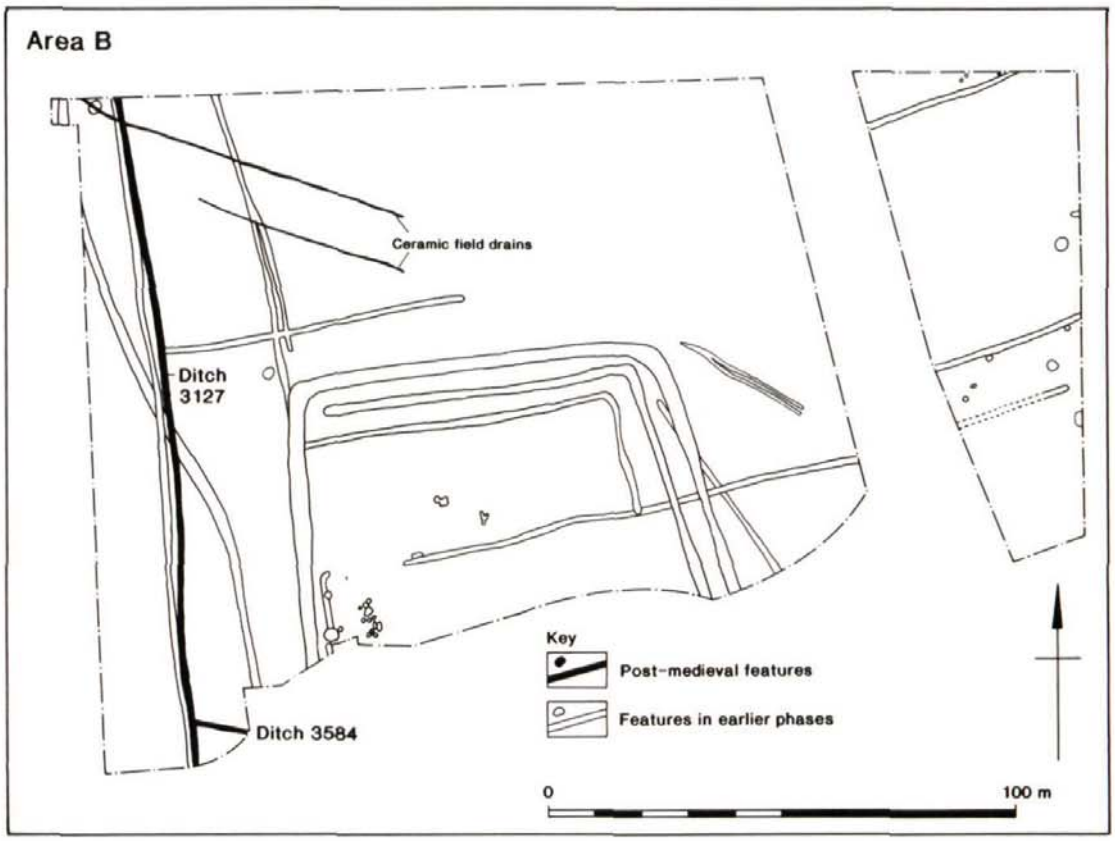

Fig 14 Area B – Post-medieval: plan of features

WORKED FLINT by W A Boismier

Despite the potential identified in the evaluation, no *in situ* flintwork was recorded. A multi-period assemblage of 1877 pieces of Mesolithic, Neolithic and Bronze Age worked flint and three hammer-stones was recoverd. Of these, 1641 came from Area A and 236 from Area B. Approximately half of the Area A artefacts were recovered from the test pits (52%) with the remainder (48%) from excavated contexts. In Area B all artefacts were recovered from excavated contexts. Table 1 summarises the number of artefacts recovered by context group; the assemblage has been analysed by general context grouping for the two excavated areas of the site and only a summary of the major points is presented here.

Condition

Patination (37% of artefacts) ranges from a light transparent waxy film to a heavy grey or greyish-white. Post-depositional edge damage and breakage occur on all major classes of artefacts and vary by context and site area (see below).

Raw Material

With the exception of a single piece of ?Portland chert, the assemblage is flint. Three potential sources are indicated by the surviving cortex on 790 pieces: valley gravel (95%); Upper Chalk (4%); and tertiary deposits (1%). The nearest upper chalk sources occur around 10.5 km to the north-west and 15 km to the north-east with redeposited nodules occurring locally in gravel deposits. Three potential sources for the tertiary

Table 1 Worked flint recovered by context

Context	*Area A*	*Area B*	*Total*
Middle Bronze Age	–	6	6
Early Roman	728	93	821
Post-medieval	–	13	13
Unphased	64	124	188
Ploughzone	849	–	849
Total	1641	236	1,877

deposit flint occur within 5 km, on Reading Beds, London Clay, and Bracklesham Beds.

Assemblage Composition

Table 2 presents the major artefact classes of the assemblage recovered by the excavation from the two areas of the site. Various categories of 'waste' make up 98% of the assemblage recovered, with the tool component accounting for the remaining 2%.

A total of 85 complete, broken, and burnt cores was recovered (Table 2). Of these 58 (68%) are flake cores or fragments, of single and multiple platform types, and 19 (22%) are blade cores or fragments. All the blade cores came from the Area A test pits and include single, bipolar and multiplatform types. Twelve core renewal pieces (six core edges, three core tablets, one core face, and one core face/platform) were recovered from Area A.

A total of 1737 pieces of debitage (93% of the total number of pieces) was recovered. This broad category contains unretouched flakes and blades, undiagnostic struck pieces, and tool manufacturing debris (Table 2). The flakes comprise 964 complete pieces, 167 fragments, and 100 burnt pieces. Unretouched flakes make up 64% of the assemblage from Area A and 77% of the assemblage from Area B. Blades are defined in this study as flakes whose length is twice their width with those recovered by the excavation being both deliberate blanks of pre-determined shape and incidental by-products of core reduction techniques. The blade component consists of 223 complete pieces, 171 fragments, and 56 burnt pieces. Blades account for 26% of the assemblage from Area A and 11% of the assemblage from Area B. Flake and blade metric descriptions were undertaken and confirm the chronologically mixed nature of the assemblage. Details are in archive. It is notable that the three microburins all occur in Area A.

Two utilised and 40 retouched tools were recovered (Table 3). The microliths were all recovered from Area A. All represent varieties of obliquely blunted points and are not diagnostic of any major chronological subdivisions of the Mesolithic (Mellars 1974). The scrapers include examples of five end, one side, and one denticulate scraper types. Borers include three piercers and one drill bit. A possible fabricator and a denticulate comprise the two miscellaneous retouched pieces. In addition, three hammerstones were recovered from the test pits in Area A.

Date

Dates for the assemblage have been established on the basis of broad technological characteristics related to flake shape and termination classes, the occurrence of chronologically diagnostic artefacts and mean length-width ratios. Only those pieces for which shape and termination classes could be unambiguously determined were used, with estimates of length-width ratios for the assemblage derived from the sample of 83 contexts. The relative proportions of shape and termination classes reflect the mixture of different technologies within individual contexts. Squat flakes, hinge ter-

Table 2 Worked flint, assemblage composition

	Area A: test pits					*Area A: excavated contexts*					*Area B: excavated contexts*				
Artefact Class	*Complete*	*Broken*	*Burnt*	*Total*	*%*	*Complete*	*Broken*	*Burnt*	*Total*	*%*	*Complete*	*Broken*	*Burnt*	*Total*	*%*
Cores	28	11	1	40	4.71	23	8	3	34	4.29	9	1	1	11	4.66
Core Renewal Flake	4	–	–	4	0.47	8	–	–	8	1.01	–	–	–	–	–
Flake	494	102	16	612	72.08	309	47	81	437	55.18	161	18	3	182	77.12
Blade	72	74	16	162	19.08	134	88	40	262	33.08	17	9	–	26	11.02
Undiagnostic	18	–	–	18	2.12	18	–	3	21	2.65	11	–	–	11	4.66
Other	3	–	–	3	0.35	2	–	–	2	0.25	1	–	–	1	0.42
Utilised	–	–	–	–	–	2	–	–	2	0.25	1	–	–	1	0.42
Retouched	9	1	–	10	1.18	20	5	1	26	–	4	–	–	4	1.69
Total	628	188	33	849		516	148	128	792		193	28	4	236	

Table 3 Worked flint, tool classes

	Area A – test pits					*Area A – excavated contexts*					*Area B – excavated contexts*				
Artefact Class	*Complete*	*Broken*	*Burnt*	*Total*	*%*	*Complete*	*Broken*	*Burnt*	*Total*	*%*	*Complete*	*Broken*	*Burnt*	*Total*	*%*
Microlith	4	–	–	4	30.0	4	2	1	7	26.92	–	–	–	–	–
Scraper	2	–	–	2	20.0	4	–	–	4	15.38	1	–	–	1	25.0
Microdenticulate	2	1	–	3	30.0	8	1	–	9	34.61	1	–	–	1	25.0
Borer	1	–	–	1	10.0	2	–	–	2	7.69	1	–	–	1	25.0
Marginal retouch	–	–	–	–	–	1	2	–	3	11.54	–	–	–	–	–
Other retouch	–	–	–	–	–	1	–	–	1	3.85	1	–	–	1	25.0
Utilised	–	–	–	–	–	2	–	–	2		–				

minations, and flake cores, more characteristic of Neolithic and Bronze Age technologies, co-occur with high frequencies of blades/narrow flakes and diagnostic Mesolithic artefacts. Mean length ratio for Area A ploughzone contexts is 1.35, for Area A feature contexts 1.98, and Area B contexts 1.38; that for Area A feature contexts reflecting the greater number of blades occurring within them. Assemblage composition thus reflects the multiple occupation of the location through successive periods from the Mesolithic to Early Bronze Age rather than a range of activities associated with any one occupation.

Discussion

The assemblage recovered by the excavation is residual in character and multi-period in content, with Mesolithic, Neolithic, and Bronze Age artefacts present within it. Features containing artefacts were all later in date and no traces of *in situ* contemporaneous occupation surfaces or features were identified by the excavation.

Detailed analysis of the condition of the flintwork provides a useful insight into some of the possible taphonomic processes which have resulted in the mixed nature of both the lithic and later pottery assemblage (see below). Some 587 pieces (69%) recovered from ploughzone test pit contexts in Area A, and 164 pieces (69%) from Area B, exhibit attribute patterns characteristic of tillage-induced edge damage (Mallouf 1982). Artefacts recovered from feature contexts in Area A are in relatively good condition with only isolated trowel nicks on otherwise undamaged edges.

To determine whether the apparent patterning in edge damage was real and reflected possible differences in assemblage formation processes or simply a product of varying sample sizes, a series of t-tests for the differences between proportions (Blalock 1979, 232) was carried out between the three general contexts groups. The results suggested substantial differences in post-depositional formation processes across the excavated areas of the site. Those responsible for the ploughzone and Area B feature assemblages (eg tillage and occupation related disturbances) producing a greater amount of edge damage than those responsible for the Area A feature assemblage.

The relatively good condition of the assemblage recovered from Area A features reflects the operation of localised post-depositional processes favourable to their preservation within later features. These are most likely to be small scale slope processes which move and deposit material downslope under the forces of gravity along the edges of banks and ditch cuts. These processes include agencies such as sheet and rill wash, rain splash, and soil creep. As Allen (1988; 1992) notes, these processes operate on surfaces both as continuous low-energy, small-scale events, and infrequent high-energy events which transport blocks of soil and any artefacts contained within them, downslope. The joint operation of these small scale slope processes probably accounts for the formation of a relatively undamaged assemblage in a number of ditch contexts. Assemblage composition and spatial pattern as a result are unlikely to be representative of the range of on-site activities or their spatial organisation, and are more a product of the factors responsible for their preservation.

Agricultural activity at the site from the Bronze Age onwards has sequentially destroyed traces of earlier occupation surfaces and shallow features. An examination of the basal ploughzone contexts from the Area A test pits revealed the presence of tillage-induced bias in artefact size class representation within the assemblage recovered from them. Most of the test pit contexts (75%) were observed to contain artefacts less than 40 mm in size, with only a few containing larger artefacts. This pattern of size class representation reflects the operation of sorting and inversion processes produced by agricultural equipment such as tined cultivators, disc harrows, and mouldboard ploughs. Large artefacts, more characteristic of the range of on-site activities, are generally missing or under-represented in the assemblage recovered from the basal ploughzone as a result of the excavation of the upper ploughzone profile by machine.

Post-depositional processes responsible for Area B assemblage characteristics are much more difficult to identify owing to the relatively long period involved in assemblage formation (Bronze Age to post-medieval). Artefact condition is relatively poor with 69% of the assemblage exhibiting isolated scars and linear edge damage characteristic

of occupation related post-depositional edge damage. This suggests that artefacts lay exposed on or near the surface where they were damaged by human and animal trampling and agricultural implements such as hoes and stone or metal plough shares, before their deposition in features. The processes responsible for deposition are most likely those related to the redeposition of artefacts as elements of bank material and their subsequent erosion by small scale slope processes. Numerous other occupation related post-depositional processes (Schiffer 1987) can also be expected to have contributed in some fashion to assemblage formation.

The recovery of temporally diagnostic artefacts and technological characteristics of unretouched pieces, indicate that the date of the assemblage probably extends from the Mesolithic to at least the Early Bronze Age. Typologically, Mesolithic artefacts in the assemblage include microliths and microburins with the technological characteristics of the assemblage indicating a mixture of different technologies. Spatially, these artefacts concentrate in Area A, as suggested by the evaluation. The temporal mixture of different technologies in the assemblage prevents any meaningful comparisons with other datable assemblages in the Lower Test Valley (Healy 1992; Boismier 1993). The chronological diversity of the assemblage, however, does indicate that the prehistoric occupation of the site was long and varied, if intermittent.

PREHISTORIC POTTERY by Elaine L Morris

A total of 593 sherds (6962 g) of prehistoric pottery was recovered from Areas A and B (Table 4). The collection is dominated by sherds from Middle Bronze Age vessels but a small amount of Late Bronze Age–Early Iron Age material was also

Table 4 Quantification of prehistoric pottery by period/phase and feature type (no. sherds/weight in grammes)

Fabric	*Natural deposits*	*MBA ditches*	*Phase 1 ditches*	*Phase 2 ditches*	*Phase 3 ditches*	*Phase 3 pits & post-holes*	*Unphased ?Roman*	*Unphased & post-Roman*	*Total*
F1	–	476/6147	1/7	19/311	5/33	1/1	3/5	31/101	536/6605
F2	–	1/2	–	11/99	1/7	2/35	4/12	3/27	22/182
F3	–	–	–	2/10	–	–	–	–	2/10
F4	–	–	6/45	1/9	–	–	1/2	1/2	9/58
F5	–	–	1/2	–	1/10	4/35	–	3/8	9/55
F6	–	–	–	–	1/9	–	–	–	1/9
G1	–	–	1/8	–	1/5	–	1/2	–	3/15
G2	–	–	–	–	1/7	–	–	–	1/7
Q1	1/1	–	–	1/4	–	–	1/1	–	3/6
Q2	–	–	–	1/2	2/6	–	–	–	3/8
Q3	–	–	–	2/5	–	–	1/1	–	3/6
D1	–	–	–	–	–	–	1/1	–	1/1
Total	1/1	477/6149	9/62	37/440	12/77	7/71	12/24	38/138	593/6962

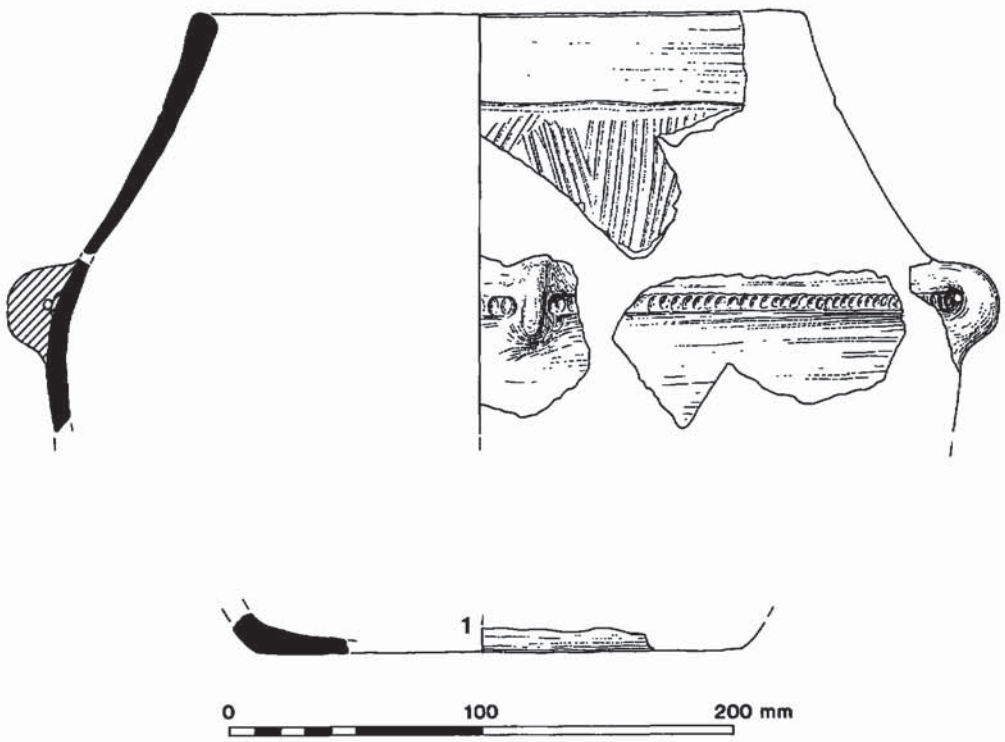

Fig 15 Bronze Age pottery (P1) 1. Type 1A/B globular urn; fabric F1; ditch 3637, context 3617, Area B.

identified. The condition of the pottery varies considerably from small, very abraded sherds to large, conjoining sherds forming significant parts of diagnostic vessels. Mean sherd sizes range from 4.3 g in Area A to 12.9 g in Bronze Age features of Area B. Most of the assemblage (477 sherds/6,149 g) was recovered from Middle Bronze Age contexts, although a considerable quantity (115 sherds/812 g) of residual material in Romano-British or later/undated features was also recovered. Each sherd was examined and recorded as recommended by current guidelines for the analysis of later prehistoric pottery (PCRG 1992), and the details are available by context in the archive. The distribution of prehistoric pottery is summarised in Table 4.

Fabrics

The most common fabric type found in the collection is one abundantly tempered (25–40%) with crushed, well-sorted, calcined flint (fabric F1). The temper is so consistently well-processed that there are only extremely rare pieces of flint larger than 3 mm across. Fabric F1 was used to make globular urns, barrel urns, and possible bucket urns and an accessory vessel. The suitability of this fabric for such a variety of Middle Bronze Age vessel types indicates how versatile was this temper recipe for pottery manufacture and use, and contrasts with the various wares used to make the urns recovered at the Kimpton Bronze Age cremation cemetery near Andover (Dacre & Ellison 1981) and the settlement assemblages from Easton Lane, Winchester (Ellison 1989) and Ashley, near King's Somborne (Neal 1980).

In addition, small quantities of two probably Middle Bronze Age, coarser flint-tempered fabrics (F2, F3) were also identified. Two grog-tempered wares were found only as small body sherds and could be Late Neolithic to Late Bronze Age in date.

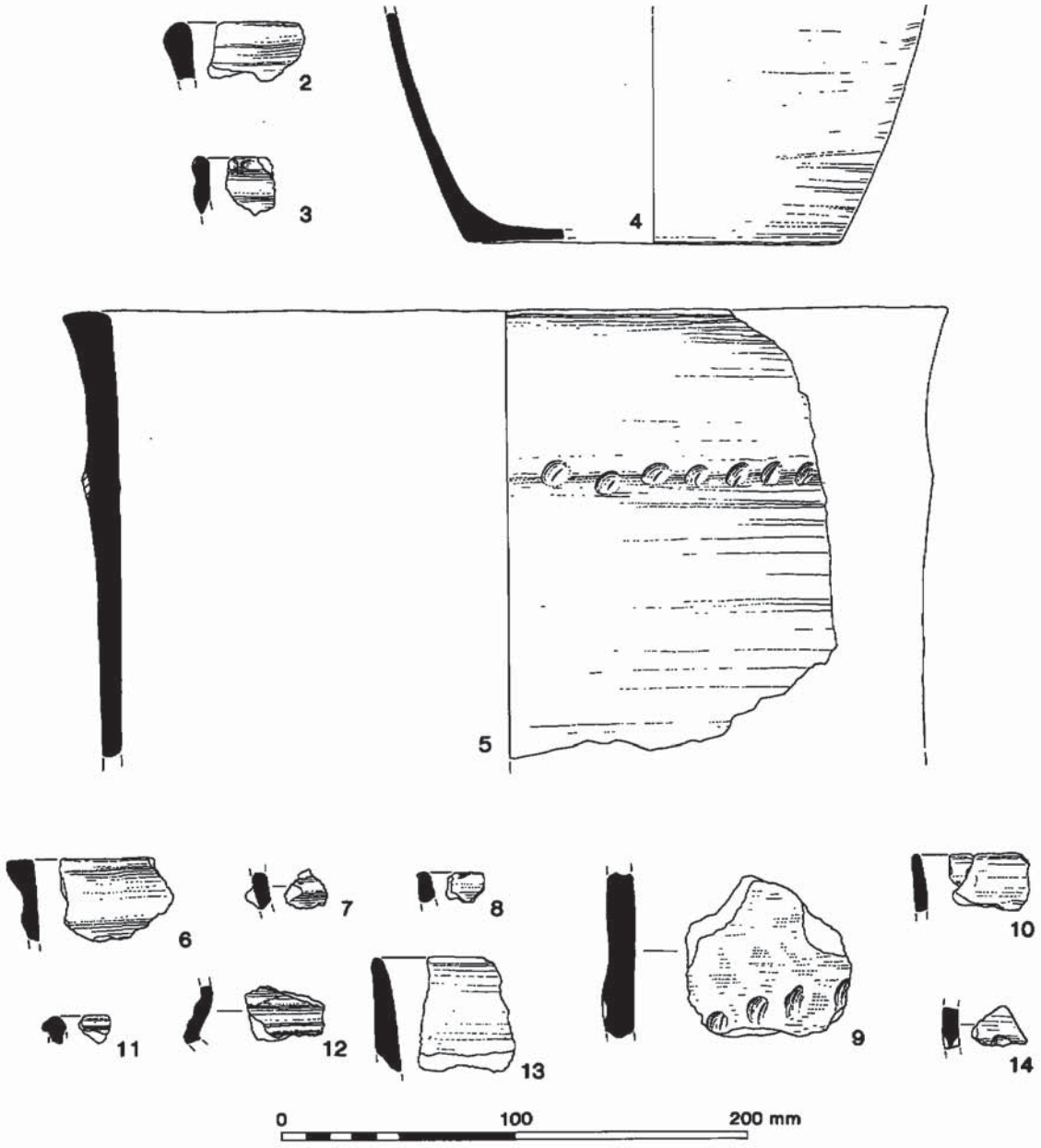

Fig 16 Bronze Age pottery (P2-P14) **2.** Barrel urn; F1; ditch 3657, context 3247. **3.** ?Accessory vessel; F1; ditch 3657, context 3247. **4.** Urn; F1; context 3247, ditch 3657. **5.** Type 2B barrel urn; F1; ditch 3657, context 3247. **6.** Rim of barrel urn; F1; ditch 3657, context 3247. **7.** Decorated body sherd; F2; ditch 3657, context 3247. **8.** Upright rim from urn or jar; D1; ditch 7064, context 7016. **9.** Decorated body sherd from urn; F1; ditch 7222, context 7258. **10.** Rim sherds of globular urn; F1; ditch 7222, context 7336. **11.** Rounded rim of possible bucket urn; F1; ditch 3656, context 3245. **12.** Decorated body sherds from carinated bowl; burnished; Q2; ditch 3319, context 3341. **13.** Rim and body sherd from globular urn; F1; ditch 3198, context 3424. **14.** Decorated body sherd; Q3; ditch 3656, context 3625.

A small number of sandy and silty fabrics (Q1–Q3), and fabrics with moderate or sparse flint grits in sandy clay matrices (F4-F6), were found in the collection and the few forms associated with these confirm their Late Bronze–Early Iron Age date. This change from heavily flint-tempered Middle Bronze Age fabrics to Late Bronze–Early Iron Age wares, dominated by sandy fabrics of various types, is well known in Wessex (Barrett 1980; Davies 1981, 97, 104–8, figs 8 and 13; Morris 1991).

All of the fabrics in this collection are likely to have been locally produced but no heavy mineral analysis of the clays was undertaken. The uniformity of fabric F1 strongly suggests that pottery from this period was manufactured locally, despite the similarities in decoration found on vessels from other Hampshire sites. The subtle differences in temper density for barrel urns, and the greater similarities in fabrics for globular urns between Wiltshire and Hampshire Middle Bronze Age fabrics, have been noted (Ellison 1981, 192 and 196, table 13), but it is suggested here that any variation may represent very localised production/distribution patterns.

Forms, Decorations and Surface Treatment

At least three and possibly four globular urns (Figs 15, 1; 16, 4, 10, 13), three barrel urns (Fig. 16, 2, 5–6), a possible bucket urn (Fig. 16, 11), and one likely accessory vessel (Fig. 16, 3) of Middle Bronze Age date were identified. All but one of these were made from fabric F1. One of the globular urns is burnished and decorated with the infilled triangle design commonly found in central Wessex, as at Easton Lane (Ellison 1989, fig. 88, 49–50) and Kimpton (Dacre & Ellison 1981, fig. 15, D/E6) and also bears impressed tool marks around the belly of the vessel between the four horizontally pierced lugs. This urn is neither a Type 1A urn, in Ellison's (1981) classification, since the lugs are horizontally as opposed to vertically perforated, nor is it a Type 1B since the decorations are shallow-tooled not incised. An intermediate form, Central Wessex Type 1A/B, has therefore been assigned to this vessel (cf. Ellison 1981, 173–4).

One vessel (Fig. 16, 5) is a typical Central Wessex Type 2B barrel urn, and another body sherd bears the same motif (Fig. 16, 9). The fingertip impressed rim from a possible accessory vessel (Fig. 16, 3) is similar to examples recovered from the Kimpton cemetery (Dacre & Ellison 1981, fig. 14, D10, D11). One indeterminate rim sherd (Fig. 16, 8), the only fragment in the vesicular fabric (D1), is decorated with a fingernail impression on the top, outside edge. This is likely to have originated from a later Bronze Age urn or jar.

Late Bronze–Early Iron Age pottery is represented by sherds from two vessels, one probably from near the shoulder area of a jar decorated with fingertip impressions (Fig. 16, 14) and two from a burnished, furrowed, carinated bowl which probably had a short neck (Fig. 16, 12) and would then indicate Early All Cannings Cross activity dating from about the 8th to early 7th century BC. Late Bronze Age and Early Iron Age pottery has been found at several locations in the lower Test Valley over the past 20 years (Rees 1993) and the sherds from Dairy Lane increase the evidence for activity of this period in the area.

Evidence of Use

No visible evidence of use could be positively identified from pottery in Area A. However, the large sherds from parts of vessels recovered from the Middle Bronze Age ditches (3637 and 3657) in Area B did still display evidence of use.

The interior surface of the highly decorated globular urn (Fig. 15, 1) was extremely eroded from the middle of the neck zone all down the interior of the vessel, including the inner base surface, while the exterior was unaffected. This evidence of attrition may indicate that this vessel once contained an acidic liquid which etched into the inner surface of the urn, or that the vessel had been severely bruised by stirring (Skibo 1992, 106–10), or both. The use of globular urns to contain liquids would not be unexpected owing to the closed form profile of these vessels. One of the barrel urns (Fig. 16, 5) displayed similar erosion of the internal surface but this time only on the body of the vessel. Therefore, it is more likely that this is evidence of abrasion from stirring. The numerous base and body sherds from an unidentified urn (Fig. 16, 4) had quantities of burnt residue, presumably food, on the interior, as did two other body sherds in fabric F1 from Area B.

Nature of the Middle Bronze Age Assemblage

Despite the small number of sherds recovered from Area A, Middle Bronze Age sherds were found both there and in Area B which suggest that activity from this period took place over a large area.

At Dairy Lane the variety of vessel types, the evidence of their use, and the form of deposition of these vessels probably indicates a settlement assemblage associated with a formalised field system. The large fragments from three vessels, and the four other smaller parts of vessels (Fig. 16, 1–7) recovered from the fills of nearby ditches 3637 and 3657, are most likely to represent the casual discard of domestic refuse.

The distribution and abraded nature of residual pottery may indicate either dispersed activity or be the result of post-depositional factors demonstrated to have affected the distribution and condition of the flint assemblage (see Boismier, above). The use of only one major fabric type implies a short timespan for the manufacture and deposition of the urns. This is supported by the limited range amongst the barrel urns in contrast to that demonstrated at the Kimpton cemetery and the differences between the Dairy Lane barrel urns and those from Ashley, *c.* 15 km up the Test Valley. The absence of any positively identified later Early Bronze Age barrel urns of South Lodge Type (Ellison 1981, 173) and the presence of so many globular urns, strongly suggests that the Dairy Lane settlement was contemporary with phase E (later Middle Bronze Age) at the Kimpton cemetery. The range of barrel urns at Ashley, which includes South Lodge Type urns, is more similar to phase C (later Early Bronze Age/early Middle Bronze Age) at Kimpton. Therefore, the Dairy Lane occupation took place after that at Ashley. The presence of later Bronze Age sherds, in particular the jar and bowl sherds in sandy fabrics, indicates activity in the early 1st millennium BC.

ROMAN AND LATER POTTERY

by Rachael Seager Smith

A total of 2004 sherds weighing 31,832 g, all from phased contexts, was examined in detail. Roman pottery forms the largest component of this assemblage, although small quantities of possible Saxon organic-tempered ware (2 sherds/2 g), medieval sandy coarseware (6 sherds/45 g), post-medieval/modern pottery (2 sherds/17 g), and two pieces of possible briquetage (2 frags/5 g) were also present. The Roman pottery, which includes samian, other imports and amphorae as well as more local coarseware products, represents a restricted date range, from the middle of the 1st century to the end of the first quarter of the 2nd century AD (*c.* AD 60–130). Full details are in archive, a summary is presented here.

The assemblage was analysed in accordance with the standard Wessex Archaeology recording system for pottery (Morris 1991). It was divided into five broad fabric groups on the basis of the predominant inclusion types: grog-tempered wares (Group G), sandy fabrics (Group Q), flint-gritted wares (Group F), micaceous fabrics (Group M), and organic-tempered wares (Group V), in addition to a group of fabrics of known source or type (Group E). These groups were further subdivided into 24 different fabric types, based on the range and coarseness of the inclusions, each of which was been assigned a unique fabric code. It was quantified using both the number and weight of sherds of each fabric type by context and details of vessel form, size, surface treatment, decoration, and manufacturing technique have been recorded. Details of surface abrasion, residues, and evidence for reuse and repair have also been noted. A site-specific vessel type series has been constructed (Figs 17–22), although the illustrations are ordered by feature group. Table 5 summarises the vessel forms represented by rim sherds, present in each fabric type and Table 6 the distribution of pottery by phase and feature type.

In general, the condition of the material is good with large sherds enabling many refits to be made. Soil acidity has affected the assemblage and many of the softer fabrics, especially the samian and the fine-grained sandy wares, have suffered considerable post-depositional abrasion. A small proportion of the sherds (*c.* 1–2%) are stained by iron and, in severe cases, have iron oxide deposits adhering to the surface.

A small quantity of fineware pottery was recovered (84 sherds/782 g), representing 3.7% of the total assemblage by number of sherds and 2.5% by

Table 5 Correlation of the Romano-British Vessel Forms and Fabrics (excluding samian)

	Coarsewares:								*Buff wares:*			*Finewares:*			
Form	Q *100*	Q *101*	Q *102*	Q *108*	G *100*	G *101*	F *100*	F *102*	Q *104*	Q *105*	Q *107*	M *100*	M *101*	M *102*	*Total*
Bead rim jars:															
1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
2	–	–	–	–	6	–	–	–	–	–	–	–	–	–	6
3	–	–	–	–	3	1	–	–	–	–	–	–	–	–	4
4	–	–	3	–	4	1	1	–	–	–	–	–	–	–	9
7	–	1	–	–	5	4	1	–	–	–	–	–	–	–	11
9	1	–	–	–	6	3	–	1	–	–	–	–	–	–	11
Other jar forms:															
5	–	5	1	1	7	5	–	–	–	–	–	–	–	–	19
13	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
14	–	–	1	–	–	–	1	–	–	–	–	–	–	–	2
16	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
23	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
24	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
29	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
31	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Storage jars:															
15	–	–	–	–	–	3	–	–	–	–	–	–	–	–	3
18	–	–	–	–	–	3	–	–	–	–	–	–	–	–	3
21	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Bowls and dishes:															
8	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
12	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
19	–	–	–	–	2	–	–	–	–	–	–	–	–	–	2
20	–	3	–	1	–	–	–	–	–	–	–	–	–	–	4
22	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
25	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
26	–	–	–	–	2	–	–	–	–	–	–	–	–	–	2
30	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
32	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
33	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
34	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Flagons and jugs:															
17	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
27	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
28	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Misc. forms:															
6	–	1	–	2	5	1	–	–	–	–	–	–	–	–	9
10	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
11	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
35	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1

Minimum number of examples shown

Table 6 Quantification of Roman pottery by phase and feature type (No. sherds/weight in grammes)

Fabric	*Phase 1*	*Phase 2 ditches*	*Phase 3 ditches*	*Phase 3 pits*	*Phase 3 post-holes*	*Phase 3 soil 3480*	*Un-phased ?Roman*	*Late Rom. soil 3628*	*Un-phased & post-Roman*	*Total*
Coarsewares										
Q100	31/136	–	3/27	56/668	–	–	–	–	–	90/831
Q101	8/44	4/6	32/245	98/1211	1/11	–	–	–	–	143/1517
Q102	16/45	14/34	24/89	14/147	–	14/58	5/18	9/96	3/11	99/498
Q108	7/58	–	7/18	18/316	–	–	–	–	2/11	34/403
G100	63/279	116/1124	107/1347	228/3434	5/156	–	9/33	6/132	1/6	535/6511
G101	21/217	40/278	389/10036	174/5489	14/420	24/408	1/9	–	2/11	665/16868
F100	3/28	52/302	8/61	7/38	5/85	3/7	–	–	–	78/521
F101	–	–	4/14	1/6	–	–	2/7	–	–	7/27
F102	–	–	–	10/146	36/634	–	–	–	–	46/780
Buff/white wares										
Q104	1/6	1/11	34/141	–	–	5/12	–	–	–	41/170
Q105	1/4	–	1/5	3/42	–	–	–	–	–	5/51
Q106	–	–	–	1/55	–	–	–	–	–	1/55
Q107	–	–	21/66	119/1136	–	–	–	–	–	140/1202
Finewares										
Samian	2/10	4/28	5/62	18/239	–	–	–	–	–	29/339
E128	–	–	–	10/124	–	–	–	–	–	10/124
M100	–	–	–	23/155	–	–	–	–	–	23/155
M101	–	–	–	–	–	19/159	–	1/3	–	20/162
M102	–	–	2/2	–	–	–	–	–	–	2/2
Amphorae										
E262	–	–	1/39	2/1062	–	–	–	–	–	3/1101
E266	17/390	–	–	2/10	–	–	–	–	–	19/400
Total	170/1217	231/1783	638/12192	784/14278	61/1306	65/644	17/67	16/231	8/39	1989/31757

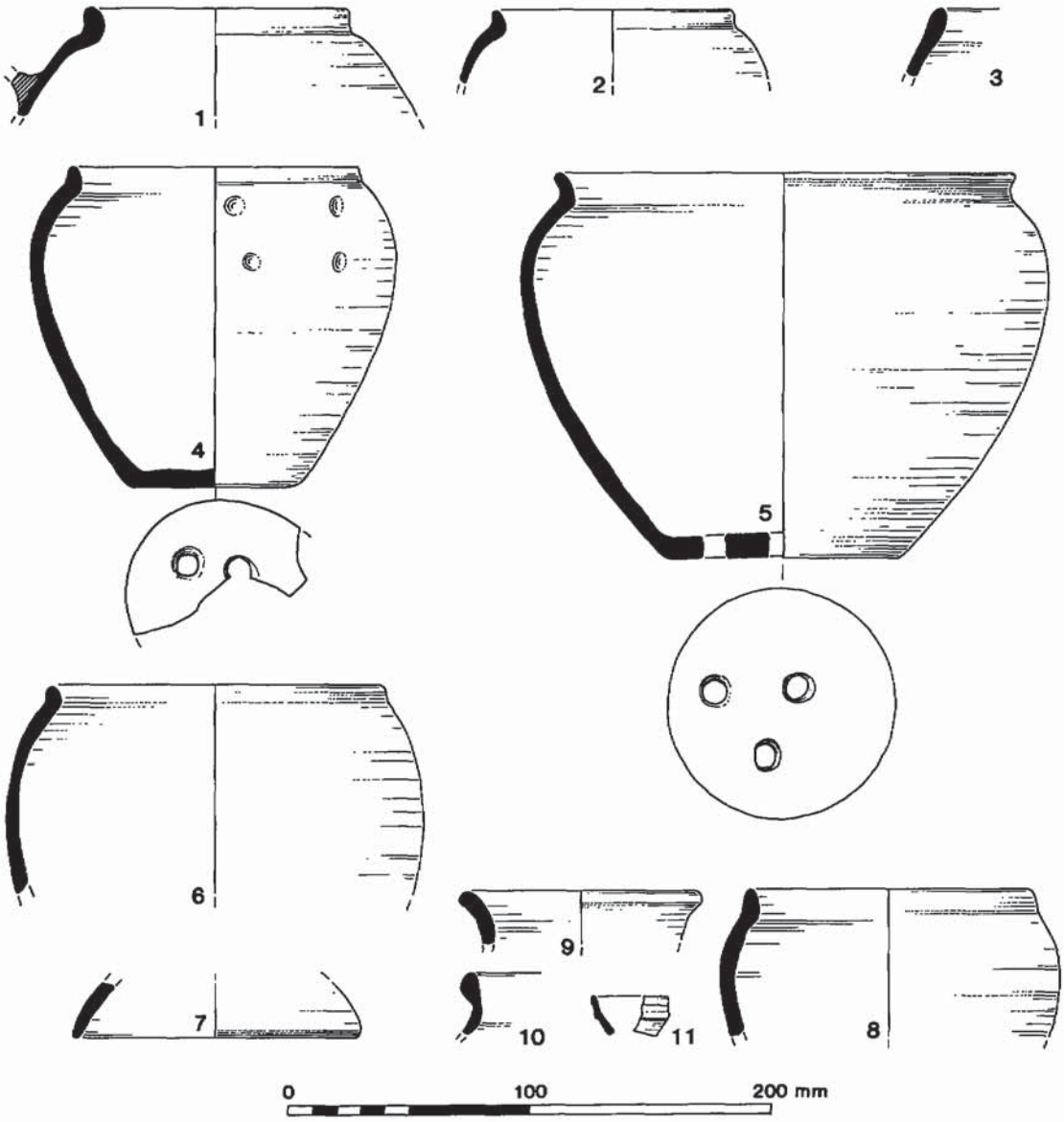

Fig 17 Roman pottery (1–11) 1. Type 1. QJ00. Ditch 3579, context 3403. 2. Type 2. G100. Ditch 3579, context 3357. 3. Type 3; oxidised. G100. Ditch 3579, context 3357. 4. Type 7; finger-tipped decoration and at least 2 post-firing perforations in base. F100. Ditch 3124, context 3249. 5. Type 8; 3 holes inserted into base after firing. G100. Ditch 3124, context 3183. 6. Type 7. G100. Ditch 3124, context 3183. 7. Type 6. G100. Ditch 3124, context 3183. 8. Type 7. G101. Enclosure ditch 3283, contexts 3375, 3337 and 3379. 9. Type 5. G100. Enclosure ditch 3282, context 3408. 10. Type 10. QJ05. Enclosure ditch 3282, context 3408. 11. Bead rim cup or small bowl, with cordon below rim. M102. Enclosure ditch 3319, context 3316.

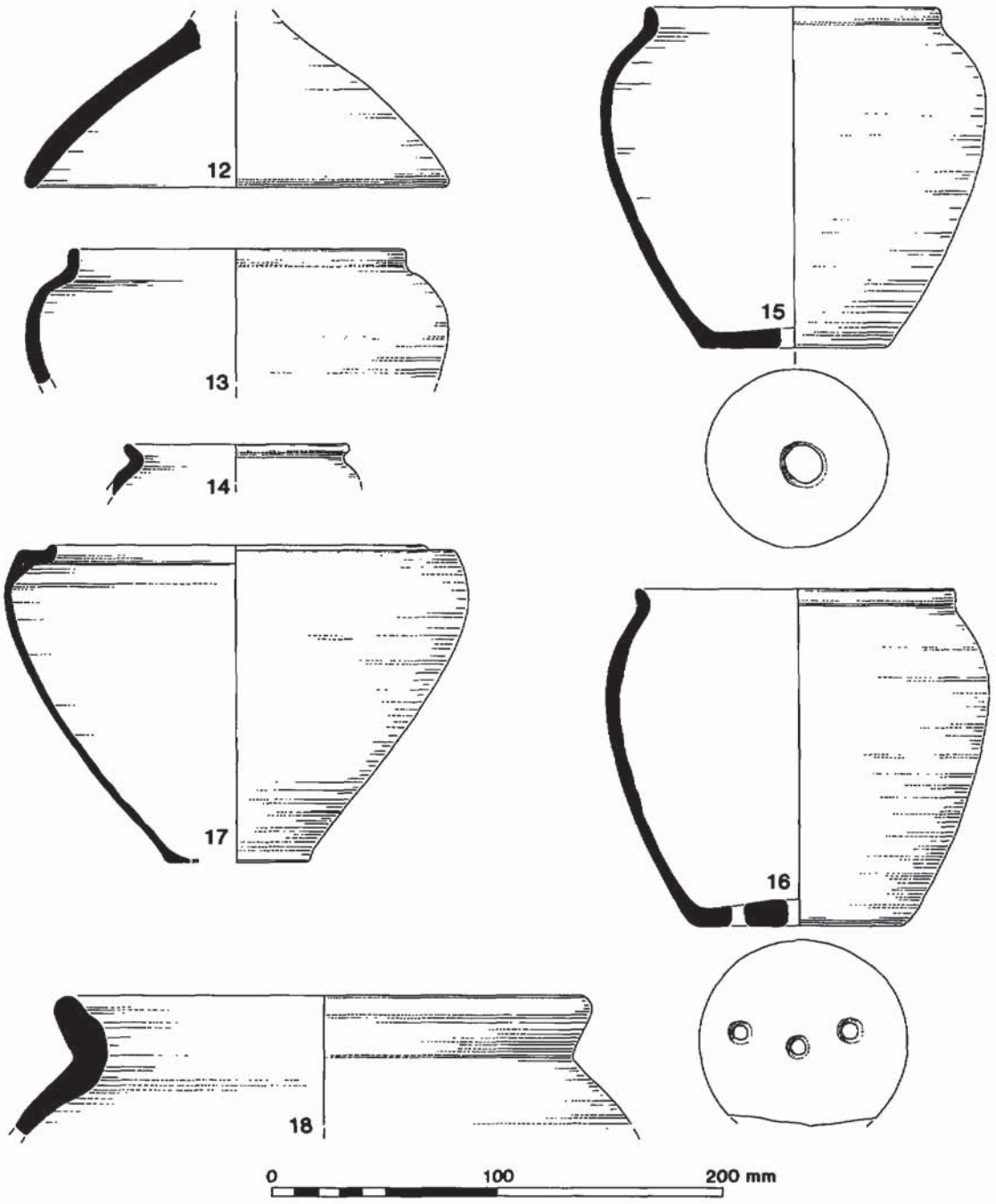

Fig 18 Roman pottery (12–18) **12.** Type 6. G100. Enclosure ditch 3319, context 3318. **13.** Type 9 or Type 8. G100 Enclosure ditch 3319, context 3318. **14.** Type 14. QJ02 Enclosure ditch 3319, context 3318. **15.** Type 7; single large post-firing perforation. G101. Enclosure ditch 3319, context 3318. **16.** Type 7; 3 post-firing perforation in base. G101 Enclosure ditch 3319, context 3318. **17.**Type 13. QJ01 Enclosure ditch 3319, context 3318. **18.** Type 15. G101. Enclosure ditch 3319, context 3339.

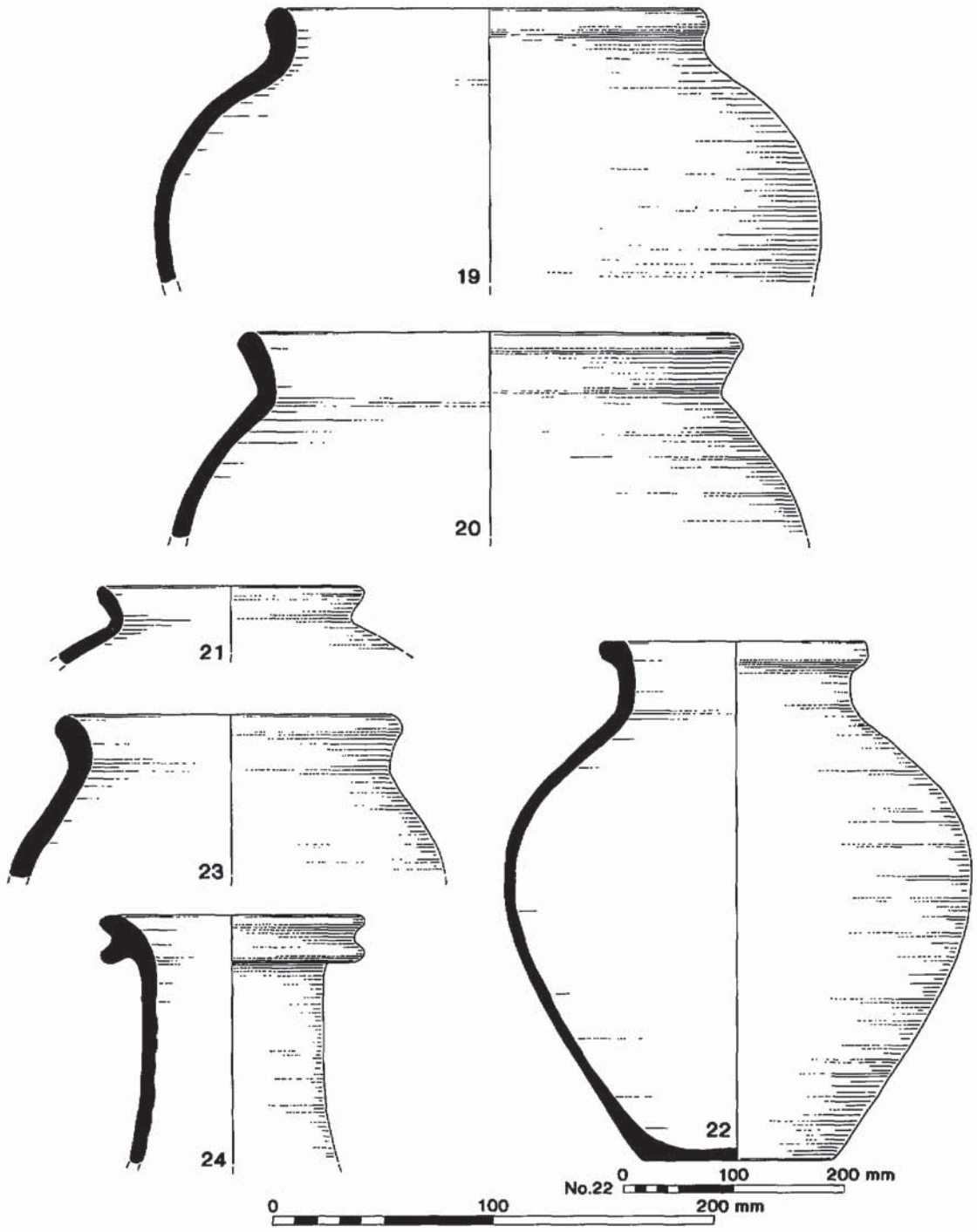

Fig 19 Roman pottery (19–24) **19.** Type 5. G101. Enclosure ditch 3335, context 3323. **20.** Type 16. G100. Enclosure ditch 3335, context 3323. **21.** Type 5. G100. Enclosure ditch 3335, context 3323. **22.** Type 18; oxidised and highly abraded. G101. Enclosure ditch 3335, context 3331. **23.** Type 5; oxidised. G101. Enclosure ditch 3335, context 3331. **24.** Type 17. QJ04. Enclosure ditch 3335, context 3331.

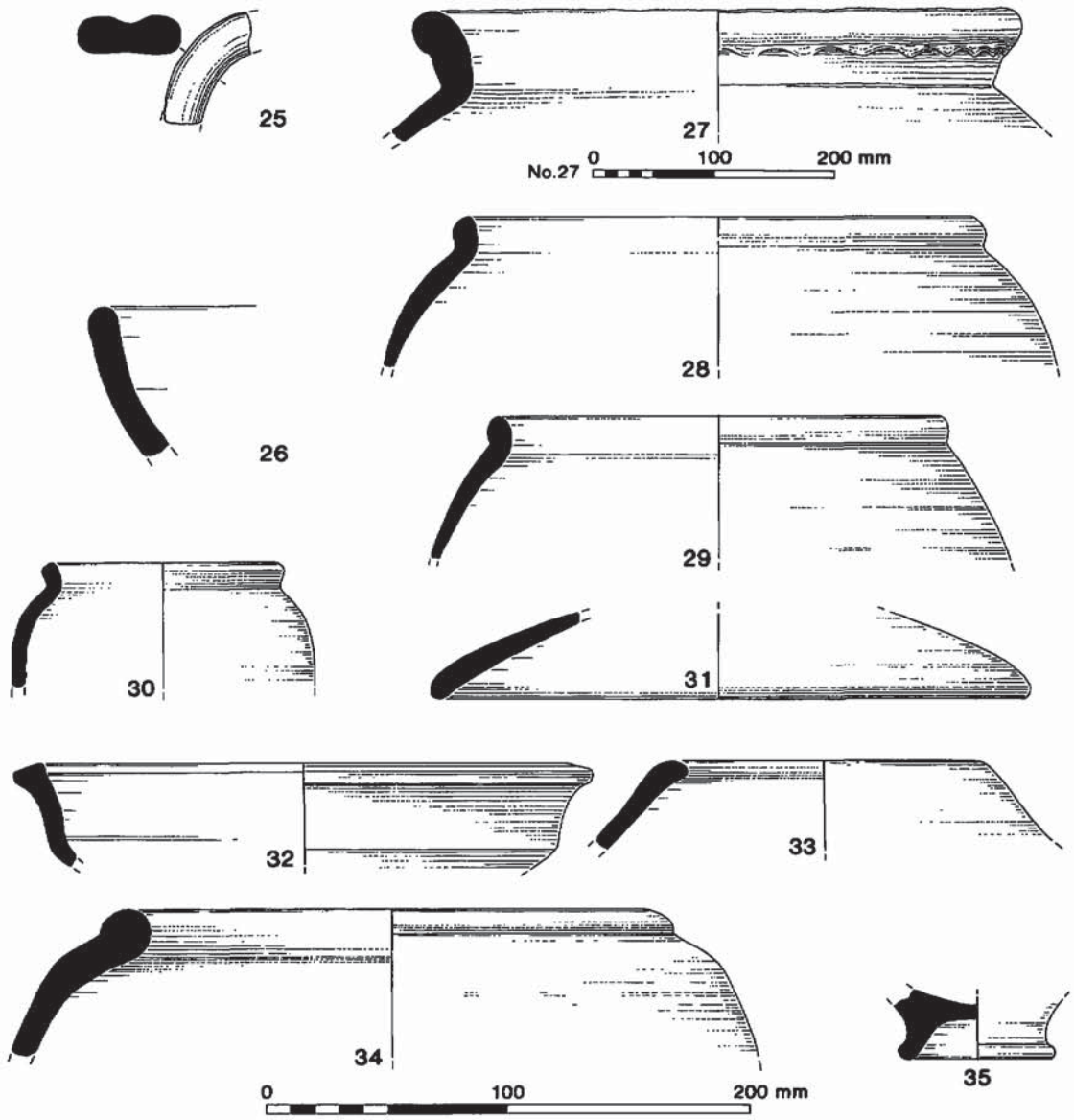

Fig 20 Roman pottery (25–35) **25.** Strap handle from Catalonian amphora, probably Dr. 28. E262. Pit 3566, context 3567. **26.** Type 19. G100. Pit 3420, context 3421. **27.** Type 21; predominantly oxidised. G101. Pit 3516, context 3517. **28.** Type 9. G101. Pit 3516, contexts 3517 and 3526. **29.** Type 9. G100. Pit 3516, context 3517. **30.** Type 2. G100. Pit 3516, context 3517. **31.** Type 6. QJ08. Pit 3516, context 3517. **32.** Type 20. QJ08. Pit 3516, context 3517. **33.** Type 3; oxidised. G100. Pit 3516, context 3519. **34.** Type 9. F102. Pit 3241, context 3242. **35.** Pedestal base. F100. Pit 3241, context 3242.

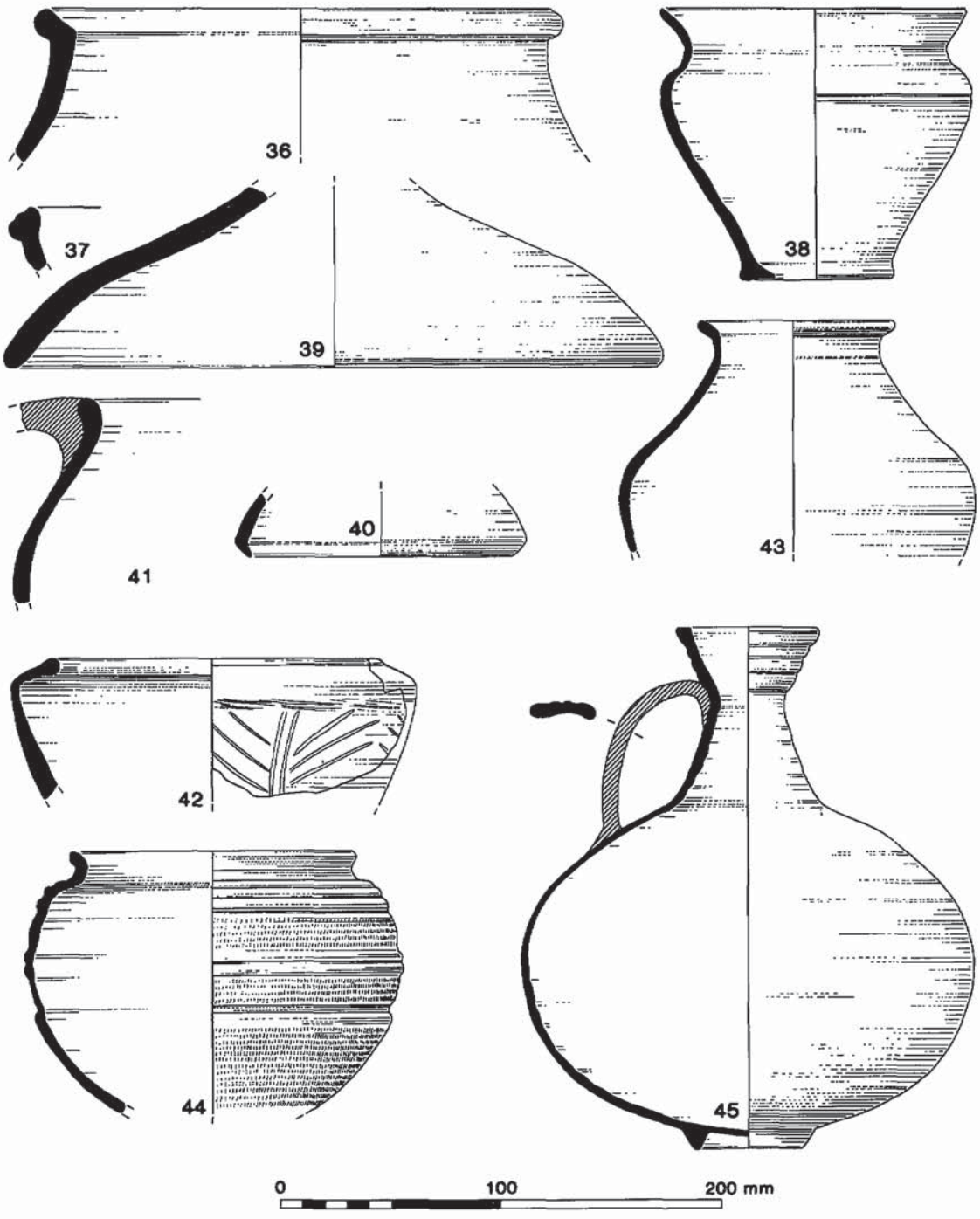

Fig 21 Roman pottery (36–45) **36.** Type 29. QJ02. Pit 3291, context 3402. **37.** Type 22. QJ00. Pit 3291, context 3308. **38.** Type 23; probably slipped. QJ01. Pit 3291, context 3308. **39.** Type 6. G101. Pit 3291, context 3350. **40.** Type 6. G101. Pit 3291, context 3350. **41.** Type 27; oxidised. G100. Pit 3291, context 3350. **42.** Type 26; burnished line decoration on exterior, interior burnished. G100. Pit 3291, contexts 3350 and 3401. **43.** Type 24. QJ01. Pit 3291, context 3350. **44.** Type 25; oxidised. QJ01. Pit 3291, context 3350. **45.** Type 28. QJ07. Pit 3291, context 3350.

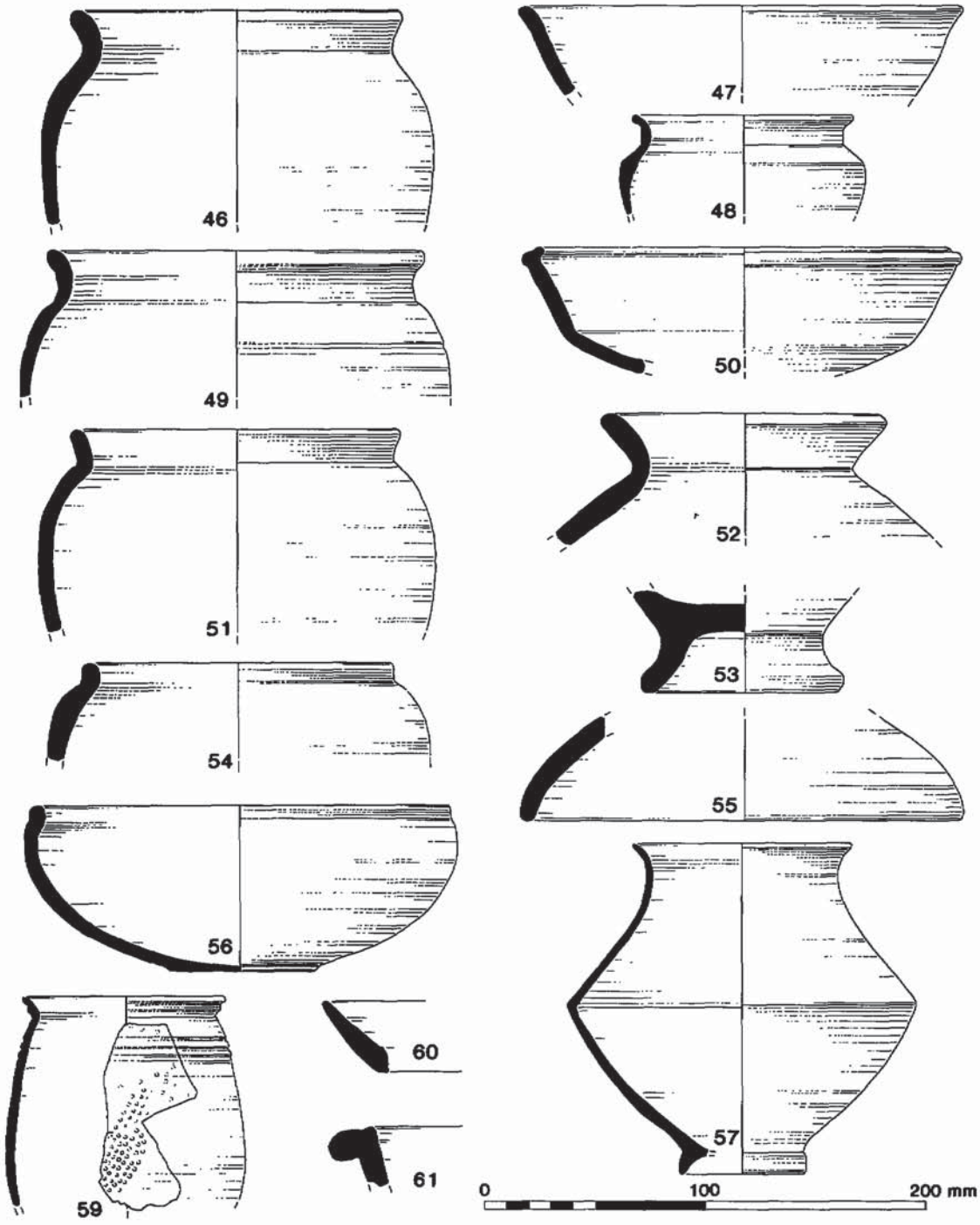

Fig 22 Roman pottery (46–61) **46.** Type 5. G100. Pit 3292, context 3309. **47.** Type 30. G100. Pit 3292, context 3309. **48.** Type 5. QJ01. Pit 3292, context 3309. **49.** Type 5. QJ01. Pit 3292, contexts 3309 and 3327. **50.** Type 20. QJ01. Pit 3292, context 3327. **51.** Type 9. G100. Pit 3292, context 3327. **52.** Type 31. G101. Pit 3292, context 3327. **53.** Pedestal base. G101. Pit 3292, context 3327. **54.** Type 9. G100. Pit 3292, context 3383. **55.** Type 6. QJ08. Pit 3292, context 3383. **56.** Type 32. QJ00. Pit 3292, contexts 3327, 3383, 3384 and 3385. **57.** Type 11. M100. Pit 3292, contexts 3309, 3327, 3383, 3384 and 3385. **59.** Type 35; cornice rim and panels of comb-applied barbotine dot decoration. M101. Soil layer 3480. **60.** Type 33; oxidised. QJ02. Soil layer 3628. **61.** Type 34. QJ02. Soil layer 3628.

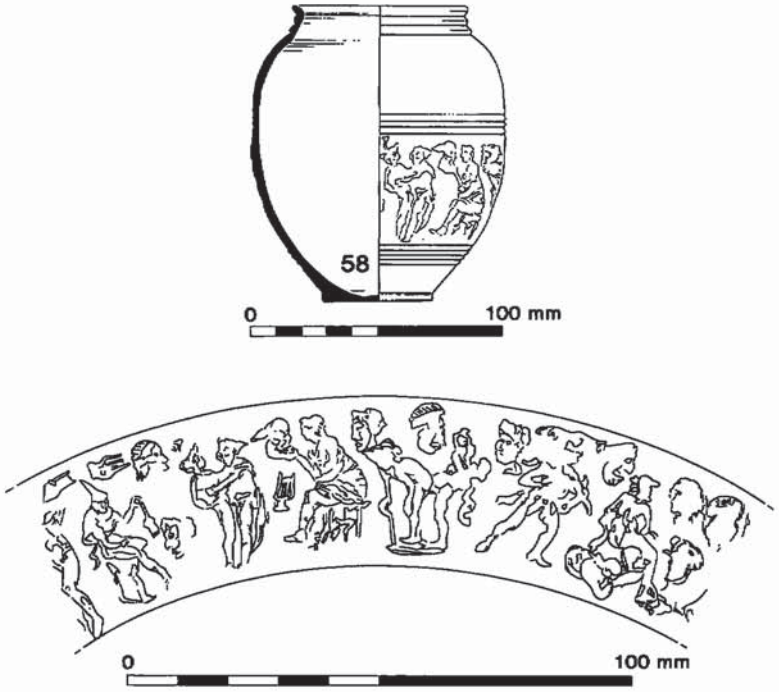

Fig 23 Roman pottery (58) **58**. Beaker (Drag. 66) with moulded decoration. E128. Pit 3292, context 3385.

weight. This material includes 29 sherds (339 g) of samian (identified by B Dickinson), of both Southern and Central Gaulish origin and all common forms, spanning the period *c.* AD 60–130. Of particular interest is the complete Central Gaulish example of so-called 'black samian' (Fig. 23, 58) from pit 3292, dated to *c.* AD 110–130. This vessel is in a pale orange, granular fabric, with a black coat. The decoration consists of erotic groups (including Oswald (1936–7) types B, M, and DD) and a seated figure to right (Oswald type 966 = Bémont (1977), Tableau VIII, 104, 107, 108, and 81 respectively), apparently alternating with other figures. These include a warrior with a sword (Oswald type 194 = Bémont 27) a Venus (Oswald type 290 = Bémont 31) and a seated, draped figure to left (Oswald type 943 = Bémont 80). Space fillers include a lyre (Rogers (1974) U230) and three different masks. Butrio used three of the figure-types but they are all, with one exception (the erotic group Oswald type DD), known for Libertius ii, and so he is more likely to have made the vessel. The inside shows clearly where the two separate moulded halves of the jar were joined.

Three wheelmade fineware fabrics were identified: M100 (brown micaceous); M101 (micaceous greyware) and M102 (mica-dusted ware), each of which is represented by sherds from a single vessel (M100: Fig. 22, 57; M101: Fig. 22, 59; M102: Fig. 17, 11). All three fabrics are unprovenanced but are likely to be of British origin, with vessel forms based loosely on Continental prototypes. The brown micaceous ware beaker is broadly similar to the long-necked, *vase tronconique* of the Flavian and later periods, produced in the Artois and Picardy regions of northern France (Richardson & Tyers 1984, 136, fig. 2, 2 and 3). Production of similar vessels to the small bag-shaped beaker with panels of comb-applied barbotine dot decoration in M101 and mica-dusted wares are known from a variety of centres both in Britain and on the Continent, being most common in the later 1st and early 2nd centuries AD (Tyers 1978; Marsh 1981). The small mica-dusted cup represented

here is an unusual form but clearly belongs within this well-known ceramic tradition.

White/buff wares are represented by four fabric types, all wheelmade, oxidised and with smoothed or slipped surfaces: Q104 (buff sandy); Q105 (sandy white ware); Q106 (greenish-cream with red and black iron oxides); and Q107 (brown slipped with subangular quartz and rare red and black iron oxide inclusions). The buff/white wares represent 9.3% of the total number of sherds recovered and mostly represent flagons, fulfilling a role as serving, or temporary storage, vessels for liquids.

Amongst the white/buff wares are sherds from at least two vessels of buff sandy ware (Q104) which are of uncertain form with a distinctive orange/yellow-buff firing and a pulley-wheel mouth flagon (Fig. 19, 24) familiar from a variety of sites (eg. Hawkes & Hull 1947, pl. lxi, 143.12; Davies & Seager Smith 1993, 241, type 416) dated from the Claudian period until at least the early 2nd century AD. The fabric is unprovenanced. A rim from a beaker or small jar (Fig. 17, 10) in white sandy ware (Q105) represents the only non-flagon type to be noted among this material. It is similar to the 1st century butt beakers which originated in north-west Gaul but which were widely copied in Britain and elsewhere. It may be an import (Mark Wood, pers. comm.) but the form was also made at, for instance, Colchester, from Tiberian to Neronian times (Hawkes & Hull 1947, Cam 113).

Fabric Q107, represented by at least four vessels, may be the product of the 1st century AD kilns at Corfe Mullen in Dorset (Calkin 1935). The ring-necked flagon (Fig. 21, 45) is perhaps the most typical and widely distributed product of this kiln though similar internally slipped ring-necked flagons, also in white/cream 'pipe-clay' fabric, have been identified at a number of sites, including Cirencester (Rigby 1982, 156, fabric 21) and Exeter (Holbrook & Bidwell 1991, 139, fabric 405). These may be imports, possibly from Lezoux (Rigby 1982; Holbrook & Bidwell 1991), particularly in view of the presence at Dairy Lane of both red and 'black' samian from Lezoux.

The coarsewares are represented by three of the major fabric groups, which have been further subdivided into nine fabric types based on the range of inclusions and grain size; sandy wares (Q100, Q101, Q102, Q108), grog-tempered wares (G100, G101), and flint-gritted wares (F100, F101, F102). Each fabric may contain the products of more than one source. The correlation between fabric types and vessel form is shown in Table 7.

The coarseware assemblage is generally hand-made, although some of the sandy greyware vessels (especially Q100 and Q101) were produced on a wheel. The grog-tempered wares dominate, representing 59.8% of the total number of sherds recovered; the sandy wares and the flint-tempered fabrics accounting for 18.3% and 6.5% respectively. F102 is represented by a single vessel (Fig. 20, 34) and F101 by only featureless body sherds, some of which may be Middle Bronze Age.

The majority of these wares are probably of local manufacture (within 10–15 km of the site). However, Alice Holt greywares (Figs 20, 32; 23, 50) may be present in a form known to have been produced *c.* AD 60 to the mid 2nd century (Lyne & Jefferies 1979, fig. 16, class 5). Elsewhere in Hampshire, up to 30% of the greyware from Winnall Down, near Winchester (Hawkes 1985, 69) and 22% of the total assemblage weight from East Horton Farm near Fair Oak (Jenkins 1990) were identified as Alice Holt products.

The coarseware vessel forms are dominated by a variety of bead-rim jars which occur in all three of the major fabric groups (Table 7). At least one variant of this form has small ear-shaped handles (Fig. 17, 1). The bead-rim jars can be broadly divided into three size ranges (Table 8). Bead rim jars occur in all assemblages of similar date in the area (eg Cotton & Gathercole 1958; Cunliffe 1971, 212, fig. 102, 166).

A variety of jar forms are well-represented, notably large storage jars with upright or slightly everted rims (eg Fig. 18, 18) which invariably occur in the coarse grog-tempered ware (G101). The upright, or very slightly everted, necked jars (eg. Fig. 17, 9) also well-paralleled at other sites in the area (eg. Cotton & Gathercole 1958, 70, type BER1 and 75 type JN1; Cunliffe 1971, 212, type 161). The remaining jar forms (eg. Fig. 18, 14, 17) comprise a range of 'Romanised' forms, each represented by only one or two examples, and occur most frequently in the sandy fabrics (Table 7). One vessel (Fig. 21, 43), while almost certainly a

Table 7 Romano-British Vessel Forms by Major Feature Type (minimum number of examples indicated)

Form	*Pits*	*Ditches*	*Misc. features*	*Total*
Bead rim jars:				
1	–	1	–	1
2	3	3	–	6
3	2	2	–	4
4	6	3	–	9
7	4	7	–	11
9	8	3	–	11
Other jar forms:				
5	10	7	2	19
13	–	1	–	1
14	–	2	–	2
16	–	1	–	1
23	1	–	–	1
24	1	–	–	1
29	1	–	–	1
31	1	–	–	1
Storage jars:				
15	2	1	–	3
18	2	1	–	3
21	1	–	–	1
Bowls and dishes:				
8	–	1	–	1
12	–	1	–	1
19	2	–	–	2
20	4	–	–	4
22	1	–	–	1
25	1	–	–	1
26	2	–	–	2
30	1	–	–	1
32	1	–	–	1
33	–	–	1	1
34	–	–	1	1
Flagons and jugs:				
17	–	1	–	1
27	1	–	–	1
28	1	–	–	1
Misc. forms:				
6	6	3	–	9
10	–	1	–	1
11	1	–	–	1
35	–	–	1	1
Total	63	39	5	107

Table 8 Vessel Type Series

Type 1 High-shouldered jar; 'pulled' bead rim, at least one ear-shaped handle situated on shoulder.

Type 2 Small, high-shouldered jar or beaker; bead rim; interior rim diam. <100 mm. Occur in all assemblages of similar date in the area (eg. Cotton & Gathercole 1958; Cunliffe 1971, 212, fig. 102, 166).

Type 3 Shouldered jar; plain, unelaborated but slightly inturned rim ('proto-bead'). Comparable with incurving saucepans found in phases 2 (Middle Iron Age) and 3 (Late Iron Age/Early Roman) at Micheldever Wood (eg. Hawkes 1987, fig. 21, 10; fig. 22, 18) and at Easton Lane (Hawkes 1989, fig. 93, 29), near Winchester.

Type 4 Bead rim fragment: for sherds too small and/or abraded to be further assigned to type. Not illustrated.

Type 5 Range of jars; upright or very slightly everted necks; rim terminal plain or slightly beaded. Comparable with range of vessels from, for instance, Ashley (eg. Neal 1980, 12, 18), Bitterne (Cotton & Gathercole 1958, 70, type BER1 and 75 type JN1), Fishbourne (Cunliffe 1971, 212, type 161) and the M3 sites (eg. Stuart & Birkbeck 1936, fig. 7, 31–42; Hawkes 1985, fig. 57, 90, 95).

Type 6 Lids, or possibly shallow bowls. Similar forms at East Horton Farm near Fair Oak (Wessex Archaeology 1990, fig. 5, 8) and Easton Lane (Hawkes 1989, fig. 93, 37 and 38) but not at the other sites along the line of the M3 motorway or at Ashley.

Type 7 Medium-sized bead rim jars: interior rim diam 100–130 mm. Generally have a fairly high shoulder, rounded profile and flat base. Occur in all assemblages of similar date in the area (eg. Cotton & Gathercole 1958; Cunliffe 1971, 212, fig. 102, 166; Hawkes 1985, figs 57 and 58).

Type 8 Bead rim bowl/jar: height more than one-third of, but not greater, than max. rim diam. Can only be positively identified when total profile preserved.

Type 9 Large bead rim jar; interior rim diam. >130 mm. Usually fairly thick-walled. Occur in all assemblages of similar date in the area (eg. Cotton & Gathercole 1958 Cunliffe 1971, 212, fig. 102, 166; Hawkes 1985, figs 57 and 58).

Type 10 Beaker; thickened lip internally stepped. Probably from butt beaker (Hawkes & Hull 1947, Cam. 113), Examples in hard-fired cream or white ware occur in period 1 deposits at Fishbourne (Cunliffe 1971, 186, fig. 88, 59). Similar vessel from a group dated *c.* AD 100–200 from Bitterne (Cotton & Gathercole 1958, fig. 21, 3). May be an import (M. Wood pers. comm).

Type 11 Sharply carinated beaker; long sloping shoulder and small flared rim; small, wedge-shaped base, recessed underneath. Broadly comparable with the long-necked examples of the *vase tronconique* produced in the Flavian and later periods in the Artois and Picardy regions (Richardson & Tyers, 1984, 136, fig. 2, 2 and 3), and possibly copied from them. Similar vessels occur in period 1 and 2 deposits at Fishbourne (Cunliffe 1971, 190, fig. 89, 69).

Type 12 Slightly beaded rim of small cup or bowl; cordon on exterior surface just beneath rim.

Type 13 High-shouldered jar; inturned bead rim; 'inverted pear' shaped profile, flat base. Thin-walled, carefully produced. Rim fragment, probably from similar vessel at Ashley (Neal 1980, fig. 26, 29).

Type 14 Small shouldered jar; short neck, slightly everted bead rim. Similar known from Micheldever Wood, near Winchester (Hawkes 1987, fig. 25, 74).

Type 15 Large jar; plain, slightly everted rim; inner surface of rim very slightly lid-seated. Broadly similar to some late 1st-early 2nd century AD Alice Holt storage jars (Lyne & Jefferies 1979, fig. 21, 9.4 and 9.7).

Type 16 Large, wide-mouthed jar; straight, sloping shoulder, plain, upright or slightly flarred rim, no neck.

Type 17 Flagon; 'pulley-wheel' mouth; rim prominently flared with two mouldings of equal size. Claudian examples at *Camulodunum* (Hawkes & Hull 1947, pl. lix, 143.12), pre- to early Flavian examples at *Caesaromagus* (Going 1987, fig. 16, J2.2) and in *c.* post AD 75-early 2nd century levels at Exeter (Bidwell 1979, fig. 61, 31; fig. 65, 139).

Type 18 Very large, globular-bodied storage jar; upright neck, flat-topped, square rim and flat base.

Type 19 Large, thick-walled bowl; very slightly curved sides, faint exterior beading of rim.

Type 20 Carinated open bowls; flat or bifurcated rims. Similar to 'Atrebatic' Alice Holt bowls commonly found in Hampshire, Sussex and Surrey *c.* AD 60-mid 2nd century (Lyne & Jefferies 1979, class 5).

Type 21 Unelaborated, slightly everted rim of very large storage jar.

Type 22 Bowl; inturned, rilled rim; carefully finished with light burnishing on both surfaces. Similar vessel among late 1st-early 2nd century AD range from Fishbourne (Cunliffe 1971, 222, fig. 108, 225.1) .

Type 23 Necked jar; rounded, well-defined shoulder, upright neck, slightly everted rim, wedge-shaped base, recessed underneath. Horizontal groove on shoulder contains traces of slip. Paralleled by vessels from Fishbourne periods 1 and 2 deposits but thought not to outlast 1st century AD (Cunliffe 1971, 214, fig. 103, 181).

Type 24 Jar; rounded, long sloping shoulder, flared rim. Larger and less precise than Type 11 but probably based on similar Continental prototypes. Similar vessels are known at Easton Lane (Hawkes 1989, fig. 93, 31) and Bitterne (Cotton & Gathercole 1958, 93, fig. 19, 14).

Type 25 Cordoned bowl; rouletted decoration between cordons; short, upright neck, everted rim.

Type 26 High-shouldered bowl; inturned bead rim; burnished line decoration on exterior surface. Similar vessels, one with burnished line decoration, at Shedfield (Holmes 1989, 35, fig. 6, 1 and 2) and others at Chichester (Down & Rule 1971, fig. 5.12, 43; fig. 5.20, 26c).

Type 27 Jug; at least one plain strap handle attached to rim and shoulder; unelaborated rim; globular profile.

Type 28 Globular-bodied ring-necked flagon; footring base. Probably from Corfe Mullen (Calkin 1935) possibly imported from Lezoux (Rigby 1982, 156, fabric 21; Holbrook & Bidwell 1991, 139, fabric 405). Examples from Bitterne (Cotton & Gathercole 1958, fig. 19, 5) Fishbourne (Cunliffe 1971, type 109, fig. 94) and Winnall Down (Hawkes 1985, fig. 58, 123).

Type 29 Large, heavy jar; high, sloping shoulder, flaring, lid-seated rim; no neck.

Type 30 Shallow dish/platter; slight bead rim; probably British copy of Gallo-Belgic form.

Type 31 Narrow-mouthed jar; straight, sloping shoulder, plain, upright or slightly flarred rim, no neck. Similar to Type 16 but neck much more constricted.

Type 32 Round-bodied, open bowl; bead rim, flat base; light burnish on exterior surface. Similar bowls at Ashley (Neal 1980, fig. 26, 24 and 32).

Type 33 Shallow, straight-sided 'dog-dish'; flat base. Developed by the Dorset Black Burnished ware industry during the late 1st–2nd centuries AD, only becoming common from the late 2nd century AD onwards (Davies & Seager Smith 1993, 233). Widely copied at almost every centre producing pottery from the mid 2nd century AD onwards. Similar vessel, also in an imitation BB sandy fabric at Ashley (Neal 1980, fig. 27, 63).

Type 34 Flat-flanged bowl/dish; wide groove on upper surface of rim; 'incipient flanged bowl/dish'. Probably copied from the BB industry where the form develops *c.* AD 120, continuing into the 3rd century (Davies & Seager Smith 1993, 235).

Type 35 Bag-shaped beaker; grooved, corniced rim, small wedge-shaped base; decoration comprising incised grooves and panels of comb-applied barbotine dots occur around centre of vessel.

For all fabrics, excluding the samian and amphora. The correlation between fabrics and vessel forms is shown in Table 8.

British product, is broadly based on the long-necked *vase tronconique* from northern France (cf. Fig. 22, 57; Richardson & Tyers 1984, 136, fig. 2, 2 and 3). Other examples, also in local fabrics, occur at Easton Lane near Winchester (Hawkes 1989, fig. 93, 31) and in a Vespasianic group (*c.* AD 70–80) at Bitterne Manor (Cotton & Gathercole, 1958, 93, fig. 19, 14). Most forms are well-paralleled in the area but the wide and narrow-mouthed jars with straight, sloping shoulders, no necks and slightly flared rims (eg. Fig. 19, 20) appear to be more localised types.

The bowl and dish forms also occur more frequently in the sandy and fine grog-tempered wares (Table 5) and also comprise a range of 'native' forms (Figs 17, 5; 28, 37, 42; 22, 56) with a more disparate group of 'Romanised' types (Figs 20, 26, 32; 21, 44; 22, 47, 50). Two pedestal bases (Figs 20, 35; 22, 53) in grog- and flint-tempered fabrics are probably from fairly elaborate 'native' bowls. A shallow, straight-sided bowl or dish (Fig. 22, 60) and an incipient flanged bowl/dish (Fig. 22, 61) represent the only forms that need date from after the first quarter of the 2nd century AD.

Very little decoration occurs amongst the coarseware assemblage (Figs 17, 4; 21, 42, 44), although soil acidity and surface abrasion may have affected survival. Burnished line motifs on a few body sherds are the only additional examples. Most vessels are roughly finished, with smoothed or wiped surfaces and some possible attempts at burnishing.

Six of the coarseware vessels have from one to five perforations drilled through the base after firing. Four are illustrated (Figs 17, 4, 5; 18, 15, 16). Such perforated vessels first appear in the Middle Iron Age, becoming increasingly common in the latest pre-Roman Iron Age and earliest Roman periods across wide areas of southern England. Post-firing perforation indicates a dramatic alteration in the use of vessels. Residue analysis (Heron unpublished) casts doubt on the previous suggestion that they were used in the production of cheese (Harding 1974, 88). One sherd, probably deliberately trimmed, has a partially drilled central perforation and may be an unfinished weight or spindle whorl.

Two Spanish amphora types were recognised; 19 sherds, representing at least two vessels, occur in Catalonian fabrics (E266) of which 17, including a strap handle (Fig. 20, 25) are probably from a Dressel 28 amphora (Keay & Jones 1982), or one of a range of minority types produced in the same area (Remesal-Rodriguez & Revila-Calvo 1991,

400–2). Dressel 28 vessels were used in the transportation of wine or fish products and date from the late Augustan period to the second half of the 2nd century AD (Peacock & Williams 1986,151). Minority types date from the Flavian period onwards.

Body sherds occur of at least one Dressel 20 amphora (E256) from the southern Spanish province of *Baetica,* which contained olive oil. These vessels, probably the most common type found in Britain, had an average capacity of 66 litres (Sealey 1985) and were widely transported across the western provinces of the Roman Empire from the 1st to at least the early 3rd century AD (Peacock & Williams 1986, 136).

Discussion

In general terms, the Dairy Lane assemblage is broadly comparable with the material recovered from the earliest stratified groups at Bitterne Manor, dated from *c.* AD 70–120 (Cotton & Gathercole 1958, figs 19–21), and by the Period 1 pottery (terminal date of *c.* AD 75/80) from Fishbourne (Cunliffe 1971, 175–217). Some of the forms present are paralleled by vessels from the Fishbourne Period 2 contexts (*c.* AD 100–200) (Cunliffe 1971, 216–42), although in general, this group contains more 'Romanised' forms which become common after *c.* AD 120, and 2nd century AD imported finewares that are not present at Dairy Lane. The Dairy Lane material is also comparable with assemblages from rural sites of similar date in the area including Winnall Down (Hawkes 1985, 69–76), Micheldever Wood (Hawkes 1987, 27–33), Easton Lane (Hawkes 1989, 94–6), Twyford Down (Stuart & Birkbeck 1936; Seager Smith forthcoming), Ashley (Neal 1980, 135–9) and East Horton Farm (Jenkins 1990), and also with the early Roman material recently recovered from Bitterne Manor (Wood in prep.). However, in contrast to Dairy Lane, these assemblages are predominantly composed of sandy and flint-gritted fabrics with grog-tempered wares forming only a minority component, mainly used for large storage jars. The large jar forms are apparently comparatively rare at both Bitterne Manor (Cotton & Gathercole 1958) and Fishbourne (Cunliffe 1971), possibly reflecting functional and/or status differences between the assemblages.

The absence of Dorset Black Burnished ware (BB1) at Dairy Lane probably reflects the early date of the assemblage. It occurs at both Bitterne Manor (Cotton & Gathercole 1958, fig. 22, 3) and at Fishbourne (Cunliffe 1971, fig. 74, 2 and 3) only from *c.* AD 120 onwards. BB1 sherds have, however, been identified at nearby Ashley (Neal 1980, 139), where the other coarsewares are comparable with those from Dairy Lane. Mortaria are present at both Bitterne Manor and Fishbourne by *c.* AD 75, but do not occur at Dairy Lane or any of the rural sites in the area (Hawkes 1987, 27–33; 1989, 94–6; Stuart & Birkbeck 1936; Seager Smith forthcoming; Neal 1980, 135–9; Jenkins 1990) with the exception of Winnall Down (Hawkes 1985, fig. 58, 127). This probably reflects functional and/or status differences between the assemblages; mortaria being highly specialised, 'Romanised' vessels, completely outside the native pre-Roman Iron Age ceramic tradition in Britain and indicative of the adoption of Continental methods of food-preparation.

The location of the site at Dairy Lane, with direct access to cross-Channel trade via a navigable waterway, highlights this site as being an ideal findspot for many of the rarer Continental imports. As might be expected given the nature of these sites, both the Bitterne Manor (Cotton & Gathercole 1958; Wood in prep.) and Fishbourne (Cunliffe 1971) assemblages contain a wide range of both imported wares and local copies of imported prototypes. In contrast, no imported wares are reported from Ashley (Neal 1980, 135–9) and only small quantities of the more common amphora fabrics and samian were recovered from the other rural sites in the area (Stuart & Birkbeck 1936; Hawkes 1985; 1987; 1989; Jenkins 1990). Some access to imported wares from Spain, southern and central France, including some, such as the Lezoux colour coated ware (Fig. 23, 58) of exceptionally high quality, is apparent from the Dairy Lane assemblage but the range and quantity of imports is not as extensive or wide reaching as might be anticipated. Imported colour-coated finewares and the Gallo-Belgic wares, including Terra Nigra, which occur *c.* AD 70–120 at Bitterne Manor (Cotton & Gathercole 1958, 91–8, figs 19–21) are not present at Dairy Lane. This assemblage was examined for the more unusual

Continental imports by Mark Wood but none were identified and only a small number of British copies of Continental prototypes occur (Fig. 21, 43, 57, 59). It seems likely that the inhabitants of Dairy Lane utilised the advantage of easily navigable waterways and relatively close proximity to sites such as Bitterne Manor to obtain some of the imported wares unavailable, or less easily so, further inland but did not have access to the entire range of imports and were not themselves directly involved in cross-Channel trade.

OTHER ARTEFACTS by Rachael Seager Smith

A broken, oval plate brooch with enamel decoration (Fig. 24, 1) in poor condition was the only copper alloy object found. The face of the brooch has a raised central oval piece filled with disintegrated enamel, which is surrounded by a ring of alternating blocks of blue, yellow, red, and white enamel. The pin is missing, although the bases of the pin attachment and catch plate are visible. Some traces of a white metal coating survive on the upper surface of the brooch.

Up to ten enamelled brooches of various shapes are known from the Nursling area and are now housed in Southampton City Museum, although no precise parallels for the Dairy Lane brooch occur. The date range of enamelled plate brooches is generally centred on the 2nd century AD (Crummy 1983, 15–17) but the best parallels for this brooch are those with an intaglio in the raised centre (Hull 1968, 54; Boon 1957; 1959, 85; Evans 1974, fig. 7, 11). On the basis of the 'barbarous' intaglios, these brooches are considered to belong to the late Roman period, possibly the 4th century AD (Boon 1959, 85). This brooch, which came from the only soil layer containing later Roman pottery, may not relate directly to the main period of Romano-British activity at Dairy Lane.

Thirty-six heavily corroded iron fragments were recovered from phased contexts. Three objects were identified, consisting of two flat strips, probably horseshoe fragments, and a bucket handle from pit 3420 with fragments of replaced wood (oak, identified by R Gale). The remainder comprise 29 nails or nail fragments and 4 unidentified lumps of ferrous metal or corrosion products. The iron bucket handle (Fig. 24, 2) is a semi-circular rod of varying cross-section, with a central, shallow U-sectioned grip and hooked ends. The ends span a distance of 28 mm, indicating the approximate diameter of the bucket. Such bucket handles are known from the Middle to Late Iron Age (*c.* 400 BC onwards), and are comparatively common during the Romano-British period, across much of Britain and the Continent (Manning 1985, 102).

Worked stone objects comprise fragments from two upper rotary quern stones of Lodsworth Greensand and two small, possible saddle quern fragments, one of an unprovenanced greensand and one of sarsen. The continued use of saddle querns alongside rotary querns well into the later Iron Age and early Roman periods is now well attested on sites in Hampshire (Brown 1984, 418) where greensand and sarsen are also the most common rock types used (eg. Brown 1984, 415; Laws 1991, 396), their popularity continuing into the early Roman period (Jecock 1985, 78; Fasham *et al.* 1989, 107). Greensand occurs in a broad arc to the north of the Wessex chalklands, on the Isle of Wight and into the Weald of Sussex and Kent. The Lodsworth quarry (Peacock 1987) is likely to be just one of a greater number of quarries exploiting this resource. Sarsen was probably readily available on the chalk downlands to the north of Winchester.

A total of 72 pieces of ceramic building material weighing 2148 g was retained from phased contexts, all fragments of definite post-medieval or modern date being discarded after initial processing. Most are small and featureless with no preserved surfaces, however, seven *tegula* fragments, two pieces of *imbrex,* and one piece of a Roman brick were recognised and, on the basis of fabric, it is likely that the majority of other pieces are also of Roman date.

ENVIRONMENTAL AND ECONOMIC EVIDENCE

Charred Plant Remains by Pat Hinton

Plant macrofossils were extracted by standard Wessex Archaeology methods and sorted by stereo microscope at ×7 – ×40 magnification. The results are presented in Table 9. A further eight

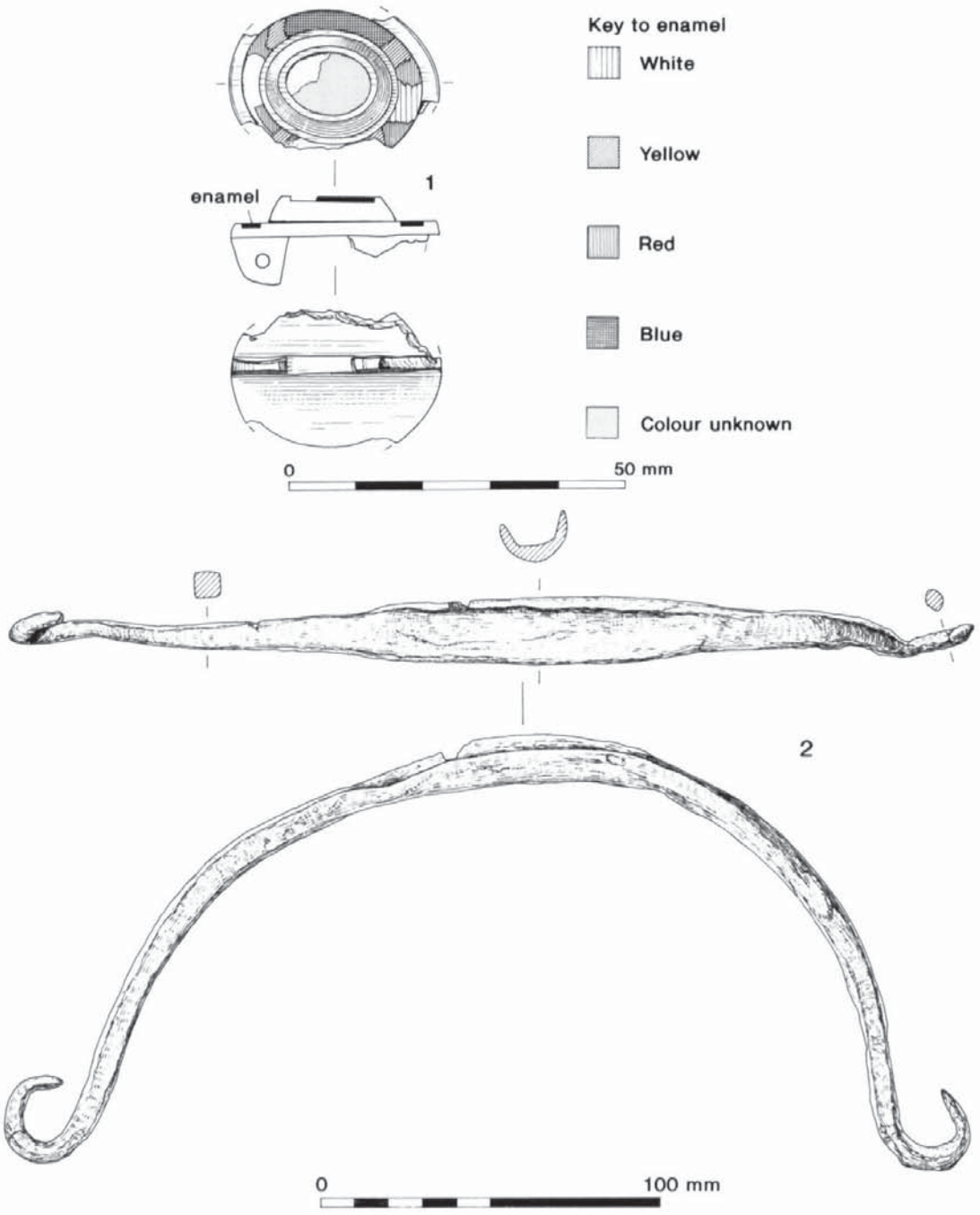

Fig 24 Metalwork: copper alloy (1) and iron (2)

Table 9 Plant remains

Period	*Middle Bronze Age*		*Early Roman – Phase 2*				*Early Roman – Phase 3*								*Unphased – possibly Roman*		
Feature	*Ditch 3657*	*Ditch 3657*	*Ditch 7222*	*Ditch 7222*	*Ditch 3006*	*Ditch 3198*	*Enc. Ditch 3335*	*Enc. Ditch 3319*	*Enc. Ditch 3283*	*Pit 3291*	*Pit 3292*	*Pit 3420*	*Pit 3631*	*Pit 3631*	*Pit 3043*	*Pit 3305*	*Hearth 3053*
Context	*3247*	*3582*	*7258*	*7333*	*3016*	*3605*	*3331*	*3593*	*3562*	*3345*	*3385*	*3421*	*3648*	*3645*	*3044*	*3304*	*3036*
Sample no.	*8028*	*8019*	*6120*	*6124*	*8011*	*8020*	*8002*	*8037*	*8034*	*8016*	*8018*	*8022*	*8040*	*8041*	*8005*	*8047*	*8006*
Sample volume (litres)	*30*	*12*	*15*	*10*	*15*	*15*	*10*	*15*	*15*	*3*	*10*	*15*	*15*	*10*	*15*	*30*	*12*
Triticum dicoccum /spelta																	
- spikelet fork	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	1
- grain	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
- glume bases (emmer or spelt wheat)	–	–	–	–	–	–	–	–	–	4	–	5	–	–	–	–	–
Triticum cf *spelta* - glume bases (spelt wheat)	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2	–	–
Triticum cf *aestivum* s.l. (bread wheat)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–
Triticum spelta/aestivum s.l. (spelt or bread wheat)	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
Triticum cf *dicoccum* Schubl.																	
- grain	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
- glume base (emmer wheat)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
riticum sp. (undifferentiated wheat)	2	–	–	–	–	–	1	–	–	–	1	1	–	–	4	1 + fr	–
Hordeum vulgare L. (hulled barley)	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–
Avena sp. (oat)	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
- grain	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
cf *Avena* sp (cf oat)																	
- grain	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
- awn fragments	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–
Cerealia indet. (indeterminate cereals)	3	–	–	–	–	–	–	–	+	+	1	1	1	–	3	–	+
Corylus avellana L. nut shell fragments (hazel)	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	3	–
Bromus cf *secalinus* L. (chess, rye brome)	–	–	–	–	–	–	–	–	–	–	1	3	–	1	4 + fr	–	–
Vicia/Lathyrus sp. (vetch or vetchling)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Vicia tetrasperma/hirsuta (smooth/hairy tare)	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Period	*Middle Bronze Age*		*Early Roman – Phase 2*				*Early Roman – Phase 3*								*Unphased – possibly Roman*		
Feature	*Ditch 3657*	*Ditch 3657*	*Ditch 7222*	*Ditch 7222*	*Ditch 3006*	*Ditch 3198*	*Enc. Ditch 3335*	*Enc. Ditch 3319*	*Enc. Ditch 3283*	*Pit 3291*	*Pit 3292*	*Pit 3420*	*Pit 3631*	*Pit 3631*	*Pit 3043*	*Pit 3305*	*Hearth 3053*
Context	*3247*	*3582*	*7258*	*7333*	*3016*	*3605*	*3331*	*3593*	*3562*	*3345*	*3385*	*3421*	*3648*	*3645*	*3044*	*3304*	*3036*
Sample no.	*8028*	*8019*	*6120*	*6124*	*8011*	*8020*	*8002*	*8037*	*8034*	*8016*	*8018*	*8022*	*8040*	*8041*	*8005*	*8047*	*8006*
Sample volume (litres)	*30*	*12*	*15*	*10*	*15*	*15*	*10*	*15*	*15*	*3*	*10*	*15*	*15*	*10*	*15*	*30*	*12*
Trifolium campestre Schreber	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–
cf *T. campestre* (hop trefoil)	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Veronica cf *serpyllifolia* L. (thyme-leaved speedwell)	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Sherardia arvensis L.(field madder)	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Stellaria cf *media* (L) Villars (chickweed)	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Galium aparine L. (cleavers)	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–
Tripleurospermum inodorum (L.) Schultz-Bip (scentless mayweed)	–	–	–	–	–	–	–	–				1					
Unidentified seeds	–	–	2	4	–	–	–	–	–	2	–	–	1	–	–	–	–
Stem fragments	–	–	–	5	1	–	–	–	–	6	–	–	–	–	–	1	–
Root fragments	–	–	1	4	–	1	–	–	–	–	–	–	–	–	–	1	–
cf Root bud	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rhizome fragments	–	–	–	2	–	–	–	1	–	–	–	–	–	–	–	–	–
Starchy Material (probably includes cereals)	+++	+	++	+	+++	+	+		+	+	++	+++	+	+	+++	+++	++

samples contained only starchy material, probably including cereals. Full details of all samples are held in the project archive. Plant macrofossils are sparse but occur in all but one of the samples. The few recognisable cereal grains and weed seeds are mostly poorly preserved making identification difficult and several seeds remain unidentified.

Two samples from Middle Bronze Age ditch 3657 include some evidence of cereals, in addition to hazel, and one also has a probable field weed. A further sample from this ditch and one sample from ditch 3637 contained only starchy material.

Samples from Phase 1 ditch 3579 contained only amorphous starchy fragments. In the Phase 2 and 3 samples glumed wheats, emmer or spelt (*Triticum dicoccum* or *T. spelta),* are present and possibly free-threshing bread wheat *(Triticum aestivum* s.l.). Oats *(Avena* sp.*)* occur in both phases, and hulled barley *(Hordeum vulgare)* also occurs in Phase 3. Apart from the hazel the other seeds are those of typical field weeds.

The results, although restricted, show the commonly recorded cereals and accompanying weeds of the periods represented. The oats, which cannot be closely identified, may have been present merely as weeds and chess *(Bromus secalinus)* is often found with spelt. There is, however, a possibility that both these species could have been acceptable parts of a crop. The evidence, therefore, provides little information about the origin or the treatment of the cultivated cereals.

The paucity of material from the early Roman (Phase 2) ditch 7222 in Area A means that interpretation is difficult, but the material does seem to differ in character from the early Roman features in Area B. The root and stem fragments might indicate up-rooting, or perhaps the burning of turf. The identified seeds are those of low-growing, more or less procumbent plants of open grassy or waste places, or of cultivated land.

Charcoal by Rowena Gale

Charcoal associated with ditches and pits from the Middle Bronze Age and Early Roman phases was examined and identified for environmental and anthropological implications. The fragments were examined using a ×20 hand-lens and sorted into groups based on the anatomical features observed on the transverse surface. Representative fragments were prepared for detailed examination by fracturing to expose clean, flat surfaces in the transverse, tangential longitudinal and radial longitudinal planes. These were supported in sand and examined using a incident-light microscope at magnifications of up to ×400. The structure was matched to authenticated reference material.

The fragments of charcoal were generally rather small and, although the samples usually contained some pieces measuring >2 mm in the transverse section, these were often knotty or in poor condition. Many fragments were contaminated with a reddish deposit which had permeated into the cells and obscured cell wall structure.

The tabulated results are shown in Table 10. Although charcoal samples were relatively sparse, fragments were retrieved from contexts spanning the Middle Bronze Age and early Roman periods. Charcoal associated with settlements or man-made features can usually be considered anthropomorphic in origin. But what its function was or how it arose is often difficult to determine. For example, accumulations of charcoal in ditches marking field boundaries may have originated from land clearance for agriculture, potash spread over the field, debris from hearths (domestic or industrial) or other activities. The high proportion of stem wood present in the samples from Dairy Lane suggests that the bulk of the wood (charcoal) was from trees growing in the locality, since it is unlikely that quantities of such material would have been transported far.

Table 10 shows that oak, hazel, and *Prunus* occurred fairly consistently in the samples from the Middle Bronze Age and early Roman periods, whereas ash, member/s of the Pomoideae and willow/poplar were less common. Birch was identified from a single fragment in the early Roman Phase 3 enclosure ditch 3283 and it is possible that few birch trees grew in the area. Birch wood is relatively strong and has many artefactual uses but makes a short-lived fuel.

Environmental evidence

Oak is present in most samples, and in larger quantities than other species in almost all contexts. Interestingly, many of the oak fragments appear to

Table 10 The genera/families identified from 14 samples of charcoal

	Context	*Sample*	*Betula*	*Corylus*	*Fraxinus*	*Quercus*	*Pomoid*	*Prunus*	*Salic*
Middle Bronze Age:									
Ditch 3657	3247	8028	–	3	–	5	1	1	–
	3582	8029	–	*cf*3	–	2s	–	2	–
Early Roman – Phase 1									
Ditch 3579	3373	8013	–	2s	3s	20s + H*	–	2	–
	3403	8054	–	*cf*1	–	–	–	2	1
Early Roman – Phase 2									
Ditch 3656	3565	8039	–	1s	–	2*	–	–	–
	3625	8025	–	–	–	4H*	–	–	–
Ditch 7222	7333	6124	–	–	–	3s + S	–	–	–
Early Roman – Phase 3									
Enclosure ditch 3319	3593	8037	–	–	–	4s + H*	–	–	–
	3318	8001	–	–	20s	9s + H	–	1s	1s
Enclosure ditch 3283	3670	8035	1	–	–	–	–	21	–
Pit 3291	3345	8016	–	–	–	24s	–	–	–
Pit 3420	3421	8022	–	2	–	17s + S	*cf*3	–	–
Pit 3631	3648	8040	–	–	–	8s*	1	2	–
Unphased – possibly Roman									
Hearth 3053	3036	8006	–	5	–	12s	–	2	2

Note: Sample 8001 - context 3318 included 3 well developed *Fraxinus* buds.
Sample 8039 - context 3565 included 1 fragment of stem from a herbaceous dicotyledon.
The number of fragments identified is indicated.
Abbreviations: Pomoid = Pomoideae; Salic = Salicaceae; s = stem; S = sapwood; H = heartwood; * fragments with very narrow growth rings suggesting slow growth.

have originated from slow-grown trees (indicated on the transverse surface of the charcoal by very narrow growth rings). This phenomenon occurs in charcoal from early Roman contexts and, although this may have been coincidental, it may infer that soil, rather than climatic, conditions were responsible.

Woodland trees including oak, ash, and cherry frequently form mixed woodland on various types of soil but particularly on clay or clay overlying chalk. Birch, however, is an indicator of acidic, often poor soil (often growing with oak) and heathland. Evidently, mixed woodlands existed locally, although the dominant species, influenced by the soil types, may have varied. Woodland margins may have been colonised by small trees and shrubs such as hawthorns or other members of the Pomoideae, many of which are common in secondary woodland. Blackthorn, often anatomically indistinguishable from cherry (as in this instance) but certainly more common throughout southern Britain, probably grew locally in marginal woodland or open/scrubby areas. Hawthorn and blackthorn are spiny and have been used traditionally, for boundary hedges and to deter livestock. The field boundaries here may have been defined by thorn hedges (although there is no evidence to support this), while the ditches may have been damp enough to encourage the growth of clumps of shrubby willows. The banks of nearby streams or damp, low-lying ground may have been a more likely source of the willow/poplar. Hazel forms a natural understorey (often with oak) or grows in open areas/glades (where it will fruit) and may have grown in either situation at Dairy Lane. There was insufficient information to assess changes in woody vegetation.

Artefactual uses

It is clearly difficult to interpret the origins of the charcoal. Its presence in ditches suggests, perhaps, a natural accumulation of discarded debris, but where it occurs in pit fills it is more likely to represent dumped materials, such as expended fuel.

Charcoal from three early Roman pits and a possible Roman hearth was examined (Table 10). Oak predominates in these samples of probable fuel, especially in pit 3291, indicating the specific utilisation of this wood, which has a high thermal capacity. Stem wood proliferates and may have been gathered from coppices and mixed with uncoppiced wood from other species, but the small size and quantity of the charcoal fragments from these samples provides insufficient evidence for coppicing. The sample from pit 3631 includes stems from slow-grown oak, suggesting that these are more likely to have been gathered from uncoppiced trees.

The charcoal from early Roman enclosure ditch 3319 consists of oak stem and heartwood and fragments of stem from ash, *Prunus*, and willow or poplar. Ash and oak appear to be dominant. Three well-developed ash buds (one terminal) are of particular interest since they indicate that the stems had been gathered either in late summer or during dormancy, ie autumn, winter or early spring.

DISCUSSION by Roland J C Smith

Earlier Prehistoric Activity

The excavations at Dairy Lane, Nursling, have produced some evidence for earlier prehistoric activity. This consists of quantities of residual worked flint of Mesolithic, Neolithic, and Early Bronze Age date, but the potential for *in situ* deposits of these periods was unfortunately not realised. The assemblage, however, adds to the growing number of findspots of earlier prehistoric material from the lower Test Valley (between Romsey and Redbridge) and its tributaries. These sites and findspots include the recently recorded putative Late Mesolithic 'structures' at Bowman's Farm (Green 1991), Mesolithic flint at Grove Place (Wymer 1977, 117) and Home Farm, Ower (Ford 1993), Neolithic flint from Nursling Gravel pit, Nutfield Farm, Aldermoor, and Fernyhurst, Rownhams (information from Sites and Monuments Record), and a Beaker from a shallow pit at Franconia Drive, Nursling Industrial Estate (Beamish & Hearne 1995).

Most of these finds, including Dairy Lane, Nursling, are located on the gravel terraces adjacent to and above the River Test and its tributaries. Such locations, on well-drained soils

above but close to the floodplain, are likely to have been preferred from the Mesolithic period onwards. The river provided water, fish and fowl and a means of communication and transport. The woodland and undergrowth on the floodplain margins provided fuel, shelter and cover for wild animals, and the gravels of the river terrace and floodplain provided a source of raw material for the manufacture of flint tools. A recent peat sequence from the Lower Test Valley at Testwood has indicated an environment in the Middle Mesolithic (*c.* 6000–5000 BC) of pine, hazel, oak and elm woodland on the drier soils of the valley margins, and wet fen with willow the dominant shrub on the floodplain (Allen & Scaife in prep.). The peat sequence also identified phases of vegetation change and alluviation as a result of intermittent and localised Mesolithic activity, and probably typified by the activities represented by the collection of residual worked flint at Dairy Lane. Widespread but sporadic activity may also be suggested for the Neolithic period, although the limited nature and scale of many of the investigations that have produced material of this period makes meaningful interpretation impossible at present.

Interpretation is also hindered by the present absence of contemporary features and deposits, and by the residual character and earlier, unsystematic collection of some of the finds of earlier prehistoric material. The excavations in the Nursling area have demonstrated that agriculture and settlement on the gravel terraces, from at least the Middle Bronze Age onwards (see below), have probably ensured that *in situ* evidence for Mesolithic or Neolithic deposits is rarely likely to survive. This probably also applies to many other areas of the gravel terraces in the lower Test Valley, large parts of which have been subject to extensive gravel quarrying. The putative Late Mesolithic 'structures' at Bowman's Farm are currently an exception; their survival being a result of the low intensity of recent agriculture (Green 1991).

Bronze Age Activity

The earliest archaeological features at Dairy Lane comprised three ditches containing pottery of Middle Bronze Age date (see Fig. 4). The ditches probably represent field boundaries. Other, similar ditches have been recorded elsewhere in the Nursling area and these suggest the existence of widespread, if intermittent and irregular, fields across the gravel terrace at this time. Traces of certain or possible Bronze Age field ditches have been recorded at Nursling Gravel Quarry (Rees 1993, 24), Manor Farm Stables (Cooper 1984, 30) and Franconia Drive (Beamish & Hearne 1995). These ditches were invariably shallow, generally no more than 0.5 m deep, similar to those at Dairy Lane, and contained pottery, worked flint, and unworked burnt flint. One of the ditches at Nursling Gravel Quarry was recorded 'merely as a stain' (Rees 1993, 21) and many other such ditches may not have survived to the present day.

The laying out and use of the fields at Dairy Lane is placed in the Middle Bronze Age on the basis of the large, conjoining sherds of globular urn, barrel urn and possible accessory vessel recovered from the base of the field ditches. A radiocarbon determination of 910–800 cal. BC (2695 ± 65 BP, AA-14701) from charcoal from one of them poses some problems in that it appears to conflict with the suggested Middle Bronze Age dating for the pottery. A long period of use of the ditch is one possible, though perhaps unlikely, explanation for this. Contamination of the deposit is another and it should be noted that the charcoal sample comprised only small fragments recovered from various levels within the ditch. However, recent work has demonstrated that Deverel-Rimbury type-fossils sometimes have earlier or later dates from radiocarbon determinations than might be expected, and this varies between different geographic areas. For example, at Simons Ground, Dorset, the radiocarbon dates suggest the Middle Bronze Age cemetery to have been in use from at least 1200 BC to around 500 BC (White 1982, 41–2), and at Kimpton the radiocarbon dates did not support the sequence of cemetery growth based on stratigraphic relationships and the suggested sequence of vessel types (Woodward forthcoming). The apparently 'late' date at Dairy Lane, Nursling, may therefore be 'correct' and does not need to be explained by other factors.

The ditches in the Nursling area suggest widespread use of the gravel terrace during the Middle

to later Bronze Age. The very limited environmental evidence from the ditches at Dairy Lane and from the other ditches provides little evidence to determine the local environment and the nature of agricultural activity. However, the charred plant remains from Dairy Lane suggest limited arable activity and cereal production. The charcoal represents hazel, oak and blackthorn or cherry which are likely to have grown locally and are typical species of mixed woodland, with the blackthorn possibly suggesting hedgerows.

The quantity of large sherds of pottery from the Middle Bronze Age ditches at Dairy Lane suggests contemporaneous settlement lay close by and was set within the fields. The wide distribution of Bronze Age pottery in later features across the site may indicate a dispersed settlement or widespread occupation across the gravel terrace. There is little evidence with which to reconstruct the nature or economy of the settlement, and no evidence for any buildings was recorded. The pottery comprised a limited number of locally produced urns and there were no associated artefacts, apart from, perhaps, some of the flintwork. A complete sandstone saddle quern was recovered from the topsoil and, apart from worked flint, is the only other possible Bronze Age find from Dairy Lane, though it may be of Iron Age or early Roman date. Evidence for Middle Bronze Age occupation elsewhere in the lower Test Valley, including a hoard of palstaves from Nursling Industrial Estate, is presented by Rees (1993, 43), to which can be added the Dairy Lane urns and at least one pit containing Middle Bronze Age pottery at Franconia Drive (Beamish & Hearne 1995).

Evidence for activity at Dairy Lane into the early 1st millennium BC is indicated by the recovery of sherds of Late Bronze Age pottery as residual material in later deposits. This evidence adds to that reported on by Rees for the lower Test Valley (Rees 1993) and confirms the widespread distribution of material of this date in the Nursling area.

The Early Roman Field System and Settlement Enclosure

There is no evidence for activity at Dairy Lane from the early 1st millennium BC to the 1st century AD. The next phase of activity occurred in the early Roman period and was represented by the establishment of a ditched field system and an associated settlement. Three broad phases of early Romano-British activity are suggested on stratigraphic evidence (Phases 1–3), although the ceramic evidence suggests these phases are indistinguishable and all the features probably fall within a period of *c.* 70 years spanning *c.* AD 60–130. The following description has, therefore, been proposed as a likely sequence of events for the excavated deposits, although it is recognised that many features could be moved within the sequence.

The earliest phase of Romano-British activity (Phase 1) was represented by a curvilinear ditch and one pit. This was rapidly superseded by the laying out of a regular, ditched field system (Phase 2) which cut across the long abandoned Bronze Age field ditches. While this field system continued in use, a rectangular ditched enclosure, with perhaps three or more phases, was established apparently respecting the existing field system (Phase 3). Within the enclosure was a number of pits and post-holes filled with settlement debris.

The Early Roman Field System

The field system assigned to Phases 1 and 2 (*c.* AD 60–early 2nd century AD) provides the first evidence for a coherent system of Romano-British fields on the gravel terraces of the lower Test Valley (see Figs 6 & 8). Other field ditches of certain Roman date have rarely been recorded, although at least one was recently identified at Franconia Drive (Beamish & Hearne 1995). The fields at Dairy Lane cover an area of at least four hectares and comprised a series of rectilinear plots defined by shallow discontinuous ditches. The ditched field system is typical of others of comparable early Roman date in southern Hampshire and located both on tertiary sands and gravels, such as at East Horton Farm, Fair Oak (Jenkins 1990) 14 km to the east and on the Chalk downland such as at Ashley, near Stockbridge (Neal 1980, 141) 15 km to the north. The frequent recovery of Romano-British finds in the Nursling area (Fig. 2, information from Sites and Monuments Record) and elsewhere in the Lower Test Valley suggests that there was widespread agricul-

tural use of the gravel terraces in the Roman period, as has also recently been demonstrated for the Avon Valley (Light *et al.* 1995, 73). The Dairy Lane excavations have demonstrated that some of this activity was taking place within an established field system.

Some evidence for the local environment and agricultural economy of the field system can be established from the plant remains recovered from the field ditches and from features associated with the contemporary early Roman settlement. Charred plant remains were generally sparse and poorly preserved, although there is some evidence for the cultivation of free-threshing wheats and emmer or spelt, as well as hulled barley and oats. The small quantities of cereal remains may indicate a low level of arable activity within the fields, which were used predominantly for pasture. Charcoal of hawthorn and blackthorn were recovered and may suggest that some of the field boundaries were hedged, providing some supportive evidence for a predominantly pastoral economy. Unfortunately, there is no evidence for animal husbandry because only a small quantity of very fragmentary animal bone survived. Mixed woodland, including oak, ash, and cherry, typical of clay soils, existed locally and willow or poplar is indicative of damp, low-lying ground, as might be expected from the floodplain of the River Test.

The Early Roman Settlement

The stratigraphically earliest phase of settlement, Phase 1, was represented by at least one rubbish pit, containing predominantly sherds of amphorae, which was located within the field system but was otherwise unenclosed. No features other than ditches have been assigned to Phase 2, but some pits and post-holes that cannot be stratigraphically related to the Phase 3 enclosures may belong to an early, unenclosed, phase of settlement and might be assigned to either Phase 1 or Phase 2. The quantities of Roman pottery from Phase 1 ditch 3579 and from Phase 2 field ditch 3124 suggest that the earliest phase of settlement was centred towards the south-west of the excavation and probably extended to the south, outside the excavation area.

This phase of unenclosed settlement was replaced, in Phase 3, by a settlement set within a ditched enclosure which extended beyond the southern edge of the excavation (see Fig. 9). At least three phases of enclosure ditch may be represented, although the precise sequence remains unclear and it is possible that either ditches 3319 and 3335, or ditches 3319 and 3283 may have been contemporary. The initial two phases (Fig. 9, 3335 and 3319) were represented by ditches comparable in size and alignment to the ditches of the broadly contemporaneous, Phase 2, field system into which the Phase 3 enclosure was set. The use of these two shallow ditches as settlement enclosures, however, is suggested by the relatively large quantity of unabraded pottery recovered from their fills.

The final proposed phase of the Phase 3 enclosure was represented by a more substantial, continuous, ditch enclosing at least 0.4 ha. Entrance to the enclosure was presumably gained through the south of the enclosure. This adds some weight to the view that the earliest phases of settlement at Dairy Lane were centred on or beyond the south of the excavation area. A watching brief undertaken in December 1993 on behalf of Hampshire County Council on the south side of Dairy Lane (Fig. 1) did not, however, locate, any Romano-British features. The south side of the enclosure and any associated settlement may, therefore, lie under Dairy Lane.

A number of pits and post-holes was recorded within the enclosures but it is generally not clear with which phase(s) of ditch these were contemporary. Their distribution was irregular and no plans of buildings could be reconstructed from the few post-holes that were identified. The low density of features within the enclosure was confirmed by the careful hand-cleaning of at least 75% of the enclosure interior, although shallower features may have been ploughed out. The range of features and the material recovered from them and from the ditches suggests that the enclosure was associated with domestic occupation. The pits were primarily used for rubbish disposal; the deeper examples, such as pits 3291 and 3631, may have originally served as wells, although there is no evidence for this from their fills. The enclosure ditches probably also served as *ad hoc* locations for rubbish disposal.

The acidic soil conditions have influenced the survival of some categories of material; animal bone, for example, being almost completely absent and the ironwork being in very poor condition. Pottery was the principal material recovered from the pits and enclosure ditches. This material comprised predominantly locally made 'native' coarsewares, dominated by bead rim jars and large storage jars. A moderate quantity and range of British and imported fine wares, including samian, Corfe Mullen ware, and amphorae was recovered, although four of the five finewares present may be represented by no more than a single vessel each. The finewares do, however, include an exceptionally fine and rare colour-coated beaker (Fig. 23, 58).

The quantity and range of other stratified material was restricted, comprising an iron bucket handle, iron nails, one fragment of rotary quern, two of saddle quern, and 72 fragments of ceramic building material. No agricultural or metalworking tools or debris, personal objects, clay weights, spindle whorls, or fittings, such as locks and keys, were recovered. The low quantity of iron nails and ceramic building material and absence of fired clay and daub provides further evidence that few buildings, if any, were present within that part of the enclosure examined during the excavation, although slight timber and thatched buildings set on sleeper beams may have occurred of which no trace has now survived.

Environmental sampling from the pits and the enclosure ditches produced a low level of charred material but included some evidence for wheat, barley and oats and small quantities of oak charcoal typical of fuel ash. This material is consistent with small-scale and non-intensive domestic activities, such as for cooking and domestic fires and hearths, but it does not suggest that intensive agricultural activities, such as grain processing, were taking place within the settlement area. These may have occurred elsewhere within the settlement or grain may have been brought to the site already processed. More likely, however, is that the contemporaneous field system around the settlement was one predominantly for pasture rather than arable use for which there is some limited evidence (as described above).

In summary, despite the possibility that shallow features have been ploughed out and the biased artefact assemblage, the impression is of a settlement enclosure under-used and never fully occupied. The apparent re-establishment of the enclosure on possibly three occasions is not entirely consistent with this view but might be explained if the two earliest enclosure phases were represented by no more than field ditches used as *ad hoc* boundaries to the settlement area. The sporadic activity associated with the enclosure was principally associated with a low level of domestic use.

Probably not much later than AD 130, occupation of the settlement and use of the field system ended. Roman material post-dating AD 130 was limited to unstratified sherds of pottery from two vessels and a copper alloy brooch of possibly 4th century date from the south-west of the settlement enclosure and may represent the remnants of a midden deposit in the long-since abandoned settlement enclosure.

The Roman Settlement of Nursling

The identification of an early Roman settlement at Dairy Lane is particularly interesting because of its location close to the recorded Roman settlement of Nursling, the postulated site of *Onna*, a settlement recorded in the Ravenna Cosmography (Richmond *et al.* 1949, 43). The identification of the Nursling settlement is based on a number of observations and finds made during the 19th century. The published accounts of these discoveries are summarised by Haverfield in the Victoria County History (1900, 311). Unfortunately, many of the finds remain poorly provenanced. It is clear, however, that the principal discoveries were made 'on some gravel slightly raised above the banks of the Test. They occur close to the line of railway, where gravel has been broken for ballasting the line' (Wake Smart 1881, 296).

The principal 19th century discoveries were made no more than 500 m from excavation site (Fig. 2). Crawford's plan of the 'Old Ballast Pit' places its north-east limit less than 100 m from the Dairy Lane enclosure (1948, fig. 1) and, on this basis, the two are considered components of a single settlement. If this observation is correct, the results of the Dairy Lane excavation are particu-

larly important because of the very limited areas now remaining that have not been disturbed by the railway, gravel quarrying or the construction of Nursling Industrial Estate (Keevill 1993; Wessex Archaeology 1993, fig. SOTON 1).

Limited comparison of the date and range of material recovered from the Nursling Roman settlement and from Dairy Lane was undertaken by scanning the finds assemblage from the Nursling settlement held by Southampton City Museums Service and reconciling this information with the published accounts of the 19th century. The collection of material held by the Museum is a biased sample of predominantly high quality and well-preserved objects, although some broad statements can be made.

The 19th century discoveries span the Roman period from the 1st–4th centuries AD. The pottery includes forms and fabrics similar to and contemporary with those recorded at Dairy Lane. The quality and the condition of the material is particularly high, with, in many cases, little sign of abrasion or corrosion as occurs on most of the material from Dairy Lane. The pottery includes Southern and Central Gaulish samian and includes 'black ware, embossed like the Samian with an ornamental design . . . consisting of groups of male and female figures, engaged in the worship of some favourite divinity, but in a manner that forbids a more particular description' (Wake Smart 1885, 186). This may represent another vessel similar to the colour coated beaker from Dairy Lane (Fig. 23, 58). The collection includes 3rd and 4th century pottery, such as Oxford and New Forest wares, and a fine collection of metalwork, including many brooches probably of late 1st–3rd century date, in a particularly high quality of preservation. Objects of particularly high quality include an ornamental weight, now in the British Museum and 'a bronze figure of a stag, supporting a candlestick' (VCH 1900, 311).

This superficial comparison of material suggests that the features at Dairy Lane were part of a widespread early Roman settlement extending across the gravel terrace towards the floodplain of the River Test. The Dairy Lane enclosure probably represents the north-easternmost limit of the early Roman settlement. The apparent higher quality of preservation of early Roman material in the west of the settlement may suggest that the principal area of occupation was situated in this area or may only reflect differential site conditions and post-depositional processes. By the mid 2nd century, the focus of settlement had shifted permanently to the west towards the River Test where occupation continued at least into the 4th century. The nature of the Roman settlement in the west and in the vicinity of the railway line remains unclear, with the only features recorded from this area comprising three wells, of which two were stone-lined, an oven or grain drier, and a number of pits (VCH 1900, 311).

The Early Roman Settlement at Nursling and its Relationship to the late 1st to early 2nd Century Occupation of the Southampton Area

The identification of at least a small part of the Nursling Roman settlement at Dairy Lane is of some interest because of the potential importance of the settlement as a whole. The Nursling Roman settlement has been described as a 'ford, settlement and port' (Crawford 1913, 38) because of its location at the lowest ford of the River Test, which is tidal to this point. The settlement is also situated on a gravel spur projecting out into the floodplain of the Test and towards the opposite bank at Testwood House. The pre-Roman importance of this gravel spur and possible river crossing is suggested by the, now destroyed, promontory fort and earthwork enclosure, 'The Walls', (Crawford 1913, 36; 1948, 8) which were also sited on this gravel spur (Fig. 2).

The topographic location of the Nursling Roman settlement shares some similarities with those of the settlement at Bitterne Manor, previously generally referred to as *Clausentum* (Cotton & Gathercole 1958). Both lie on major rivers, which are tidal to the point of each settlement and provide navigable waterways inland from Southampton Water and the Solent (Fig. 25). Bitterne Manor lies on a pronounced promontory into the River Itchen. The settlement was linked to *Venta Belgarum* (Winchester), the cantonal capital and principal town of the region, by a road, although its exact line near to Bitterne Manor and the location of a ford across the River Itchen remain unclear (Margary 1955, route 42b; Morton 1992,

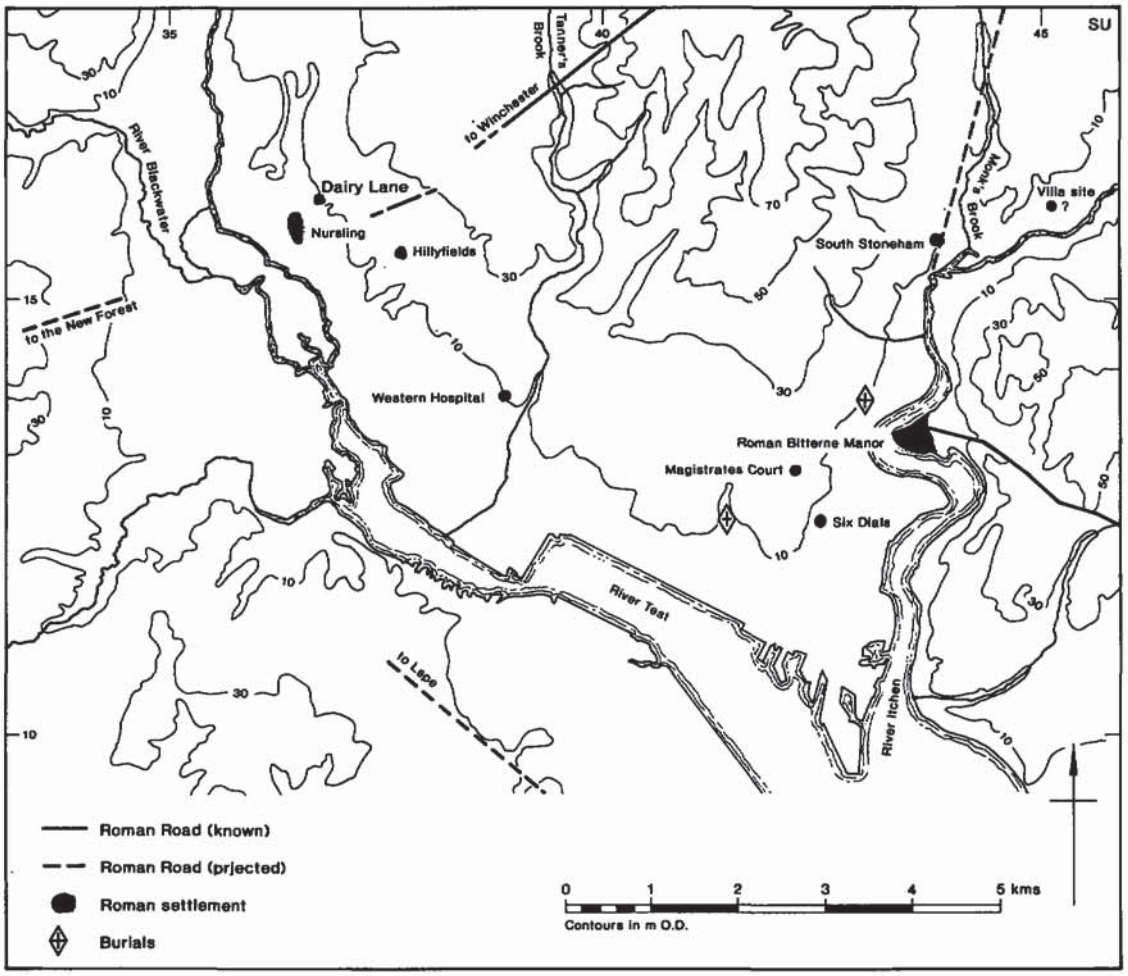

Fig 25 Principal known and suspected Roman sites in the Southampton area

24; Crockett 1996). The settlement probably served primarily as a supply base and outport for *Venta Belgarum* (Morton 1992, 24). Occupation at Bitterne Manor is attested from *c.* AD 70 (Cotton & Gathercole 1958, 14), although a Claudian foundation has not been entirely ruled out. Between AD 70–120 the occupation comprised a series of pits, hearths, and timber buildings defended by a bank and ditch across the neck of the promontory.

Roman Nursling was probably situated at the lowest ford of the River Test and an important crossing point. The settlement was also linked to *Venta Belgarum* by a road (Crawford 1948, 10; Margary 1955, route 422; Ryder 1994) which can be traced in part through Rownhams to Otterbourne Park Wood (Fig. 25). No certain trace of this road presently survives in Nursling, although Crawford recorded a section of it close to Adanac Farm (1948, 10). Crawford was unable to discover where the Roman road crossed the River Test, where it was probably linked to a Roman road to Lepe and a crossing point to the Isle of Wight (Margary 1955, route 423; Stagg 1984; Smith & Cox 1986) and possibly to a road leading into the New Forest (Margary 1955, route 422).

The topographic evidence can be used to suggest that the Nursling settlement may have been important as a possible port, trading centre, and market. The excavation of at least a small proportion of the early Roman phase (*c.* AD 60–130) at Dairy Lane provides an opportunity to establish if there is any supportive evidence for these suggestions. A comparison of the early Roman finds assemblage from Dairy Lane can be made from that from the early phases of Bitterne Manor (Cotton & Gathercole 1958, periods II and III (AD 70–120)) and with those from small early Roman rural settlements at Ashley, near Stockbridge (Neal 1980), Winnall Down, Winchester (Fasham 1985, phase 6), and East Horton Farm, Fair Oak (Jenkins 1990). All these rural settlements are represented by a series of ditched enclosures, some of which enclose settlement features, and have occupation that spans the mid 1st-early 2nd century AD.

Seager Smith concludes (above) that despite the favourable location of the settlement, the inhabitants of Dairy Lane were only able to obtain an impoverished collection of imported wares and were presumably not themselves engaged in cross-Channel trade. The early Roman pottery assemblage from Bitterne Manor contains a wide range of both imported wares and local copies of imported prototypes but few other categories of early Roman material. The recorded discovery of riverside structures in 1883 and the discovery of two pigs of lead in the river in 1918 have, however, been used to indicate that Bitterne Manor was 'a port with riverside wharves' (Cotton & Gathercole 1958, 14–5). Other finds categories from Ashley, Winnall Down, and East Horton Farm are more utilitarian and mundane and include small numbers, and often single examples, of personal ornaments, agricultural implements, querns, weights, spindle whorls, and metalworking debris. The small number and low quantity of material from these rural sites has been used to demonstrate the relative poverty of the associated settlements (Neal 1980, 142; Fasham 1985, 142). This same interpretation may be applied to the Dairy Lane settlement where the range and quality of other material is even more restricted. There is also an absence here of any finds that might be used to indicate trade and commerce such as weights, counters, and coinage.

In summary, the excavations at Dairy Lane have provided some evidence to suggest that this, apparently peripheral part of the early Roman settlement at Nursling represented a small rural community, involved predominantly in a pastoral farming economy, with some arable, within an organised field system. The settlement was ideally situated to exploit the lighter, well-drained soils of the gravel terrace and the more clayey, damp meadow and woodland margins of the floodplain of the River Test. This farming settlement was probably one of a number of similar Roman settlements exploiting the gravel terrace and overlooking the River Test (Fig. 25). Similar possible settlements have been suggested for Roman features recorded during recent archaeological work at the Western Hospital (McDermott 1994a) and the new Magistrates Court (McDermott 1994b) sites, and also from the collection of material recovered at Hillyfields (Crawford 1948, 12). Elsewhere, farming settlements are indicated by several ditches at Montefiore Halls, South Stoneham (Crockett 1996) and at Six Dials (Andrews forthcoming), and by isolated features or small groups of finds on sites elsewhere. At least one possible villa site is indicated, at Southampton (Eastleigh) Airport. Collectively this evidence suggests a series of small farms existing in close proximity with widespread agricultural exploitation of the gravel terraces and brickearth of the lower Test Valley during the Roman period.

The excavations at Dairy Lane do not, however, preclude the possibility that there was a significant change in the function and status of the Roman settlement at Nursling. The present evidence for such changes is inferred only from the limited but impressive, unpublished collection of material recovered during the 19th century immediately to the south-west of the Dairy Lane site. If there was a change in status, it cannot presently be determined what the reasons for this might have been: whether it was linked to the emergence of the New Forest potteries and Nursling's location on the possible route of deliveries from the New Forest to Bitterne Manor and *Venta Belgarum* (Fulford 1975, 120; Swan 1984, map 18) or on later Roman developments at Bitterne Manor and *Venta Belgarum*, or on both factors. Reappraisal of the sequence at Bitterne Manor has indicated that

there were building works and occupation in the late 3rd and 4th centuries AD (King 1989), where previously a gap in occupation had been proposed (Cotton & Gathercole 1958, 8). At Winchester, the 2nd and 3rd centuries witnessed the construction of lavish and elaborate houses and the town appears to have been at its most wealthy and successful (Collis 1978, 7).

It is unfortunate that little, if any, of the area of late Roman Nursling may now survive undisturbed which might have yielded clues as to the nature of later Roman settlement. It may yet be possible, with thorough research and reappraisal of the collection of unpublished material from Nursling found in the 19th century, to provide at least some evidence to address these questions in the future.

ACKNOWLEDGEMENTS

The project has been entirely funded by Tesco plc, and particular thanks are due to Mr A Mace, Projects Coordinator and Financial Controller. The project was coordinated through Kyle Stewart Design Services, and the cooperation of Mr Gordon Higham and Mr Peter Jordan is acknowledged.

The project was managed for Wessex Archaeology by Roland J C Smith. The fieldwork was directed by Neil J Adam and supervised by Vaughan Birbeck, Kevin Ritchie, and Melanie Gauden, with on-site finds work by Hugh Beamish. Individual contributions to this publication report are acknowledged in the text. Lorraine Mepham, Finds and Archives Manager, and Michael J Allen, Environmental Manager, coordinated the preparation of relevant sections of this report. The illustrations were prepared by Julian Cross, Karen Nichols, and Paul Pearce. Phil Andrews, Alan Morton, and Helen Rees have kindly read various sections of this report and their comments have been been taken account of in the text. The coordination of the preparation of the publication was undertaken by Julie Gardiner and Melanie Gauden.

The collaborative role of Hampshire County Council, and in particular of Rosemary Braithwaite, during the course of the project is acknowledged. The support and interest of the Nursling and Rownhams History Group, and in particular of Mr Keith Dawe, is also acknowledged.

REFERENCES

Allen, M J 1988 Archaeological and environmental aspects of colluviation in south-east England, in Groenman-van Waateringe, W and Robinson, M (eds), *Man-made Soils* (Brit Archaeol Rep **410**), Oxford, 67–92.

— 1992 Analysing the landscape: a geographical approach to archaeological problems, in Schofield, J. (ed.), *Interpreting Artefact Scatters,* Oxford: Oxbow, 39–57.

Andrews, P forthcoming, *Excavations at Hamwic Volume 2: Six Dials* (Counc Brit Archaeol Res Rep).

Barrett, J 1980 The pottery of the later Bronze Age in lowland England, *Proc Prehist Soc* **46** 297–319.

Beamish, H, & Hearne, C M 1995 Watching brief observations (including a Wessex/Middle Rhine Beaker) at Franconia Drive, Nursling, 1992, *Proc Hampshire Fld Club Archaeol Soc* **50** 35–42.

Bémont, C 1977 *Moules de Gobelets ornées de la Gaule centrale au Musée des Antiquités nationales* (Gallia Suppl **33**), Paris.

Bidwell, P T 1979 *The Legionary Bath-house, Basilica and Forum at Exeter* (Exeter Archaeol Rep **1**), Exeter.

Blalock, H M 1979 *Social Statistics,* London.

Boismier, W A 1993 The worked flint from context 320, Bell Street, Romsey, in Rees 1993, 38–9.

Boon, G C 1957 *Roman Silchester*, London.

— 1959 The latest objects from Silchester, *Medieval Archaeol* **3** 79–88.

Brown, L 1984 Objects of stone, in Cunliffe, B W, 1984, *Danebury: an Iron Age hillfort in Hampshire. Vol. 2. The excavations, 1979–1988: the finds* (Counc Brit Archaeol Res Rep **52**), London.

Calkin, J B 1935 An early Romano-British kiln at Corfe Mullen, Dorse', *Antiq J* **15** 42–5.

Collis, J 1978 *Winchester Excavations Volume II: 1949–1960*, Winchester: City of Winchester.

Cooper, S 1984 Nursling 1984, *Pots and Papers: the Lower Test Valley Archaeological Study Group.* **2** 29–33.

Cotton, M A, & Gathercole, P W 1958 *Excavations at Clausentum, Southampton, 1951–1954*, London: HMSO.

Course, E 1977 Southampton Canal tunnel, *Proc Hampshire Fld Club Archaeol Soc* **33** 73–8.

Crawford, O G S 1913 Prehistoric, Roman and Saxon Nursling, *Papers and Proc Hampshire Fld Club Archaeol Soc* **6** Supplement.

— 1948 *A Short History of Nursling*, privately published.

Crockett, A 1996 Excavations at Montefiore New Halls of Residence, Swaythling, Southampton, 1992, *Proc Hampshire Fld Club Archaeol Soc* **51** 5–57.

Crummy, N 1983 *The Roman Small Finds from Excavations in Colchester 1971–9* (Colchester Archaeol Rep **2**), Colchester.

Cunliffe, B W 1971 *Excavations at Fishbourne, 1961–1969: Vol. 2, The Finds* (Rep Res Comm Soc Antiq London **27**), Leeds.

Dacre, M, & Ellison, A 1981 A Bronze Age urn cemetery at Kimpton, Hampshire, *Proc Prehist Soc* **47** 147–203.

Davies, S M 1981 Excavations at Old Down Farm, Andover, Part II: prehistoric and Roman, *Proc Hampshire Fld Club Archaeol Soc* **37** 81–163.

— & Seager Smith, R H 1993 Roman pottery, in Woodward, P J, Davies, S M, & Graham, A H, 1993, *Excavations at Greyhound Yard, Dorchester 1981–4*, Dorset Natur Hist Archaeol Soc Monog **12** 202–89.

Down, A, & Rule, M 1971 *Chichester Excavations 1*, Chichester.

Edwards, R A, & Freshney, E C 1987 Geology of the country around Southampton, *Mem Brit Geol Survey*, Sheet **315**.

Ellison, A 1981 The Middle Bronze Age pottery (Deverel-Rimbury and Post-Deverel-Rimbury), in Dacre & Ellison 1981, 173–83.

—, 1989 The Neolithic and Bronze Age pottery, in Fasham *et al.* 1989, 83–91.

Evans, K J 1974 Excavations on a Romano-British site, Wiggonholt, 1964, *Sussex Archaeol Collect* **112** 97–151.

Fasham, P J 1985 *The Prehistoric Settlement at Winnall Down, Winchester* (Hampshire Fld Club Archaeol Soc Monog **2**), Winchester.

—, Farwell, D F, & Whinney, R J B 1989 *The Archaeological Site at Easton Lane, Winchester* (Hampshire Fld Club Archaeol Soc Monog **6**), Winchester.

Ford, S 1993 Ower - Home Farm, in *Archaeology in Hampshire*, Hampshire County Council, 24.

Fulford, M G 1975 *New Forest Roman Pottery* (Brit Archaeol Rep **17**), Oxford.

Going, C J 1987 *The Mansio and Other Sites in the South-eastern Sector of Caesaromagus: the Roman Pottery* (Counc Brit Archaeol Res Rep **62**; Chelmsford Archaeol Trust Rep **3.2**), London.

Green, F 1991 Mesolithic structures in the Test Valley: Bowman's Farm, *PAST* **11** 1–2.

Harding, D W 1974 *The Iron Age in Lowland Britain*, London: Routledge.

Hawkes, C F C, & Hull, M R 1947 *Camulodunum* (Rep Res Comm Soc Antiq London **14**), London.

Hawkes, J W 1985 The Roman pottery, in Fasham 1985, 69–76.

— 1987 The pottery, in Fasham, P J, *A Banjo Enclosure in Micheldever Wood, Hampshire* (Hampshire Fld Club Archaeol Soc Monog **5**), Winchester, 27–33.

— 1989 Later prehistoric pottery, in Fasham *et al.* 1989, 91–9.

Healy, F 1992 *Assessment of the Struck Flint from Bowman's Farm, Romsey Extra, Hampshire*, unpublished assessment report.

Holbrook, N, & Bidwell, P T 1991 *Roman Finds From Exeter* (Exeter Archaeol Rep **4**), Exeter.

Holmes, A G 1989 A Romano-British site at Shedfield, Hants, *Proc Hampshire Fld Club Archaeol Soc* **45** 25–41.

Hull, M R 1968 The Nor'nour brooches, *Archaeol J* **124** 28–64.

Jecock, H M 1985 The querns, in Fasham *et al.* 1985, 77–80.

Jenkins, A V C 1990 *East Horton Farm*, Wessex Archaeology unpubl rep 31614.

Keay, S J, & Jones, L 1982 Differentiation of early Imperial amphora production in Hispanic Tarraconensis, in Freestone, I, Johns, C, & Potter, T (eds), *Current Research in Ceramics: Thin Section Studies* (Brit Mus Occ Pap **32**), London, 45–61.

Keevill, G 1993 Nursling – Industrial Estate Phase 2B, in *Archaeology in Hampshire*, Hampshire County Council, 47.

King, A 1989 Roman Bitterne in the third and fourth centuries, *Hampshire Fld Club Archaeol Soc Section Newslett* **11** 19–20.

Laws, K 1991 Objects of stone, in Cunliffe, B W, & Poole, C, *Danebury: an Iron Age Hillfort in Hampshire. Vol. 5. The Excavations 1979–1988: the finds* (Counc Brit Archaeol Res Rep **73**), London.

Light, A, Schofield, J, & Shennan, S J 1995 The Middle Avon Valley Survey: a study in settlement history, *Proc Hampshire Fld Club Archaeol Soc* **50** 43–102.

Lyne, M A B, & Jefferies, R S 1979 *The Alice Holt/Farnham Roman Pottery Industry* (Counc Brit Archaeol Res Rep **30**), London.

McDermott, J 1994a *Summary report on an archaeological watching brief on land at Western Hospital, Southampton, June 1993-June 1994*, Southern Archaeol Services Ltd, unpubl rep.

— 1994b *Summary report on the archaeological watching brief on the site of the New Magistrates Court, London Road, Southampton, Hampshire, 1994*, Southern Archaeol Services Ltd, unpubl rep.

Mallouf, R J 1982 An analysis of plow-damaged chert artefacts: the Brookeen Creek Cache (41 HI86), Hill County, Texas, *J Fld Archaeol* **9** 79–98.

Manning, W H 1985 *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*, London: Brit. Mus.

Margary, I D 1955 *Roman Roads in Britain: Vol. 1. South of the Foss Way – Bristol Channel*, London.

Marsh, G 1981 Early second century fine wares in the London area, in Arthur, P, & Marsh, G (eds), *Early Fine Wares in Roman Britain* (Brit Archaeol Rep **57**), Oxford, 119–224.

Mellars, P., 1974 'The Palaeolithic and Mesolithic', in Renfrew, C. (ed.), *British Prehistory*, London: Duckworth, 39–99.

Mook, W G 1986 Business meeting: recommendations/resolutions adopted by the twelfth International Radiocarbon Conference, *Radiocarbon* **28** 799.

Morris, E L 1991 *Finds Processing* (Wessex Archaeol Guidelines **3**) Salisbury.

Morton, A D (ed) 1992 *Excavations at Hamwic Volume 1* (Counc Brit Archaeol Res Rep **84**), York.

Neal, D S 1980 Bronze Age, Iron Age, and Roman settlement sites at Little Somborne and Ashley, Hampshire, *Proc Hampshire Fld Club Archaeol Soc* **36** 91–143.

Oswald, F 1936–7 *Index of Figure-Types on Terra Sigillata ("Samian Ware")*, Liverpool.

Oxford Archaeological Unit 1992 *Land at Phase 4, Nursling Industrial Estate, Nursling, Hampshire SU 365161. Archaeological evaluation 1992*, Oxford: unpubl rep.

PCRG (Prehistoric Ceramic Research Group) 1992 *The Study of Later Prehistoric Pottery: guidelines for analysis and publication* (PCRG Occas Pap **2**), Oxford.

Peacock, D P S 1987 Iron Age and Roman quern production at Lodsworth, West Sussex, *Antiq J* **67** 61–85.

— & Williams, D F 1986 *Amphorae and the Roman Economy*, London.

Rees, H 1993 Later Bronze Age and Early Iron Age settlement in the lower Test Valley, *Proc Hampshire Fld Club Archaeol Soc* **49** 19–46.

Remesal-Rodriguez, J, & Revilla-Calvo, V 1991 Weinamphoren aus Hispania Citerior und Gallia Narbonensis in Deutschland und Holland, *Fundberichte aus Baden-Württemberg* **16** 389–439.

Richmond, I A, Crawford, O G S, & Williams, I 1949 The British section of the Ravenna Cosmography, *Archaeologia* **93** 1–50.

Richardson, B, & Tyers, P A 1984 North Gaulish pottery in Britain, *Britannia* **15** 133–142.

Rigby, V 1982 The coarse pottery, in Wacher, J, & McWhirr, A, *Early Roman Occupation at Cirencester* (Cirencester Excavations **1**), Cirencester, 153–200.

Rogers, G B 1974 *Poteries sigillées de la Gaule centrale* (Gallia Suppl **28**), Paris.

Ryder, M 1994 Ditches, dykes and droves: a preliminary report on the history of Lord's Wood, Southampton, *Hampshire Fld Club Section Newslett* **21** 30–36.

Schiffer, M B 1987 *Formation Processes of the Archaeological Record*, Alberquerque: Univ New Mexico Press.

Seager Smith, R H, & Woodward, A, forthcoming, Pottery, in Walker, K E, *M3 Bar End to Compton Down: archaeological investigations on Twyford Down* (Hampshire Fld Club Archaeol Soc Monog).

Sealey, P R 1985 *Amphoras from the 1970 Excavations at Colchester Sheepen* (Brit Archaeol Rep **142**), Oxford.

Skibo, J M 1992 *Pottery Function: a use-alteration perspective*, New York: Plenum Press.

Smith, R J C, & Allen, M J 1993 Netley Marsh – Testwood Lakes, in *Archaeology in Hampshire*, Hampshire County Council, 38.

— & Cox, P W 1986 *The Past in the Pipeline: archaeology of the Esso Midline*, Salisbury: Wessex Archaeol.

Stagg, D 1984 The supposed Roman road to Lepe, *Hampshire Fld Club Archaeol Soc New Forest Section Rep* **22** 4–5.

Stuart, J D M, & Birkbeck, J M 1936 A Celtic village on Twyford Down – excavated 1933–1934, *Proc Hampshire Fld Club Archaeol Soc* **13**, 188–212.

Swan, V G 1984 *The Roman Pottery Kilns of Roman Britain* (Roy Comm Hist Monum England Monog Supp Ser 5), London.

Tyers, P 1978 The poppy-head beakers of Britain and their relationship to the barbotine-decorated vessels of the Rhineland and Switzerland, in Arthur, P, & Marsh, G (eds), *Early Fine Wares in Roman Britain* (Brit Archaeol Rep 57), Oxford, 61–108.

VCH, 1900 *Victoria County History of Hampshire I*, Oxford.

Wake Smart, W 1881 Roman remains found at Nursling, Hants', *J Brit Archaeol Assoc* 37 296–300.

— 1885 Further notes on Nursling and on other Roman stations and roads in the New Forest, *J Brit Archaeol Assoc* 41 182–7.

Wessex Archaeology 1990 *East Horton Farm, Hampshire*, unpubl client rep 31614.

— 1993 *The Southern Rivers Palaeolithic Project No. 1*, unpubl rep.

White, D A 1982 *The Bronze Age Cremation Cemeteries at Simons Ground, Dorset* (Dorset Natur Hist Archaeol Soc Monog 3), Dorchester.

Woodward, A, forthcoming, Prehistoric pottery, in Walker, K E, *M3 Bar End to Compton Down: Archaeological Investigations on Twyford Down* (Hampshire Fld Club Archaeol Soc Monog).

Wymer, J J (ed) 1977 *Gazetteer of Mesolithic Sites in England and Wales* (Counc Brit Archaeol Res Rep 22), London.

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