

◆ Archaeological investigations on the site of the former Rowe's Garage, Chichester, West Sussex

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Excavation on land formerly occupied by Rowe's Garage on The Hornet, Chichester revealed a large, mid-first century AD ditch, adding to the series of possibly defensive ditches previously identified immediately east of the later Roman town. During the rest of the Romano-British period, the site was used for small-scale domestic settlement, crop-processing and other agricultural activities. After the fourth century AD much of the western part of the site was quarried for clay and gravel. A handful of features provided evidence for the medieval and later suburb known to have developed outside the Eastgate from the thirteenth century; any more ephemeral remains were probably destroyed during the construction of the modern Rowe's Garage itself.

In 2002, Wessex Archaeology conducted an archaeological evaluation and excavation on land formerly occupied by Rowe's Garage on The Hornet, Chichester, in advance of a planning application from Berkeley Homes (Southern) Ltd to redevelop the site as housing. The site covered c. 1.5 ha centred on NGR 486750 104850, lying east of the Roman town's east gate, mostly on the south side of the canalized River Lavant, but with a small area to the north between the river and St Pancras. The site was relatively flat and lay at a height of c. 13.6 m above Ordnance Datum, the underlying geology comprising River Lavant Fan Gravels. Preliminary archaeological assessments (Mills Whipp Partnership 1997; 1998) had highlighted the potential for Iron Age and Romano-British remains on the site.

ARCHAEOLOGICAL BACKGROUND

A Collared Urn, and other pottery and flints, found at the Chichester Cattle Market site (Down 1989, 56; Drewett 1989, 87–8), point to Early Bronze Age activity in the area, while further pottery, coins and three hut-circles indicated Late Iron Age settlement (Down 1989, 59–60). A 7-m-wide north–south ditch recorded at the Cattle Market (Down 1989, 60–66) may be part of the Chichester Entrenchments, a series of banks and ditches between the South Downs and Chichester Harbour presumed to be of Late Iron Age date, delineating an area of settled land relating to an *oppidum* somewhere on the coastal plain (Bradley 1971, 34).

The local tribe, the *Atrebates*, had long been formal allies and trading partners with the Roman empire, and immediately after the Roman conquest in AD 43, a military supply base was established at Fishbourne (Cunliffe 1971a,b). Within Chichester, military-style timber buildings have been recorded in the Chapel Street area (Down 1978, 43), and several large ditches, possibly of mid-first century AD date, have been recorded east of the Roman town, immediately west and north of the site (Magilton 1996a) — on either side of The Hornet (Kenny 1994; Magilton 1988), on Needlemakers (Down 1981, 80) and on the north side of St Pancras. The latter, which had steep sides, a flat base and a possible palisade slot on its eastern edge, was described by the excavator as 'military style' (Down & Rule 1971, 66).

Roman Chichester (*Noviomagus Regnensium*) was established sometime after AD 70, and it is likely that the road system linking the new town with its neighbours was built shortly after (Turner 1996). Stane Street (now St Pancras) issued from the eastern side of the town, running northeastwards to London. It has been suggested that The Hornet and Whyke Lane may follow the lines of local roads running to the east and southeast, to settlements on the coastal plain (Down 1988, 48; Magilton 1996a, 31) (Fig. 1). The area flanking these roads immediately east of the town appears to have been largely unoccupied at this time, although gravel quarries (probably for building and road materials) dated to c. AD 60–70 were identified on the north side of St Pancras, following which the area was

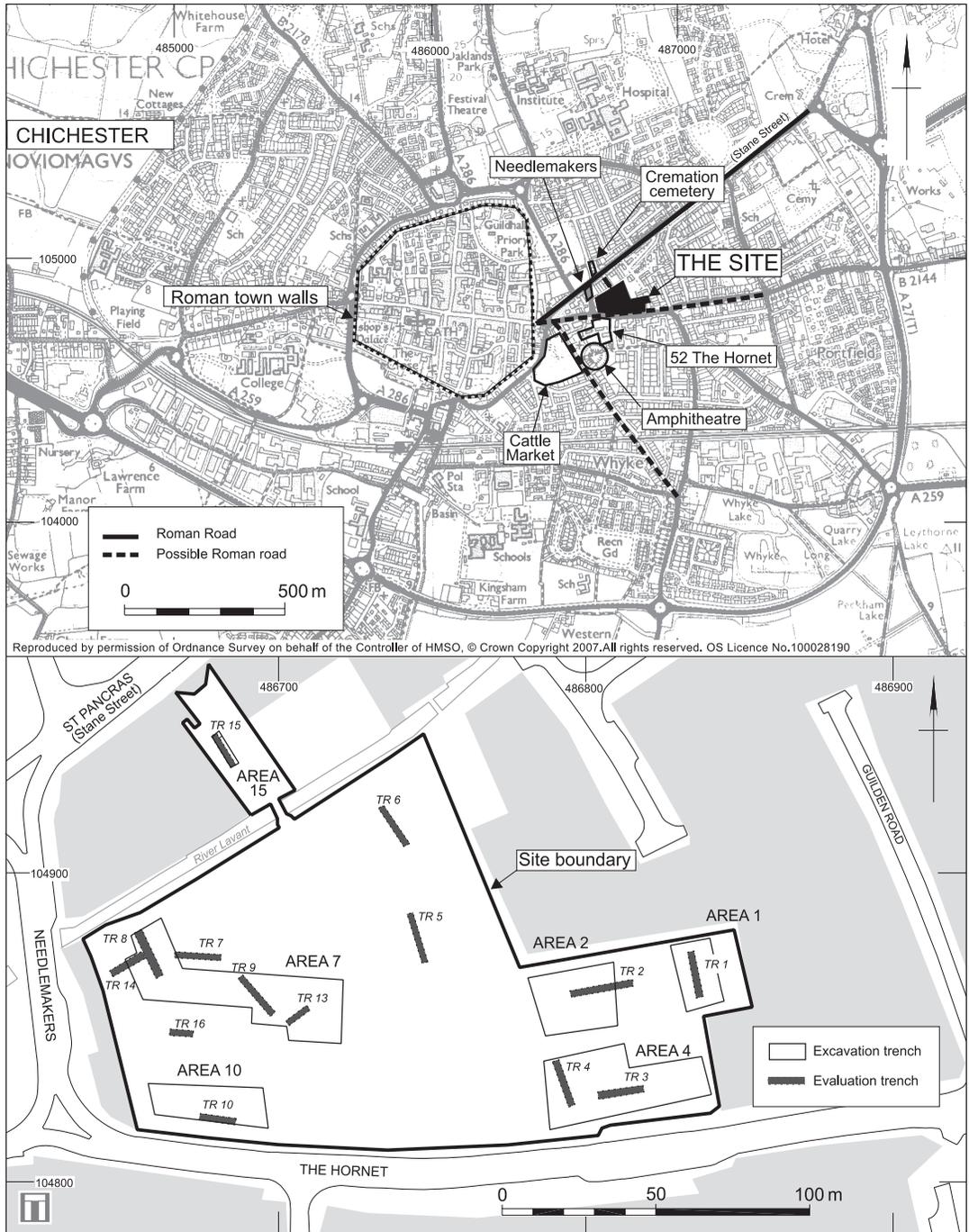


Fig. 1. Rowe's Garage, Chichester: location and trench plan.

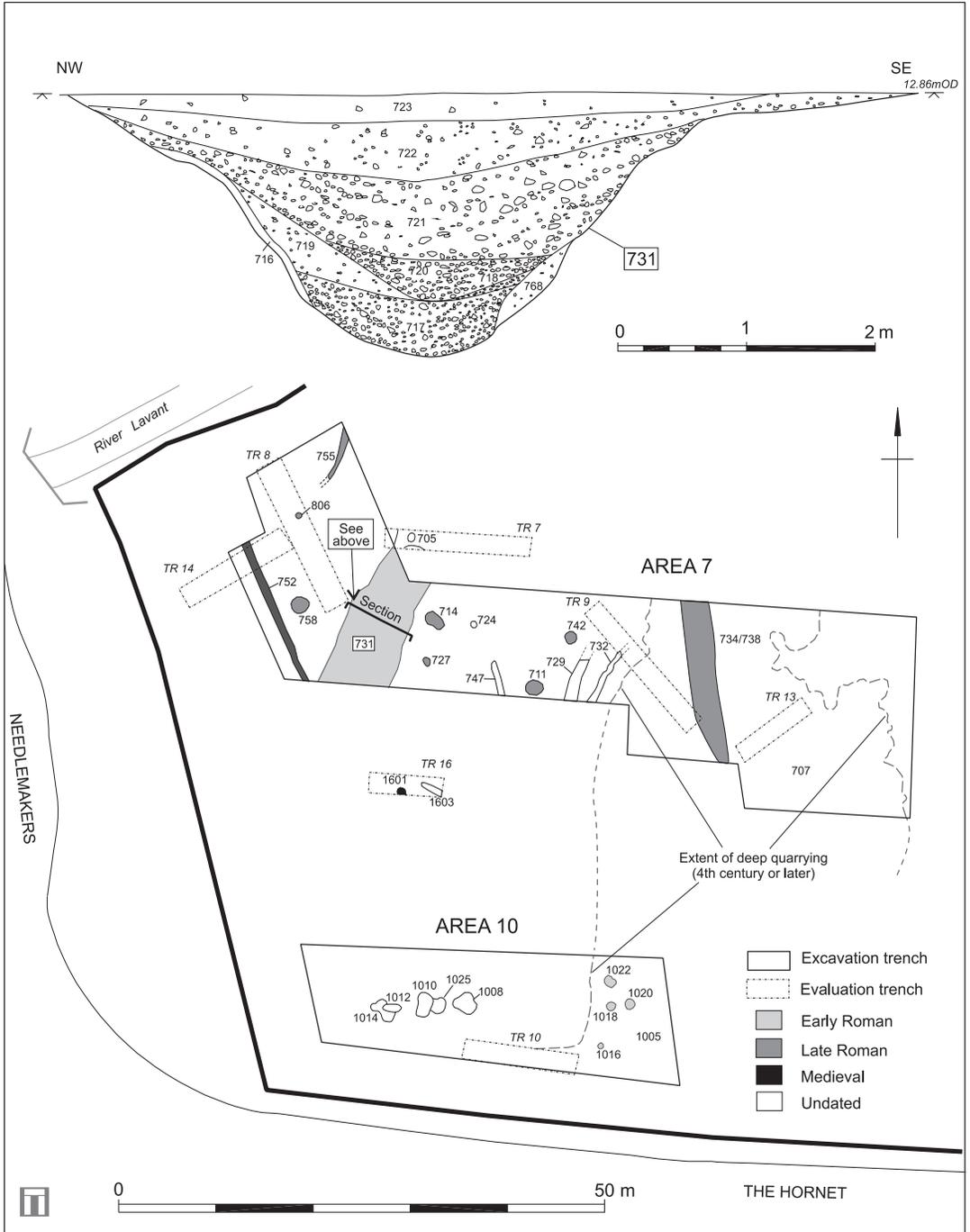


Fig. 2. Rowe's Garage, Chichester: plan of all features in the western part of the site.

used as one of the town's cemeteries (Down & Rule 1971, 53–126; Down 1981, 77–118).

In the mid-80s AD, the town became the *civitas* capital of the region (Down 1978, 52), the earlier, wide ditch recorded at the Cattle Market was possibly re-used as its eastern boundary (Magilton 1996a, 31), and the construction of the amphitheatre on its east side perhaps dated from this period (White 1936). However, the full extent of the early Roman town is not known and it may have covered an area larger than that later enclosed by the town wall. The town's earliest defensive earthworks were not built until the mid-third century or later (Magilton 2003, 165), and were rebuilt in stone during the late third or fourth century. There are some indications of extramural settlement on the Stane Street frontage at Needlemakers (Down 1981, 77–116), but little evidence for an eastern suburb (Magilton 1996a, 34–5). During the early fourth century the town saw a period of expansion, but within 50 years signs of decay and neglect were visible, and no new coin issues arrived after c. AD 378 (Down 1978, 55).

From that date until the Saxo-Norman period little is known about Chichester, although a group of mid-Saxon burials, radiocarbon-dated to c. AD 680–810 (pers. comm. James Kenny, Archaeology Officer, Chichester District Council) was found on the south side of East Street, to the west of the site. By the end of the ninth century, however, Chichester had again become a fortified centre, its defences were recorded in the Burghal Hidage (Hill 1969), and the River Lavant, possibly diverted and canalized at this time, bounded the southeast side of the Saxon *burgh* (Magilton 1996b). Chichester grew in importance after the Norman Conquest in 1066, the first cathedral being dedicated in 1108. Property is recorded outside the Eastgate as early as the 13th century (Down 1981, 77). During the later medieval and post-medieval periods, many needlemakers lived and worked in this area which was notorious only for its poverty; by the mid-eighteenth-century settlement extended for about a kilometre outside the city walls (Down 1981, 99).

METHODS

Fourteen machine-excavated evaluation trenches (Trenches 1–10 and 13–16), on average 15 m long by 2 m wide, were opened (Fig. 1). On the basis of the evaluation, five larger areas were then

excavated — two (Areas 7 and 10) at the western end of the site (Fig. 2), and three (Areas 1, 2 and 4) at the eastern end (Fig. 3), with Trench 15, north of the river (Fig. 4), also being widened — totalling some 2900 m². Features were generally numbered according to their excavation area (e.g. pit 115 was in Area 1). No archaeological features or deposits were encountered in Trenches 5 and 6.

Features identified as possible quarries in Areas 7 and 10 were initially investigated in ten test-pits 1 m square, with all artefacts being collected. Slots across each were then machine-excavated for their deposits to be recorded, before the rest of their fills were removed by machine to reveal any features cutting natural gravel below.

Across the site the natural gravel was reached at an average depth of 0.8 m below the modern ground level. Although there were few stratigraphic relationships between features, and few chronologically diagnostic finds, six broad phases of activity were represented.

PREHISTORIC?

Possibly the earliest feature was a large oval pit (115) at the east of the site (Area 1, Fig. 3). Although it produced no artefacts, it was cut by ditch 119 which contained early Romano-British pottery, suggesting a late prehistoric date.

EARLY ROMANO-BRITISH

The dominant early Romano-British feature was ditch 731 (Fig. 2), traced for some 25 m at the west of the site (Area 7), and on the same line as the large early-Romano-British ditch recorded at 52, The Hornet, c. 130 m to the southwest (Kenny 1994). Ditch 731 was up to 5.5 m wide and 2 m deep with a wide 'U'-shaped profile (Fig. 2), indicating that it was a significant, and possibly defensive, boundary within the local landscape. A thin, primary fill (context 716), possibly deriving from an upcast bank, lay against the western side of the ditch. Above the primary fill was a series of gradually accumulated deposits. Pottery dating to around the third quarter of the first century AD, including Southern Gaulish samian and hard-fired sandy greywares, was found in the lower fills (717 and 720), while the upper ones contained material of more mixed, but still predominantly first- to second-century date.

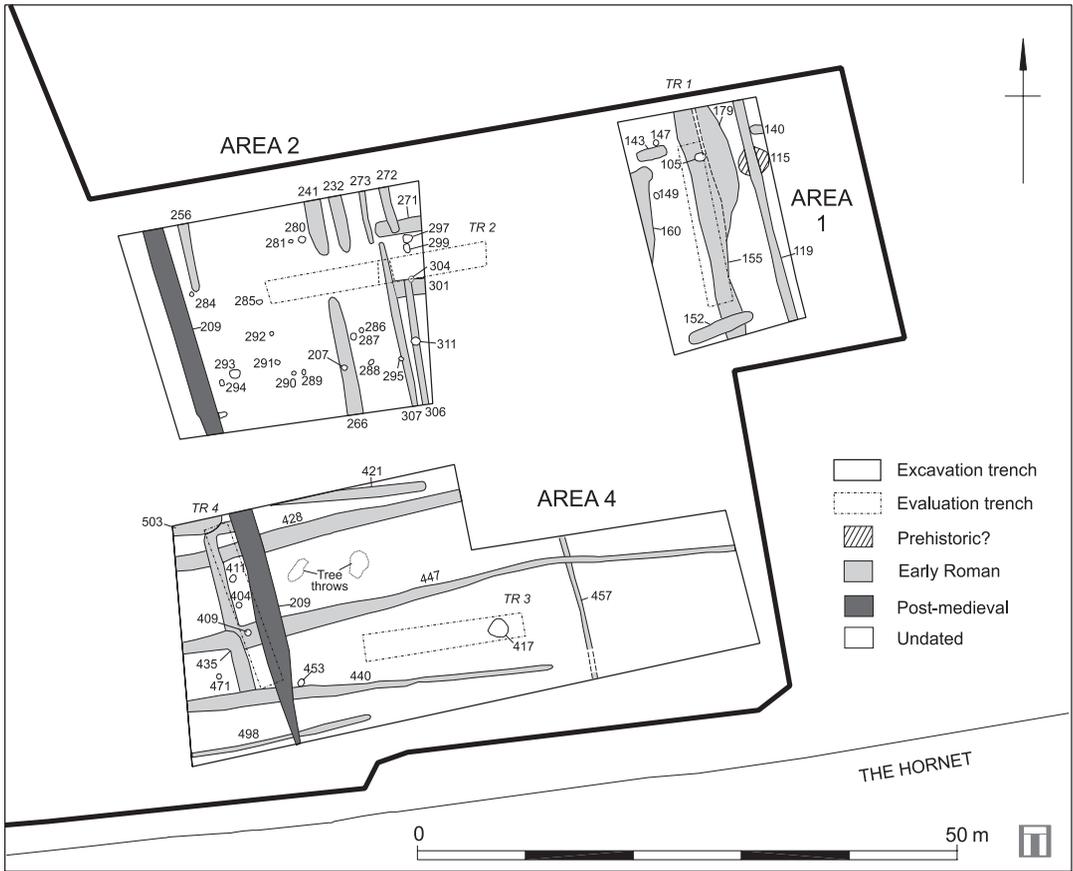


Fig. 3. Rowe's Garage, Chichester: plan of all features in the eastern part of the site.

To the southeast, four small pits (1016, 1018, 1020 and 1022) truncated by a later quarry (1005) have also been assigned to this period. Three of them (1018, 1020 and 1022) contained general domestic waste in the form of first- to early-second-century pottery, animal bone, glass and oyster shells, while two (1018 and 1021) contained substantial quantities of charred cereal remains and oak charcoal.

There was broadly contemporary activity in the eastern part of the site (Areas 1, 2 and 4: Fig. 3), consisting of numerous small ditches, probably forming enclosures, and a range of other features containing evidence of domestic activity, although no structures or dwellings were identified. Feature 140, either a shallow oval pit or ditch terminal, contained a sherd of Southern Gaulish samian and substantial quantities of oak and beech charcoal, charred cereal grains and fired clay, probably the

'out-scrapings' from a domestic oven or hearth. A similar deposit in the upper fill (157) of the northernmost segment of ditch 179 probably derived from the same or a similar source. There was also burnt material in oval pit 105 (which cut the fills of ditch 155) including substantial quantities of charcoal, charred grain and weed seeds.

Two elongated, and nearly parallel features (143 and 152) in the same area, both with naturally accumulated fills, are of uncertain function, although feature 143 was on approximately the same east-west alignment as features 140 and 271; feature 152 cut ditch 155. A large irregular feature (160) probably represents quarrying activity.

The ditches were on average 1 m wide and 0.6 m deep, and although a stratigraphic sequence was recognized, the pottery, which was chronologically indistinguishable from that from the smaller

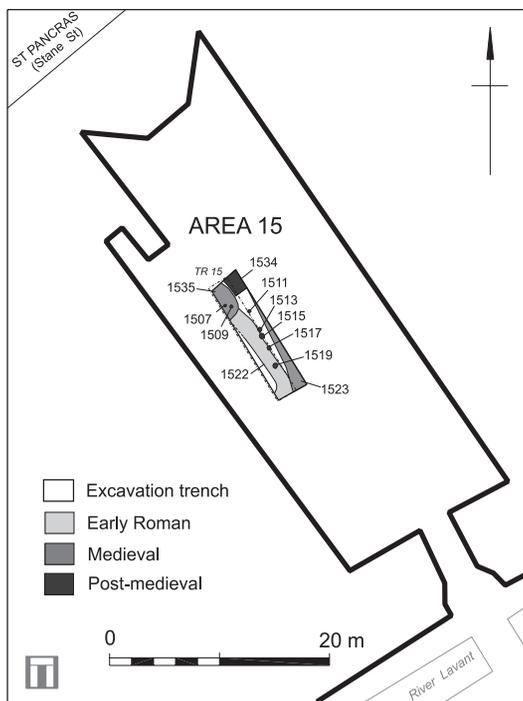


Fig. 4. Rowe's Garage, Chichester: plan of all features in the northern part of the site.

features, suggests that they were all closely contemporary, going out of use in the late first or early second century. Among the stratigraphically earliest (phase 1) were some of the east–west aligned ditches (271, 301, 428 and possibly 421 and 498), although truncated ditch 457 ran north–south. Ditch 447, with two right-angled corners (phase 2), cut ditches 428 and 457; it was subsequently cut at its corners by ditches 503 and 435 (phase 3), the latter being cut in turn by ditch 440 (phase 4). It is unclear whether the north–south aligned ditches in Areas 1 and 2 were all contemporary or to which phase they belonged.

Other finds, such as quern fragments from ditches 179 and 271, feature 143 and quarry 160, a possible whetstone fragment from ditch 306, and a lead pot-mend and a copper-alloy spoon from feature 152 are not inconsistent with food-preparation activities in this area.

In the northern part of the site (Area 15; Fig. 4), a length of ditch (1522), aligned northwest to southeast but turning to the west at its southern end, also belonged to this general period, its upper fills containing sherds of second- to third-century pottery.

LATE ROMANO-BRITISH

Evidence for late Romano-British activity was found only in the western part of the site (Area 7). Ditch 734, which was truncated by later quarries, was aligned approximately north–south and contained late Romano-British pottery, including sherds from a New Forest indented beaker (Fulford 1975, 50) and an Alice Holt storage jar (Lyne and Jefferies 1979, 51) from its upper fill. Probably before it had fully silted up, its eastern side was re-cut for at least part of its length by ditch 738. It was not possible to determine whether the single ditch revealed in the segment close to the southern edge of the excavation represented the original or the re-cut ditch, but it contained late Romano-British pottery, including sherds from an Alice Holt strainer (Lyne & Jefferies 46–7), a type that became increasingly common after AD 270.

Pits 711, 714, 727, 742 and 758 also contained late Romano-British pottery, as well as other finds indicative of domestic waste such as animal bone, ceramic building material and oyster shells. Undiagnostic Romano-British pottery was found in gully 755 and pit 806 and although no dating evidence was recovered from pit 724 or gullies 729, 732, 747 or 1603, these features may also belong to this phase. Only short lengths of the gullies were recorded, and none formed any discernible pattern. Only gully 729 approached the size of the early Romano-British ditches in the eastern part of the site; the others were 0.5–0.8 m wide and no more than 200 mm deep.

FOURTH CENTURY OR LATER

Overlying the Romano-British features in the western part of the site were deposits, up to 0.8 m deep, of dark grey/brown silty clay with abundant, poorly-sorted gravel inclusions (layers 701, 708, 709, 804, 905, 1003, 1006, 1007, 1304, 1404 and 1608). These are interpreted as the backfills of numerous episodes of pitting or gravel-quarrying. Only the deepest areas of quarrying (features 707, 1005, 1008, 1010, 1012, 1014 and 1025) are outlined in Figure 2, the deposits continuing beyond the limits of the excavation. A small circular pit (705) was cut through the lower part of the quarry backfill over ditch 731, its fill subsequently was sealed by further deposits.

These deposits contained 28 per cent by number (35 per cent by weight) of the finds from the site,

including almost all the metalwork, possibly indicating metalworking in the area. Pottery and ceramic building materials were especially common, while animal bone was less frequent; re-deposited, disarticulated human bone also occurred, especially in quarry base 1010. Although the artefacts were predominantly of late-third- or fourth-century date, early Romano-British material, presumably residual, was also present, as was some twelfth- to fourteenth-century medieval pottery and medieval or later ceramic roof-tile fragments. Given the re-deposited and reworked nature of these deposits, within which no stratigraphic difference was noted between layers with Romano-British and medieval material, the period of quarrying activity cannot be dated with any certainty, but it was clearly long-lived.

MEDIEVAL

A shallow ditch (752), aligned northeast to southwest at the western edge of the site contained sherds of fourteenth- to fifteenth-century pottery, oyster shell and medieval or later roof-tile fragments. Similar pottery was recovered from a probable pit (1601) which cut through the quarry backfill in this area.

Two features in the northern part of the site (Area 15) have also been assigned to this phase, both of them cutting Romano-British ditch 1522. Ditch 1523 produced four pieces of coarseware pottery in sand- and sand-with-flint-tempered fabrics, of twelfth- to mid-fourteenth-century date, and medieval roof-tile fragments. Pit 1535 contained mid-twelfth- to fifteenth-century pottery, medieval roof-tile fragments, animal bone and oyster shell, from a series of gravelly fills.

NON-CERAMIC FINDS

COINS

Twenty-one Roman coins were found, mostly copper-alloy *folles* or base silver *antoniniani* of the third and fourth centuries. Apart from one of first- to third-century date from ditch 447, all were from the quarry backfills in the western part of the site.

The two early Roman coins from the quarry backfills were almost certainly re-deposited, although the good condition of one, struck by Antoninus Pius (AD 138–161), for the deified Faustina (Object No 1121) suggests that it was not long in circulation prior to its initial deposition. There are a small number of radiate coins of the AD 270s–290s, including two of Gallienus which, whilst not unusual as site finds, might not be expected in so small an assemblage. A key component of the assemblage, however, are 11 coins dated to AD 322–345. None

POST-MEDIEVAL

Medieval pit 1535 was cut by two post-holes (1507 and 1509), while a further four (in a line of five – 1511, 1513, 1515, 1517 and 1519) cut Romano-British ditch 1522; it is unclear whether the latter formed a property boundary or had a structural function. All had single fills and between them they contained medieval and later roof-tile fragments, as well as pottery spanning the Iron Age to the fifteenth century.

Coarse glazed earthenwares and modern industrial wares of late-eighteenth- to twentieth-century date were found in feature 1534, also at the north end of Area 15. Similar pottery, as well as glass and residual Romano-British and medieval pottery, was recovered from ditch 209, which was recorded for over 50 m across the eastern part of the site. Post-medieval pottery and tile were recovered from post-hole 404 adjacent to the ditch.

OTHER FEATURES

There was a series of post-holes and mostly small, circular or oval pits in the eastern part of the site (Fig. 3), at least six of them in Area 2 (295, 288, 207, 289, 290 and 294) in an east–west line. They produced material of Romano-British to medieval date, and it is possible that they belong to several periods, in some cases incorporating residual Romano-British material. For example, Romano-British pottery, ceramic building material, roughly half a Greensand mortar and a single twelfth- to fourteenth-century pottery sherd were recovered from pit 311.

is particularly unusual as a site find, although some appear to have seen little circulation prior to their loss or deposition. The number of coins of this date, however, along with the absence of coins post-dating AD 348 (especially the absence of any Valentinianic coinage), suggests that these layers were deposited in the late 340s or 350s, certainly before the introduction of Valentinianic coinage in AD 364.

The small size of the assemblage prevents detailed inter-site comparisons, although three significant groups of coins from Chichester (Reece 1990) all showed a similar pattern of coin loss during the fourth century — a large peak of coins dated to AD 330–348, with a smaller peak between AD 364 and 378.

METALWORK

A degraded copper-alloy spoon fragment probably of first- to second-century date (Crummy 1983, 69, fig.73, obj. 2008) was

found in feature 152. A copper-alloy spoon probe, comparable with examples from deposits dated c. AD 60–150 at Colchester (Crummy 1983 62, fig. 65, obj. 1927), was recovered from the upper fills of ditch 731. Other copper-alloy objects are two pieces of straight wire, a domed-headed stud and a Nauheim derivative brooch, which were recovered from the quarry backfills. Similar brooches are known from elsewhere in Chichester (Mackreth & Butcher 1981, 256; fig. 10.1; nos 6 & 12). Parallels for the domed-headed stud have a later date range (c. AD 100–300; Mackreth & Butcher 1981, 69; fig. 120; obj. 3187), while the wire fragments are undated and their purpose uncertain.

In addition to many nails, eleven iron objects were recovered, nine from the quarry backfills. Most are structural fittings or tools perhaps indicating metalworking (if not forging), but none is particularly unusual or distinctive. Items such as a 'U'-shaped joiner's dog and punch or chisel have parallels with mid-first-century AD items at Hod Hill, Dorset (Manning 1985, obj. A24, A26 and R53). An 'L'-shaped lift key with two prongs, a common type found throughout Roman Britain (Manning 1985, 90), is the only fastener present. The two possible knife blades are of a suitable size and shape to have been razors (Manning 1985:108), but are too fragmentary for precise parallels to be drawn. Two small strips may have been fittings or bindings for wooden objects.

Seven irregular waste lead fragments from possible casting activity were recovered from the quarry backfills, one incised with several parallel lines of different depths. A pot-mend attached to a sherd of a fine oxidized sandy fabric was found in feature 152. The function of a slightly irregular, almost centrally perforated lead disc is less certain. It may have been a weight; at 29 g it is broadly comparable with the Roman *uncia* and Celtic half pound, equal to 27.29 g and 25.8 g respectively (Anderson 2001, 117). However, as lead oxidizes quickly, it is unreliable as a weight and this object may instead have been a spindle whorl (Crummy 1983, 101). The function of a lead roll from the quarry backfills is also unknown; similar items contain inscriptions (Hassall 1980, 86) and are mostly found in votive contexts, but others are blank.

WORKED BONE

The quarry backfills produced an almost complete pin of a type common in the second–fourth centuries (Crummy 1983, 22, fig. 19) and well-known locally (Down 1979, 163, fig. 54, 5; Rudkin 1986, 75, fig. 14, 1; Cunliffe 1971b, 147, fig. 68, 22–3), as well as a polished shank fragment and a probable pin throughout similar to one found at the Cattle Market (Down 1989, 213, fig. 27.14, 24 & 26) suggestive of bone-working waste. A piece of long bone roughly shaped into a rectangle with smooth exterior and interior surfaces may also indicate bone-working although its function is unclear.

WORKED STONE

Fragments of some 12 Greensand querns, most very worn, were found. Greensand occurs in a band within the Weald of Sussex and Surrey. The only known manufacturing site is at Lodsworth, West Sussex (Peacock 1987). One of the quern fragments, from the quarry backfills, may be of the late Romano-British 'flanged hopper' type known from fourth-century Portchester (Peacock 1987, 68, fig. 13.7), while another, from pit 711, appears to have been reworked to fit the hand, leaving a rectangular, longitudinally concave and worn 'grinding' surface. Seven small lava stone fragments found

in pit 742 may have derived from a quern imported from Germany; a trade which it has been suggested was connected with the military (Crummy 1983, 75).

No direct parallels were found for a Greensand mortar or bowl from pit 311 although mortars are known from Romano-British sites in the area and beyond (Down 1974, 141, fig. 8.17, 50; Crummy 1983, 76, fig. 79, 2083).

Part of a probable floor tile of fine-grained sandstone has traces of mortar as well as red-brown coloration near the surface, indicating that it had been part of a structure and possibly heated from both sides. Parts of four neatly-worked freestone blocks of very hard chalk, presumably building stone, were also recovered, while apparently unworked fragments of Greensand, limestone and slate probably represent building rubble.

MISCELLANEOUS FINDS

Six undiagnostic struck flint flakes and 53 pieces of unworked burnt flint (1753 g) were found, mainly from features on the eastern side of the site, suggesting prehistoric activity. The same area produced most of the fired-clay fragments, which, apart from one flint-tempered piece, are in oxidized fabrics with few visible inclusions; they are featureless and of indeterminate age and source. Six pieces of Roman vessel glass include two from square bottles of first- to third-century date, and one piece of fine green metal. Four pieces of slag or clinker were recovered from the quarry backfills, and other finds include four badly degraded pieces of post-medieval glass and a single clay tobacco pipe stem.

POTTERY

The pottery assemblage comprises 2073 sherds weighing 31,776 g. The majority is of Romano-British date although small quantities of prehistoric, medieval and post-medieval sherds are also present. Most sherds survive in moderate condition with slight surface and edge abrasion and a relatively high mean sherd weight (15.3 g).

PREHISTORIC

Seven sherds (82 g) were assigned an Iron Age date on fabric grounds alone, being in coarse, flint-gritted fabrics broadly comparable to Iron Age fabrics well known from the vicinity (Morris 1978; Hamilton 1985; Mephram 1997; Wessex Archaeology 2003). They include one flat-topped rim from a weakly-shouldered necked jar, probably of Early Iron Age date.

ROMANO-BRITISH

There are 1957 Romano-British sherds (30,535 g); most came from the quarry backfills and are therefore probably residual. Six broad ware groups, forming all the characteristic elements of Romano-British ceramic assemblages, are discussed below.

Imported finewares

These represent 8% of the Romano-British assemblage (157 sherds, 1499 g). Samian sherds of pre-Flavian to the late-second- or early-third-century date, predominate (98.9% by weight), of these the majority are probably of Hadrianic to Antonine date. Vessel forms include platters, cups, dishes and bowls; decorated forms are few and the decorated sherds very

small and incomplete. Three bases carry stamps, only two of which, both on Central Gaulish vessels, are legible – one, on a second-century form 33 cup, reads]VXIVLIM, the other, on a form 18/31 series vessel, reads]?VS.F. The third is on a very thin-walled, Southern Gaulish form 27 g base. A single sherd, from a Central Gaulish 18/31 series vessel, has evidence of repair, in the form of a small rivet repair hole. Other imported finewares (*Terra Nigra*, Lyon and Central Gaulish colour-coated wares), although rare in this assemblage, are well-represented elsewhere in Chichester and at Fishbourne (Cunliffe 1971b; Rigby 1978; 1981; 1996).

British finewares

Sixty-four sherds (587 g) were recovered, predominant among which is a range of fine micaceous greywares from more than one source. Most derive from beaker forms, five have applied barbotine dot decoration, one barbotine trails, one is rusticated and three are rouletted. There are also sherds from at least two shallow platters, native copies of Gallo-Belgic form Cam 14 and comparable with first-century AD vessels known from Fishbourne (Cunliffe 1971b, 178, fig. 81, type 14). A rouletted foot-ring base also suggests that these wares were used to copy samian forms. Two mica-dusted ware sherds also date from the pre-Flavian period into the mid-second century (Marsh 1978, 122).

The remaining sherds, found only in the western part of the site, belong to the major later Romano-British industries. They include Nene Valley wares, which are known from Fishbourne (Cunliffe 1971b, 254) and other areas of Chichester (e.g. Fulford & Young 1978, 256; Young 1989, 160) from the mid-late 2nd century onwards, although one wide-mouthed jar/bowl form from the quarry backfills is characteristic of the 4th century (Perrin 1999, 106). Sherds from the New Forest kilns outnumbered those from the more distant Oxford region by two to one. Bowl (e.g. Fulford 1975, types 63 and 67; Oxford carinated forms with rouletted decoration) and beaker (e.g. Fulford 1975, type 27; Young 1977, type C22) sherds from both centres were recognized.

Amphorae

The range of amphorae types (65 sherds, 4189 g) reflect those from Fishbourne (Cunliffe 1971b, 206–10, 226–8) and Chichester (Williams 1989, 127–31). Southern Spanish oil amphorae (Dressel 20) were the most common with other types generally associated with the transportation of wine. At least one of the Spanish vessels had been altered for re-use by the removal of its neck and handles and the creation of much wider, new rim.

Mortaria

Sherds from at least seven mortaria were identified (10 sherds, 315 g), all with parallels in Chichester (Hartley 1978, 245–54; 1989, 143–5). Three bases, from the Noyon/Bavay area of northwestern France (Hartley 1998), are either so well-worn that no trituration grits survive, or are perhaps better described as mortaria-like bowls. They are not chronologically diagnostic, dating c. AD 55–230. Two mortaria are probably of relatively local manufacture — one from ditch 271, with a small high bead and a relatively wide flange, rilled externally, has parallels in pre-AD 75 contexts at Fishbourne (Cunliffe 1971b, 206, type 141). The other, from ditch 428, is a relatively simple wall-sided form, made from a coarse sandy fabric with a grey core and oxidized surfaces and margins, and may well

be of later second- or third-century date (Cunliffe 1971b, 233); a small, post-firing perforation indicates that it has been repaired. Two further mortaria, both from the quarry backfills, are Oxfordshire red colour-coated ware types (Young 1977, 174, type C100) of fourth-century date.

The oxidized wares

Of the 218 oxidized ware sherds (1681 g), only a single late Romano-British New Forest parchment ware handle, and ten sherds in the same fabric as the Noyon/Bavay mortaria, could be assigned to particular sources. The rest are probably from relatively local production centres. The vessel forms (ring-necked and pulley-wheel rimmed flagons, upright necked jars, bead-rim jars with barbotine ring and dot decoration, lids, butt beakers and their local copies and various small cup and bowl forms) suggest that most of these wares date from the first or early second century.

Other coarsewares

This group (1444 sherds, 22,271 g) is dominated by coarse sandy greywares from a variety of different sources, spanning the entire Romano-British period. In general, these wares were not assigned to particular industries or kiln sites, although it is likely that many vessels, including the second- and third-century everted rim jars (Cunliffe 1971b, types 313–14) were from the Rowlands Castle kilns, which used Chichester as their major outlet. Other easily identifiable products include cordoned jars and Atrebatian bowls characteristic of the Alice Holt industry (Lyne & Jefferies 1979, classes 1 and 5), from c. AD 60 into the mid-second century. Late third- or fourth-century forms from this area are also present among the narrow-necked jars, dropped flanged bowls/dishes, strainers, shallow, straight-sided dishes and flagons (Lyne & Jefferies 1979, classes 1A, 5B and C, 6 and 8), as well as some of the thick-walled storage jar sherds with internal finger-smearing, typical of the 4th century. Other vessel forms comprise various necked, bead-rim and everted-rim jars, straight-sided bowls, flanged and dropped flange bowls, and lids while potential sources may include kilns within Chichester itself (Down 1978, 204–16) as well as the Arun Valley (Evans 1974; Laidlaw 2002) and New Forest (Fulford 1975) industries.

Also of interest is a group of hard-fired sandy greywares speckled with numerous poorly sorted, subangular iron oxide inclusions up to 4 mm across. This fabric, and the range of forms present, finds parallels in pre-Flavian contexts at Fishbourne and across the West Sussex coastal plain (Cunliffe 1971b, 252) and it may be a precursor to the more typical Rowlands Castle sandy fabric. With the exception of ten sherds from early Romano-British ditch 731, all pottery in this fabric came from the eastern part of the site.

Similarly, all but four sherds of the coarse sand with flint-tempered fabric came from the eastern part of the site. As at Fishbourne (Cunliffe 1971b, 212, type 165), this fabric was generally used for large, relatively thick-walled storage jars of first- to third-century date. Four sherds have internal finger pulls, a feature not found at Fishbourne but one which appeared on similar storage jars from the Alice Holt kilns during the later second century AD (Lyne & Jefferies 1979, 51). This may indicate that the Rowe's Garage sherds belong to the later part of the data range of their fabric, perhaps the third century AD itself, a time when the practice of roughening the internal surface of such large vessels, for whatever reason, was well-established.

All but one of the grog-tempered sherds (the rim of a dropped flange bowl of later third- or four-century date) came from the eastern part of the site; the only other recognisable form is a first-century high-shouldered necked jar. These wares spanned the Roman period but were only ever minor components of the assemblage.

In contrast, all but three of the Black Burnished ware (BB1) sherds came from the western part of the site, including one from a bead-rim carinated bowl of later first-century date (Seager Smith & Davies 1993, 233, type 15); at other sites east of Southampton Water (e.g. Cunliffe 1971b, fig. 74, 2 & 3; Cotton & Gathercole 1958, fig. 22, 3) BB1 generally only occurs after c. AD 120. Most of the BB1 sherds came from the quarry backfills, and include everted rim jars and dropped flange bowls, both typical of the period after c. AD 270 and well-represented in the vicinity.

MEDIEVAL

The medieval pottery (91 sherds, 927 g) came predominantly from the western and northern parts of the site. Two of the three medieval fabrics (moderately coarse sandy and sand with fine flint-tempered wares) are of mid-twelfth- to mid-fourteenth-century date. They were probably made in Chichester, kilns being known at Orchard Street, Southgate and Eastgate (Down & Rule 1971; Down 1974; 1978; 1981). There are also ten sherds of the West Sussex glazed ware tradition, present in Chichester from the fourteenth or early fifteenth century (Down 1978). Most derive from cooking-pot forms, some with applied strip decoration, although a handful of glazed jug sherds were also recovered. A rim sherd, probably from a bowl, could be part of a curfew comparable with examples from East Pallant House (Down 1989, 224, fig. 30.2: 13–17, fig. 30.3: 18 and fig. 30.4: 13–15), although it is not very soot-blackened inside. The post-medieval wares comprised coarse glazed earthenwares and modern industrial wares.

CERAMIC OBJECTS

A spindle whorl, 30 mm in diameter and 6 mm thick with a central hourglass perforation 5 mm across (Crummy 1983, 67), is made from a sandy grey coarseware sherd of unspecified Romano-British date. A second, fragmentary pottery roundel, its outer edge ground, is made from a piece of Dressel 20 amphora, and may have been a household weight, a gaming or reckoning counter. Both items were found in the quarry backfills.

CERAMIC BUILDING MATERIAL

Most of the ceramic building material is Romano-British although its fragmentary nature limits identification and analysis. None was associated with an identifiable structure and no concentrations of forms were found across the excavation. Cutaways of Brodrick's most common type (1987, 16, type 1) were recorded on three tegulae, on one of which the flange has been chipped off, perhaps to facilitate secondary use. The brick fragments include three very thick curved pieces. Sooting on the insides of the three flue-tile fragments indicate that they had been used, probably in a hypocaust. The flat fragments are 25–46 mm thick, with a peak at 36 mm, although several, probably from bricks, are much thicker, with examples at 59 mm, 65 mm and 70 mm.

Pieces of medieval or post-medieval roof-tile, including one or two glazed fragments, and bricks were also identified, most of them from the quarry backfills and the northern part of the site.

HUMAN BONE

Disarticulated human bone was recovered from four contexts, mostly as discrete concentrations within the quarry backfill deposits, especially pit base 1010. The remains of a minimum of four individuals were identified, including one neonate and three adults — a female aged over 45 years and two males aged 20–30 and 20–40 years. Two skulls, of one male and one female found together, both have metopic sutures which, although not a rare morphological variation, could indicate a genetic link between them.

All the bone was re-deposited and, although some (generally fragmented) complete skeletal elements were recovered, many were incomplete. Most did not appear to have experienced periods of exposure or repeated episodes of disturbance, suggesting that the bone derived from graves disturbed by the quarrying itself or from the immediate vicinity during the quarry backfilling. Although undated, the bone probably derives from burials contemporary with, and possibly even from, the Romano-British cemeteries immediately north at St Pancras. There the six inhumation burials included four males and two females, mostly mid-older adults (Ginns 1971), while to the west, at Needlemakers, the 14 inhumation burials included a mix of males and females and two children (Barnes 1981).

The bones display evidence of age-related wear and tear, with osteoarthritis affecting 40% of the spinal joints and degenerative disc disease affecting 30%, although, given the nature of the deposits, it is difficult to be conclusive as to which individual was affected by what. There is 12% *ante mortem* tooth loss, with dental abscesses in the female dentition (overall rate 3%).

ECONOMIC EVIDENCE

ANIMAL BONE

Of the 536 bones from Romano-British contexts, 44% could be identified. Cattle are the most common although fragmentation by chopping and fracture will have contributed to their over-representation. Sheep/goat and pig were found in smaller numbers; no positive identifications were made of goat. Two horses are present, both mature, and at least one may have been skinned, but no withers heights could be calculated. The few canid remains are of a fully grown dog and a possible fox jaw fragment. Parts of one goose wing and rib cage, and one phalange were recovered, as was a single domestic fowl scapula.

Animal husbandry

The species proportions and kill patterns at Rowe's Garage are characteristic of the Roman period in urban and military areas of Britain (King 1978; Maltby 1994). Most cattle survived to the age of four years, suggesting that they were used for meat and traction. One very young animal may have died naturally. From the two horn cores present, a short horned breed is suggested. The cattle measurements are in, or above,

the upper range of those from Exeter, which Maltby (1979, 36) described as small compared to other Romano-British sites. Large and mature cattle were also recorded at nearby Chilgrove Roman villa (Outen 1979) and Chichester Cattle Market (Levitan 1989), the latter having similar remains to Cirencester (Levitan 1989, 248).

The husbandry regime for sheep/goats is less clear. Fusion data suggest they were killed when very young, possibly indicating a flock maintained for milk, but the mandibular tooth eruption and wear data indicates older animals of c. 18–24 months, and it may be that the young animals died naturally. The same applies to the pig bone — the fusion data suggest that most animals were killed soon after one year of age, but one mandible suggests that some were slaughtered when just mature, the optimum age for meat production. The bone measurements for sheep/goat and pigs fall within the range at early Roman Exeter (Maltby 1979). Nearby settlements have a similar meat-based animal economy, although Fishbourne has a higher proportion of pig (Grant 1971), perhaps indicating higher status/more 'romanized' inhabitants.

Butchery, consumption and deposition

The cattle remains show distinct evidence of human activities. Cattle were decapitated using heavy implements. The head bones are under-represented but some less robust elements are relatively common (the femur and distal radius for example), so this is not thought to be a taphonomic bias. Most numerous are long bones, suggesting that the remains originate from specific activities. Butchery marks mainly consisted of chops and cuts for disarticulation or filleting of meat from the bone. Most chops were positioned mid-shaft on long bones for portioning the carcass and extracting marrow, although some split the bones lengthways also for extracting marrow. Cattle bones from the early Romano-British deposits at Chichester Cattle Market, where most were heavily fragmented from mature animals, displayed similar butchery patterns (Levitan 1989, 244), although there was a larger proportion, than at Rowe's Garage, of head and feet 'waste' bones from an earlier stage of butchery. Primary butchery deposits may also have been the source of the cattle bone from Chilgrove (Outen 1979, 122).

Much of the cattle bone was recovered from early Romano-British ditch 731. Frequently, similar parts of bones were present, but no fragments conjoined, suggesting that the ditch was not simply the recipient of smashed cattle bones from a few individuals, but contained the remains of a routine large-scale activity that produced particular parts of particular bone elements as waste. It may be that tertiary butchery (the removal of meat from the bone and breakage of bones for marrow) was occurring in this area, perhaps at a commercial rather than domestic level. Large dumps of bone from different stages of butchery have been noted for other Romano-British urban areas, such as Winchester (Maltby 1994), Exeter (Maltby 1979) and Lincoln (Dobney *et al.* 1996).

Only knife cuts were noted on sheep/goats, pig, horse and goose. Cuts on sheep/goat bones are mainly from foot removal at the metapodials, and one butchered pig bone indicated disarticulation of the humerus from the radius. Only the more robust sheep/goat bones are present, indicating that these have been subject to destruction and perhaps re-deposition, with gnawing marks on 6% of the bones

suggesting canine activity/scavenging played a part in this. In contrast, the bone elements of sheep/goat and pig in the early phase of occupation at Fishbourne (Grant 1971) were characteristic of kitchen refuse, with the majority of the waste bones having been deposited elsewhere, a pattern typical of a consumer site.

Horse hooves seem to have been removed at the distal metapodials in one individual, and fine cuts across the tibia may have been from subsequent skinning. The goose humerus was disarticulated from the less fleshy wing parts at the distal humerus.

Only three bones are burnt (scorched or carbonized) indicating that roasting of bones with meat still attached was not common.

MARINE SHELL

Oyster shells, both right and left valves, probably from Chichester Harbour, (and a single whelk and a cockle) were recovered in small groups from a variety of contexts.

CHARRED PLANT REMAINS

All samples examined contained cereal remains. The most common is chaff from spelt wheat (*Triticum spelta*), by far the most commonly recorded wheat crop on most Romano-British sites in southern England. The high number of glume bases is characteristic of many prehistoric and Romano-British sites where hulled wheats are present. Unlike the free-threshing wheats favoured today, these have to be pounded in mortars to release the grains, which are then separated by sieving and winnowing. It is the waste produced from these activities (glumes and other lighter chaff) that dominates the samples. If hulled wheats were stored in spikelet form (Hillman 1981) the chaff would result from crop-processing throughout the year as grain was taken from the stores as needed.

Also recorded are barley (*Hordeum sativum*) and free-threshing wheats (*Triticum aestivum* s.l.), which form minor components at other sites in the region (Hinton 1984; forthcoming; Greig 1991). There were no definite identifications of emmer wheat. The only other probable food remains are several fragments of hazelnut shell (*Corylus avellana*).

Seeds of wild species almost certainly represent the plants growing as weeds in arable fields, harvested with the crop. Of these, dock (*Rumex* sp.), vetches/tares/wild peas (*Vicia/Lathyrus* sp.) and oats (*Avena* sp.) are the best represented. The relatively narrow range suggests that many were removed in the field prior to the crop's storage so that only the cereal glumes had to be removed and the larger seeds picked out by hand (Hillman 1981; Stevens 2003).

In contrast, a sample from ditch 179 contained seeds of several species not recorded from elsewhere on the site, including small nettle (*Urtica urens*), fat-hen (*Chenopodium album*), probable seeds of curled-leaved dock (*Rumex crispus*), field madder (*Sherardia arvensis*), corn gromwell (*Lithospermum arvense*) and spikerush (*Eleocharis palustris*). These may represent waste from earlier processing stages or a crop stored in a less clean condition, or cultivation on different and therefore more geographically widespread soil types. A range of soil types, from wet sandy/gravelly soils to drier calcareous soils, are indicated by the wild species, while the quite large number of seeds of vetch/tare/wild pea (*Vicia/Lathyrus* sp.) may indicate nitrogen-depleted soils, perhaps caused by over-cropping (Jones 1989).

CHARCOAL

Five samples of charcoal were analysed, two from the deposits of burnt material in features 140 and adjacent ditch 179, and three from the quarry/pit backfills. In view of the abundant charred cereal grain from feature 140, and the absence of industrial evidence, it is likely that the associated charcoal, identified as oak (*Quercus* sp.) and beech (*Fagus sylvatica*), derived from fuel residues from food preparation. The charcoal from the upper fill of ditch 179 is similar in character, although consisting entirely of oak (*Quercus* sp.), and although very fragmented, its structure was consistent both with that of narrow roundwood and more mature wood, including heartwood.

The charcoal from quarry 1005, which includes oak, beech, ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), field maple (*Acer campestre*) and birch (*Betula* sp.) also appears to represent dumped domestic fuel, although the presence of hammer-scale could also imply smelting fuel. The charcoal from pit 1018 is

composed mainly of oak fragments from large wood of slow-moderate growth, while pit 1020 contained a more diverse range of taxa, including small fragments of oak, beech, field maple, wild cherry (*Prunus avium*), blackthorn (*Prunus spinosa*), and either wayfaring tree or Guelder rose (*Viburnum* sp.).

In the western part of the site, therefore, firewood appears to have been collected from a much wider range of trees and shrubs than in the eastern part. It is probable that, unless a specific fuel wood was sought, the selection of firewood would have been determined by local availability. As the larger woodland trees are characteristic of Wealden woodland, it is possible that such woodland was still extant on this part of coastal plain. Alternatively, the local road system may have allowed relatively easy transport of firewood and timber (for barricades and fences) from further afield, with a supply of off-cuts and discarded wood making suitable firewood. The charcoal is too fragmented to assess the use of coppiced wood.

DISCUSSION

The large early Romano-British ditch (731) in the western part of the site is probably the same feature as that recorded at 52, The Hornet, and broadly comparable to one at Needlemakers (Down 1981, 80, fig. 7, 4, pl. 9), also dated to the mid-1st century. Other Late Iron Age or early Romano-British ditches with 'V'- or 'U'-shaped profiles have been recorded in the vicinity, but while these are probably too substantial to be simply field boundary ditches, they are generally too small to have had an effective defensive function (Magilton 1996a, 33). They differ, therefore, from the Period-1 (c. AD 43), possibly palisaded ditch at St Pancras to the north (Down & Rule 1971, 56, pl. 14), whose steep sides and flat base suggest a Roman military origin, and which was possibly part of a short-lived base camp or depot set up c. AD 43 (Down & Rule 1971, 66–7).

During the later first and second centuries, there is some evidence of domestic settlement, particularly in the southern part of the site, with pits at the southwest (and other features) containing domestic waste, and with evidence of small-scale quarrying, crop-processing and other agricultural activities. Although no domestic structures were identified, most of the features lie some distance from Stane Street, these are potentially closer to the putative Roman road running along the line of The Hornet. The rectilinear arrangement of small ditches in the southeast of the site, possibly forming small enclosures for stock-control, is aligned on The Hornet, providing support for there having been some form of road on that line, in the same way that the early Romano-British

ditch in the northern part of the site is aligned perpendicular to the adjacent Stane Street.

Although these features provide evidence of settlement activity east of the early Roman town, the character of that settlement appears to be largely rural in nature, the excavations at the Cattle Market, for instance, producing evidence for intensive agricultural-related activities, including possible market-gardening. It does not have the character of a suburban ribbon development, which would more likely be found along the more important Stane Street, although the excavations at the Cattle Market and 52, The Hornet produced evidence for food storage, possible animal butchery, the manufacture of bone needles and pins and iron-forging (Magilton 1996a, 34–5), activities also possibly reflected in some of the finds from Rowe's Garage.

The quarries in the western part of the site are unlikely to predate the fourth century, the coin evidence suggesting they were backfilled from the mid-fourth century, although the re-deposited nature of their backfills, which contained small quantities of medieval pottery and roof-tile, means that they cannot be dated with any certainty. Similar quarries cutting the southern part of the St Pancras Romano-British cemetery (Down & Rule 1971, 73–5) may be part of the same extensive activity, and it is conceivable that this area outside the east gate was quarried for clay and gravel, and used as a dumping ground for spoil and/or domestic waste, over a considerable period, the deposits being extensively remixed and reworked during the process. There was no evidence for the continuation for the St Pancras (Down 1971) and Needlemakers (Down 1981) cemeteries, although

it is likely that these were the sources of the disarticulated, re-deposited human bone on the site.

The two medieval features at the west of the site are likely to relate to the suburb known to have developed outside the Eastgate from the thirteenth century (Down 1981, 77), and which, by the mid-eighteenth century, extended for about a kilometre outside the city walls (Down 1981, 99). For most of this period, buildings would still have been of timber, the poverty of the area emphasizing the insubstantial nature of any structures that may have existed. It is likely that many more ephemeral medieval and post-medieval remains, and possibly earlier ones, were destroyed during modern groundworks for the construction of the former Rowe's Garage itself.

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THE ARCHIVE

The archive, containing the primary records and full specialist reports, is presently held at the offices of Wessex Archaeology in Salisbury, under the project code 51789, and is to be deposited with the Chichester District Museum in due course.

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