ROMAN OCCUPATION AT LITTLE CHESTER, DERBY: SALVAGE EXCAVATION AND RECORDING BY THE TRENT & PEAK ARCHAEOLOGICAL TRUST 1986–1990

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INTRODUCTION

This report describes the results of watching briefs and excavations conducted by the Trent & Peak Archaeological Trust at the Roman site of *Derventio*, Little Chester, Derby, in the period 1986–1990 (Fig. 1).

A programme of watching brief, rescue excavation and salvage recording was carried out during housing development at Pickford's Garage [SK 35403750], the construction of a car park at Darley Playing Fields [SK 35383765], and a bowling green north-west of Derwent House [SK 35243758] (Fig. 2). Trial excavations preceded the design of a road at the Nursery Garden north of Old Chester Road [SK 354375], and were followed by limited rescue excavation in advance of construction. The areas investigated are summarized as Table 1. The extensive rescue excavations at Pickford's Garage constitute the largest area of the interior of the defences so far excavated, and the only open area where the defences and internal occupation have been examined together. Work at all sites was subject to Scheduled Monument Consent, with the exception of the Darley

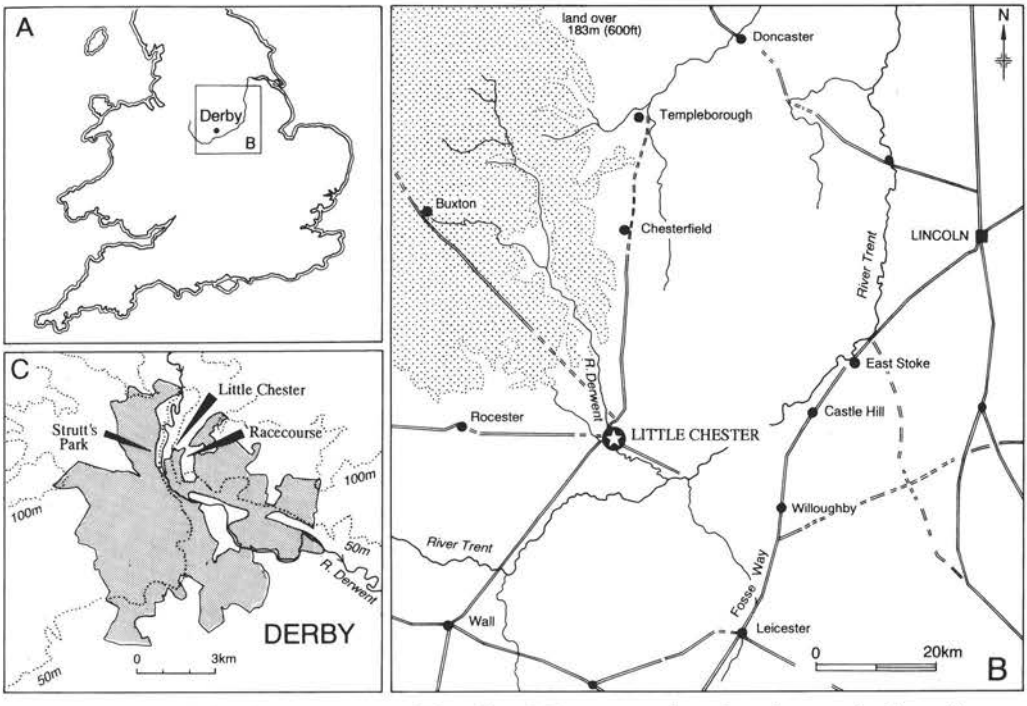

Fig. 1: Roman Little Chester: A general location; B Roman roads and settlements in the region; C location in the City of Derby.

Playing Fields car park, which lay outside the designated area. The extent and depth of all excavations were determined by construction requirements and not archaeological strategy. The excavations were supervised by Christopher Drage, with Gavin Kinsley in Area 26, and with Richard Langley in Area 36.

This report is a digest of the fuller information to be found in the excavation archive which has been deposited at Derby City Museum. The archive was compiled by Christopher Drage and Richard Langley and the report was written and edited by Richard Langley with the assistance of Christopher Drage, during 1990–1991.

The finds have been deposited at Derby City Museum, where they are registered as 1989–187 (Pickford's Garage) and 1989–188 (other sites).

Numbering in the text

Throughout the report, context numbers are given in square brackets [123]. Artefacts are identified by alphabetic codes [ABC].

Contexts from Areas 26–37 were numbered in a single consecutive sequence. Contexts from other areas were numbered in concurrent sequences, and these have been distinguished by an area prefix (e.g. [25/123]). The area codes used in the archive and marked on finds are three-figure numbers (Areas 001–043), but leading zeros are omitted in the published report (Areas 1–43).

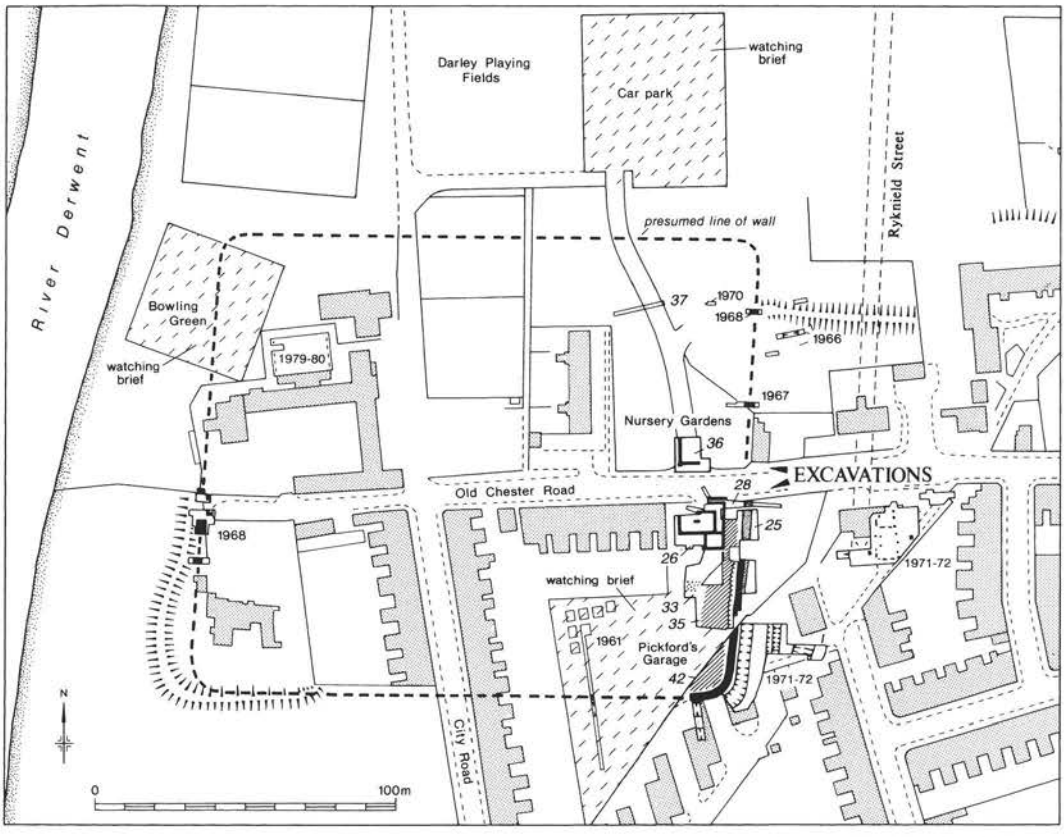

Fig. 2: Roman Little Chester: location of excavations. 1961 Webster (1960); 1966 Todd; 1967 Brassington; 1968 (west) Annable; 1968 (east) Brassington; 1970 Brassington; 1971–72 Sparey-Green; 1979–80 Wheeler; 25, 26, 28, 33, 35 and 42 Pickford's Garage site; 36 and 37 Nursery Garden site. Scale 1:2500

Discrete areas of the site have been phased in concurrent sequences distinguished by an area prefix e.g. (R1/1), (S/1), (35/1). These phases are grouped into three main Periods, and dating has been analysed according to seven ceramic phases (Table 2).

THE HISTORY OF RESEARCH

Little Chester was visited in 1721 and 1725 by William Stukeley, who published a plan and description of a stone walled enclosure which he believed to be a Roman fort. His plan shows a stone wall with entrances on the south, east and west sides, a broad berm and a single ditch with causeways from the east and west entrances. He described 'vaults', wells and the foundations of houses visible within the walls, and traces of gravel streets outside (Stukeley 1776).

Stukeley's account was not superceded until antiquarian observations by John Ward and others were summarised by Haverfield, who suggested that Little Chester was an auxiliary fort, and concluded from coin evidence that it was in military occupation

Area code	Site	Nature of threat	Archaeological response
1–2	Pickford's Garage	Builders' trial holes	Watching brief
3	Pickford's Garage	Demolition of Manor Farm cellar	Survey record
4	Pickford's Garage	House foundation in NE of site	Watching brief
5–24	Pickford's Garage	Builders' trial holes	Watching brief
25	Pickford's Garage	Defences disturbed by house foundations	Salvage excavation
26	Pickford's Garage	House foundation in NW of site	Rescue excavation
27	Number not allocated		
28	Pickford's Garage	Access road and sewer	Rescue excavation
29	Nursery Garden	Access road assessment	Trial excavation
30	Nursery Garden	Access road assessment	Trial excavation
31	Nursery Garden	Access road assessment	Trial excavation
32	Pickford's Garage	Service trench	Watching brief
33	Pickford's Garage	Access road and sewer	Rescue excavation
34	Bowling Green	Bowling green construction	Watching brief
35	Pickford's Garage	House foundations in SE of site	Rescue excavation
36	Nursery Garden	Access road construction	Rescue excavation
37	Nursery Garden	Flood bank construction	Rescue excavation
38	Darley Playing Fields	Car park construction	Watching brief
39–43	Pickford's Garage	House foundations and ground works in SW of site	Watching brief

Table 1: Little Chester, Derby. Areas investigated 1987–1990

during the second century (Haverfield 1905, 220–21). Interpretation of the defences was still based to a great extent on Stukeley's observations.

Subsequent work has focused on three principal areas: a fort at Strutt's Park; defences and extra-mural settlement at Little Chester; and an industrial area, pottery and cemetery to the east at Derby Racecourse (Fig. 1C).

Study of the extra-mural settlement began in 1910 when Smithard sectioned a road extending east across Derby Racecourse and attempted to locate the gravel road recorded by Stukeley north of the defences (Smithard 1913, 111–36). A hypocaust structure at Parker's Piece was discovered by chance in 1924 (Brassington 1982b, 84–86; *The Derbeian* 1924, 12–13; Sherwin 1925a, 256–58; Sherwin 1925b, 15–16), and in 1926 C. B. Sherwin exposed Ryknield Street for a length of 390m to the north of the defended area, together with traces of roadside buildings. Sherwin also located the north and south walls of the defences, a conduit extending north, and the walls of stone buildings in the interior (Brassington 1993, 21–44). Sherwin's excavations remained unpublished, and there was no further work until 1960.

The history of research between 1960 and 1983 has been summarised by Birss and Wheeler (1985, 9–12). The following is a more detailed account of previous work on the defences which is of direct relevance to the interpretation of the present excavations.

Sections were cut on the south side of the defences in 1960 (Webster 1961, 85–110), and on the east side in 1966–1968 (Todd 1967, 70–85; Brassington 1982a, 74–83; Brassington 1996, 77–92). These excavations were limited to narrow cuttings. A larger area at the west gate was excavated in 1968 (Annable and Wheeler 1985, 33–37), and the

			Pickford's Garage site Phases								Nursery Garden site Phases	
			Structure 1					Defences				
		Area:	R1	R2	R3	S	28/33	NW	SW	E	36	37
	Ceramic period	Wheeler phase										
Strutt's Park												
*c.*50–80			–	–	–	–	–	–	–	–	–	–
Little Chester												
*c.*80–120	1	1	–	–	–	–	–	–	–	–	–	–
PERIOD 1												
Structure 1												
*c.*120–140	2	2	1	1	1	–	–	1	1	1	–	–
			2	2	–	–	–	–	–	–	–	–
*c.*140–180	3	3	3	–	–	1	–	2	2	2	1	1
			–	–	–	2	–	–	–	–	2	–
			–	–	–	–	–	–	–	–	3	–
			–	–	–	–	–	–	–	–	4	–
PERIOD 2												
Clay Rampart												
*c.*180–210	4	4	–	–	2	3	1	3	3	3	–	–
			–	–	–	–	–	–	4	–	–	–
			–	–	–	–	–	–	5	8	–	–
*c.*200–240	5	4	–	3	–	4	–	6	–	–	–	–
PERIOD 3												
Stone Defences												
*c.*230–280	6	4	–	–	–	–	2	7	11	9	–	2
*post c.*270	7	5	–	4	–	5	–	10	–	12	–	3
*c.*300–350	–	6	–	–	–	–	–	–	–	–	–	–

Table 2: Concordance of phases and periods

defences at the south-eastern corner were excavated by Sparey-Green in 1971–72 (Wilson 1973, 285; Birss and Wheeler 1985, 11).

On the south side, at Pickford's Garage, Webster found fallen wall core lying over a pitched rubble foundation 2.66m wide. He concluded that the wall had been freestanding, although grey clay abutting the north side of the wall may be interpreted as the remains of a rampart truncated to a height of less than 0.3m. A ditch of U-shaped profile, 6.1m wide and 1.2m deep, was cut into loose gravel 1.0m in front of the wall. No other ditch was located for 16m south of the wall. Webster interpreted these defences as civilian works of the 4th century. Predating the defences were five phases of timber buildings associated with samian of AD 160–200 and presumed to be military; samian also

indicated occupation from the Flavian (late first century) until a hiatus under Hadrian (AD 117–138) (Webster 1961, 86–93).

On the east side, Todd found a U-shaped ditch 5.2m wide and at least 1.8m deep cut into compact sand, the sides apparently revetted with clay. Neither wall nor rampart was located within 6.1m west of this ditch, and a metalled surface covered the western part of this area. Features associated with Flavian-Antonine (mid first-late second century) samian were sealed by a gravel surface cut by the inner lip of the ditch (Todd 1967, 73–78). West of Todd's section, Brassington found a robber trench up to 2.9m wide and at least 2.0m deep, in front of a clay rampart 1.5m high but of undetermined width. The rampart sealed a small group of pottery including Antonine (mid-late second century) samian and BB1 (Brassington 1982a, 74–75). 300m to the south, Brassington found a pitched rubble wall foundation 2.5m wide extending to a depth of more than 4.0m. In the upper two courses the core of the foundation was of sandstone set in clay. A layer of silt had formed over the foundation before the wall courses were laid over it. Subsequently the foundation settled and a void formed beneath the wall. The wall was cut into the front of a clay rampart, 0.75m high and 4.9m wide, and this was the first evidence that the wall was secondary to the rampart. The rampart sealed a massive building platform 1.5m thick which was in occupation at least into the early Antonine (mid second century) (Brassington 1996, 78–83 & 90–92). In both of these sections the rampart was of dump construction. Pitched footings of the wall were revealed in a trench adjoining the south side of Old Chester Road (Brassington 1982a, 75, fig. 3).

Annable found no evidence of the rampart surviving at the west gate. Building slots and floors associated with Flavian-Antonine (mid first-late second century) pottery were covered by a gravel road. This was flanked by a stone structure, which was itself covered by later road surfaces. Later, a 3.15m wide wall was erected on a 3.4m wide foundation of pitched rubble. A gateway was formed by a simple break in the wall 3.7m wide, although there was some evidence of a structure abutting the inner face of the wall on the south of this gap (Annable and Wheeler 1985, 33–36).

At the south-eastern corner, Sparey-Green investigated a complex of successive ditches and was able to provide the first evidence to date the stone walled phase of the defences. Three phases of timber building dating through the Flavian early Antonine periods (late first-mid second century) were covered by extensive burnt layers including a coin of Faustina I (AD 138–141). The burnt layer was covered by the rampart and cut by a V-profiled ditch immediately to the front, with a parallel ditch flanking Ryknield Street 30m to the east. Later, the inner ditch was redug further to the east. In the late third century this ditch was backfilled with clay derived from the cutting back of the rampart to receive the stone wall, but subsequently was recut. Coins of Gallienus and Carausius (AD 286–293) were deposited in the lower fill of the recut ditch. Todd's section showed the same sequence, although there he interpreted the clay backfill as a revetment (Todd 1967, 73, fig. 2). At the south-eastern corner only the rubble footings of the wall remained, which were 3.0m wide, but mortar and stone debris associated with the construction included coins of Tetricus and Carausius (AD 286–293). In the fourth century a wider and deeper ditch was cut further east of the wall. The defences were again modified in the late Saxon period, when a rubble platform was added to the south-eastern angle of the wall and a narrow ditch dug to the south (Birss and Wheeler 1985, 11).

THE DEVELOPMENT OF ROMAN DERBY

Derby lies near the foot of the Pennines, at the point where the Derwent enters the Trent Valley (Fig. 1B). The higher ground to the north is thought to be territory of the Brigantes (Hartley and Fitts 1988). South lay the low land of the Trent Valley, the territory of the Corieltauvi (Coritani) (Todd 1973), with the territory of the Cornovii to the west (Webster 1975). Derby is one of the lowest crossing points of the River Derwent, where Ryknield Street, running north from Wall to Chesterfield, joined roads running west to Rocester, east to the Trent at Sawley, and probably north-west to Buxton. The place name *Derbentione* (Richmond and Crawford 1949), derived from the name of the river, reflects the importance of the river crossing in the topography of the site. The modern River Derwent is retained above the Roman level by banks and weirs, and the extent to which it could be used for navigation is uncertain.

The area of Roman occupation is to the north of the modern city centre. Strutt's Park lies on the steep western slope of the Derwent valley, above 75m OD, overlooking Little Chester on the east bank, and the Racecourse beyond, which lie below 50m OD (Fig. 1C).

The road system has been discussed by Brassington (1981, 88–92). The principal routes were established in the first century. Sections of road have been excavated at Little Chester and Derby Racecourse, but the precise course of roads within the built-up area west of the river is largely conjectural. The alignments of Ryknield Street and the road from Rocester converge on the north side of Strutt's Park, on the site of a bridge recorded by Stukeley (1726). Later, the site of the principal river crossing is uncertain. Ryknield Street was diverted to the east of the defended area, and it has been suggested that it crossed the river some 200m to the south of Stukeley's bridge (Brassington 1981, 88, 92). The road from Sawley, extending north-west across the Racecourse, turned west to Little Chester where, beyond the crossroads with Ryknield Street, it formed the main axis of the defended area (Fig. 2). It continued through the west gate towards the river, but it is doubtful that the river was crossed at this point (Annable and Wheeler 1985, 33). The medieval ford below St. Mary's Bridge, 500m south of the defended area, may be considered another possible crossing point.

The development of Roman Derby has been summarised recently by Wheeler (1985c, 300–04) and Burnham and Wacher (1990, 222–25). The earliest occupation, indicated by coin evidence and limited excavation, was a fort constructed at Strutt's Park soon after AD 50 (Brassington 1970, 22–30; Dool 1985a, 25–26). This was one of a number of forts believed to have been placed on the southern boundary of Brigantian territory in support of Queen Cartimandua (Hartley and Fitts 1988, 16; Ellis 1989, 125). It was replaced *c.* AD 80 when a fort and *vicus* were established at Little Chester and the Racecourse. The defences of this period have not been located, but the *vicus* appears to have been large and prosperous. A pottery industry was established at the Racecourse before AD 100, and roadside mausolea were constructed in the period AD 100–120 (Wheeler 1985c, 300). A reduction or removal of the garrison is postulated in the Hadrianic period (AD 117–138) (Burnham and Wacher 1990, 222) although there is evidence of continuing occupation in at least part of the site (Wheeler 1985c, 302). Pottery production declined after AD 110–120, but a cremation cemetery developed behind the roadside mausolea.

New defences were constructed in the Antonine period (AD 139–192), with a rampart and two outer ditches believed to have enclosed seven acres (Fig. 2) (Wheeler 1985c, 302). Pottery production ceased, but iron working was established in the *vicus*. There was a number of distinctive, possibly military, burials in the roadside cemetery and a civilian walled cemetery was constructed in the area to the rear.

A civilian phase is proposed within the defences in the late second century, when demolished military buildings were covered by a gravel surface, and iron working was carried on in the north-west sector (Burnham and Wacher 1990, 224). The defences were remodelled with a new ditch, and a masonry gate was inserted on the west side.

By the early third century the interior was given over to cultivation (Fig. 15.5) and the fort was clearly no longer in military occupation (Wheeler 1985a, 63; Wheeler 1985c, 303).

In the late third or early fourth century a stone wall was inserted in front of the rampart and a new ditch was dug (Fig. 2). Buildings of some pretension, with foundations of slotted stone blocks, were constructed both inside the defences and to the east at the junction of the two major roads. This phase was short in duration and occupation of the walled area ceased after *c.* AD 330. A coin of Gratian (AD 367–383) is the latest recorded from Little Chester (Knight 1926). This lay above the floor of a building with a hypocaust found 150m south of the defences (Brassington 1982b, 84–85). Industrial activity in the *vicus* and burial in the walled cemetery ceased in the mid fourth century (Wheeler 1985c, 304).

Post-Roman activity at Little Chester is evidenced by an inhumation cemetery of late fifth-early sixth century date outside the east gate (Webster and Cherry 1973, 138). The identification of a supposed Anglo Saxon accessory vessel found at Chester Green (Brassington 1987, 35) has been disputed (Challis and Kinsley 1995, 6).

Between the fifth and tenth centuries the focus of settlement shifted south to the modern city centre, along the low ridge west of the river. A minster church, St Alkmunds, was founded in the Bridge Gate area before the ninth century (Radford 1976, 26–61; Rollason 1978, 61–93; 1983, 1–22). A burgh was established around a new minster, All Saints, in the 920s (Roffe 1986, 111), and the axis of the town from Queen Street to St. Peter's Street was marked by five churches before 1066.

There was continuing activity at Little Chester. A bastion was constructed at the south-eastern corner of the defences in the late Saxon period, and a length of ditch was recut (Birss and Wheeler 1985, 11). These refurbishments may be associated with the Danish incursions of the 9th century and Little Chester could be the site of the battle of 917, when four of Aethelflaeds's thegns were killed 'within the gates' at Derby (Hall 1974, 16–23; Roffe 1986, 111). A late Saxon cess pit and fragmentary timber buildings have been found outside the east gate (Webster and Cherry 1973, 138), and a small number of late Saxon finds has been identified from the defended area (Langley 1990, 56–59). In 1066 *Cestre* (Little Chester) remained in the King's demesne, which might signify its potential as a fortified site, and formed the endowment of the seven canons of All Saints. The seven prebendal farms were sold into private hands in 1549. Two are represented by the 16th-17th century houses which occupy the western half of the area (Bailey 1889, 9–14, 189, 170–81) and a third, Manor Farm, stood on the site of the present excavations (*ibid.* 170–76). A cemetery found in the north-west sector in 1926 is of uncertain, although post-Roman, date (Clews 1927, 376–77).

THE PICKFORD'S GARAGE SITE

The Pickford's Garage site comprises 4000 square metres of the south-eastern quarter of the defended area (Fig. 2). In 1986 a garage workshop stood at the south end and the north-western end was covered by a concrete and tarmac forecourt. The forecourt was the site of Manor Farm, a seventeenth century farmhouse, of which only a cellar survived demolition in 1964. A nineteenth century house stood in the north-eastern part of the site until 1968. The boundary between the two properties, and the east wall of Manor Farm, lay on the east wall of the defences and the ground sloped away to the east of this line. The site also sloped gently from north to south, but about 1930 had been levelled by the dumping of 1.5–3.0m of fill over the southern half.

Planning permission for residential development of the site was granted by Derby City Council in 1984. Scheduled Monument Consent granted in June 1986 was subject to a watching brief and a requirement that disturbance was limited to 1.5m below the ground surface. In practice, foundations were dug to a depth of 1.2–1.4m. Subsequent grants of Scheduled Monument Consent were obtained for specific areas of deeper service trenches and groundwork. Monitoring of 24 builders' trail holes in November and December 1986 confirmed that surviving archaeological levels were as shallow as 0.2m below the ground at the north end of the site and Roman strata were found to extend at least 2.0m below ground level.

Development commenced suddenly in April 1987 when a 10m wide stretch of the eastern defences was destroyed without any archaeological presence on the site. Subsequent negotiation ensured that a salvage record was made of the destroyed section (Area 25) (Fig. 3). It was also agreed that further works in the northern half of the site were to be subject to prior archaeological excavation. These excavations took place in June-July 1987 (Area 26), December 1987 (Area 28), August 1988 (Area 33), and November-December 1988 (Area 35) (Fig. 3). Archaeological excavation was in practice confined to levels above 46.9m OD. Trial holes had indicated that archaeological levels in the southern part of the site were sealed by deep layers of modern fill of ash, clinker and rubble and were unlikely to be disturbed by the development. Although no further excavation was required, ground works in the southern half of the site were monitored until completion in October 1990.

Areas 26 and 28: Structure 1 (Fig. 3)

The excavation of Area 26 and Area 28 revealed most of a stone building, Structure 1, with a succession of ancillary structures of timber and stone in the area to the south. Salvage recording of the north wall took place in June 1988 (Area 28) and the east wall was subsequently excavated in Area 35.

The deposits were divided into four discrete stratigraphic units by the walls of the structure and their robber trenches. Additional breaks in stratigraphy were due to the division of the excavation into three areas according to the requirements of the construction programme. Within the largest unit of the structure, Room 1, discontinuities in stratigraphy were caused by the slumping of deposits away from a central foundation.

The principal modern disturbance was the 2.5 x 3.0m hole left by the removal of a petrol tank which, however, provided a 2.0m deep section at the southern edge of

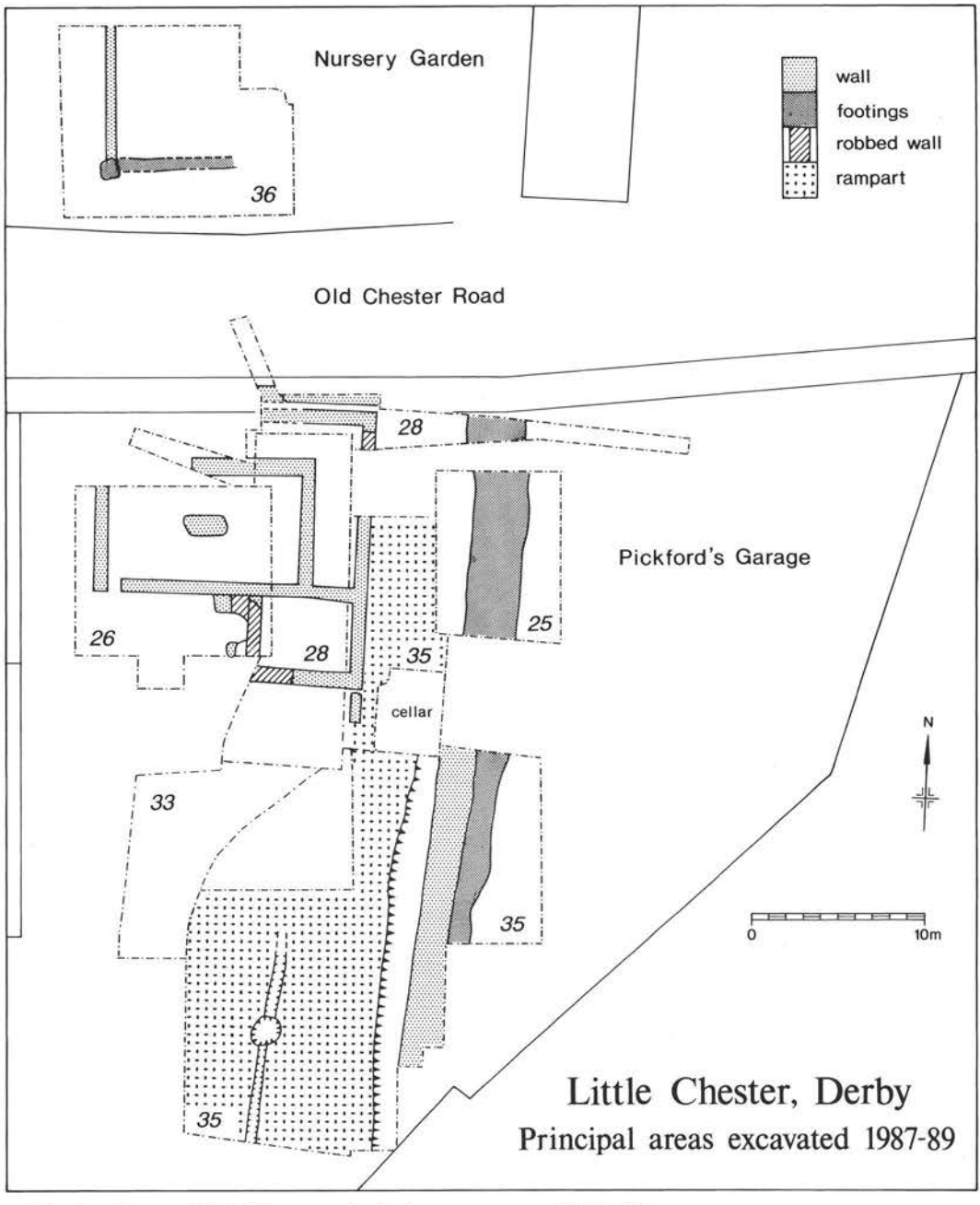

Fig. 3: Roman Little Chester: principal areas excavated 1987–89

Area 26. The north-western corner of the site had been largely destroyed by the removal of a mature sycamore tree, and also the west end was cut by modern service trenches.

Areas 25, 28 and 35: The eastern defences (Fig. 3)

Three segments of the eastern defences were examined. Area 25 was a salvage excavation to record the 10 x 8m section of the wall and rampart removed by construction work at the north-eastern end of the site. Work was limited to cleaning and recording the plan and sections. A defensive ditch was identified but not excavated. Immediately to the north, a 1m wide service trench through the wall and rampart was recorded in August 1988 (Area 28). An area of 320 square metres, including an 18m segment of the wall and rampart, was excavated to the permitted depth in Area 35.

A watching brief during the insertion of a concrete revetment on the western boundary of the site in 1990 (Area 42) confirmed the alignment of the south wall immediately west of Webster's 1960 excavation (Fig. 2).

Areas 28 and 33: Deposits south of Structure 1 (Fig. 3)

The principal record of the area south of Structure 1 and west of the defences was the section of a 1.2m deep sewer trench recorded under salvage conditions (Area 33) (Fig.8: section 3). The excavation of the area in plan was not completed.

PERIOD 1

Structure 1 (Figs. 5, 6 and 8; Plate 1)

Structure 1 was the earliest building recorded within the permitted level of excavation, although earlier occupation was represented by gravel metalling over a charcoal-rich deposit at the south end of Section 1 (Fig. 6). Clean coarse gravel also was found at the base of Section 3 extending south of the building (Fig. 8). This was thought to be possibly a natural deposit, but an underlying charcoal-rich layer was observed during pipe-lying work. The gravel surface was overlain by 0.4m of charcoal-rich silt with horizontal banding. This petered out towards the north end, where it was interleaved with grey clay and ash, and red clay lay over the gravel. These deposits may correspond with the surface sealed by the rampart in Area 35, here lying beyond the rampart, but this correspondence is uncertain.

Structure 1 comprised two rooms joined by a broad corridor. Room 1 was the principal room (10.80 x 6.5m), with Room 2 (4.10 x 5.4m) projecting at the south-eastern corner. The corridor, Room 3, was up to 2.6m wide, extending around the north and east sides of Room 1 and giving separate access to Room 2. A 0.4m wide drain ran parallel to the north wall. There was no evidence of a stairway giving access to an upper storey. Floor levels within each of the rooms were raised by 1.0m above the surrounding ground surface, and steps gave access to the lower level area to the south. A succession of ancillary structures was built in this area (Fig. 7).

The walls of Structure 1 were of rough-hewn gritstone blocks with a core of mortared rubble up to 0.9m thick. Stonework survived in up to 10 courses (1.35m high) on the south side of Room 2 [740] but the east wall of Room 2 [25] and part of the south wall of Room 1 [27] were robbed down to their footings of clay and mortared rubble.

The walls were of freestanding construction; the foundations were built on the existing ground surface and the level inside the building was raised by the dumping of sand and other material. The exposed exterior faces were of squared blocks laid in regular courses but the faces covered by the internal fill were of random coursed work with voids. Mortar

Plate 1: Pickford's Garage, Room 1, facing east, showing central foundation and floor make-up.

slumped out from the joints and covered the interior faces of the walls, as there were no foundation trenches to retain the mortar and the faces were left unpointed. The south wall of Room 1 [27] was 0.7m thick where it presented an exterior face to the south, but to the east it became a common wall with Room 2 [24], broadened to 0.9m and had the more crude interior facing. Where it divided Room 2 from Room 3, this wall narrowed to 0.8m and was re-aligned slightly to the south-east [882]. There was a change in the mortar where this section abutted the south-eastern corner of Room 1, but no joint was observed and the whole structure appears to be of one build.

In the majority of the walls the lower two courses were bonded with a pink mortar, whilst a white/yellow mortar was used in the upper courses, and a pink mortar in the highest surviving courses. This sequence was consistent in each of the three rooms and the different aggregates may mark successive stages in the work: setting out of footing courses, construction of foundations, and raising of walls.

The north wall of Room 3 [925] was 0.8m thick and all five courses were bonded with yellow mortar. This formed the south side of a drain [937], 0.3m wide and 0.9m deep. The north side was defined by a retaining wall [928] bonded with orange mortar, which was trench built into the edge of existing gravel road surfaces. Both walls rested on a layer of red clay lining the base of the drain.

The spreading of mortar from the walls between successive tips in the adjoining fill shows that the fill had been built up progressively as the walls were raised. Some fill could have been dumped as soon as the walls had been pegged out. The bulk would have been brought in before the walls were high enough to impede access, but not before the mortar had hardened enough to prevent the walls from bowing outwards. The level within

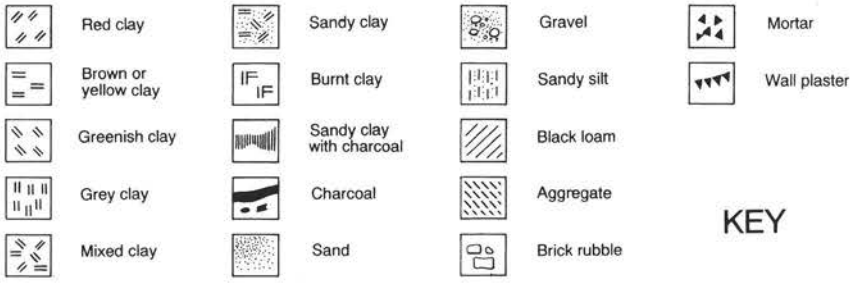

Fig. 4: Roman Little Chester: key to conventions used in all section drawings.

Room 1 was raised with coarse sand and gravel forming a mound at the centre 0.6m high [659] (Fig. 6.1); successive tips of sand [686, 685, 670, 684, 667, 669, 668, 691, 692, 693, 694] included lenses of clay and charcoal. Tipping of sandy silt between the central mound and the walls of the building [665, 666, 658, 652] continued as the walls were raised. On the south side mortar from the wall [27] was interleaved in the fill at the levels of two successive courses; however the higher of these spreads [648] was of pink mortar lying against wall courses bonded with white/yellow mortar, and must have fallen in from a higher course in the wall. The mortar [648] overlapped a trampled surface of clay with charcoal flecks [649] which extended over most of the western half of the room, possibly the working level from which the walls were raised above the foundation courses. The floor was finally raised and levelled with sandy clay [637, 653, 645, 663] covered by a mortar surface [632, 654, 716].

At the centre of the room a roughly rectangular foundation [674] 2.5m x 1.2m was cut into the floor make-up from this level (Fig. 5.1, Plate 1). The foundation comprised four courses of random rubble [689] in a matrix of pink mortar, clay and river gravel, extending to a depth of 0.9m. The rubble included a fragment carved with a simple moulding. Over the rubble foundation a 0.06m thick levelling course of red clay [688] was finished with a mortar surface [687]. [687] was discontinuous with the surrounding mortar surface [716] due to the slumping of deposits away from the central foundation. There was no evidence of any structure resting directly on this foundation, and it was buried by the subsequent raising of the general floor level.

The shell of Room 2 was filled with gravel [899, 923] and green sand [203, 204, 205, 207, 208, 877, 842, 824] with lenses of clayey sand [202, 206], pebbles and occasional gritstone rubble (Fig. 6.2). Six stones in the topmost course of the north wall [24] slightly oversailed this floor makeup, indicating that the floor had been levelled before the upper wall courses were laid. However, pink mortar from higher courses was interleaved between [207] and [208], near the base of the fill. Three small post holes [870, 885, 886] were set in the lower part of the fill, 2.0m apart and 1.0m inside the east and south walls (Fig. 5.1). Each was packed with stones defining a rectangular post setting *c.* 0.1m wide and 0.2m deep. No evidence was found of post pipes rising through the floor and these may have been temporary scaffolding posts. A floor of clay [814, 815] was laid over the fill. This was not apparent at the west end, where a surface of pale yellow mortar [200, 201] occurred at the same level.

Pottery from the make-up levels indicates a Hadrianic or early Antonine date for construction of the building. The assemblage is characterised by the predominance of

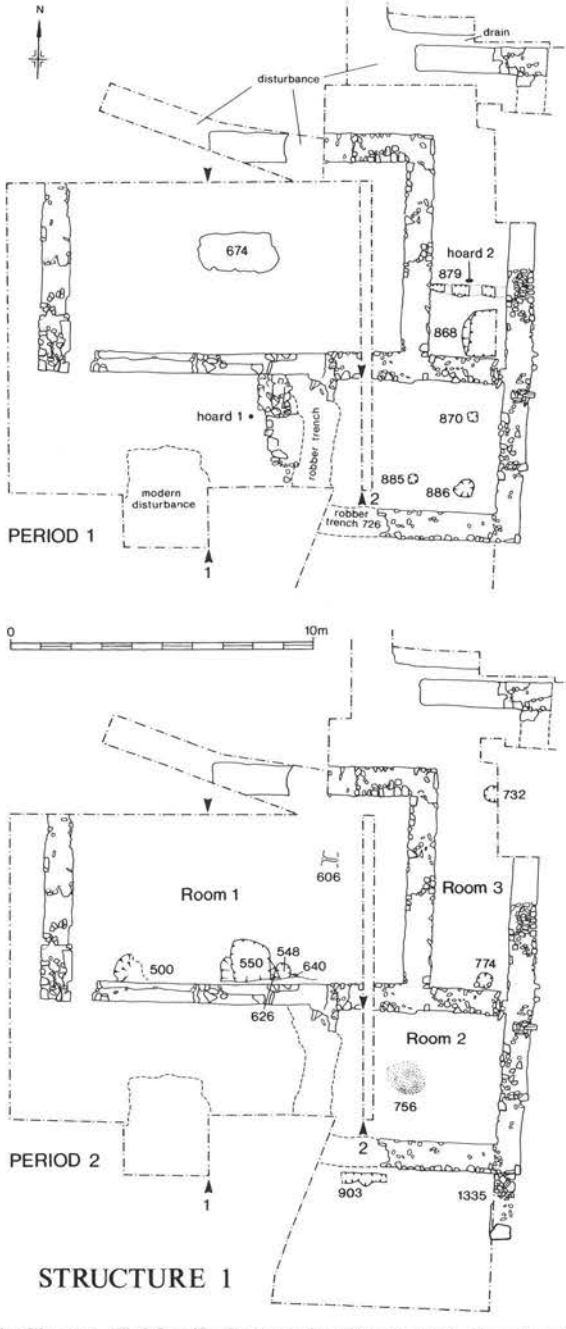

Fig. 5: Roman Little Chester, Pickford's Garage site: Structure 1, showing locations of sections 1 and 2. 5.1 Period 1; 5.2 Period 2. Scale 1:250.

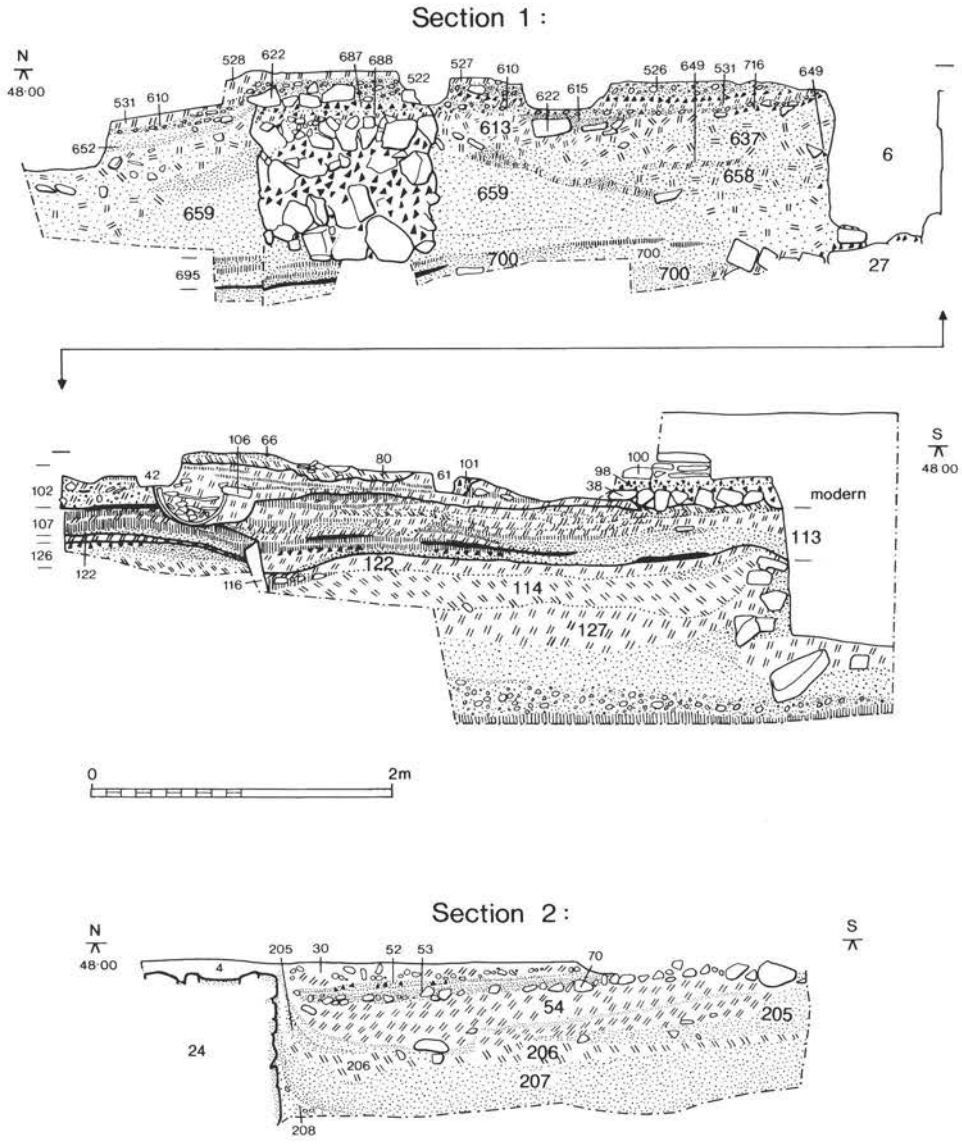

Fig. 6: Roman Little Chester: Pickford's Garage site. 6.1 Section 1, located in Figs. 5–7; 6.2 Section 2, located in Fig. 5. Scale 1:50.

Hadrianic forms and the absence of Derbyshire Ware. Two Derbyshire Ware sherds and a sherd of a mid-late Antonine samian bowl, from the base of the excavation in Room 2 [914], are inconsistent with the remainder of the assemblage and believed to be intrusive. Coins from the floor make-up were an *as* of Nerva (AD 96–98) [645, ECA], a *denarius* of Trajan (AD 98–117) [675, EDA], and an illegible *denarius* [675 EDA, EDB].

In a secondary phase (Phase R1/2), coarse sand and clay [615, 616, 631, 634] and gritstone rubble [622], up to 0.2m thick, was laid over the mortar surfaces, and covered

the central foundation in Room 1. The floor was levelled off with river gravel [610] below a red clay surface skimmed with mortar [510, 530, 534, 553, 554]. Settling of the sandy fill caused the floor of Room 2 to subside by up to 0.5m, and this was most marked at the north-western corner where the floor sloped steeply away from the walls. The subsided floor was restored (Phase R2/2) with red clay with inclusions of sand and pebbles [54, 796]. At the base of this deposit were spreads of broken tile and amphora sherds [801, 806]. On the surface were thin, irregular, spreads of sandy clay with charcoal [789, 795]. Pottery suggests a Hadrianic or early Antonine date for these secondary floors, which included an *as* of Hadrian (AD 121–122) [628, EBA].

A later floor in Room 2 (Fig. 6.2) is of uncertain date. A surface of orange sand, pebbles and tile fragments [53, 758] was prepared on a bed of gritstone rubble [70, 778] (Phase R2/3). The site of a hearth or brazier at the centre of the room was marked by an oval scorched area, 0.9 x 1.3m, covered with charcoal [756] (Fig. 5.2). The latest surviving floor (R2/4) comprised thin patches of clay [750], mortar [749] and mortar-flecked sand [52, 748], covered by a 0.15m thickness of clean gravel [30, 743]. This gravel surface was truncated by modern activity; the upper part appeared to be reddened by burning. The gravel included a coin of Tetricus I (AD 270–274) (no.30).

The latest surviving Roman phase in Room 1 (Phase R1/3) comprised a number of features cut into the floor (Fig. 5.2). Near the centre of the south wall of Room 1 was a pit *c.* 1.4m square and 0.9m deep [550]. This was filled with sandy loam [589, 588], sandy clay [587, 555] and clay with mortar and plaster fragments [551]. Finds included a copper alloy pin [LAT] and a fragment of a ceramic pseudo-Venus figurine [GEA]. The pit was cut by the robber trench for the south wall [6] and tip lines indicated that it had been filled from the north side while the wall was standing. Immediately to the east was a small pit or post hole [548], 0.4m in diameter and 0.3m deep, flanked by two small post holes [640, 626] which were cut by the south wall robber trench. To the west, a pit *c.* 1.0m in diameter and 0.8m deep [500] was filled with sandy clay, pebbles, mortar and clay fragments [501], and was cut by the south wall robber trench. The fill included two bronze pins [LAL, LAM]. Pottery indicates a later second-century date for these features. Later floor levels within Room 1 were very fragmented. Floors had subsided away from the centre and surfaces survived only as truncated patches at the edges of the room and did not form a coherent sequence.

In Room 3 (Phase R3/1) the level was raised with sand [913] covered by red clay up to 0.3m thick [813]. At the south-eastern corner the clay was cut by a rectangular pit 1.0 x 1.5m and 0.9m deep [868], filled with gritty clay [861, 862]. Immediately north, a 0.3m wide slot [879] extended across the room, dividing off the southern 2.0m (Fig. 5.1). A sequence of layers (Phase R3/2) was slumped into the upper part of the pit: gritstone rubble [846], red clay [847], and sandy clay [841, 869, 872, 784]. These features were covered by a thin layer of red clay [730, 764, 765, 735, 782] above a spread of mortar [731]. The clay was cut by a post hole *c.* 0.2m in diameter and 0.2m deep [732], set close to the east wall [805] and aligned with the north wall of Room 1 [736]. A similar post hole [774] was cut into the clay [782] at the south-eastern corner (Fig. 5.2). Thin patches of sandy clay with mortar fragments [881], sandy loam with tile and mortar fragments [873], charcoal and clay fragments [874], gritstone and clay fragments [845], red clay [830], gritstone rubble [833], sandy clay with charcoal flecks [828] and sand [829] covered a small area at the south end of the room and were truncated by modern activity.

These deposits were covered by dark brown clay with mortar and charcoal flecks [783] which included a hoard of six *denarii* (Hoard 2) deposited after AD 161. The coins were found within a small area, *c.* 0.3m in diameter, on the truncated edge of the layer. There was no evidence of a container and the hoard may be incomplete. The hoard lay above the edge of the earlier slot [879] (Fig. 5.1) and may have been concealed against a contemporary partition, although there was no surviving evidence of this.

Ancillary structures adjoining Structure 1

by A. G. Kinsley (Figs. 6.1 and 7; Plates 2 and 3)

A sequence of structures stood immediately south of the main building. In the earliest phase (Phase S/1) a timber impression [116/133], about 0.1m wide and 0.4m high where it intersected with Section 7 (Fig. 6.1), ran parallel to, and 1.2m south of the south wall of Structure 1. At its east end it was considerably shallower and appeared to terminate just west of a separate rectangular stake hole [135]. Beyond this stood a flight of two uneven stone steps formed of large gritstones in loose sand, abutting the angle of the south and west walls of the main building. It is possible that a third step lay unexcavated in this area. The top step may have been part of a square landing giving access to both ranges, or alternatively, there may have been a further step up, in which case it could have lead only to a doorway in the west wall of Room 2. To the south of the steps [128] lay a low bench [129] 150–300mm high, formed of a deposit of loose gravel retained by a kerb of large gritstone blocks, and originally abutting the west wall of Room 2. The vertical division between [128] and [129], both formed of loose material, suggests that the line of the timber impression [116 /133] was continued further east in some form, separating the two features. [128] and [129] were not excavated, so the footings of the structure were not seen. To the south of [129] lay the remains of a partly-robbed feature [130], possibly a step to a further door into Room 2, but this lay partly beyond the excavated area, and cannot be interpreted with certainty. A shallow hollow [131] running up to this [130], respected the edge of [129] and possibly represented wear caused by traffic in and out of the proposed door. A square depression [123], filled with a loose clayey sand, adjoining [116] on the south side cannot satisfactorily be interpreted. [116/133] clearly defined a narrow passageway leading via the steps into the main building. Only a small part of its base was excavated, so the details of its construction are unknown. It could have been a sill beam, or the base of a plank wall between posts. However it presumably represents a wall line, perhaps with a lean-to roof over a verandah or covered passage. The area excavated to the south of this was limited in extent and interpretations are consequently uncertain, but it may have been unroofed. The function of the bench [129] is uncertain. Immediately south of the junction of the timber slot and the base of the steps a small depression was found to contain a hoard of twenty-five *denarii* (Hoard 1) (Fig. 7.1) ranging in date between AD 145–161. This provides a date at which the buildings of this phase were in use.

In the next phase (Phase S/2) [129] was raised, and the step to the south [130] blocked by the addition of a deposit of red clay forming a larger bench [119] 0.35m high. Red marl [122] was spread over most of the area, covering [133], [135] and [137], and a small pit [120] was dug against the west face of [119] just south of [128]. The west end of the timber wall [116], was still projecting above this higher level and a post hole [124] was dug along its line. The burial of its east end and the digging of the post hole suggests that

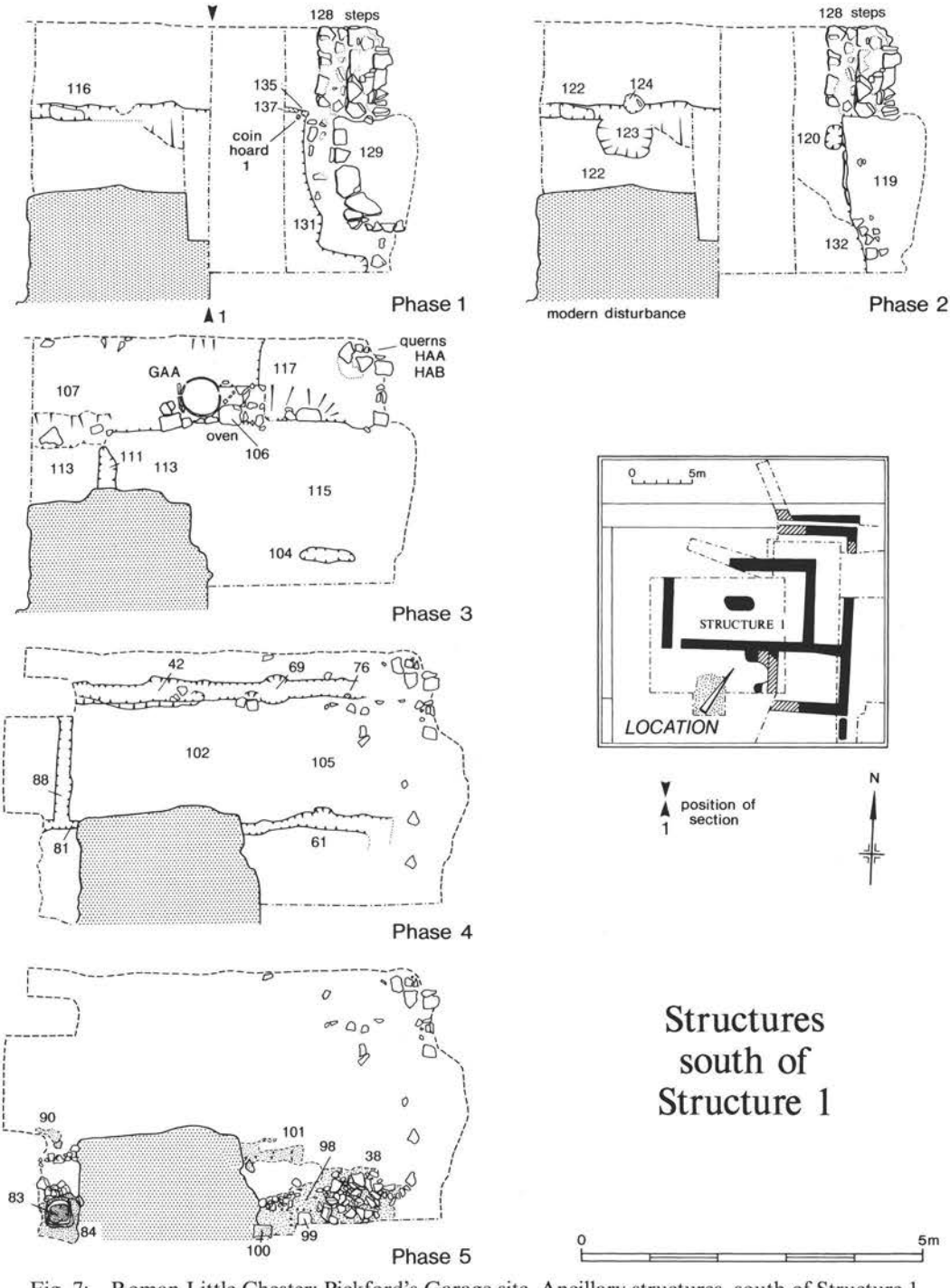

Fig. 7: Roman Little Chester: Pickford's Garage site. Ancillary structures, south of Structure 1, showing location of Section 1. 7.1–7.5 Phases 1–5. Scale 1:100.

the wall was retained in a repaired or modified form, but there is no evidence of modification of the steps [128]. The features of this phase produced mid second century pottery.

By the following phase (Phase S/3) the area south of Structure 1 had been raised to the level of the top step of [128], burying all the earlier features (Fig. 7.3). This resulted from the deposition of a large number of spreads of sand and marl of varying character. These were excavated as a single unit, but as all were very thin, they probably represent a gradual accumulation rather than deliberate dumping of material. It is possible that unrecorded features may have existed within these layers. Following this increase in level, a stone wall or bench [106] later largely robbed, was built with its south face along the line of the timber impression [116]. This may originally have abutted the south wall of Room 1, but after robbing, only that part survived which had slumped into the hollow caused by the settlement of the layers over [116]. Built into [106] was an oven. This was formed by an amphora [108/GAA], laid horizontally with the neck, largely removed, flush with the wall's south face (Plate 2). The amphora was filled with a mixture of marl and sand with much tile and slate, below a carefully-laid layer of broken tile forming a floor within the vessel. It is probable that the top part of this feature had been removed during the levelling of the wall, effectively sectioning the vessel from neck to base. If it had been complete when built into [106], the latter must have been at least 0.3m high. To the east, two quernstones [HAA, HAB] were set in the fill [118] overlying the steps. The upper and lower stones were found apparently in a working position, but were not a matching pair and had differing patterns of wear. Two oval slots [111] and [103] respectively perpendicular and parallel to [106], and of uncertain function, were also dug in this phase. The building of the south face of [106] along the line of the timber wall suggests that the doorway implied by the steps [128] was still in use; [106] could therefore be interpreted as a slightly raised flagged walkway leading to it. Alternatively it could have been another bench, although more substantial than those of the preceeding phases. Pottery indicates a later second century date for these features.

In the next phase (Phase S/4) (Fig. 7.4) a timber structure was built. Substantial sill beams are suggested by the slots [42], [61], [81] and [88]. These were up to about 0.2m wide and 0.1–0.15m deep, with approximately vertical sides (Plate 3). Mortar spreads of the next phase over slots [61] and [81/88], and overhanging edges of [88], suggest that these slots at least were created by the accumulation of deposits against timber sill beams which eventually decayed *in situ*. [42] on the other hand had sloping edges in places, and at least one substantial post cut through the fill of the slot, suggesting that at least part of the original beam had been dug out and replaced with a post. The structure represented by these features was rectilinear, with its east end eroded by modern activity, but measuring 2m across and at least 4.7m long. A further room to the west, largely destroyed by modern features, is suggested by the continuation of [81] west of [88]. No sign of floor levels was found, and a suspended timber floor must be suspected. The proximity of [42] to the south wall of Structure 1 [27] suggests that the timber structure was free-standing, although evidence from the next and final phase suggests that the main building was still standing during the life of the timber structure. Pottery from the deposits accumulated around the structure [102, 171] indicates that it was in use in the early third century.

The final recorded Roman phase (Phase S/5) is represented by the dislocated and very fragmentary remains of a stone structure (Fig. 7.5). Two small areas of mortar floors on

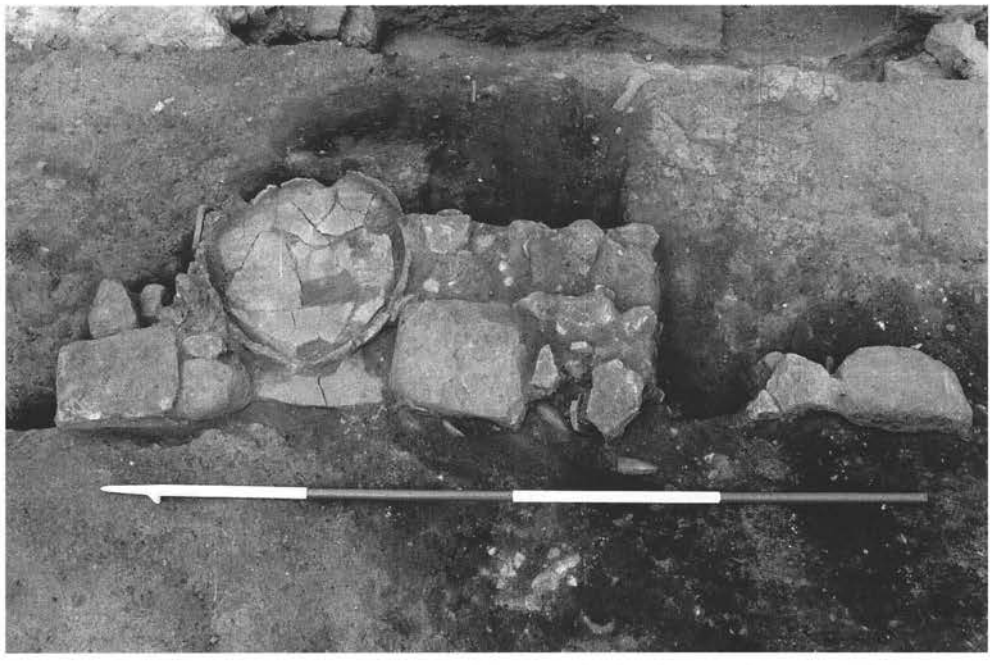

Plate 2: Pickford's Garage. Ancillary area, facing south, showing amphora re-used as an oven (Phase 3).

rubble bases lay on either side of the petrol tank hole at the south end of the site, extending beyond the excavated area. Standing upon this floor were three hypocaust *pilae*. The most westerly [83] was formed of a sandstone slab 0.3m square, bonded to the floor with a layer of *opus signinum* and with more on top, indicating the original presence of a further slab, now missing (Plate 3). The central *pila* was rectangular, standing to three courses, 0.2m high, and at least 0.6 x 0.25m in plan, lying largely beyond the limit of excavation, but visible in the side of the petrol tank hole. A spread of *opus signinum* a further 0.2m to the north may indicate that it extended further in this direction. The most easterly *pila* [99] comprised a fragmented sandstone slab, with spreads of *opus signinum* to east and west, possibly indicating a total width of 0.3–0.4m. Part lay beyond the excavated area. If the spreads of *opus signinum* can be taken to indicate missing parts of *pilae*, then they were all aligned along their northern edges. Although the hypocaust structure barely overlapped the timber structure, two pieces of stratigraphic evidence suggested that the hypocaust was the later of the two. Firstly the rubble base of the westerly floor fragment [84] appeared to stop abruptly on the edge of the timber slot [81], and secondly, two isolated spreads of mortar [101] and [90/91], which appeared to be continuations of the mortar floors [38/98] and [84] respectively, lay over the slots, having collapsed into the fills at the west end of [61] and at the junction of [81] and [88].

This structure must have had stone walls, requiring foundations which would have survived at least as robber trenches. The absence of any trace of these suggests that the main building, Structure 1, was still standing at this time and that its south and west walls were incorporated in the new hypocaust building. Pottery indicates a later third or

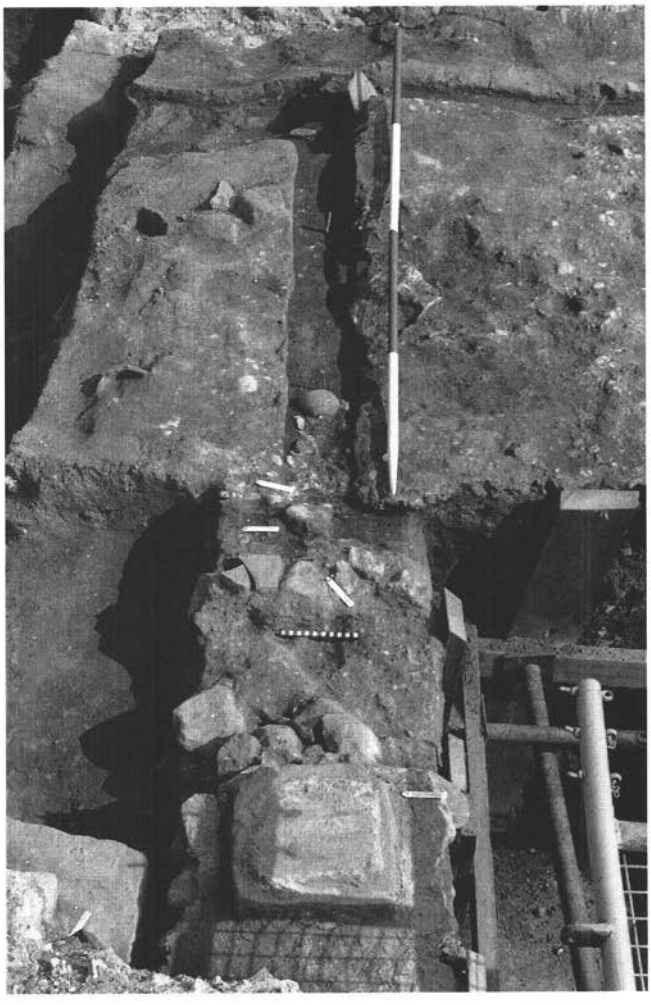

Plate 3: Pickford's Garage. Ancillary area, facing north, showing beam slots (Phase 4) and hypocaust *pila* (Phase 5).

fourth century date for the construction of this building, which is the latest Roman structure recorded on the site.

Deposits underlying the defences (Phases 35/1 and 35/2) (Figs. 8 and 10; Plate 4)

Phase 35/1: Metalling

A layer of metalling [1113, 1362, 25/6] was laid south and east of Structure 1. It was sealed by the rampart of the Period 2 defences, and the east side was truncated by the the stone defences of Period 3. This corresponded with metalling found to the west in Area 33. In Area 25 the metalling was made up of several layers of small pebbles with larger rubble at the base [25/6], to a thickness of 0.3–0.5m (Fig. 8). The eastern edge was truncated by the ditch of the Phase 2 defences [25/8]. The surface was mostly below the level excavated in Area 35, but a thickness of 0.1m was exposed in the base of the Manor Farm cellar (Plate 4).

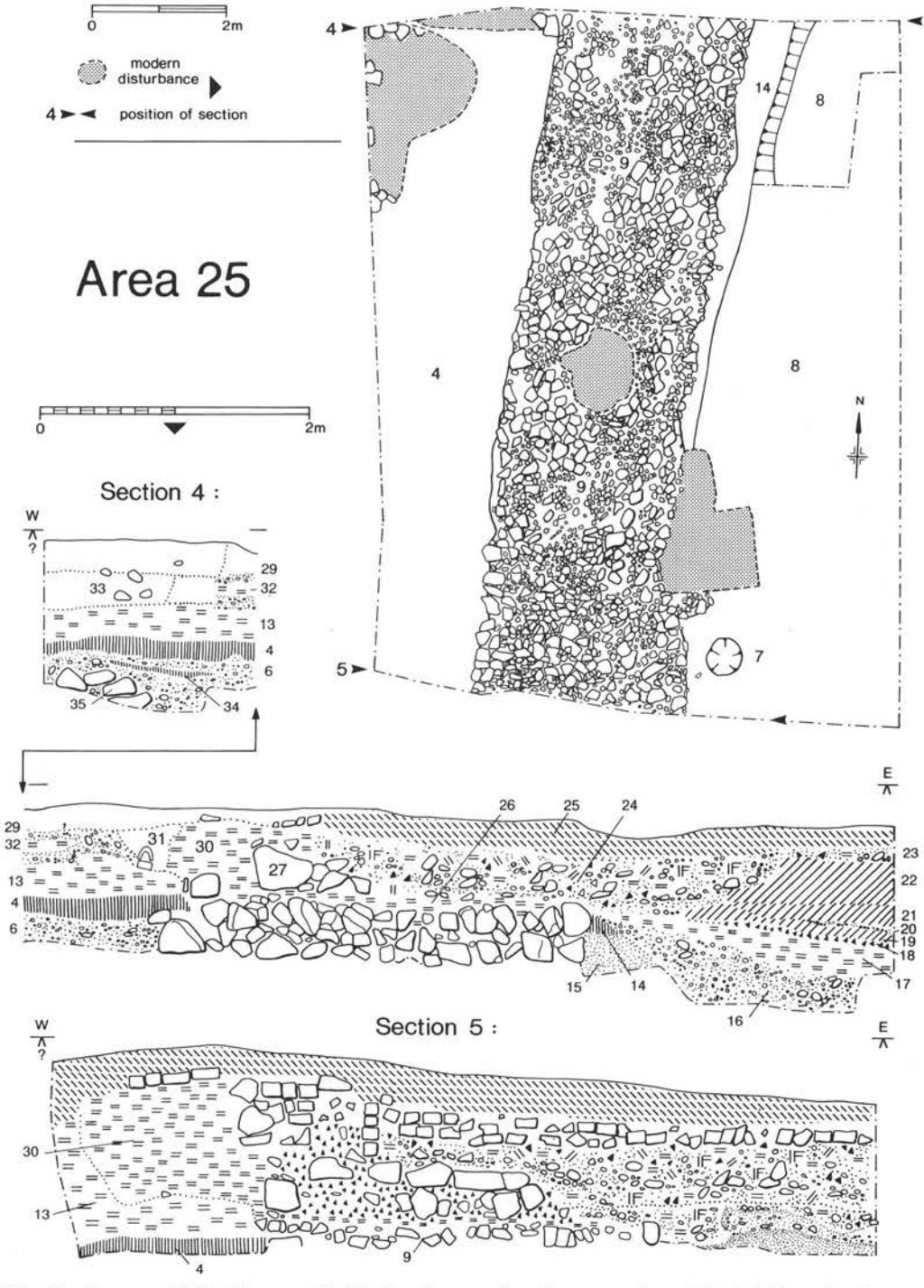

Fig. 8: Roman Little Chester: Pickford's Garage site. Rampart Area 25. 8.1 Plan showing location of Sections 4 and 5. Scale 1:100. 8.2 Section 4. Scale 1:50. 8.3 Section 5 (reversed). Scale 1:50.

Plate 4: Pickford's Garage. Section through rampart, facing north. South-east corner of Structure 1 is exposed on the left, the defensive wall on the right, and the floor of the Manor Farm cellar in the foreground.

In Sparey-Green's excavation an equivalent metalled surface was associated with timber slot structures interpreted as barrack blocks (Wilson 1973, 285; Sparey-Green *pers. comm.*). An insufficent area was exposed to determine the presence or extent of these structures in Area 35.

No pottery was recovered except a South Gaulish samian sherd of Flavian-Trajanic date [25/6]. The lack of residual early material from the site suggests that this surface was laid in the Hadrianic period and effectively sealed any earlier deposits. In Area 25, the metalling produced a *denarius* of Hadrian (AD 119–122) [25/6, DAB] (no.11).

Phase 35/2: Burnt occupation deposit

A mixed layer of brown sandy clay and gritty sand with charcoal flecks and red scorched clay, 0.01–0.12m thick, covered the metalled surface [1112, 1354, 1356, 1357, 1358, 25/4]. There was no scorching of the metalled surface or other evidence of burning *in situ*. At the north end, in Areas 25 and 28, the dumping of occupation debris was suggested by the frequent inclusions of potsherds, iron, and burnt bone fragments but in Area 35 the deposit produced comparatively few artefacts.

The pottery recovered included sherds of Derbyshire ware and mid-late Antonine samian suggesting a date after *c.* AD 150. Burnt deposits, found by Sparey-Green, lying over the metalling were dated after AD 138 by a coin of Faustina I (AD 138–141). Sparey-Green suggests that the burning represented the *in situ* destruction of the earlier timber buildings (Wilson 1973, 273; Sparey-Green *pers. comm.*), and clearance of the site prior to construction of the defences.

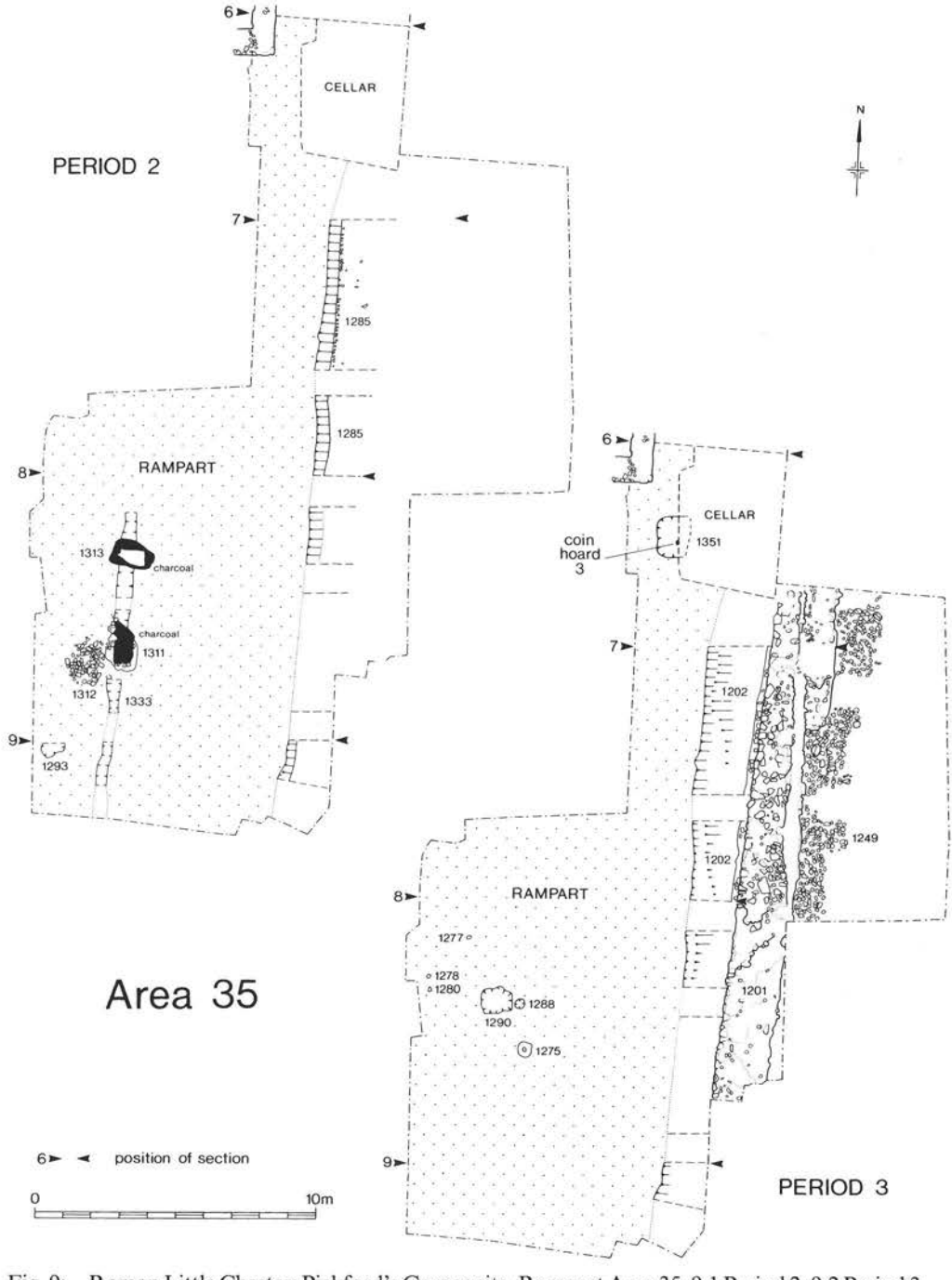

Fig. 9: Roman Little Chester: Pickford's Garage site. Rampart Area 35. 9.1 Period 2; 9.2 Period 3. Plan showing location of Sections 6, 7, 8 & 9. Scale 1:250.

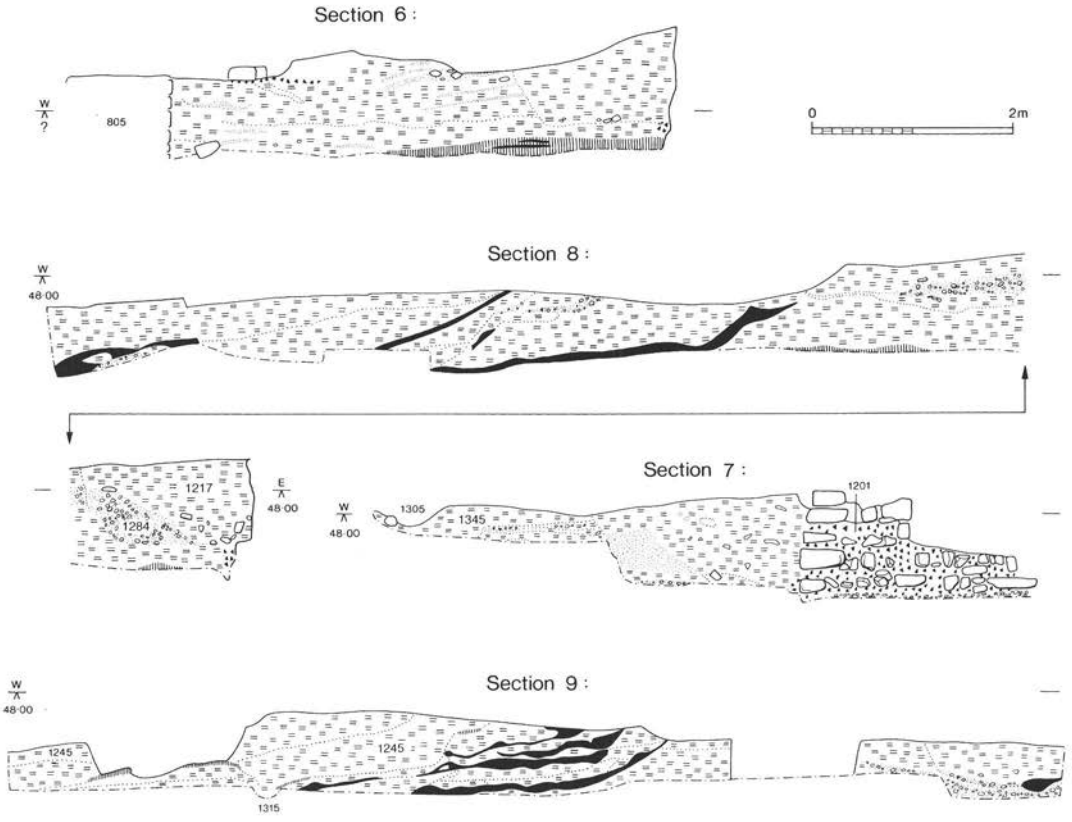

Fig. 10: Roman Little Chester: Pickford's Garage site. Rampart Area 35. 10.1 Section 6; 10.2 Section 8 (reversed); 10.3 Section 7; 10.4 Section 9 (located on Fig. 9).

PERIOD 2

The Defences (Figs. 8, 9.1 and 10; Plates 4 and 5)

The defences constructed in this period (Phase 35/3) comprise a clay rampart fronted by a ditch. The inner lip of the ditch was found in Area 25 [25/8], where it cut away the eastern edge of the Period 1 metalling surface (Fig. 8). The ditch was not further excavated. The rampart was between 5m and 11m wide, survived to a maximum height of 1.0m, with an original height of perhaps 2.5m, and was constructed with clay imported to the site, not upcast from the ditch. It was of simple dump construction and there was no evidence of any internal timber structure. The form of any revetment at the front of the rampart is unknown. The front had been cut away by a secondary construction trench [1285], but must have lain within 3m of the edge of the ditch [25/8]. The rear of the rampart is marked by the east wall of Structure 1 [805] (Plate 4), and further south by a cobble road or hard standing in Area 33 (Fig. 11).

In Area 25 the rampart survived to a height of 0.90m [25/13] (Fig. 8). The lower levels consisted of mottled grey clay [25/36], with some patches of darker clay and patches of sand. Yellow brown sandy clay [25/37] with bands of grey clay and lenses of sand and gravel formed the upper part. The rear of the rampart lay beyond the excavated area.

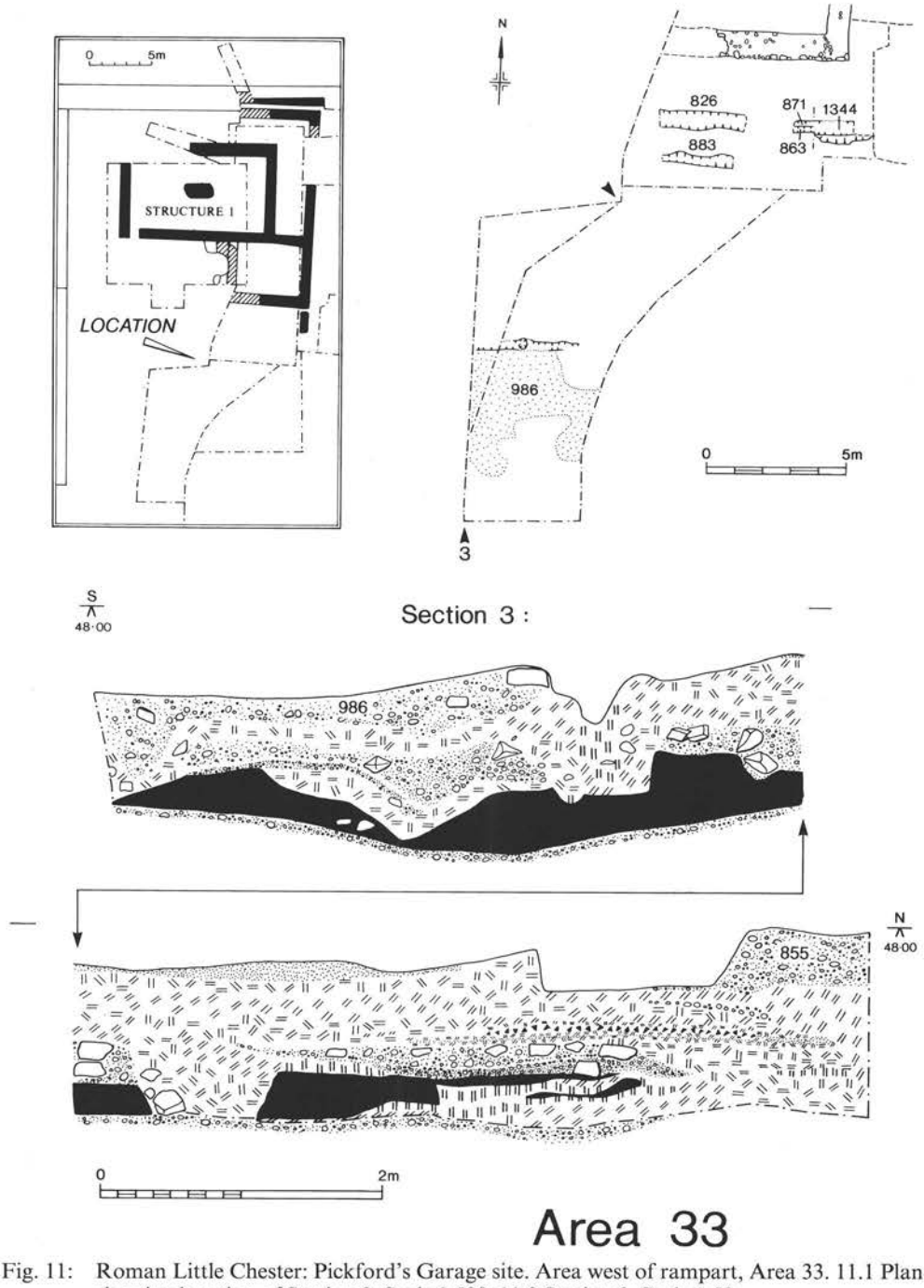

Fig. 11: Roman Little Chester: Pickford's Garage site. Area west of rampart, Area 33. 11.1 Plan showing location of Section 3. Scale 1:500. 11.2 Section 3. Scale 1:50.

In Area 28 the grey clay of the rampart [1108, 1114, 1115] survived to a height of 0.30m. Here the rampart was 5.6m wide; to the rear it was cut by the robber trench [1104] for the east wall of Structure 1 [805]. The rampart had been banked against the existing wall of the building and the component tip lines sloped eastward away from the wall.

The rampart survived up to 1.0m high in Area 35 (Fig. 10). The lower part was of clean mottled grey-brown sandy clay with horizontal bands of iron pan, and bands and compact lenticular patches of darker clay, interspersed with lenses of coarse yellow-orange sand [1263, 1268, 1304, 1306, 1308, 1339, 1351, 1352, 1353, 1355].

Soil samples were taken from two sections in Areas 25 and 35. Analysis discounted the initial interpretation of the lenticular structures as stacked turves, and suggests that these deposits were formed by randomly tipped lumps of clay. The clay is not from the immediate area but was dug from a quarry pit a short distance from the site. Above and predominating to the rear, homogeneous layers of clean grey-brown clay were interspersed with patchy but compacted layers of river gravel, sand and thin layers of clay stained black with fine charcoal fragments [1270, 1287, 1301, 1340, 1342, 1345, 1350]. The layers of gravel, which predominated at the northern end of the site, were clean and may be inclusions from the base of the source clay pit; they did not form continuous or consolidated surfaces. Sand and gravel may have been scattered over the sticky surface of the dumped clay to create pathways to improve access for the dumping of successive loads. Sand became mixed with fragmented clay rubble to form the lighter sandy clay deposits. This analysis of the structure of the rampart is described fully in Matthew Canti's report below.

The charcoal-rich layers included large quantities of pottery and animal bone, suggesting dumping of domestic rubbish. The large number of vessels represented by single sherds indicates that the rubbish had been redeposited from primary dumps elsewhere, although the sherds were not weathered and had clean fresh breaks indicating recent disposal. Glass fragments comprised bottles and cups typical of the dominant types in the site assemblage, suggesting that the midden material was derived from the immediate locality. These layers of refuse did not form a continuous horizon but were interleaved with the clay body of the rampart during its construction; they do not represent a period of dumping over the completed earthwork. The skeleton of a newborn infant was found in this part of the rampart [1301].

A date after *c.* AD 180 is suggested for the rampart's construction. Pottery from the midden deposits and the clay body of the rampart, which was not entirely sterile, was of late Antonine date with few diagnostically third century vessels represented. East Gaulish samian dated to the late second or early third century. The rampart produced a single *sestertius* of Antoninus Pius (AD 138–161) [1350, JUA].

A succession of features (Phase 35/4) cut into the rear of the rampart marks the extent of the primary earthwork (Fig. 9.1). The earliest of these was a shallow drainage gully [1314, 1333] up to 0.55m wide and 0.20m deep with a rounded base, extending north-south some 6.0m behind the front of the rampart. It was filled with clean clay [1315, 1326] above clay with charcoal flecks [1348]. Two pits lay to the west. [1293] was shallow with straight sides and a flat base, filled with charcoal flecked sandy clay [1312], immediately to the west of the gully, [1312] was not excavated, but the upper part was filled with rubble.

Two hearths cut the gully [1311 and 1313]. [1313] was aligned east-west, and comprised a convex rectangular slab of scorched red clay [1334], 1.0m x 0.60m, surrounded by a spread of charcoal [1332]. [1311] was aligned north-south. A shallow pit lined with red clay [1331] formed a sub-rectangular trough, 1.6 x 1.2m, with a raised lip open on the north side. Charcoal in the base [1324] was covered by clean red clay [1323] and burnt red clay [1322] with charcoal [1317] filling the top of the hollow. There was no evidence of a collapsed structure in the burnt clay fill.

The small amount of pottery associated with these features may all have been derived from the body of the rampart.

Clean sandy clay dumped over the rear of the rampart (Phase 35/5) sealed these features. The clay was similar to the body of the primary rampart, and may have originated as spoil from cutting back the front of the rampart (Phase 35/8). The associated pottery was of an Antonine character and may all have been redeposited from the body of the rampart. The clay included occasional patches of charcoal, burnt clay nodules and gritstone rubble [1245, 1251, 1254, 1258, 1259, 1260, 1261, 1271, 1272, 1273, 1276, 1277, 1282, 1283, 1286, 1292, 1296, 1297, 1310, 1346]. [1258] produced a fragment of an adult human femur. An infant skeleton was also recovered at the southern edge of the site [1245].

Phase 35/8: Construction trench (Figs. 9.1 and 10: sections 4, 5 and 6)

The front of the rampart was cut away to a steep face by a trench with a flat bottom [1285]. This trench was at least 1.0m wide, but its east side had been cut away by the Period 3 stone defences. It was backfilled with clean sand and gravel [1257, 1284, 1295, 1300, 1302, 1303, 1309] which was not derived from the rampart. This may have been a construction trench for the insertion of a timber palisade or revetment, but the possiblity of a narrow stone wall cannot be discounted. A line of small depressions or stake holes in the base of the trench [1285] (Plate 5) were not traced in the fill above, despite careful examination. These may be traces of an earlier phase of timberwork removed at this time, or could be impressions made by the ends of new timbers as they were lowered down the side of the trench. The lack of evidence for timbers running through the fill suggests that the palisade or wall was erected on the outer edge of the cut and the trench then backfilled behind it.

This feature did not occur in Sparey-Green's or Brassington's sections and its survival in the present sections is due to a difference in alignment, possibly localised, between the two periods of defences. The trench was clearly defined through most of Area 35, but was not found at the north end in Section 6 (Fig. 10), nor in Area 25 (Fig. 8). The edge of the trench appears to have turned north-east to leave a wider margin around the east side of Structure 1, where it was cut away entirely by construction of the stone defences in Period 3. This difference in alignment was seen in Area 25, where the inner edge of the Period 2 ditch [25/8] converged with the outer face of the Period 3 wall and was cut away by the wall at the south end (Fig. 8).

The trench fill produced a small amount of pottery which may all be residual from the rampart. The cutting of this trench and dumping of spoil at the rear of the rampart (Phase 35/5) was possibly associated with the secondary ditch found by Sparey-Green and dated to the early 3rd century (Wilson 1973, 285).

Plate 5: Pickford's Garage. Defensive wall and constructional trench, facing south.

The area west of the rampart (Fig. 5.2 and 11)

The sewer trench section in Area 33 (Fig. 11: section 3) lay beyond the western extent of the rampart. The edge of the rampart was found to the north where grey clay [894], abutting the south wall of Structure 1 [740], dipped sharply to the west from the eastern limit of excavation. Subsequent deposits represent the raising of levels behind the rampart and a fragmentary sequence of structures and metalled surfaces, including a possible intramural road.

A trench-built wall [1335] was cut into the edge of the rampart and abutted the south-eastern corner of Structure 1 (Phase 35/6) (Fig. 5.2). The 0.6m wide foundation was excavated in plan for a length of 2.0m, but was recorded in section for a length of 4.5m to the southern limit of excavation. The wall was constructed of coursed mortared blocks, including at least one large through-stone, set in a trench filled with mixed dirty clay and mortar [1336]. This wall may be part of an extension of Structure 1, or was built

as a revetment of the rear of the rampart. A wall foundation of uncertain alignment, recorded in section at the south-west corner of the area, may have been associated. The area west of the wall [1335] was levelled with clay [911, 901] dumped over the back of the rampart, and a gravel surface [900], 0.15m thick, was laid over this. A 0.3m wide slot [903] extended 0.25m outside and parallel to the south wall of Structure 1 [740] (Fig. 5.2).

The gravel surface [900] was covered by charcoal flecked clay and above this was a layer of smashed Charnwood slates [893]. The slate may be a collapsed roof structure associated with the wall [1335], or alternatively building material reused as ground make-up. It did not occur within 2.5m of Structure 1, and is unlikely to have fallen from the roof of the main building. Colour-coat beakers and East Gaulish samian from the construction trench of the wall [1336] indicate a third century date for these developments.

A gravel surface, 0.2m thick, was found at the south end of Area 33. This was bounded by a timber slot, and the area to the north was raised with a succession of rubble, gravel and clay deposits to a thickness of 0.7m, which appear to represent at least two phases of a structure.

The latest phase (Phase 33/2) may be associated with a gravel surface [855], up to 0.25m thick, extending over the deposit of broken slates [893] at the north end of the area. It was bounded on the north side by a slot lying 2.0m beyond the south wall of Room 2 (Fig. 11.1). The slot comprised a 0.15–0.2m deep trench, up to 0.6m wide, filled with red clay [826, 863, 871, 1344]. In the surface of the clay was a beam impression 0.05–0.1m deep and up to 0.4m wide. The slot extended east, cutting the wall [1335], but the eastern extent of the gravel surface is uncertain. A parallel slot [883] was cut into the gravel surface 1.0m to the south.

Possibly contemporary was a cobbled surface of pebbles and gritstone blocks [986] set in clay, at the south end of Area 33. The succession of surfaces in this area may represent a general hard standing within the defended area, or an intramural road of uncertain alignment.

PERIOD 3

The stone defences (Figs. 9.2 and 10; Plates 6 and 7)

The front of the rampart was cut away by a construction trench [1202] for a stone wall [1201] (Phase 35/9). In Area 35 the contruction trench was 1.5–2.2m wide behind the wall and 1.0m deep. Its edge sloped down to the top of a pitched rubble foundation [1249] set in a trench 3.0–3.6m wide. This foundation trench was not excavated, but at Brassington's Site A it was found to be vertical-sided and at least 2.0m deep (Brassington 1996, 81–82, fig. 2). The construction trench was markedly less wide in Area 25 and at Brassington's Site A, and the generous width found in Area 35 occurred because this trench followed the sand and gravel filling of the earlier trench [1284], on a slightly different alignment to the wall.

In Area 25 the wall alignment was slightly different from that of the Period 1 ditch, and in the south section (Fig. 8: Section 5) the foundation cut the fill of the ditch.

The construction trench does not appear to have lain open for any length of time. Silting was localised and comprised no more than 0.03m of yellow brown sand [1256]

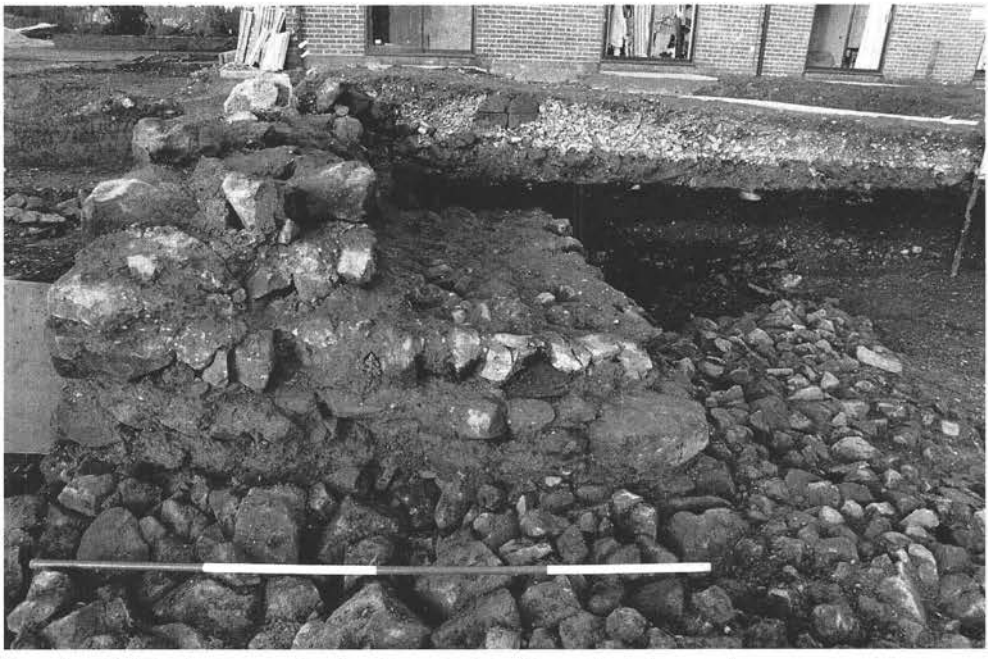

Plate 6: Pickford's Garage. Section through defensive wall, facing north.

Plate 7: Pickford's Garage. Inner face of defensive wall, facing north-east.

derived from the unstable sandy fill of the earlier trench [1285]. The construction trench was backfilled with homogeneous clean brown clay, probably in a single operation as tip lines and silting horizons did not occur [1203, 1213, 1217, 1242, 1255, 1265, 1267, 1274, 1298, 1299, 25/30]. The homogeneity of the fill and the relative absence of charcoal, pottery, animal bone or any other debris is notable. Most probably the clean clay was brought from a quarry pit and was not spoil from the digging of the trench. In Sparey-Green's excavations it was suggested that spoil from the foundation trench was used to backfill the ditch to the east (Wilson 1973, 285).

The wall [1201] survived to a width of 2m. The external facing stones had been robbed from the core, but the lack of adhering mortar indicates that the pitched-stone foundation [1249] had projected as an offset on the outer face. A bed of mortar [1298, 1299, 1262] was laid over the pitched rubble foundation, and upon this the wall [1201] was constructed of gritstone rubble laid dry between alternate layers of hard yellow-white mortar (Plates 6 and 7). In places the mortar had not settled to fill the voids around the stones. There was no spillage of mortar or stone fragments in the base of the construction trench, indicating that either the roughly coursed inner face of the wall had been laid with great care, or some temporary revetment had been used as a shutter. Spillage of mortar on the outer face of the wall was found only in Area 25 where yellow-white mortar, 0.02–0.03m thick [25/18] lay over the former ditch. A corresponding mortar spread occurred in Sparey-Green's excavation (Wilson 1973, 285).

In Area 35 the offset wall foundation [1249] and the area east of the wall were covered by clean, yellow-brown sandy clay [1247, 1250]. Above this lay a pebble spread [1246] truncated by modern disturbances. These deposits (Phase 35/12) are undated.

The small amount of pottery recovered from the construction trench fill was mostly residual. However, [1217] may be dated to the mid third century on the basis of a BB1 jar and Nene Valley colour-coat beakers. The coin evidence from Sparey-Green's excavations indicates that the wall was constructed no earlier than the reign of Carausius (AD 286–296) (Wilson 1973, 285).

The latest features (Phase 35/11), cut into the rear of the rampart, form no coherent plan (Fig. 9.2). A small depression [1288] was filled with charcoal and burnt clay [1289] and there were traces of scorching in the base. Immediately west, a rectangular pit [1290] was filled with charcoal flecked clay. These features may be remnants of a hearth and were adjacent to the earlier hearth [1313]. To the south lay [1275], a roughly cut circular gritstone block 0.56m in diameter, 0.16m thick with a central socket 0.10m square and 0.09m deep. On the west side of the site two stake holes [1278, 1280] were filled with red clay [1279, 1281] and a third [1277] was a void. These features are undated.

The latest closely dated feature (Phase 35/10) in the area was a pit [1351] lying 1.0m beyond the south-eastern corner of Structure 1 (Fig. 9.2). The pit was 1.2m square and 0.2m deep with vertical sides. It was filled with brown clay [1341] below sandy clay and pebbles [1329]. The west side was cut away by the wall of the Manor Farm cellar [1320]. The fill included a hoard of 214 *antoniniani* deposited *c.* 280–284 (Hoard 3). Seventy-seven coins occurred as an agglomerated mass in the fill of the pit [1341], but smaller agglomerations of forty, twenty-five and three coins were lodged in the stonework of the cellar wall [1321, 1330, 1320]. This suggests that the coins had been deposited in a container which was disturbed by construction of the cellar. The extent to which the deposit had been truncated cannot be determined. In addition to the agglomerated

masses, many individual coins were scattered through the fill of the pit. This suggests that the coins were unevenly distributed in a loose bag or bundle. The cannon bones, toe bones, skull and mandibles of a horned lamb associated with the deposit probably represent a hide, or the processing of a hide, and it seems likely that this was used to contain the hoard. Associated pottery was late third or early fourth century in date. The hoard cannot be related stratigraphically to construction of the defences.

THE NURSERY GARDEN SITE (Figs. 2 and 3)

The Nursery Garden site comprised an area of 6000 square metres to the north of Old Chester Road and included the north-eastern quarter of the defended area (Fig. 2). The assumed line of the defences coincides with a pronounced change in levels, the ground surface sloping down to the north and east. Excavations in this area had located traces of intramural roads (Brassington 1982a, 77) and substantial structures underlying the eastern defences (Brassington 1996, 92). Before 1988 the site was under cultivation as a nursery for trees and shrubs. A flood defence wall was constructed across the area in 1968 and a 19th century house stood to the north of this until 1976.

Three trenches (Areas 29, 30 and 31) were excavated in December 1987 to assess the impact of a proposed access road through the site. The road was designed to be constructed above the existing ground level for most of its course but the ramped approach to Old Chester Road would disturb archaeological deposits at the south end. At the north end topsoil and modern fill had accumulated over the predicted area of the defensive ditches.

In December 1988 an area 11.0 x 13.5m was stripped of topsoil to a depth of 0.70m (Area 36). No further excavation was required over most of this area, but archaeological deposits were excavated to depths up to 0.40m in the southern 3m.

50m to the north, the road breached the existing flood defences and a trench 1.30m wide, 0.80m deep and over 16m long (Area 37) was excavated for the construction of a new flood bank.

Area 36 (Figs. 3 and 12)

A modern boundary wall truncated the deposits at the south end of the area and a parallel line of fence posts crossed the site 2m to the north. Below topsoil [1500], soil and rubble [1504] covered much of the area and filled a central depression [1509]. At the west end was sandy soil [1522, 1527].

In the first phase (Phase 36/1), a deposit of red clay at the south-eastern corner of the site [1563] was cut by a shallow gully extending east-west [1564]. To the west the lowest deposit recorded was sand [1570]. This had slumped over presumed earlier features in the west and central parts of the area. Most subsequent layers on the south side of the site were preserved within this subsidence but truncated to the south and east. Above the sand was a thin layer of red clay with its surface entirely covered by sherds of single-handled, ring-necked flagons [1557, 1575]. The large number of sherds and the consistency of type suggest discarded shop stock, as the sherds did not appear to include kiln wasters. Above them was a layer of painted wall plaster [1566] which had fallen face down, presumably from an earlier wall at a lower, unexcavated, level.

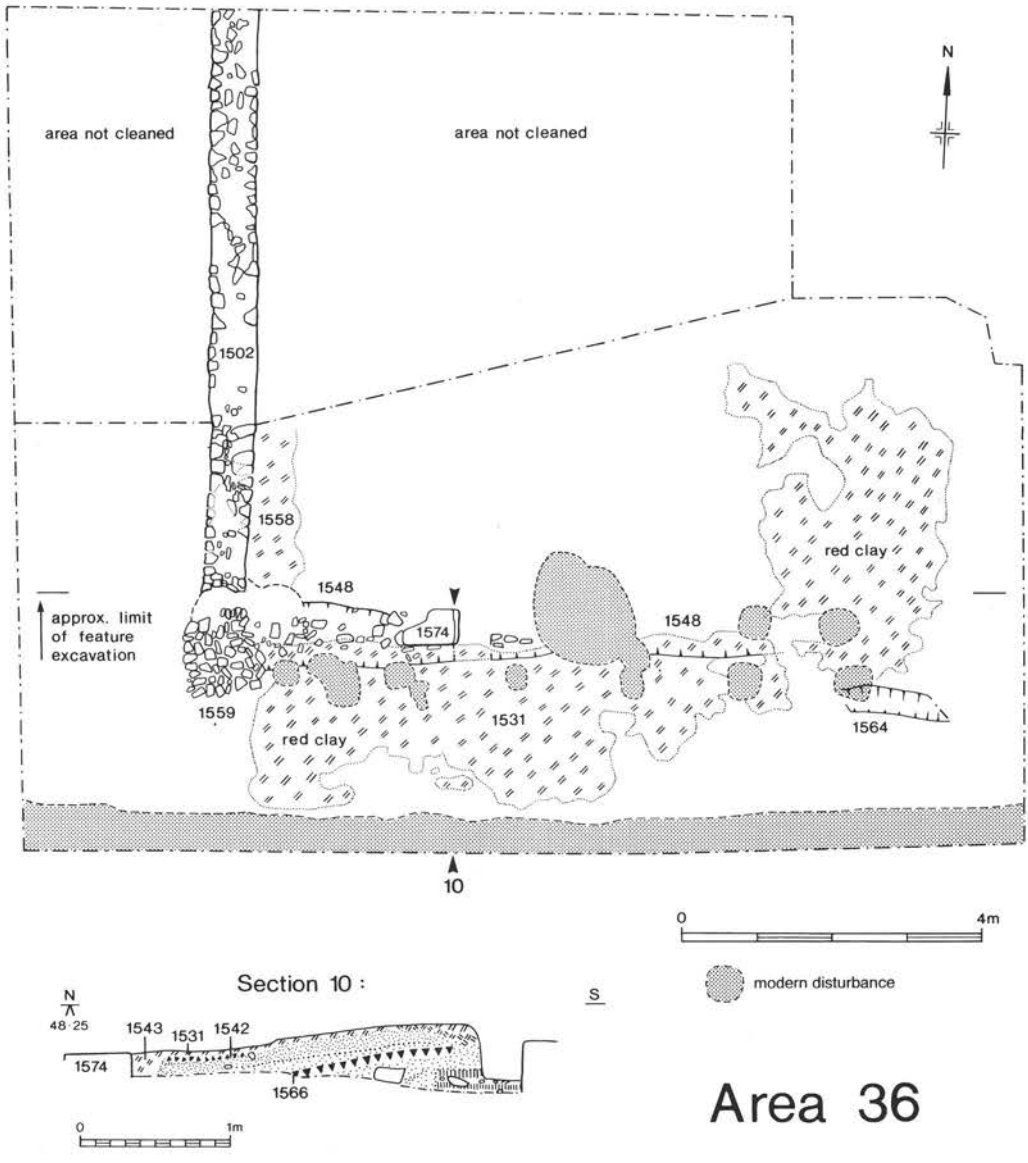

Fig. 12: Roman Little Chester: Nursery Garden site, Area 36. 12.1 plan of area, showing location of Section 10. Scale 1:100. 12.2 Section 10. Scale 1:50.

Subsequently (Phase 36/2) the south end of the area was covered by up to 0.3m of sand [1569 1553 1556 1568]. At the east end this filled the gully [1564]. The sand appeared to extend under the unexcavated layers in the northern part of the area and to have been deposited to level the site prior to construction. At the west end [1556] spreads of rubble and a small group of tiles covered a patch of scorched sand.

The sand was cut by a buttress defining the south west corner of a building. The foundation was a pit [1565], filled by pitched rubble footings 1m square [1559] levelled

off with red clay [1555], below a layer of decayed sandstone rubble [1554 1551]. The buttress aligned with a north-south wall [1502] but the junction between the wall, the buttress and an east-west wall [1574], had been destroyed by robbing [1521]. However, construction of the buttress preceded construction of the east-west wall [1574]. A spread of mixed sands and mortar [1542] extended across the area south of the east-west wall [1574] and was cut by the wall. At the west end this partly covered the buttress foundation [1554]. A spread of clay and charcoal [1562] lay over this in the angle between the two walls. Mixed clay [1561] extended east over [1562] and beneath the unexcavated floors in the centre of the building.

The north-south wall [1502] was 0.6m wide and extended 7.5m from the buttress to the north limit of excavation. The construction trench [1573] was filled by a course of pitched rubble [1578] levelled with clay [1580, 1579]. Three courses of rough-hewn gritstone blocks, bonded with clay, survived above this. Mortar was laid over the uppermost course and the higher courses, presumably, had been bonded with mortar. Mortar [1560] lying against the base of the east face of the wall may have been spilled during construction. Remains of the east-west wall [1574] were more fragmentary. It was defined by a construction trench some 0.6m wide [1548], filled with clay [1577, 1576, 1543] packed around a core of random rubble [1574]. Mortar and small stone fragments [1567] lay in the base of the construction trench on the south side. One large stone with tooled faces may have been a facing stone or through stone *in situ*, but a chamfered rebate on the underside indicated that the block was either displaced or reused masonry. The construction trench extended for some 9m east of the buttress, beyond which there was no further evidence for its continuation.

A surface of red clay [1531, 1572] was laid over the area to the south of the building. This layer covered the south edge of the construction trench [1548] and in places was indistinguishable from its fill [1543]. At the west end it terminated on the line of the buttress [1559]. Here a secondary patch of clay [1532] was distinguished by an intervening darker lense, probably the trampled surface of [1531]. Similar dark lenses were noted elsewhere during the removal of [1531] and indicate the tipping of successive loads of clay when the surface was laid. In two places there were dark scorched patches.

North of the wall [1574], spreads of red clay and clay on a bedding of small stones were associated with the building. A layer of red clay [1558] sloped away from the east face of the north-south wall [1502], covering the spread of mortar [1560].

A number of features cut the clay floor [1531] (Phase 36/3). A shallow hole [1535] was filled with ash and charcoal [1530]. Soil and rubble [1524] filled a small pocket in the surface to the west and a small hole to the east [1541], filled with stony soil [1540], may have been contemporary. Within the area of subsidence, the clay surface was covered by thin spreads of decayed stone, charcoal and clay [1525] to the west and charcoal flecked soil [1523] to the east.

Two layers of charcoal rich soil [1526, 1549] abutted the west face of the north-south wall [1502] (Phase 36/4) and did not extend south beyond the corner of the building. The lower layer [1549] included large stones, which were inclined down to the west, and the two layers sloped west below the limit of excavation. The stones included two querns [HKA, HKB]. The site produced five other quern fragments [HJA, HJB, HJC, HJD] from a modern layer [1504] overlying the east-west wall [1574].

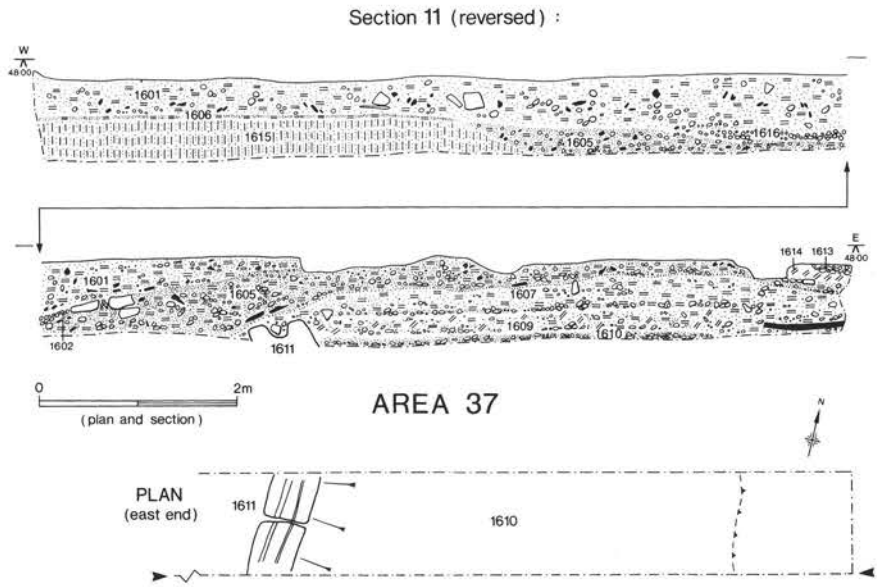

Fig. 13: Roman Little Chester: Nursery Garden site, Area 37. 13.1 Section 11 (reversed); 13.2 plan showing location of Section 11. Scale 1:80.

Area 37 (Figs. 2 and 13)

The earliest excavated feature was a road [1608] over 4.4m wide; the western side lay outside the excavated area. In its earliest phase the road [1608] consisted of a mixed foundation layer [1610] of river gravel and larger pebbles in a matrix of either fine orange sand or sandy red clay overlain by a 0.2m thick layer [1609] of river gravel in red brown clay, cut away on the east side. The road make-up was revetted on the west side by a kerb of rectangular blocks of gritstone (0.46m wide, over 0.4m long and 0.4m thick) with a cut out U-shaped drainage channel 0.2m wide and deep [1611]. To the west lay an undated and stratigraphically unrelated layer [1615] of red-brown sandy silt up to 0.4m thick, which appeared to have been dumped.

The road continued in use for some period of time; on the east side the road surface appeared to have sustained damage or had been cut away. On the west side the drainage channel had been filled with eroding road metalling [1612]. The kerb stones had subsided to the west indicating that either a secondary road side ditch had replaced the stone drain or that an earlier feature was giving rise to localised slumping.

The road was resurfaced with a 0.35m thick layer [1607] of river pebbles in a red-brown sandy clay with occasional flecks of red clay and charcoal. The layer covered the earlier stone kerb and drainage channel and also sloped down to the west.

A 0.35m thick layer [1605] of yellow-brown sandy clay, charcoal, frequent pebbles and white decayed stone was deposited covering the road and the postulated ditches or subsidence area. Immediately above, on the east side, a patch of red clay [1614] and a compact layer [1613] of river pebbles 0.1m thick were deposited. This layer, immediately below modern topsoil and cut through by recent features, formed a compact metalled surface which extended 2.3m west and south outside the excavated area. To the west an

isolated layer of river pebbles [1616] and large gritstone slabs [1602], 2.4m wide and 0.1m thick, overlay layer [1605]. This may be a continuation of the metalled surface [1613] which has subsided. It is uncertain whether the levelling layer [1605] and surface [1602, 1607] represent a resurfacing of the road or a more localised levelling of the area for a yard or floor of a structure. Two barbarous radiates [JQA, JQB] were recovered from [1602].

Above was a layer [1601] of red-brown sandy silt up to 0.4m thick, overlain by modern topsoil [1600] up to 0.5m thick.

Discussion

The trial cuttings (Areas 29, 30, 31), the flood barrier foundation trench (Area 37) and the area excavation (Area 36) have provided an important opportunity to assess the quality and survival of archaeological evidence in the north-east sector of the enclosure, where previous archaeological work has been small-scale (Brassington 1982a, 74–83; Brassington 1996, 77–92). The evidence provides a sample of the nature and periods of occupation in this area.

Samian and Derbyshire Ware establish the earliest levels excavated in Area 36 as of Antonine date. The range of vessel forms present suggests intensive activity in the 2nd century, but occupation debris did not accumulate after the Antonine period. Whilst it is probable that cultivation could have destroyed all traces of later structures, this does not account for the comparative rarity of later pottery forms in residual contexts. The sequence is similar to that found in the North-West Sector excavations, where the Antonine industrial phase was succeeded by a cultivation horizon early in the 3rd century (Wheeler 1985a, 63; Birss 1985, 115.). Whereas occupation resumed in the north-west sector in the fourth century, the north-east sector appears to have remained an open space to the end of the Roman period.

The area produced two coins, both of which were residual losses. An *as* of Domitian (AD 74–79) [JPA] was sealed by the clay surface [1531] (Phase 36/2). [1527] (Phase 36/6) included a *denarius* of Hadrian (AD 117–138) [JNA] in a Post-Medieval context.

The sequence in Area 36 must be considered in relation to Brassington's Site A, a section of the defences excavated 15m to the north-west in 1967 (Fig. 2: 1967) (Brassington 1996, 77–92). Here, a rubble platform including Trajanic pottery was constructed over Flavian occupation layers. The later of two pebble floors laid on this platform included a partition slot which was backfilled after AD 125. The floor continued in use until it was covered by a layer of ash, and the rampart was constructed directly upon this. Much Trajanic and Hadrianic samian, two thirds of the total sherd count, was deposited over the tail of the rampart amongst debris thought to be redeposited from the underlying occupation. Area 36 lay beyond the western limit of the rampart.

The extent of Brassington's platform building is uncertain, but its massive and careful construction suggest a large structure of high quality. It did not occur in Brassington's Site B, 30m to the north (Fig. 2: 1968 (west)) (Brassington 1982a, 74–75). The east side of the platform was truncated by the wall of the late defences, but did not extend east of the wall. A large building might have encompassed the 25m between the east side of the platform and the west wall of the structure in Area 36 [1502]. However no directly comparable sequences were recorded in the two areas and this correlation is uncertain. Whereas the platform may have been constructed in the early Hadrianic period, the Area

36 structure dates from the Antonine. Successive alterations to the interior of the platform structure indicate a complex sequence of which only the latest phases have been examined in Area 36.

The road sectioned in Area 37 is dated to the later 2nd-early 3rd centuries or later, by Derbyshire Ware and a Nene Valley beaker from its foundation. In its first phase the road was carefully constructed with a stone kerb with a drainage channel. Similar kerb stones, now in Derby Museum, were recovered from the bed of the river on the site of 'Stukeley's' bridge by divers in 1986, and there are others in the garden of Stone House Prebend. The road remained in use for a considerable period of time and, as it probably was resurfaced on two occasions, formed a lasting element in the topography of the defended area. It appears to have run north-north-east to south-south-west, and therefore not parallel to the defences nor the building to the south. This indicates an informal layout within the defences, although the alignment could be a relict of a street system predating the defences. A conglomerate bank found immediately to the east in 1970 (Fig. 2: 1970) (Brassington 1982, 77) could represent the same road course at a different period.

WATCHING BRIEFS

THE BOWLING GREEN SITE (Area 34) (Fig. 2)

A bowling green was constructed on the former nursery garden north-west of Derwent House in September-October 1987 and April-August 1988. The site lay over the projected line of the western defences and immediately north-west of the area excavated in 1979–80 (Wheeler 1985a, 38–153). Modern imported material was levelled and a perimeter drain was excavated. No archaeological deposits were disturbed and no Roman material was recovered.

DARLEY PLAYING FIELDS (Area 38) (Fig. 2)

Construction of a car park north of Old Chester Road was monitored in January 1988. Gravel and red clay formed indeterminate spreads and no structures were identified. A linear spread of gravel masked by redeposited soil and foundry ash may be the 'gravel road' identified by Stukeley and located further east and west (Dodd, unpublished; Dool 1972, 5–10). No trace was found of the postulated ditches of the northern defences and no Roman material was recovered.

THE FINDS

SAMIAN by Brenda Dickinson (Figs. 14 and 15; Tables 3 and 4)

The excavations at Pickford's Garage and Nursery Garden both produced samian ranging from the late first century to the first half of the third century and both collections consist largely of Antonine or later material.

Late first and early second century material is probably under represented in the present assemblage because the earliest stratified contexts (probably *c.* AD 80–120) remain unexcavated. The earliest pieces from either site are South Gaulish. They include one pre-Flavian and a few Flavian vessels, but the decorated bowl, form 29, which ought to occur on sites occupied before *c.* AD 85–90 does not appear at all. Indeed, on the

Pickford's Garage site South Gaulish ware accounts for no more than eight per cent, whilst the Trajanic ware represented is from Les Martres-de-Veyre. This could be either because South Gaulish ware was being dumped elsewhere before AD 90 or so, or because the site was unoccupied before then. It is in marked contrast to military sites of the early 70s, such as Carlisle, some Welsh forts and the fortress at York, where the proportion of discarded South Gaulish ware is considerably higher than that from Les Martres. The proportion of samian from Les Martres is low at Little Chester too, but many British sites seem to have suffered from the same relative scarcity of samian in the early second century.

The Hadrianic and early Antonine samian from Pickford's Garage amounts to only ten per cent of the assemblage. Reasons for the scarcity of first and early second century material have been suggested above, but a site fully occupied into the Hadrianic period would normally have received a much higher proportion of samian of *c.* AD 125–135, when Lezoux was expanding its markets in Britain. This apparently did not happen on the two areas under discussion and the samian from previous excavations suggests that the same may be true of Little Chester as a whole (*cf.* Webster 1961, 109 and Dickinson 1985, 79). The argument is supported by comparison of some of the commoner, plain forms not normally made after AD 160, such as 18/31, 18/31R and 27 with others which date from that time, like 31R, 45, 79 and 80. On the Pickford's Garage site the ratio of the selected early to late forms is approximately 1:4 and at the Nursery Garden it is about 1:6. However, there is enough discarded samian of Hadrianic and early Antonine date to suggest some sort of activity on or near the site in that period.

The bulk of the samian from both sites is after AD 160. This is borne out well enough by the plain samian forms and the potters' stamps, but the decorated ware makes the point even more clearly. The potters represented are nearly all listed in the material from the reoccupation of forts on or in the hinterland of Hadrian's Wall *c.* AD 160 (Hartley 1972, 33). Bowls of Paternus and his associates and of Casurius and Cinnamus are particularly common and there are also a few pieces by the Cerialis-Cinnamus group, which, though generally earlier than the others, could go into the 160s.

The decorated ware from the two excavations also includes at least four bowls with an uncommon Central Gaulish ovolo (Rogers 1974, B85). As this has not been noted in such quantity elsewhere in Britain it seems likely that the bowls reached the site in a single consignment.

The sources of the South and Central Gaulish samian offer no surprises. On both sites the South Gaulish ware comes from La Graufesenque and the Trajanic Central Gaulish ware from Les Martres-de-Veyre. All the later Central Gaulish ware from

Source	Pickford's Garage site	Nursery Garden site
South Gaulish	8.0%	0.5%
Les Martres-de-Veyre	6.0%	1.5%
Lezoux	59.0%	87.0%
East Gaulish	27.0%	11.0 %

Table 3: The Sources of Samian Ware

Nursery Garden is from Lezoux, but that from Pickford's Garage includes a single piece of Hadrianic-Antonine Les Martres ware, a decorated bowl of Cettus. The East Gaulish ware is slightly more varied. It is not always possible to distinguish Rheinzabern from Trier ware by eye, but the percentage of Trier ware may be as high as twelve per cent, which would be unusual for Britain except on sites with intensive third century occupations. The percentage of Rheinzabern ware is equally difficult to assess, but is certainly at least twenty-four per cent of the East Gaulish material and is likely to be much higher. Hadrianic-Antonine ware from La Madeleine accounts for two per cent and had a relatively small-scale, though fairly widespread, trade within the province. The Argonne potteries are not represented at all, but this may be due to the geographical position of Little Chester, since Argonne ware tends to occur mainly in coastal areas or near inland ports (Dickinson and Hartley 1971, 132). The East Gaulish ware from the Nursery Garden site includes at least twenty per cent Rheinzabern ware, with ten per cent each from La Madeleine and Trier and, again, none from the Argonne.

The most interesting aspect of the Pickford's Garage samian is the material from the rampart construction, which contains several East Gaulish vessels, including a Rheinzabern decorated bowl belonging to the first half of the third century. The proportion of East Gaulish ware from this excavation, though by no means as high as on sites such as Brancaster and Caister-by-Yarmouth, is nevertheless considerably higher than the usual ten per cent or so for Britain.

The assemblage from the Nursery Garden site is considerably smaller and much of the samian is unstratified or residual,making assessment difficult. The amounts of first century and Trajanic samian suggest less intensive early activity there than at Pickford's Garage, though the proportion of Hadrianic and early Antonine material (eleven per cent) is much the same. The East Gaulish ware is much nearer the norm for Britain and it seems that the two sites had rather different histories.

Catalogue of decorated Samian Ware

The following catalogue lists all decorated pieces (nos. 1–81), and all stamps and signatures (nos. 1–38), including unphased and unstratified material. Samian from phased Roman contexts is summarised as Table 4. The full catalogue is in the excavation archive.

Abbreviations

D. = figure-type in Déchelette 1904
O. = figure-type in Oswald 1936–37
Rogers = motif in Rogers 1974

The Pickford's Garage site (Figs. 14 and 15 nos. 1–7)

1 [631] two fragments, one joining [157], with [637] joining [645]. Phase R1/2.
Form 37, South Gaulish, with a winding scroll. The ovolo, with trident tongue curving round the egg, was used by M. Crestio. The four petalled plant (Knorr 1919, Taf. 28, 5) and leaf in the lower concavity of the scroll (*ibid.* 25) and the large leaf in the upper concavity (*ibid.* 14) are on stamped bowls from Nijmegen (*ibid.* B and D) and Caerleon, respectively. The birds are Hermet pl. 28, 57 and its opposite,

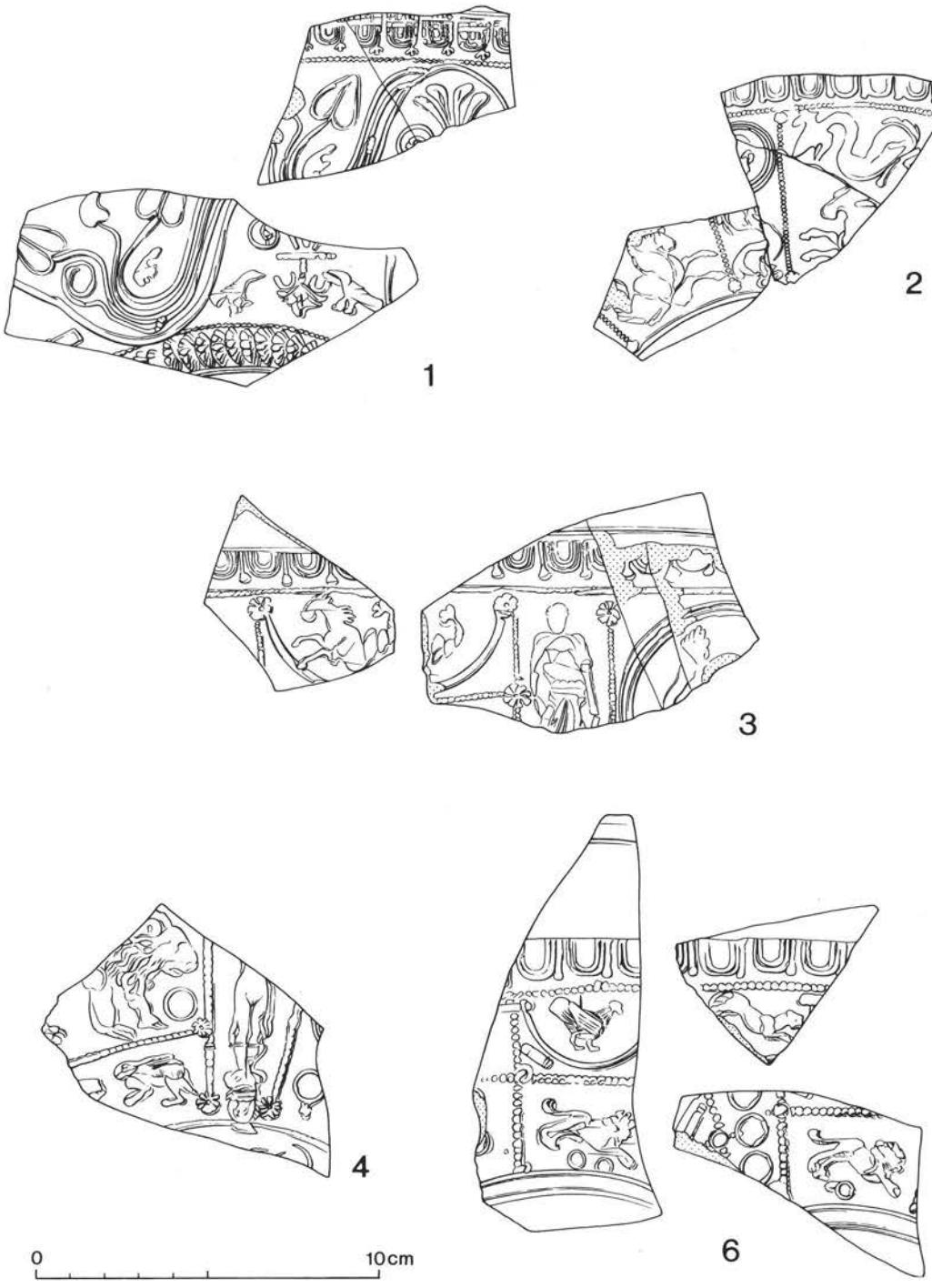

Fig. 14: Roman Little Chester: Samian ware nos. 1–4 and 6. Scale 1:2.

and (the Nile goose) 68. The larger bird to right is on a stamped bowl from Richborough (Bushe-Fox 1926, pl. XIX, 2). The basal wreath seems to consist of partly impressed, grass tufts. *c.* AD 75–100.

2 [118]. Phase S/2.
Four joining fragments of form 37, Central Gaulish. The panels include: 1) sea-horse to right (D.35 = O.52a). 2) Mask? in a small double medallion, over a small dolphin to right (O.2384?). 3) Large dolphin to right (D.1050 = O.2382?), over sea-horse to left (D.32 = O.32?). The ovolo (Rogers B102), small, neat beads and rosette junction-masks suggest Advocisus, though the sea theme is unusual for him. The smaller dolphin is on a stamped bowl from the Wroxeter forum destruction (Atkinson 1942, 33, H3) and the medallion and (probably) the mask are on another in the Plicque Collection (Musée des Antiquités Nationales, St Germain-en-Laye). *c.* AD 160–190.

3 [1212] two fragments, with four in [725], most joining.
Phase 35/13. Form 37, Central Gaulish. The ovolo (Rogers B85), used by Secundus v (perhaps at Toulon-sur-Allier) and almost certainly by Cinnamus ii, is often on bowls with a mixture of details belonging to the Cinnamus ii and Paternus v groups (*cf.* no. 11, below). The panels include: 1A) A sea-horse (D.33 = O.33) in a single festoon. 2) A philosopher (D.523 = O.905). 3) A double medallion, probably with a Minerva (O.126A?). The figure-types are all consistent with the Cinnamus/Secundus style, but the rosettes are on bowls from the Wroxeter forum destruction with the same ovolo, but with figure-types belonging to the Paternus group (Atkinson 1942, H30 and 40). *c.* AD 150–180.

4 [990]. Phase 33/-.
Form 37, with a retrograde cursive signature Ca[below the decoration, from a mould signed before firing. The style of the bowl suggests that this belongs to Catussa of Lezoux. The Nursery Garden has produced another of his signed bowls (no. 8 [1500]). The panels include: 1A) A lion or bear to right and a large ring; 1B) a pair (?) of hares (D.950a = O.2116 and probably its opposite). 2) A caryatid (not known to Oswald). The junction-masks are nine-petalled, hollow rosettes. 3) The ring again. The caryatid, ring and rosettes are on a signed *lagena* mould of Catussa from Lezoux. *c.* AD 160–190.

5 [901] with [725], [1261] (3) and [1266] (2). Phase 33/1.
Form 37, with cursive signature of Cerialis ii:]lis, retrograde, from a mould inscribed before firing, upside-down below the decoration. Signed moulds of this potter were sometimes stamped in the decoration with small plainware dies of Cinnamus ii, which were among the latter's earlier stamps. The bowl has the usual ovolo of Cerialis and his associates (Rogers B144) and panels: 1) A philosopher (D.523 = O.905) over a spiral. 2) Sphinx to right (O.853 variant) in a chevron festoon (Rogers F35) over a seated Apollo (D.52 = O.83, the version with complete right foot, but with the broken chair leg replaced by a bifid motif). 3) Perseus (D.146 = O.234) over a vine-scroll (Rogers M31). 4) A dancer (O.819A variant). All the figure-types and most of the motifs are known for Cerialis's associate, Cinnamus ii, and the sphinx and vine-scroll are on a bowl with one of his small label-stamps from Res_a, Rumania (Popilian 1973, pl. VI, 4). *c.* AD 135–170.

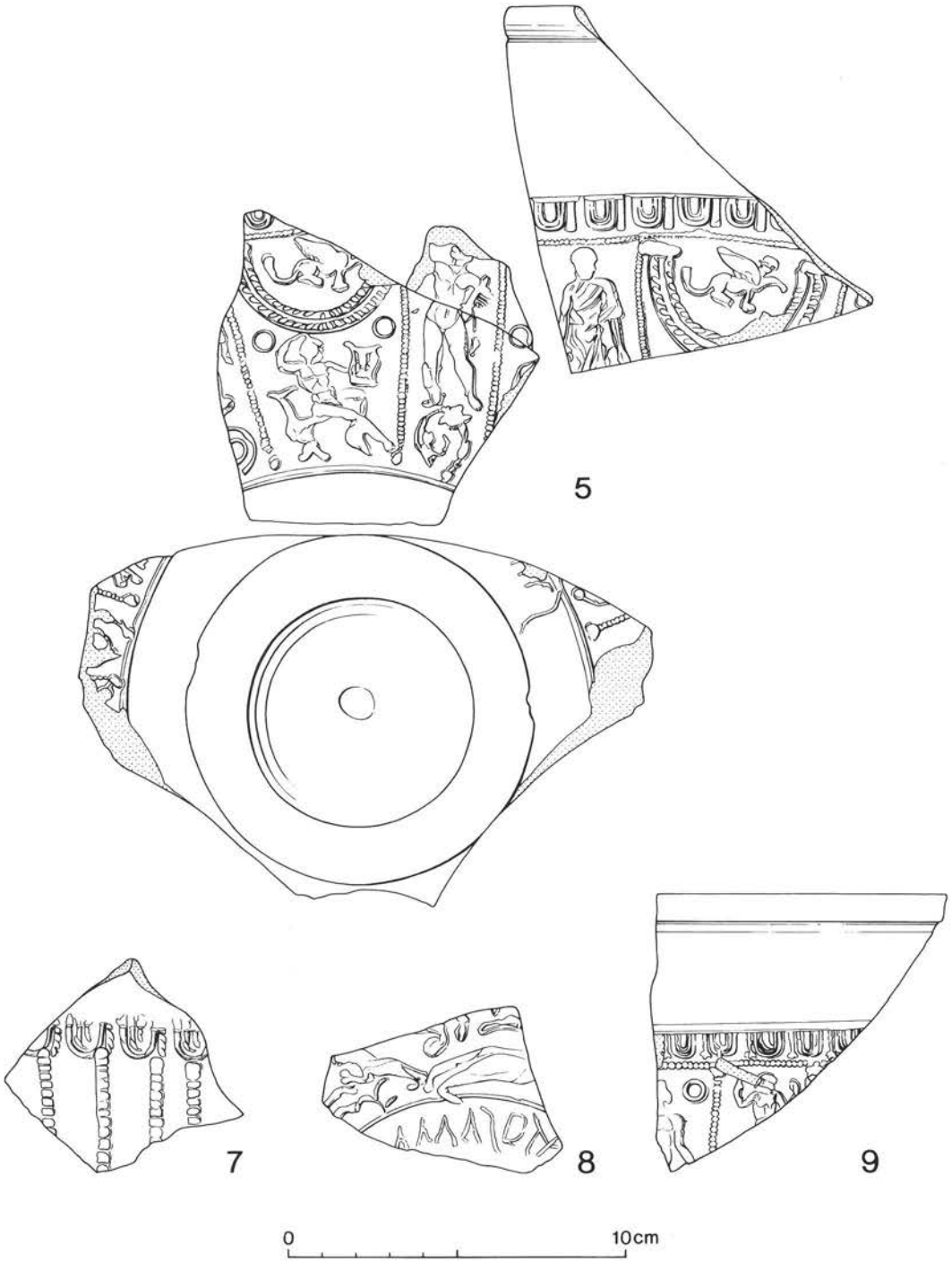

Fig. 15: Roman Little Chester: Samian ware nos. 5 and 7–9. Scale 1:2.

6 [1261] with [1245] (8) and [1261] (4), many joining. Phase 35/5.
Form 37, Central Gaulish. The ovolo, Rogers B223, or a variant was used by Cinnamus ii and Casurius ii, and the details are a mixture of the two potters' repertoires. The sequence of panels is not obvious, but the decoration includes a bird (D.1037 = O.2239), lion (O.1403A), panther (D.799 = O.1518), single festoons, a vertical series of large and small rings and diagonal *astragali* in the field. Cinnamus used the panther, Casurius the lion and both potters the bird. The beads are in size half-way between the two styles and the festoon is not known for either potter. *c.* AD 150–180.

7 [1343]. Phase 35/7.
Form 37, East Gaulish. The ovolo, with damaged core (Ricken and Fischer 1963, E48) and vertical rows of beads (*ibid.* O.256) were used at Rheinzabern by Iulius viii/Iulianus iii and Victorinus ii. *c.* AD 200–240.

The Nursery Garden Site (Fig. 15 nos. 8 and 9)

8 [1500]. Phase 36/6.
Form 37, Central Gaulish, with signature]atusama[retrograde below the decoration, from a mould signed before firing. Catussa of Lezoux. This is the second bowl of Catussa from the excavations (*cf.* no. 4, [990]). The freestyle decoration includes a bear (D.810 = O.1589?), a small stag (D.860 = O.1732) and a plant (Rogers L22). *c.* AD 160–190.

9 [1557]. Phase 36/1.
Form 37, Central Gaulish. The trident-tongued ovolo (Rogers B17), Venus (D.175–O.281) and beaded rosette junction-masks are all on a bowl from the Barnsley Park villa with a cursive signature of one of the earlier Lezoux Paterni (Paternus iv), who signed moulds in the nominative (Hartley 1983, 171, 9). The other figure-type is probably the Pan D.419 = O.717. A bowl in the style of this potter occurs in a group of burnt samian of *c.* AD 140–150 at Castleford (Hartley forthcoming). His style has links with the Sacer i group, though he seems to have begun work rather later. *c.* AD 135–165.

The Pickford's Garage site (nos. 10–67 not illustrated)

10 [26/US].
Central Gaulish. Form 37, including one in the style of Iullinus ii and one with the same ovolo as no. 11. Later than *c.* AD 160.

11 [21]. Phase R1/4.
Eight joining fragments of form 37, Central Gaulish. The ovolo (Rogers B85) was used by Secundus v (perhaps at Toulon-sur-Allier, rather than Lezoux) and is on bowls from Scotland in the style of Cinnamus ii. The panels include: 1) A horseman (D.158 = O.249?) in a double medallion. One corner of the panel contains a striated spindle. 2) A hovering bird (D.1011 = O.2324) and spindle as in 1. The ovolo, when in conjunction with a large ring at the top of panel borders, as here, or with a rosette in the same position, as on no.47, is on bowls with figure-types used at Lezoux by both Cinnamus and the Paternus v group. The bird here is one such. *c.* AD 150–180.

12 [30] (2) with others in [53] (10) and [758] (10). Phases R2/3 & R2/4.
Form 37, Central Gaulish; many small fragments, some with mortar adhering to the edges. A bowl of Arcanus, with part of his signature, A[inscribed upside-down in the mould below the decoration, before firing. The ovolo is Rogers B45 and the decoration is divided by wavy lines with beaded rosettes as junction-masks. A panelled lower zone includes: 1) A panther to right (O.1519). 2) A bird to right in a small, double medallion. 3) A lion to left (D.753 = O.1421, in the same type of medallion as 2. The upper zone includes chevron festoons (Rogers F41). The lion is on a signed Arcanus bowl from Heilbronn-Böckingen (Stanfield and Simpson 1958, pl. 78: 7) and the panther, ovolo, festoon and medallion are on a bowl in his style from London (*ibid.* 5). *c.* AD 125–145.

13 [34]. Phase R1/4.
Forms 27 and 37 (by Quintilinianus i or an associate), Central Gaulish. Hadrianic or early Antonine.

14 [40]. Phase S/6.
Form 37, East Gaulish, with ovolo (Ricken and Fischer 1963, E17), used at Rheinzabern, and a double scroll or medallion. *c.* AD 180–240.

15 [87]. Phase S/5.
Form 37, with a single-bordered ovolo (Rogers B258) and border of rhomboidal beads (Rogers A36), used at Lezoux by Mercator iv. *c.* AD 160–190.

16 [102]. Phase S/4.
Form 37 (with ovolo Rogers B27, used at Lezoux by Servus iv = Rogers's Servus II), Central Gaulish. *c.* AD 160–200.

17 [115]. Phase S/3.
Five joining fragments of form 31, East Gaulish (La Madeleine). A graffito IV VI[is inscribed on the outer wall, after firing. Hadrianic-Antonine.

18 [202] [FAA]. Phase R2/1.
Form 37, from Les Martres-de-Veyre. Adjacent panels or a continuous zone contain the same festoon (Rogers F70). The vertical and horizontal borders are beaded. Probably from a mould by X-12, who was connected with Donnaucus. (See Stanfield and Simpson 1958, pl. 40: 462 for the festoon). *c.* AD 100–120.

19 [637]. Phase R1/1.
Form 37, burnt, South Gaulish. The decoration includes a pair of gladiators used at La Graufesenque in the Flavian-Trajanic period (O.999 and 1000). *c.* AD 85–110.

20 [645] joining [649]. Phase R1/1
Form 30, South Gaulish. The panels include: 1) Figure in a tunic (O.883), over a dog to right. 2) A saltire. Both panels have large, striated spindles as corner-tassels. The trident-tongued ovolo, plant in the top of the saltire and spindles are on a signed bowl of Memor in the Pompeii Hoard (Atkinson 1914, no. 73). The trifid bud in the bottom of the saltire and the heart-shaped leaf at the sides are on bowls in his style from Carlisle and Nerdenbach, near Trier, respectively. *c.* AD 70–90.

21 [667]. Phase R1/1.
Form 37, Central Gaulish, with an ovolo of X-5 (Rogers B31). *c.* AD 125–140.

22 [673]. Phase R1/1.
Flange fragment, decorated *en barbotine*, from Les Martres-de-Veyre. Trajanic.

23 [725]. Unstratified.
South Gaulish. Form 37, including two by Mercator i, or an associate. One may well be from the same mould as a stamped bowl from Gunzburg (Knorr 1919, Textbild 47) and shows part of both zones and the basal wreath.

24 [725]. Unstratified.
Central Gaulish decorated ware including form 30 in the style of the Paternus v group and form 37s in the styles of Advocisus, Casurius ii, Cerialis ii (see no. 5), Cinnamus ii, Docilis i (?), Laxtucissa and Paternus v.

25 [727]. Phase R2/5.
Form 37, Central Gaulish. The single-bordered ovolo (Rogers B27) was used at Lezoux by Servus iv (Rogers's Servus II). *c.* AD 160–200.

26 [732]. Phase R3/3.
Form 37, from Les Martres-de-Veyre. Probably from a mould by X-13, with rosette-tongued ovolo (Rogers B14). The arrangement of the decoration is unusual, with a partly impressed acanthus (one of the series Rogers K16–35), spindle tendrils, with one attached to an *astragalus*, and a double medallion, arcade or scroll. The figure is probably a sphinx to left (O.857?). *c.* AD 100–120.

27 [752] with [725] (12), [783] (2), [830] and [1348], all very small pieces. Phases R3/2, 33/- & 35/4.
Form 37, Central Gaulish. A very thick-walled bowl in orange, micaceous fabric, badly moulded. The style is that of Les Martres-de-Veyre, though the bowl was clearly made elsewhere in Central Gaul, possibly not at Lezoux. The decoration involves an ovolo replacement of beaded rings (Rogers C294?), a pointed leaf (Rogers H184), a vertical divider of bifid motifs, a figure to right and perhaps an animal. The basal wreath consists of trifid motifs pointing to the right (one of the series Rogers G152–185) and they also appear in the field. Not attributable, though Rogers's potter Me- used the circles and the leaf. Trajanic or Hadrianic.

28 [844]. Phase R1/-.
Form 37, Central Gaulish. A panelled bowl, with a ring-tongued ovolo (Rogers B105) used by the Paternus v group. *c.* AD 150–190.

29 [862]. Phase R3/2. Form 37, Central Gaulish. The ovolo (Rogers B213) and Venus in a panel (D.179a = O.305) were both used at Lezoux by Butrio, though the fabric and general messiness suggest that the bowl was made at Les Martres-de-Veyre. Trajanic or Hadrianic.

30 [877] with [1200] and [1212]. Phase R2/1.
Form 37, Central Gaulish. The ovolo (Rogers B165) was used by his potter P-21. The decoration includes a lion (D.733 = O.1372). All the other motifs noted for him suggest mid to late Antonine date.

31 [900]. Phase 33/1.
Form 37, Central Gaulish. A bowl in the style of Cinnamus ii, with his ovolo 2 (Rogers B231) and panels including: 1) A corner lozenge (Rogers U36). 2) A caryatid (D.656 = O.1199). The panel border is topped by Cinnamus's characteristic hollow bead. *c.* AD 150–180.

32 [900]. Phase 33/1.
Four joining fragments of form 37, Central Gaulish. The ovolo (Rogers B52) and straight line below sometimes appear on bowls in the style of Secundus v made at

Lezoux. The panels include: 1) Perseus (D.146 = O.234) over a dolphin (D.1057 = O.2101). 2) Hercules with snakes (D.464 = O.783), in a double medallion. The dolphin, medallion and straight line are on a stamped Secundus bowl from Great Chesterford (Simpson and Rogers 1969, 6: 4) and the Perseus is on one in his style from Lezoux. *c.* AD 150–180.

33 [901]. Phase 33/1.
Central Gaulish. Form 37, burnt, in the style of Docilis i. Antonine.

34 [901]. Phase 33/1.
Form 37 (2), in the styles of Albucius ii and Casurius ii. Mid to late Antonine.

35 [941]. Phase 33/3.
Form 37, East Gaulish. Rheinzabern ware, with a striated arcade (Ricken and Fischer 1963, KB110), containing triple poppy-heads (*ibid.* P116?) and with rosettes at the ends and in the field (*ibid.* O48). Not attributable to a particular potter, but the use of arcades at the bottom of the decoration suggests a third century date. *c.* AD 200–240?

36 [942]. Phase 33/3.
Form 37, Central Gaulish. The ovolo (Rogers B234) and wavy-line border below suggest Iustus ii. *c.* AD 160–190.

37 [945]. Phase 33/3.
Form 37, East Gaulish. The leaf (Ricken and Fischer 1963, P38) was used at Rheinzabern, apparently exclusively, by Comitalis. *c.* AD 180–240.

38 [950]. Phase 33/3.
Form 37, burnt, Central Gaulish. A bowl in the style of Do(v)eccus i, with his ovolo 2 (Stanfield & Simpson 1958, fig. 44: 2), a double medallion and a rosette (Rogers C144). *c.* AD 165–200.

39 [953]. Phase 33/3.
Form 31, a bulbous jar, decorated *en barbotine*, East Gaulish. Late second or first half of the third century.

40 [990]. Phase 33/-.
Form 37, Central Gaulish, by a member of the Sacer i-Attianus ii group. Hadrianic-Antonine.

41 [990]. Phase 33/-.
Form 37, Central Gaulish, in the style of Casurius ii. Later than *c.* AD 160.

42 [1112]. Phase 35/2.
Form 37, Central Gaulish, with the ovolo chiefly associated with the Cerialis ii-Cinnamus ii group at Lezoux (Rogers B144). *c.* AD 135–170.

43 [1200]. Phase 35/13.
Form 37, Central Gaulish, in the earliest style of Pugnus ii. Hadrianic or early Antonine.

44 [1200]. Phase 35/13.
Forms 30 (in the style of Cinnamus ii) and 37 (at least 9, including bowls in the styles of Advocisus, Casurius ii (2) and the Paternus v group), Central Gaulish. Mid to late Antonine.

45 [1200]. Phase 35/13.
Form 37, East Gaulish. The ovolo was used at Trier by Maiiaaus (Ingeborg Huld-Zetsche, personal comment) and the striated column is on a stamped bowl from

Heddernheim. The decoration also shows the hind-quarters of a hare. First half of the third century.

46 [1203] with [1261]. Phases 35/5 and 35/9.
Form 37, Central Gaulish, with ring-tongued ovolo (Rogers B107) and panels: 1) A dolphin (D.1050 = O.2382) in a double medallion. 2) A seated Bacchus (D.534 = O.571), between leaf-tendrils (Rogers G208). 3) A tripod (Rogers Q7). The junction-mask is a nine-petalled rosette (Rogers C194). All the details occur on stamped bowls of Censorinus ii. The leaves are on form 37 from London (Stanfield & Simpson 1958, pl. 102: 18), the tripod is on the same form from Lezoux(?) and the dolphin is on form 30 from Great Chesterford. *c.* AD 160–190.

47 [1212]. Phase 35/13
Form 37, Central Gaulish. The ovolo (Rogers B114) was used at Lezoux in both the Hadrianic and Antonine periods. The scroll seems to have the same polygonal leaf (Rogers J85) in both concavities. The surviving upper concavity is very narrow and has a (seven-petalled?) rosette, as well as the leaf. The style is unfamiliar and the bowl could be either Hadrianic or Antonine.

48 [1212]. Phase 35/13
Form 37 (8, including bowls in the styles of Casurius ii (see no. 58), Cinnamus ii, Iustus ii or Paternus v, P-21 (see no. 30) and Severus iv or Servus iv), Central Gaulish. Mid to late Antonine.

49 [1261]. Phase 35/5
Central Gaulish ware of Antonine date, mostly after *c.* AD 160, forms 33 (stamped]M) and 37 (one by Cerialis ii (see no. 5) and others in the styles of Advocisus, Casurius ii (see nos. 6 & 58), Censorinus ii (see no. 46), and the Paternus v group (at least 4)).

50 [1264]. Phase 35/13.
Form 37, with one of the ring-tongued ovolos used at Lezoux by the Paternus v group. No complete example survives. *c.* AD 150–190.

51 [1270]. Phase 35/3.
Form 37, Central Gaulish. (2) by members of the Paternus v group. Mid to late Antonine.

52 [1296]. Phase 35/5.
Form 37, Central Gaulish. A panelled bowl with a cogged medallion (Rogers E25), known only for Casurius ii, over trifid motifs (Rogers G225) joined at their stems. These were used by Do(v)eccus i, who had many details in common with Casurius. *c.* AD 160–195.

53 [1296]. Phase 35/5.
Form 37, Central Gaulish. A freestyle bowl in the style of Casurius ii, with a horse (D.905 = O.1904?), cow (D.900 = O.1886), bear (O.1588 variant?) and leaves (Rogers H167). *c.* AD 160–190.

54 [1297]. Phase 35/5.
Form 37, by Cettus of Les Martres-de-Veyre, Central Gaulish. Antonine.

55 [1297]. Phase 35/5.
Form 37, Central Gaulish. The ovolo (Rogers B208) was used by Casurius ii, among others. It occurs on a bowl in his style from Resca, Rumania (Popilian 1973, pl.IV:

12), together with the same small triple medallion, perhaps with the same motif inside it (Rogers G259). *c.* AD 160–190.

56 [1301]. Phase 35/3
Form 37, in the style of Cinnamus ii, Central Gaulish. Antonine.

57 [1305]. Phase 35/3.
Form 37, Central Gaulish. The ovolo (Rogers B208), a cow (D.900 = O.1886) and a leaf (Rogers H167) are all on a stamped bowl of Casurius ii from Corbridge (Stanfield & Simpson 1958, pl.132: 11). *c.* AD 160–190.

58 [1310] with [1212] (2) and [1261] (2, joining). Phase 35/5.
Form 37, Central Gaulish. A bowl in the style of Casurius ii, with panels: 1) A double medallion with a bird (D.1037 = O.2239). 2) A horse (probably D.905 = O.1904), three leaves (Rogers H47, 115 and 167) and at least one other animal. 3) The medallion again. Stamped Casurius bowls show the two smaller leaves (Stanfield & Simpson 1958, pl. 132: 11, from Corbridge), the large leaf (*ibid.* pl. 133: 20, from York) and the bird (*ibid.* 17, from Leicester). *c.* AD 160–190.

59 [1317]. Phase 35/4.
Form 37, Central Gaulish. Both surviving panels contain double medallions, one with a Cupid with torches (D.265 = O.450). The panels are divided by a vertical border of rhomboidal beads, with a striated spindle diagonally across it and an eleven-petalled rosette (Rogers C227) at the top. The spindle makes attribution to Paternus v almost certain (cf. Stanfield & Simpson 1958, pl. 106: 22), though its position in the decoration is unusual. *c.* AD 160–195.

60 [1340]. Phase 35/3.
Form 37 by Sacer i, or an associate, Central Gaulish. Hadrianic or early Antonine.

61 [1340]. Phase 35/3.
Form 37, Central Gaulish. A bowl in the style of Tetturo, with a leafy festoon (a smaller version of Rogers F16), a zig-zag panel border and a six-petalled rosette (Rogers C120). *c.* AD 130–160.

62 [1340]. Phase 35/3.
Form 37 (4), including bowls in the styles of Sissus ii (2), Cinnamus ii and the Cerialis ii-Cinnamus ii group, Central Gaulish. The first two Hadrianic-Antonine, the others Antonine.

63 [1340]. Phase 35/3.
Form 37, burnt, Central Gaulish. The panels contain: 1) Pan on a mask (D.411 = O.709A). 2) A column (Rogers P3), between Pan-masks (D.675 = O.1214), over leafy sprays (Rogers K37). There are possible traces of a cursive signature below the decoration. The borders of rhomboidal beads suggest some connection with the Paternus v group, though Paternus himself is not known to have signed moulds. *c.* AD 150–190.

64 [1341].
Phase 35/10 Form 37, Central Gaulish. A bowl by a member of the Paternus v group, with a ring-tongued ovolo (Rogers B105), Apollo (D.56 = O.93) and a small ring. Probably by Paternus himself or Lastuca, in view of the beads below the ovolo. The sherd has been crudely shaped to serve as a counter. *c.* AD 160–195.

65 [1350]. Phase 35/3.
Form 37, Central Gaulish, probably with ring-tongued ovolo (Rogers B105), with large gap between it and the border at the top of the decoration. Compare with a bowl of Paternus v from York (Stanfield & Simpson 1958, pl. 107: 27). *c.* AD 160–195.

66 [1354].
Phase 35/2. Form 37, Central Gaulish. The ovolo (Rogers B144) and a dancer (probably a smaller version of D.372 = O.364) are on a bowl from Catterick by one of the potters in the Cerialis ii-Cinnamus ii group. *c.* AD 135–170.

67 [1354]. Phase 35/2.
Form 37, Central Gaulish. The ovolo (Rogers B52) and a Bacchus (D.534 = O.571) in a double medallion were used by Divixtus i. *c.* AD 150–180.

The Nursery Garden Site (nos. 68–81 not illustrated)

68 [300]. Topsoil.
Form 37 in the style of Albucius ii, Central Gaulish. Antonine.

69 [301]. Topsoil.
Forms 31, stamped ...VI and 37 (2) in the style of Albucius ii, Central Gaulish. Antonine.

70 [301] with two sherds in [1500]. Topsoil.
Form 37, probably by Aunus, Central Gaulish. Mid to late Antonine.

71 [301] with two sherds in [1500]. Topsoil.
Form 37, East Gaulish. The decoration includes a single-bordered medallion (Ricken and Fischer 1963, K5?) between multiple vertical dividers ending in cross-hatched blobs (*ibid.* O91). The medallion containing a sphinx (*ibid.* T177) over an acanthus (*ibid.* P145). These all appear on Rheinzabern bowls with the B- F- Attoni stamp. (See Ricken 1948, Taf. 37: 7 for the medallion and acanthus, 38: 1 and 6 for the blobs and 40: 22 for the sphinx). *c.* AD 175–240.

72 [350] with [1500], [1504] and probably [301]. Topsoil.
Form 37, strongly grooved inside, East Gaulish. A Rheinzabern bowl, with ovolo (Ricken and Fischer 1963, E25) and double medallions (*ibid.* K20a) containing a dolphin (*ibid.* T193) and a sea-horse (*ibid.* T188). The acanthus in the field (*ibid.* P145) and a pair of heart-shaped leaves at the bottom of the decoration (*ibid.* P141). A sherd in [301], with the large leaf (*ibid.* P10) probably belongs to this bowl. A stamped mould of Respectus (Ricken 1948, Taf. 112: 9) probably has very similarly arranged decoration. *c.* AD 175–240.

73 [1500]. Topsoil.
Form 37, Central Gaulish. A minimum of 14, including a signed bowl of Catussa (see no. 8) and others in the styles of Albucius ii, Attianus ii, Aunus? (see no. 70), Casurius ii, the Cerialis ii-Cinnamus ii group (see no. 78), Cinnamus ii, Iullinus ii (see no. 75) and the Paternus v group (3).

74 [1500]. Topsoil.
Form 37, Central Gaulish. A bowl with a lion, probably D.734 = O.1374. The ovolo (Rogers B85), not a common one, is on three other bowls from the excavations (nos. 10, 11 and 76). *c.* AD 150–180.

75 [1504]. Topsoil.
Form 37, Central Gaulish. 7, including bowls in the styles of Albucius ii (?), Casurius ii or an associate, the Cerialis ii-Cinnamus ii group and Iullinus ii (see no. 73).

76 [1504]. Topsoil.
Form 37, Central Gaulish. Two joining fragments from a bowl with the same uncommon ovolo as nos. 10, 11 and 74 (Rogers B85) and a row of cornucopias impressed horizontally below it (similar to Rogers U258). The decoration also includes a single-bordered scroll or medallion. *c.* AD 150–180.

77 [1504]. Topsoil.
Form 37, Central Gaulish. Three fragments, two joining, from a bowl with ovolo (Rogers B231) and double medallions containing hares to left (D.950a = O.2115), alternating with columns (reminiscent of Rogers P37) flanked by acanthi (perhaps a surmoulage of Rogers K12). Like many Central Gaulish small bowls, this has a selection of details which do not add up to the style of any particular potter, though the ovolo is most commonly associated with Cinnamus ii. They may sometimes be the practice pots of apprentices, which were sold if good enough but, like the piece in question, they are unusually thick-walled for their size. Antonine.

78 [1527]. Topsoil.
Form 37, Central Gaulish. Three, including bowls in the styles of the Cerialis ii-Cinnamus ii group (see no.73) and Albucius ii.

79 [1552]. Phase 36/1.
Form 37, Central Gaulish. In the early style of Pugnus ii, or an associate. Hadrianic or early Antonine.

80 [1553]. Phase 36/2.
Form 37, Central Gaulish. A bowl with the ovolo chiefly used by members of the Cerialis ii-Cinnamus ii group at Lezoux (Rogers B144). The top part of a panel contains a centaur (D.434 = O.735) in a small, double medallion. The glaze is unusually orange for Lezoux, as often on bowls by this group of potters. *c.* AD 135–170.

81 [1602]. Phase 37/3.
Form 37, Central Gaulish. A bowl in the style of Banuus, with borders of rhomboidal beads. The panels include: 1) A column (Rogers P29). 2) A leaf (one of the series Rogers J146–9), pointing downwards, on the end of a stalk of rhomboidal beads crossed by a short row of the same beads. 3) Two opposed acanthi (Rogers K8), joined by a vertical *astragalus*, the same column as in 1), but impressed horizontally, and another motif or figure-type. The column is on a stamped bowl from Lezoux (Stanfield & Simpson 1958, pl. 139: 2) and the acanthus and leaf are on bowls with semi-cursive signatures from Carlisle (*ibid.* 3) and Alfoldean, respectively. *c.* AD 160–200.

Catalogue of Potters' Stamps

Each entry gives: excavation number, potter (i, ii, etc., where homonyms are involved), die number, form of vessel, reading of the stamp, pottery of origin, date, phase.

Abbreviations

(a) Attested at the pottery in question.

(b) Stamps from other dies attested at the pottery in question.
(c) Assigned to the pottery on the evidence of fabric, distribution and, or, form.
Ligatured letters are underlined.

1 [1301] Phase 35/3.
Carantinus 5a 31 CR[NIIN], retrograde, Lezoux (b).
There is no site dating for this particular stamp, but Carantinus's decorated ware, his occasional use of form 27 and stamps noted from Inveresk and Newstead suggest a range *c.* AD 150–180.

2 [1270] Phase 35/3.
Cobnertus iii 1a 18/31R [COB]NERTI M Lezoux (a).
This stamp occurs in a group of samian of *c.* AD 150–160 at Alcester and in a burnt group of *c.* AD 170 from TPc (Hungary). His range will be *c.* AD 155–185, but the form of this vessel suggests that it will not be later than AD 165, at the latest.

3 [649] Phase R1/1.
Gaius Iulius 2a 15/17R or 18/31R OFGIIV[L] (Hermet 1934, pl. 111, 59) La Graufesenque (a).
There is no close site dating for this stamp, but the forms on which it appears are Flavian-Trajanic. *c.* AD 85–110.

4 [1200] Phase 35/13.
Iuvenis ii 5a 32 etc.R [IUUEN]I+, F (Ludowici 1927, 218: e) Rheinzabern (a).
Iuvenis ii was not one of the later Rheinzabern potters, to judge by his decorated ware. 5a, used only on plain ware, appears on forms 31R, 32 and 32R. Probably *c.* AD 160–200.

5 [758] Phase R2/3.
Marcellus ii incomplete 1 18/31]RC.I.[, retrograde, Les Martres-de-Veyre (c).
There is no site dating for this particular stamp, though one of his others comes from Wallsend. His forms (18/31, 31R and 27) and fabrics are consistent with Trajanic or early Hadrianic date.

6 [155] Phase R1/4.
Maritimus 2a' 38 or 44 MARBITVMIMA<N>.
Maritimus is known to have worked at Lezoux, though no stamps from this die are attested there. 2a' was used at the Terre-Franche kilns at Vichy, but it is common enough in Britain to suggest that it was also used at Lezoux, and the fabric of this piece does not belong to the Vichy range. 2a is said to have been used on form 80, while 2a' is attested on form 15/31R. Other stamps are known from Hadrian's Wall and hinterland forts. *c.* AD 160–190.

7 [725] Not phased.
Marulus? 1a 31R MRVLIBM Lezoux (c).
This stamp and the potter are otherwise unknown, but the dish is a standard form 31R. Mid to late Antonine.

8 [026 U/S] Unstratified.
Parentinus 2nd C 31 PARENTINVS Trier (a).
Parentinus's stamps, from other dies, occur at Niederbieber, founded in the late second century, and Chesters. Probably first half of the third century.

9 [1329] Phase 35/10.
Parentinus 2f 32 etc. ..RENTINVS Trier (b).
No other examples of this stamp have been noted. For the potter's date, see no. 8, above.

10 [1297] Phase 35/5.
Sacirus ii 3a 38 or 44 SCIRV/E (Alba Regia xviii (1980), 197: 570) Lezoux (b).
This potter's stamps are commonest on cups of form 27, but one has been noted on form 79. The Little Chester piece, on the form, is Antonine. *c.* AD 140–170.

11 [1269] Phase 35/3.
Sacroticus 1a 18/31 or 31 SC[ROTICIM] (Loeschcke 1911, 86: no. 1715, S2) Lezoux (c).
There are numerous examples of this on forms 18/31, 27 and 33 in a group of burnt samian of *c.* AD 140–150 from Castleford. Stamps from other dies are known from Birdoswald and the Rhineland. *c.* AD 125–150.

12 [1212] Phase 35/13.
Satto v 2a 33 +,TTBOM Lezoux (b).
A stamp found mostly on form 33, though known also on form 31R. Mid to late Antonine.

13 [649] Phase R1/1.
C. Silvius Patricius 11a 15/17 CBSILVIP (Knorr 1919, Taf. 78) La Graufesenque (b).
A Flavian stamp, found at Caerleon, Chester and the Nijmegen fortress and Ulpia Noviomagus sites. There are a few examples on form 29. *c.* AD 70–90.

14 [945] Phase 33/3.
Victorinus ii 7i 31 or 31R [VIC]TORINV[S] Rheinzabern (b).
The only other example of this stamp noted by us is on form 32 from Dalheim. Victorinus ii was one of the latest Rheinzabern potters, to judge by his decorated ware and some of his plain forms, such as 31R, 32 and Ludowici TbR. Probably first half of the third century.

15 [734] Phase 33/3.
Vormarcus 1a 31R VORMARCVSF (Dauber 1980, Taf. 137: 2) Rheinzabern (c).
Vormarcus is only otherwise represented by stamps from this die at Buchen, on the Odenwald Limes, and the Saalburg. Late second or first half of the third century.

16 [725] Not phased.
..FIV[on form 27, South Gaulish. Flavian-Trajanic.

17 [80] Phase S/6.
]I I on form 31, Central Gaulish. Antonine.

18 [941] Phase 33/3. OVOVO? on form 38 or 44, Central Gaulish. Mid to late Antonine.

19 [40] Phase 35/-.
SIIV..RV...N, retrograde, on form 31R, East Gaulish (Rheinzabern). Late second to first half of the third century.

20 [734] Phase 33/3.]ANVSF on form 31R(?), East Gaulish. Late second to first half of the third century.

21 [145] Phase R1/4.
]FECIT? on form 32, East Gaulish. Late second to first half of the third century.

22 [1500] Phase 36/6.
Arncus 1a 31 AR[NCIMA] Lezoux (c).
There are at least six examples of this in the group of late Antonine samian recovered off Pudding Pan Rock. It usually appears on either form 31 or, particularly 33, but was occasionally used on forms 79 and 80. *c.* AD 160–200.

23 [1504] Phase 36/6.
Dester 1a 31 [DESTE]RBF Lezoux (a).
An uncommon stamp, probably belonging to a potter who used only one die. It occurs at South Shields and on form 31R, suggesting a range *c.* AD 160–190.

24 [300] Not phased.
Geminus VI 4a 45 GEMINIMA, with NI and MA ligatured (Durand-Lefebvre 1963, no. 314) Lezoux (a).
This was used mainly on the gritted samian mortarium, form 45, but is also known on forms 33, 79 and 80. *c.* AD 170–200.

25 [1500] Phase 36/6.
Marcus v 11a 31 [MAR]CVSF (Rogge 1976, no.78).
Though there is no internal dating for this stamp, vessels with another of his stamps from the group of late Antonine samian recovered off Pudding Pan Rock and his use of forms 31R, 79, 79R and Ludowici TgR, suggest a range *c.* AD 160–200.

26 [1504] Phase 36/6.
Martio 4a 31 [MAR]TIIO (Rogge 1976, no. 81) Lezoux (b).
This stamp was used mainly on forms 31 and 33. Others appear on forms not normally made before AD 160, such as 79 and 80. His wares occur at sites in the Hadrian's Wall system reoccupied about that time. *c.* AD 160–190.

27 [1500 & 1507], joining. Phase 36/6.
Maternianus i 3a 33 MT[ER]IIII (Dickinson 1986, 192: 3.113–15) Lezoux (b).
A high proportion of the stamps recorded from this die are on vessels from Pudding Pan Rock. It also occurs on Hadrian's Wall, at sites reoccupied *c.* AD 160. *c.* AD 160–200.

28 [1500] Phase 36/6.
Romulicus 1a 33 RO[MV|\I] (Holwerda 1923, Afb.68/9, 164) Lezoux (c).
A stamp of a minor Central Gaulish potter who probably only used one die. It is usually on form 33, though one possible example of form 80 has been noted. Antonine, continuing beyond AD 160 if form 80 is correct.

29 [1602] Phase 37/3.
Sacrillus 2a 31 SCRBIL[I MA] Lezoux (b).
There is no internal dating for this, but a stamp from the die after it had been broken appears on form 80. Other stamps of this potter occur in the Pudding Pan Rock samian and on forms 79 and 79R. *c.* AD 160–200.

30 [1500] Phase 36/6.
Vegiso 1 2a 33 VIIGISOM (Durand-Lefebvre 1963, no. 748)l (c).
Vegiso lacks close dating evidence, but the form of his cups and his use of form 31 suggests an Antonine date.

31 [1500] Phase 36/6.
]ILIM or]TLIM on form 33, Central Gaulish. Antonine.

32 [1500] Phase 36/6.
GEM[or GEN[on form 31, Central Gaulish. Mid to late Antonine.
33 [1500] Phase 36/6.
L[on form 33, Central Gaulish. Antonine.
34 [301] Not phased.
...VI on form 31, Central Gaulish. Antonine.

Catalogue of cursive signatures

35 [758] Phase R2/3. Form 37.
A[from a mould signed upside-down below the decoration, before firing: Arcanus of Lezoux.
Both this potter's plain and decorated ware are common in the Rhineland, suggesting activity before *c.* AD 150, when export of Lezoux ware to the two Germanies had virtually ceased. *c.* AD 125–145.
36 [901] Phase 33/1. Form 37.
]lis, retrograde, from a mould signed below the decoration, before firing: Cerialis ii of Lezoux.
Signed moulds of this potter were sometimes stamped in the decoration with small plainware dies of Cinnamus ii, which were among the latter's earlier stamps. *c.* AD 135–170.
37 [990] Phase 33/-.
Ca[, retrograde, from a mould signed below the decoration, before firing: Catussa of Lezoux.
The potter's decorated ware suggests a range *c.* 160–190. Little Chester has produced another of his signed bowls (no. 38, [1500]).
38 [1500] Phase 36/6. (Fig. 15, no. 8)
]atusama[on form 37: Catussa of Lezoux. This is his second signed bowl from Little Chester (*cf.* no. 37 [990]). *c.* AD 160–190.

Context	Form	Source	Cat. no.	Stamp no.	Date
Phase R1/1					
[637]	37	SG	1	–	*c.* 75–100
	37	SG	19	–	*c.* 85–110
	27	SG	–	–	Flav or Flav-Traj
[645]	30	SG	20	–	*c.* 70–90
	17/17R or 18R	SG	–	–	Flav or Flav-Traj
	–	SG	–	–	,,
	27	SG	–	–	Flav-Traj
	37	SG	1	–	*c.* 75–100
	27	Les Martres	–	–	Traj
[649]	15/17	La Graufesenque	–	13	*c.* 70–90
	15/17R or 18R	La Graufesenque	–	3	*c.* 85–110
	18 or 18R	SG	–	–	Flav or Flav-Traj
	27	SG	–	–	,,
	37	Les Martres	–	–	Traj
	30	SG	20	–	*c.* 70–90

Context	Form	Source	Cat. no.	Stamp no.	Date
[659]	18/31R	SG	–	–	Flav-Traj
	37	Les Martres	–	–	Traj
[663]	37	CG	–	–	Had or early Ant
[665]	18R	SG	–	–	Flav
[666]	dish	SG	–	–	Flav or Flav-Traj
	27	CG	–	–	Had or early Ant
[667]	37	CG	21	–	*c.* 125–140
	–	CG	–	–	Had or Ant
	18/31R	Les Martres	–	–	Traj
[669]	30 or 37	Les Martres	–	–	,,
[670]	33	CG	–	–	Ant
[673]	flange	Les Martres	22	–	Traj
Phase R1/2					
[531]	18/31	Les Martres	–	–	Traj
[542]	18/31R	CG	–	–	Had or early Ant
[562]	27	CG	–	–	,,
	36 or 42?	CG	–	–	,,
[607]	18/31R	CG	–	–	Had
[610]	18 or 18R	SG	–	–	Flav
[614]	30?	SG	–	–	Flav or Flav-Traj
[615]	18/31	SG	–	–	Flav-Traj
[631]	27	SG	–	–	Flav
	37	SG	–	–	*c.* 75–100
[634]	36	CG	–	–	Ant
Phase R1/3					
[508]	18/31	Les Martres	–	–	Traj
[528]	–	CG	–	–	Had or early Ant
[551]	30 or 37 rim	SG	–	–	Flav-Traj
	31R	CG	–	–	Mid late Ant
[555]	31R	CG	–	–	,,
[589]	27?	CG	–	–	Had or early Ant
Phase R2/1					
[200]	18/31	SG	–	–	Flav-Traj
[202]	37	Les Martres	18	–	*c.* 100–120
	18/31R	Les Martres	–	–	Traj
[207]	35	Les Martres	–	–	,,
[870]	35 or 36	CG	–	–	Ant
[876]	30	SG	–	–	Flav-Traj
[877]	30 or 37	SG	–	–	,,
	37	SG	–	–	,,
	–	SG	–	–	,,
	dish	CG	–	–	Had or early Ant
	37	CG	30	–	Mid late Ant
	18/31	Les Martres	–	–	Traj
	27	Les Martres	–	–	,,
[914]	18/31	Les Martres	–	–	,,

Context	Form	Source	Cat. no.	Stamp no.	Date
Phase R2/2					
–	–	–	–	–	–
Phase R2/3					
[53]	18/31 or 31	CG	–	–	Had or early Ant
	37	CG	12	-	*c.* 125–145
[758]	33a	CG	–	–	Had
	37	CG	–	–	,,
	18/31	Les Martres	–	5	Traj or early Had
	37	Lezoux	12	35	*c.* 125–145
Phase R2/4					
[30]	37	CG	12	–	
	18/31 or 31	CG	–	–	Had or early Ant
	33	CG	–	–	,,
Phase R3/1					
[812]	18	SG	–	–	Flav
	18 or 18/31	SG	–	–	Flav or Flav-Traj
	30?	Les Martres	–	–	Traj
	33	Les Martres	–	–	,,
	36	Les Martres	–	–	,,
	37	Les Martres	–	–	,,
[813]	–	SG	–	–	Flav or Flav-Traj
[913]	–	SG	–	–	,,
Phase R3/2					
[783]	37	CG	27	–	Traj or Had
[784]	31(R?)	Rheinzabern	–	–	Late 2nd C-first half of 3rd C
	45	Rheinzabern	–	–	,,
	Ludowici Tb	Rheinzabern	–	–	,,
[830]	37	CG	27	–	Traj or Had
[861]	30	CG	–	–	Ant
	36	EG	–	–	Late 2nd C-first half of 3rd C
[862]	37	CG	–	–	Had or early Ant
	dish	EG	–	–	Late 2nd C-first half of 3rd C
	37	CG	29	–	Traj or Had
Phase S/1					
	–	–	–	–	–
Phase S/2					
[118]	37	CG	–	–	Ant
	37	CG	2	–	*c.* 160–190
	79	CG	–	–	Mid late Ant

Context	Form	Source	Cat. no.	Stamp no.	Date
[119]	31	CG	–	–	Early mid Ant
[132]	30	CG	–	–	Ant
Phase S/3					
[107]	37	CG	–	–	Ant
[113]	31	CG	–	–	,,
[115]	31	CG	–	–	,,
	33	CG	–	–	,,
	36	CG	–	–	,,
	37	CG	–	–	,,
	–	CG	–	–	,,
	31	La Madeleine	17	–	Had-Ant
Phase S/4					
[88]	dish	Rheinzabern	–	–	Late 2nd C-first half of 3rd C
[102]	–	CG	–	–	Ant
	37	CG	16	–	*c.* 160–200
	37	CG	–	–	Had or early Ant
	31R	EG	–	–	Late 2nd C-first half of 3rd C
	31R	CG	–	–	Mid late Ant
[171]	–	CG	–	–	Had or Ant
Phase S/5					
[74]	31	EG	–	–	Late 2nd C-first half of 3rd C
[87]	37	Lezoux	15	–	*c.* 160–190
	31	EG	–	–	Late 2nd C-first half of 3rd C
	dish	EG	–	–	,,
[89]	–	probably CG	–	–	2nd C
[170]	32	EG	–	–	Late 2nd C-first half of 3rd C
Phase 33/1					
[898]	dish	CG	–	–	Ant
[900]	30 or 37 rim	CG	–	–	,,
	–	CG	–	–	,,
	37	CG	31	–	*c.* 150–180
	37	CG	32	–	,,
[901]	37	CG	33	–	Ant
	38	CG	–	–	,,
	–	CG	–	–	,,
	37	CG Lezoux	5	36	*c.* 135–170
	31R	CG	–	–	Mid late Ant
	37	CG	34	–	,,
	80	CG	–	–	,,
[912]	33	CG	–	–	Ant

Context	Form	Source	Cat. no.	Stamp no.	Date
Phase 33/2					
–	–	–	–	–	–
Phase 35/1					
[025/6]	37	SG	–	–	Flav-Traj
Phase 35/2					
[025/4]	–	CG	–	–	Ant
	–	CG	–	–	,,
	37	CG	–	–	,,
	–	CG	–	–	Had or Ant
	79 or 80	CG	–	–	Mid late Ant
[1112]	37	CG	42	–	*c.* 135–170
	31	CG	–	–	Mid late Ant
	18/31	Les Martres	–	–	Traj
[1354]	18/31R	CG	–	–	Ant
	30	CG	–	–	,,
	37	CG	–	–	,,
	33	CG	–	–	,,
	37	CG	66	–	*c.* 135–170
	37	CG	67	–	*c.* 150–180
Phase 35/3					
[025/5]	–	CG	–	–	Ant
	33	CG	–	–	,,
	–	CG	–	–	Had or Ant
[1263]	33	CG	–	–	Ant
	18/31 or 31	CG	–	–	Had or early Ant
[1269]	18/31 or 31	Lezoux	–	11	*c.* 125–150
[1270]	18/31R	Lezoux	–	2	*c.* 155–165
	18/31R or 31R	CG	–	–	Ant
	30 or 37	CG	–	–	,,
	31	CG	–	–	,,
	33	CG	–	–	,,
	37	CG	–	–	,,
	38	CG	–	–	,,
	38 or 44	CG	–	–	,,
	jar	CG	–	–	,,
	37	EG?	–	–	Late 2nd C or first half of 3rd C
	31R	CG	–	–	Mid late Ant
	37	CG	51	–	,,
	79	CG	–	–	,,
	18/31?	Les Martres	–	–	Traj
[1287]	31	CG	–	–	Mid late Ant
	33	CG	–	–	,,
	37	CG	–	–	,,

Context	Form	Source	Cat. no.	Stamp no.	Date
	38 or 44	CG	–	–	,,
	dish	CG	–	–	,,
[1301]	31	Lezoux	–	1	*c.* 150–180
	33	CG	–	–	Ant
	37	CG	56	–	,,
	–	CG	–	–	,,
	33	EG	–	–	Late 2nd C or first half of 3rd C
	31R	CG	–	–	Mid late Ant
[1305]	31	CG	–	–	Ant
	jar	CG	–	–	,,
	37	CG	57	–	*c.* 160–190
[1338]	33	Les Martres	–	–	Traj
[1339]	33	Les Martres	–	–	,,
[1340]	30	CG	–	–	Ant
	31	CG	–	–	,,
	33	CG	–	–	,,
	38	CG	–	–	,,
	–	CG	–	–	,,
	37	CG	62	–	,,
	37	CG	61	–	*c.* 130–160
	37	CG	63	–	*c.* 150–190
	18/31R	CG	–	–	Had or early Ant
	37	CG	60	–	,,
	37	CG	62	–	Had-Ant
[1345]	dish	CG	–	–	Ant
[1349]	Curle 11?	Les Martres	–	–	Traj
[1350]	31	CG	–	–	Ant
	dish	CG	–	–	,,
	37	CG	65	–	*c.* 160–195
Phase 35/4					
[1317]	37	CG	59	–	*c.* 160–195
[1331]	31	CG	–	–	Mid late Ant
[1348]	37	CG	27	–	Traj-Had
Phase 35/5					
[1245]	31R	CG	–	–	Mid late Ant
	37	CG	6	–	150–180
[1251]	37	CG	–	–	Ant
	80	CG	–	–	Mid late Ant
	31	CG	–	–	Ant
	33	CG	–	–	,,
	37	CG	–	–	,,
	–	CG	–	–	,,
	80	CG	–	–	Mid late Ant
[1259]	31	CG	–	–	Ant
	33	CG	–	–	,,

Context	Form	Source	Cat. no.	Stamp no.	Date
	18/31 or 31	CG	–	–	Had or early Ant
[1260]	Curle 15 or 23	EG	–	–	Late 2nd C or first half of 3rd C
[1261]	37	CG	6	–	*c.* 150–180
	30	CG	–	–	*post c.* 160
	30 or 37	CG	–	–	,,
	31	CG	–	–	,,
	31R	CG	–	–	,,
	33	CG	–	–	,,
	37	CG	49	–	,,
	38	CG	–	–	,,
	beaker	CG	–	–	,,
	37	CG	5	–	*c.* 135–170
	37	CG	46	–	*c.* 160–190
	37	CG	58	–	,,
[1292]	dish	CG	–	–	Had or Ant
	33	CG	–	–	Mid late Ant
	37	CG	–	–	,,
[1296]	33	CG	–	–	Ant
	–	CG	–	–	,,
	37	CG	53	–	*c.* 160–190
	37	CG	52	–	*c.* 160–195
	37	CG	–	–	Had-Ant
	31R	CG	–	–	Mid late Ant
[1297]	31	CG	–	–	Ant
	37	Les Martres	54	–	,,
	38 or 44	Lezoux	–	10	*c.* 140–170
	–		CG	–	Ant
	37	CG	55	–	*c.* 160–190
[1310]	30 or 37	CG	–	–	Ant
	33	CG	–	–	,,
	37	CG	–	–	,,
	37	CG	58	–	*c.* 160–190
Phase 35/6					
[1336]	Lud. Th?	Rheinzabern	–	–	Late 2nd C or first half of 3rd C
	36	Rheinzabern	–	–	,,
Phase 35/7					
[1337]	31	Trier?	–	–	probably first half of 3rd C
[1342]	37	CG	–	–	Had or Ant
[1343]	37	Rheinzabern	7	–	*c.* 200–240
	30 or 37	Rheinzabern	–	–	Late 2nd C or first half of 3rd C
	31	Rheinzabern	–	–	,,
	31R	Rheinzabern	–	–	,,

Context	Form	Source	Cat. no.	Stamp no.	Date
	38	Rheinzabern	–	–	,,
	dish	Rheinzabern	–	–	,,
Phase 35/8					
[1303]	37	CG	–	–	Ant
Phase 35/9					
[1203]	37	CG	46	–	*c.* 160–190
	37	CG	–	–	Had or early Ant
	–	CG	–	–	Ant
	27	Les Martres	–	–	Traj
[1213]		CG	–	–	Had or Ant
[1217]	37	CG	–	–	Ant
	–	CG	–	–	,,
	31	CG	–	–	Mid late Ant
	38	CG	–	–	,,
[1242]	18/31R	CG	–	–	Had or early Ant
[1274]	18/31 or 31	CG	–	–	Had or Ant
Phase 35/10					
[1329]	30 or 37	CG	–	–	Ant
	31	CG	–	–	,,
	–	CG	–	–	,,
	31	EG	–	–	Late 2nd C or first half of 3rd C
	31R	EG	–	–	,,
	32 etc	EG	–	9	,,
	45	EG	–	–	,,
	footring	EG	–	–	,,
	31R	CG	–	–	Mid late Ant
[1341]	–	CG	–	–	Ant
	37	CG	64	–	*c.* 160–195
	31R?	EG	–	–	Late 2nd C or first half of 3rd C
Phase 35/11					
–	–	–	–	–	–
Phase 35/12					
–	–	–	–	–	–
Phase 36/1					
[1552]	18/31 (Tq)	CG	–	–	Had or early Ant
	18/31R	CG	–	–	,,
	30 or 37	CG	–	–	,,
	37	CG	79	–	,,
	81	CG	–	–	,,
	30 or 37 rim	La Madeleine	–	–	Had-Ant
[1557]	37	CG	9	–	*c.* 135–165

Context	Form	Source	Cat. no.	Stamp no.	Date
	18/31R	CG	–	–	Had or early Ant
	27	CG	–	–	,,
	27(?)	CG	–	–	,,
Phase 36/2					
[1531]	36	Les Martres	–	–	Traj
[1542]	18/31(R?)	Les Martres	–	–	,,
[1553]	37	CG	80	–	*c.* 135–170
	27(?)	CG	–	–	Had or early Ant
	30 or 37	CG	–	–	,,
	33	CG	–	–	,,
[1556]	jar	CG	–	–	Ant
	27	CG	–	–	Had or early Ant
[1574]	33	CG	–	–	Ant
	Curle 15 or 23	CG	–	–	,,
Phase 36/3					
–	–	–	–	–	–
Phase 36/4					
[1526]	18/31	probably La Madeleine	–	–	Had-Ant
[1549]	flake	CG	–	–	Had or Ant
Phase 37/1					
[1608]	–	CG	–	–	Ant
Phase 37/2					
[1607]	dish	Rheinzabern	–	–	Late 2nd C or first half of 3rd C
	31	CG	–	–	Mid late Ant
	33	CG	–	–	,,
Phase 37/3					
[1602]	rim	CG	–	–	Ant
	37	CG	81	–	*c.* 160–200
	31R	Trier	–	–	Late 2nd C or first half of 3rd C
	dish	Trier	–	–	,,
	31	Lezoux	–	29	*c.* 160–200
[1606]	33	CG	–	–	Ant
	31	CG	–	–	Mid late Ant
	31R	CG	–	–	,,
	38 or 44(?)	CG	–	–	,,

Table 4: Summary of Samian Ware from phased contexts
Abbreviations: CG: Central Gaulish; EG: East Gaulish; SG: South Gaulish; Les Martres: Les Martres-de-Veyre; Flav: Flavian; Traj: Trajanic; Had: Hadrianic; Ant: Antonine; e: early; m: middle; l: late; prob: probably

COARSE POTTERY by T. S. Martin

The excavations produced a total of 8154 sherds, including samian, amphorae, mortaria and coarse pottery, from 197 phased Roman contexts. The bulk of the pottery was recovered from the rampart and Room 1 of Structure 1. All the stratified groups date to the period *c.* AD 120 to *c.* AD 300, with the latest Roman levels truncated by post-Roman activity.

Catalogue (Figs. 16–21)

The catalogue has been presented in order of context number grouped by phase. No attempt has been made to offer a form/fabric type series for the site. All illustrated vessels are from phased Roman contexts.

Quantification

All pottery has been identified macroscopically and quantified by sherd count and by weight (grammes) for the archive. The total of sherds for each context in the catalogue includes all pottery recovered from that context. Pottery from stratified groups was quantified by rim percentage to yield the estimated vessel equivalents (EVE) for each fabric. These figures are summarised for each ceramic period in Tables 5–11.

Abbreviations

The following fabric/fabric group abbreviations have been used in the catalogue:-

Col C: Colchester and type fabrics.
NGC: North Gaulish Colour-coat, as above.
RW: Rhenish Ware (embraces Lower Rhineland).
NVC: Nene Valley Colour-coat.
MD: Mica Dusted Ware.
LG: Lead-glazed.
Am: Amphorae.
Mo: Mortaria.
WW: White Wares.
WS: White Slipped Wares.
OW: Oxidised Wares.
GR: Grey Wares.
BB1: Black-burnished Ware category 1.
GR/BBT: Grey Ware/Black-burnished Type, (imitation BB1 vessels and fabric, probably locally produced).
CG: Calcite Gritted Wares.
DBY: Derbyshire Ware.

A number of the fabric groups differ from those used for the North-West Sector (Birss 1985, 90–91). These are as follows:

FLA and FLB have been changed to White Ware (WW) and White Slipped Ware (WS) to give a clearer indication of fabric characteristics, as not all the vessels in these fabrics are flagons.

CT has been changed to Calcite Gritted (CG) and includes Dales Ware.

GRY has been divided into Grey Wares (GR) and Oxidised Wares (OW) as these represent fabrics fired in differing kiln conditions.

The Pickford's Garage site

Structure 1: Room 1

Phase R1/1: Construction of Room 1 and primary occupation

1 [632] GR platter with linking sherds from [637] and [645].

2 [632] GR everted-rim jar.
[632] Not illustrated. MD; an undiagnostic body sherd. GR; a rusticated sherd. Total sherds: 21.

3 [637] GR jar.

4 [637] BB1 flat-rimmed dish, a mid late 2nd century type.
[637] Not illustrated. WW; a flagon handle and an everted-rim jar. OW a rim sherd, possibly from a carinated bowl. GR; a reeded-rim bowl, seven everted-rim jars, seven rusticated sherds, five rouletted sherds, and three with barbotine, ring and dot, decoration. Total sherds: 138.
[643] Not illustrated. NGC; a roughcast sherd with fabric reminiscent of Anderson's (1980) North Gaulish fabric group. Total sherds: 1.

5 [645] WS ring-necked flagon.

6 [645] OW everted-rim jar in a coarse fabric with red paint and lead-glazed decoration.

7 [645] GR everted-rim jar.

8 [645] GR everted-rim jar with rouletting.
[645] Not illustrated. MD; an undiagnostic sherd. WW; a body sherd of a tazza, an everted-rim jar and a rouletted sherd. GR; two everted-rim jars, a lid, a jar with upright rim and two jars with rolled-over rims, eight rusticated sherds, five rouletted sherds and four with barbotine, ring and dot, decoration. CG; six body sherds of jars. Total sherds: 44.

9 [649] OW everted-rim jar.

10 [649] OW carinated bowl.

11 [649] GR everted-rim jar.

12 [649] GR lid-seated jar.
[649] Not illustrated. WW; an everted-rim jar, and three rouletted sherds. GR; four everted-rim jars, twelve rusticated sherds, eleven rouletted sherds, and one with barbotine, ring and dot, decoration. BB1; a lid, and a jar rim (*cf.* Gillam 1976: no. 1). Total sherds: 156.

13 [658] WW everted-rim jar.

14 [658] GR everted-rim jar with rustication.

15 [658] GR narrow-necked jar.
[658] Not illustrated. WW; four rouletted sherds. OW; an everted-rim jar, a bead rim bowl with red painted circles above an upper body cordon and figure '8's below, above all-over rouletting, and a carinated bowl with everted-rim. GR; six everted-rim jars, twenty rusticated sherds, thirteen rouletted sherds and seven with barbotine, ring and dot, decoration. BB1; four body sherds with acute-angled lattice. Total sherds: 163.

16 [659] OW narrow-necked jar.
[659] Not illustrated. OW; a lid. BB1; a flat-rimmed dish and a jar rim (*cf.* Gillam 1976: no. 1). Total sherds: 39.

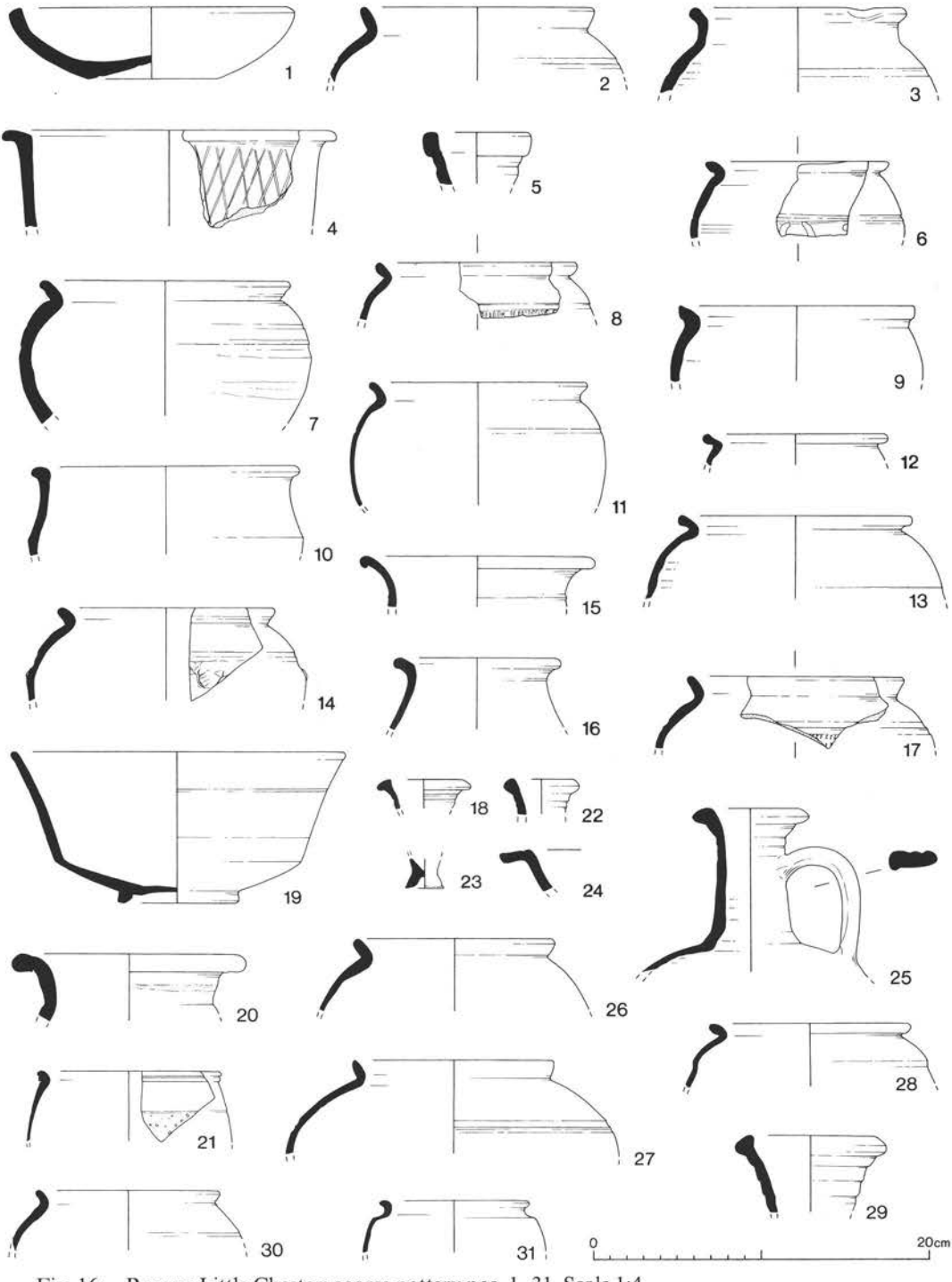

Fig. 16: Roman Little Chester: coarse pottery nos. 1–31. Scale 1:4.

[662] Not illustrated. WW; a flagon handle. GR; an everted-rim jar and a rusticated sherd. BB1; a dish body sherd with lattice. Total sherds: 25.

17 [663] GR everted-rim jar with rouletting.
[663] Not illustrated. BB1; a jar body sherd with acute-angled lattice. Total sherds: 22.
[664] Not illustrated. WW; a ring-necked flagon. GR; a bowl (*cf.* Brassington 1980, 28: fig. 15 no. 403), and a rouletted sherd. BB1; a sherd with acute-angled lattice. CG; a lid-seated jar. Total sherds: 12.
[665] Not illustrated. WW; 2 body sherds. BB1; a body sherd. Total sherds: 4.

18 [666] WW ring-necked flagon.

19 [666] GR bowl in a very fine fabric, not a local product.
[666] Not illustrated. WW; a ring-necked flagon. Total sherds: 16.

20 [667] ?BB1 narrow-necked jar.
[667] Not illustrated. WW; a flagon handle. WS; a flagon top in fragmentary condition. Total sherds: 29.

21 [668] RW cornice rim beaker in white fabric with roughcast decoration. From the Rhineland or Central Gaul.
[668] Not illustrated. GR; two everted-rim jars (one has acute-angled lattice below two horizontal grooves), and two other sherds with acute-angled lattice. Total sherds: 18.
[669] Not illustrated. OW; an everted-rim beaker. GR; three everted-rim jars. Total sherds: 10.
[671] Not illustrated. BB1 cooking pot with everted rim. Total sherds: 21.
[673] Not illustrated. WW; a ring-necked flagon. BB1; a jar, form uncertain. Total sherds: 19.

Phase R1/2: Levelling and floor post-dating central foundation

22 [510] WW ring-necked flagon.
[510] Not illustrated. OW; an everted jar rim. Total sherds: 20.
[530] Not illustrated. BB1; a flat-rimmed dish. Total sherds: 15.
[531] Not illustrated. WW; a ring-necked flagon with internal rebate. Total sherds: 2.

23 [542] WW base possibly from an inkwell. Total sherds: 7.

24 [544] GR dish or reeded-rim bowl.

25 [544] GR ring-necked flagon.
[544] Not illustrated. BB1; two body sherds with acute-angled lattice. Total sherds: 19.
[549] Not illustrated. LG; an undiagnostic body sherd, possibly a Racecourse product. Total sherds: 7.
[558] Not illustrated. BB1; a dish with chamfer, rim form uncertain. 2nd century. Total sherds: 10.
[562] Not illustrated. BB1; a flat-rimmed dish. Total sherds: 46.
[606] Not illustrated. WW; a ring-necked flagon with splayed rim. Total sherds: 7.
[610] Not illustrated. WW; a flagon handle and a Verulamium region sherd. GR; an everted-rim jar. Total sherds: 7.

26 [613] GR jar with everted, almost upright rim.

27 [613] GR everted-rim jar.

28 [613] OW everted-rim jar, with horizontal burnished lines.
[613] Not illustrated. Col C; a beaker with cornice rim. 'Colchester type' fabric (identification by R. J. Pollard). GR; two everted-rim jars, four rusticated and five rouletted sherds. BB1; a jar rim (reminiscent of Gillam 1976: no. 4). Total sherds: 77.
[615] Not illustrated. WW; a flagon top (rim missing) with handle and another flagon handle. Total sherds: 27.

29 [616] Large WW ring-necked flagon.

30 [616] GR everted-rim jar.
[616] Not illustrated. GR; an everted-rim jar. Total sherds: 17.
[631] Not illustrated. WW; a flagon handle. WS; a ring-necked flagon top. GR; an everted-rim jar and a reeded-rim bowl. Total sherds: 41.
[634] Not illustrated. GR; a rusticated sherd. Total sherds: 4.
[657] Not illustrated. GR; a sherd with barbotine, ring and dot, decoration. Total sherds: 6.

Phase R1/3: Levelling and floor

[12] Not illustrated. GR lid. Total sherds: 3.

31 [37] NVC beaker.
[37] Not illustrated. BB1; a flat-rimmed dish (*cf.* Gillam 1976: no. 38). Total sherds: 12. (Fig. 19)

32 [527] DBY jar.
[527] Not illustrated. BB1; a body sherd with acute-angled lattice decoration. Total sherds: 9.
[532] Not illustrated. GR; an everted-rim jar. Total sherds: 16.

33 [535] NVC cornice rim beaker. Total Sherds: 6.
[536] Not illustrated. GR; two everted-rim jars. BB1; a jar, exact form uncertain. CG; a body sherd with rilling. Total sherds: 19.

34 [551] NVC beaker.
[551] Not illustrated. ?RW; a burnt sherd with roughcasting in quartz. WW; 7 body sherds, ?flagon/s. WS; a base of a ?flagon. GR; two everted-rim jars and two reeded-rim bowls. BB1; 7 undecorated body sherds, ?jars. DBY; a body sherd. Total sherds: 40.
[556] Not illustrated. GR; a sherd with rouletted decoration. DBY; an undiagnostic body sherd. Total sherds: 4.

Structure 1: Room 2

Phase R2/1: Construction of Room 2 and primary occupation

35 [206] GR beaker or small jar with everted rim.
[206] Not illustrated. RW; beaker sherd with roughcast decoration, fabric and origin as no.21. WW; a Verulamium Region body sherd. BB1; a body sherd (closed form). Total sherds: 15.

36 [207] OW jar.

37 [207] BB1 jar with thick upright rim.

38 [207] WW everted-rim jar, a possible Racecourse product.

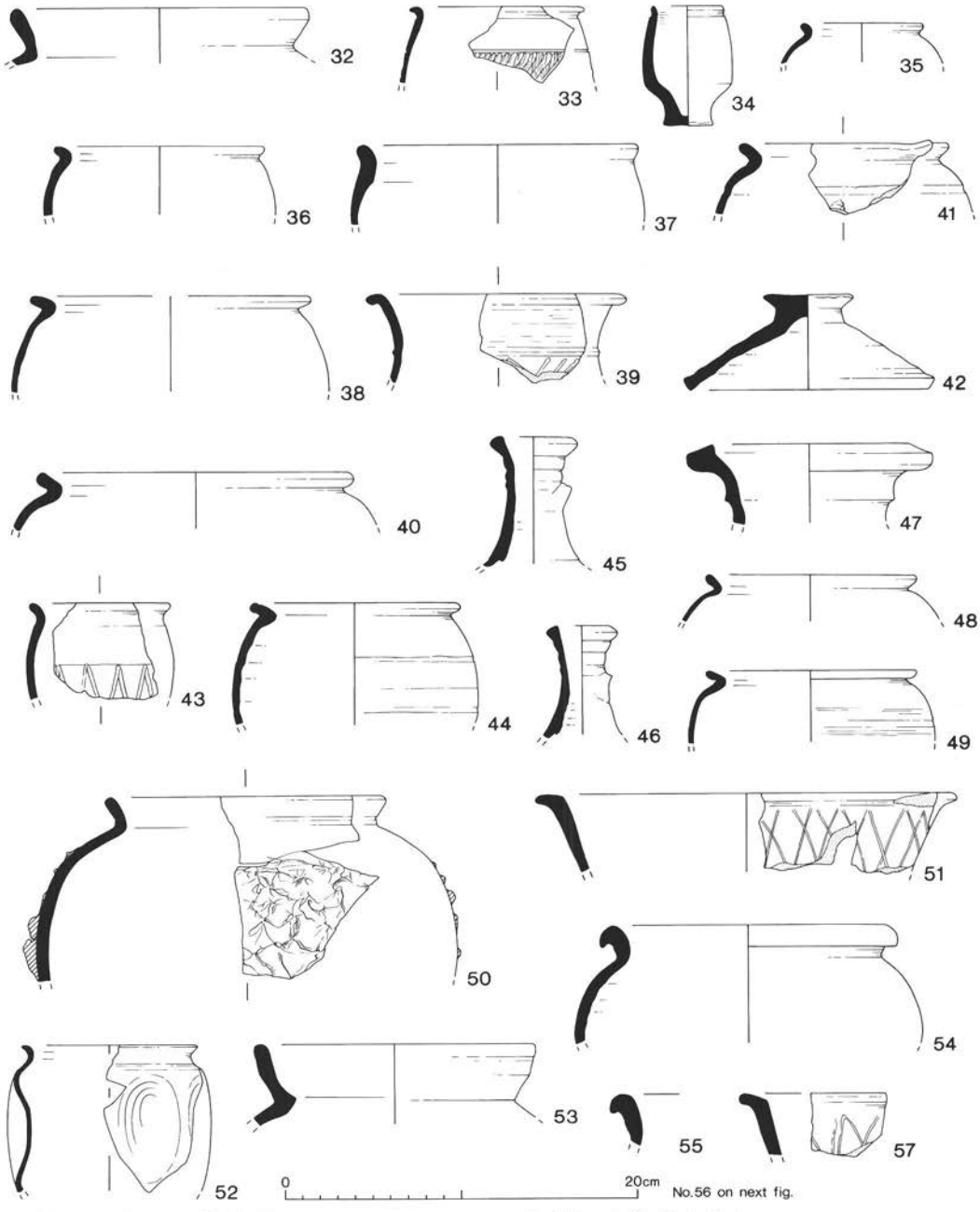

Fig. 17: Roman Little Chester: coarse pottery nos. 32–55 and 57. Scale 1:4.

39 [207] OW carinated bowl, possibly a Racecourse product.
40 [207] OW everted-rim jar.
41 [207] GR everted-rim jar with rustication.

[207] Not illustrated. RW; a beaker sherd with roughcasting, fabric and origin as no. 21. WW; a flagon handle. GR; three everted-rim jars and three rusticated sherds. Total sherds: 69.

[208] Not illustrated. CG; a jar sherd with rilling. Total sherds: 1.

[815] Not illustrated. WW; 7 body sherds, ?flagon/s. Total sherds: 7.

42 [824] GR lid.

[824] Not illustrated. WW; a flagon handle and a rim of a ring-necked flagon. WS; a flagon rim. GR; an everted-rim jar and a carinated bowl. Total sherds: 46.

43 [876] BB1 small jar.

[876] Not illustrated. RW; a roughcast beaker, fabric and origin as no. 21. MD; a dish/platter base. WW; a flagon, form uncertain. GR; an everted-rim jar, a rusticated, and a rouletted sherd. Total sherds: 34.

[877] Not illustrated. RW; possibly Lower Rhineland. WW; a very fine sherd with glossy exterior and rouletted decoration, a 'London type ware' imitation Drag. 30 bowl, possibly a Nene Valley product (identification by R. J. Pollard); two ring-necked flagon rims and base sherd. WS; a base sherd. GR; five everted-rim jars, four rusticated sherds, one rouletted, a body sherd with grooved or 'cut glass' decoration (*cf.* Webster 1989, fig. 56, no. 289), and a rim sherd of a carinated bowl. BB1; a lid and jar base. CG; a jar base with rilling. Total sherds: 91.

44 [899] GR everted-rim jar.

[899] Not illustrated. GR; a rouletted sherd. Total sherds: 7.

[914] Not illustrated. GR; a rusticated body sherd, probably from a jar. BB1; a base sherd of a dish and a body sherd with acute-angled lattice. DBY; two undiagnostic body sherds. Total sherds: 19.

Phase R2/2: Levelling and floor

[54] Not illustrated. Col C; a roughcast beaker sherd. Total sherds: 5.

[796] Not illustrated. Col C; a roughcast beaker sherd. WW; a lid. Total sherds: 60.

Phases R2/3 and R2/4: Floors

The contexts in these two phases included no coarse pottery.

Structure 1: Room 3

Phase R3/1: Construction of Room 3; slot and pit

45–6 [812] WW ring-necked flagons.

47 [812] WW wide-mouthed flagon.

48 [812] WW everted-rim jar.

[812] Not illustrated. WW; a ring-necked flagon, a rouletted sherd and a sherd (flask) with red painted horizontal bands. WS; a flagon top and handle with two grooves. GR; a flanged bowl (like Brassington 1971, 51: fig. 7 no. 82), three everted-rim jars, a carinated bowl with acute-angled lattice decoration below a cordon, a lid-seated jar, a carinated bowl rim sherd with cordon, five rusticated sherds, and two rouletted sherds. Total sherds: 102.

[873] Not illustrated. WW; a flagon handle. Total sherds: 5.

49 [913] OW everted-rim jar.
[913] Not illustrated. WW; a jar (rolled) rim sherd. GR; a everted-rim jar and a rusticated sherd. BB1; a lid with plain rim. Total sherds: 34.
50 [935] GR everted-rim jar with rustication.
[935] Not illustrated. Total sherds: 5.

Phase R3/2: Disturbed floors; coin hoard

51 [783] BB1 dish.
[783] Not illustrated. WW; a flagon handle. Total sherds: 13.
52 NVC folded beaker, linking sherds from [841].
53 [784] DBY jar.
[784] Not illustrated. NVC; beaker. WW; a ring-necked flagon. DBY; three undiagnostic body sherds. Total sherds: 20.
[861] Not illustrated. DBY; a base, probably from a jar. Total sherds: 9.
[862] Not illustrated. RW; a roughcast beaker, fabric and origin as no. 21. GR; two rusticated sherds. DBY; a base, probably from a jar. Total sherds: 27.

Dating: Rooms 1, 2, and 3

The pottery from the construction phases of Rooms 1 and 3 (Phases R1/1 and R3/1) indicates that these were built no later than the beginning of the early Antonine period, perhaps around AD 140. Hadrianic forms predominate with a significant number of GR neckless everted-rim jars, WW ring-necked flagons and Central Gaulish samian of Hadrianic or early Antonine date. DBY is absent. There are anomalies in the dating evidence from Room 2. The construction phase (Phase R2/1) included two DBY sherds [914] and a sherd of a samian form 37 bowl of mid to late Antonine date (no. 31) [877]. At face value, these suggest that Room 2 might be a later addition to the building. However the three rooms are structurally indivisible and the balance of evidence is that the whole building was constructed in the Hadrianic/early Antonine period. The anomalous sherds in Room 2 must be explained by an urecognized intrusive feature. Phase R1/2 appears to be no later than the beginning of the early Antonine period. The pottery is fairly homogenous with the preceeding group (Phase R1/1), indicating a short interval between the two phases. Residual Flavian samian sherds join with sherds from Phase R1/1. In Room 2, coarse pottery from Phase R2/2 included nothing to give a clear indication of date. Phases R2/3 and R2/4 produced no coarse pottery and the samian does not include any pieces later than the early Antonine period. However, Phase R2/4 included a coin (no. 30) dated after AD 270. The final phases of Rooms 1 and 3 (Phases R1/3 and R3/2) belong to the later second century. In Phase R1/3 the small assemblage included DBY, an NVC beaker (no. 34) and mid to late Antonine samian. Phase R3/2 produced later second century beaker types and East Gaulish samian.

Area 33: Area south of Structure 1

Phase 33/1: Gravel surface and underlying occupation

[898] Not illustrated. NVC; a closed form, probably a jug or flagon, body sherds only. DBY; two undiagnostic body sherds. Total sherds: 12.
54 [900] DBY jar with rolled-over rim.

55 [900] CG lid-seated jar with upright rim. (Fig. 17)
[900] Not illustrated. A beaker sherd with brown colour-coat on exterior only, grey fabric and roughcasting in clay, possibly imported. WW; a segmental bowl with red painted flange (as Gillam 1970, 30: no. 299), and a flagon base. BB1; two jars, one with wavy line decoration under rim and the other with a form as Gillam 1976: no. 16, but acute-angled lattice. DBY; two lid-seated jars and one with a rolled-over rim. Total sherds: 95.
56 [901] BB1 jar. (Fig. 18)
57 [901] BB1 flat-rimmed dish. (Fig. 17)
58 [901] GR jar base with lower body incised decoration.
59 [901] GR everted-rim jar.
[901] Not illustrated. NVC; a beaker with bead rim. WW; a ring-necked flagon. DBY; two lid-seated jars. Total sherds: 78.
[902] Not illustrated. BB1; a dish base with interlocking loops on the underside. Total sherds: 4.

Dating: Phase 33/1

The presence of mid to late Antonine samian and large quantities of DBY, and the absence of later BB1 forms, suggest a date at the end of the second century.

Phase 33/2: Cobble surface

This phase produced no pottery.

Ancillary structures to south of Structure 1

Phase S/1: Verandah, steps and gravel bench; coin hoard

This phase produced no pottery, but included a coin hoard (Hoard 1) closing AD 145–161.

Phase S/2: Verandah, steps and clay bench

[114] Not illustrated. GR; a platter or dish. Total sherds: 1.
60 [118] BB1 bead rim dish (*cf.* Gillam 1976: no. 69).
[118] Not illustrated. WW; a ring-necked flagon of Hadrianic-Antonine type. OW; a flagon handle. GR; a jar rim with burnished wavy line decoration on the underside. BB1; two undecorated bead rim dishes and a slightly oxidised sherd with acute-angled lattice decoration. DBY; a base (?jar), and a jug. Total sherds: 89.
61 [119] WW tazza.
62 [119] OW beaker.
63 [119] OW beaker body sherd with roller-stamped decoration (drawn at 2/1). Total Sherds: 9.

Dating: Phase S/2

All the samian is Central Gaulish and of Antonine date. Probably a mid second-century group.

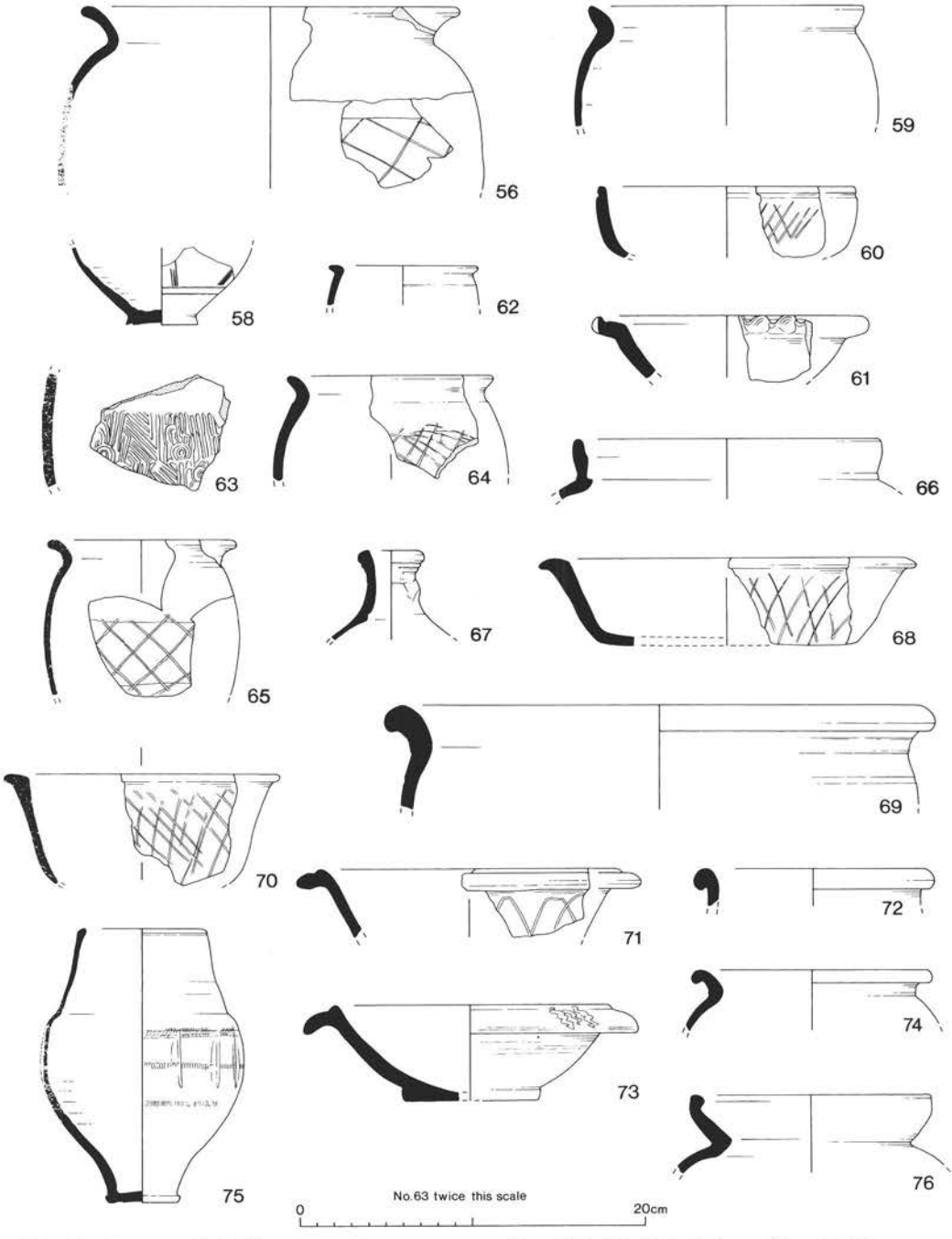

Fig. 18: Roman Little Chester: coarse pottery nos. 56 and 58–76. Scale 1:4, no. 63 scale 1:2.

Phase S/3: Stone bench and oven

[104] Not illustrated. DBY; a base, probably of a jar. Total sherds: 3.

64 [107] BB1 jar.

65 [107] GR jar.

66 [107] DBY distorted jar.

67 [107] WW ring-necked flagon.

[107] Not illustrated. ?IC; beaker, white fabric with roughcast decoration, NVC; 'hunt cup' type beaker with barbotine tendrils. WW; a flagon handle. BB1; a plain-rimmed dish (*cf.* Gillam 1976: no. 76). Total sherds: 73.

68 [115] BB1 flat-rimmed dish.

[115] Not illustrated. DBY; two undiagnostic body sherds. Total sherds: 31.

Dating: Phase S/3

This group contains Antonine samian and later second century beaker types.

Phase S/4: Timber structure

[88] Not illustrated. BB1; the base of a large dish with interlocking loops on the underside. Total sherds: 11.

69 [102] GR wide-mouthed bowl.

70 [102] BB1 flat-rimmed dish.

71 [102] BB1 dish with incipient flange.

72 [102] DBY jar.

73 [102] OW segmental bowl with white painted decoration on flange.

[102] Not illustrated. NVC; beaker with plain upright rim, probably from a funnel-necked type, as Howe *et al.* 1980: nos. 38–39, OW; two everted-rim jars. GR; an everted-rim jar. BB1; a jar, type uncertain, two undecorated plain-rimmed dishes. DBY; two lid-seated jars and a sherd from a jug. Total sherds: 201.

[171] Not illustrated. NVC; a base sherd, BB1; an incipient-flanged dish rim, two dish bases with loop decoration on the underside, and a sherd with obtuse lattice. DBY; six undiagnostic body sherds. Total sherds: 23.

Dating: Phase S/4

The two incipient-flanged BB1 dishes, the NVC beaker types, and East Gaulish samian indicate an early third century date for the group.

Phase S/5: Hypocaust structure

[38] Not illustrated. DBY; a base with ?concrete accretion, probably from a jar. Total sherds: 2.

[87] Not illustrated. NVC; folded beaker with barbotine scaled decoration. GR; a rouletted sherd. DBY; a lid-seated jar. Total sherds: 47.

[89] Not illustrated. NVC; a folded beaker. Total sherds: 5.

74 [92] DBY jar with rolled-over rim.

[92] Not illustrated. BB1; a dish and a jar with obtuse lattice. Total sherds: 5.

75 [170] NVC slit-folded beaker

76 [170] DBY lid-seated jar. Total Sherds: 23.

Dating: Phase S/5

A later third, possibly fourth century, group is indicated by the NVC beaker forms.

Area 35: The Defences

Phase 35/1: Metalling underlying rampart

This phase produced no pottery except a South Gaulish samian sherd of Flavian-Trajanic date [25/6]. The phase is dated by a coin of Hadrian (AD 119–22) (no. 11).

Phase 35/2: Occupation underlying rampart

[1354] Not illustrated. WS; a base belonging to a closed form. DBY; two lid-seated jars. Total sherds: 76.

Dating: Phase 35/2

This phase produced only a small amount of pottery. The presence of DBY in [1354] and Central Gaulish samian dating to the mid to late Antonine period indicates a date after AD 150.

Phase 35/3: Construction of rampart

[1263] Not illustrated. NVC; a beaker sherd with rouletted decoration. WW; flagon handle and an abraded rim, probably belonging to ring-necked type. OW; three beaker sherds with rouletted decoration. Total sherds: 23.

[1269] Not illustrated. DBY; a lid base. Total sherds: 14.

77 [1270] OW rouletted beaker.

78 [1270] OW very fine beaker.

79–81 [1270] DBY jars.

82–84 [1270] DBY lids.

85–86 [1270] BB1 jars.

87 [1270] BB1 flat-rimmed dish.

88 [1270] BB1 bead rim dish.

[1270] Not illustrated. NVC; two beakers of 'hunt cup' type. OW; an imitation of Drag. 44 bowl, a segmental bowl, and a rouletted beaker with everted-rim. DBY; a narrow-necked jar. Total sherds: 532.

89 [1287] BB1 jar with grey surfaces (?Rossington Bridge).

90 [1287] DBY jar. Total Sherds: 71.

91 [1301] Small DBY jar.

92 [1301] WW flagon.

93 [1301] OW beaker with rouletting, linking sherd from [1296].

[1301] Not illustrated. OW; five rouletted beaker body sherds, three roller-stamped beaker body sherds, two sherds from a carinated bowl with a zone of acute-angled lattice under a flat rim, a sherd with roughcast decoration (quartz?); a segmental bowl with white painted flange, and two base sherds of a dish/platter. GR; a cheese press, a rolled-over rim jar, a high-shouldered, neckless jar rim, a flask rim (*cf.* Birss 1985, 101, no. 130). DBY; seven lid-seated jar rims. Total sherds: 216.

[1305] Not illustrated. NVC; a jug handle and base, a Central Gaulish (Lezoux?) bag-shaped beaker, indented and with horizontal bands of rouletting; DBY; two lid-seated jars. Total sherds: 47.

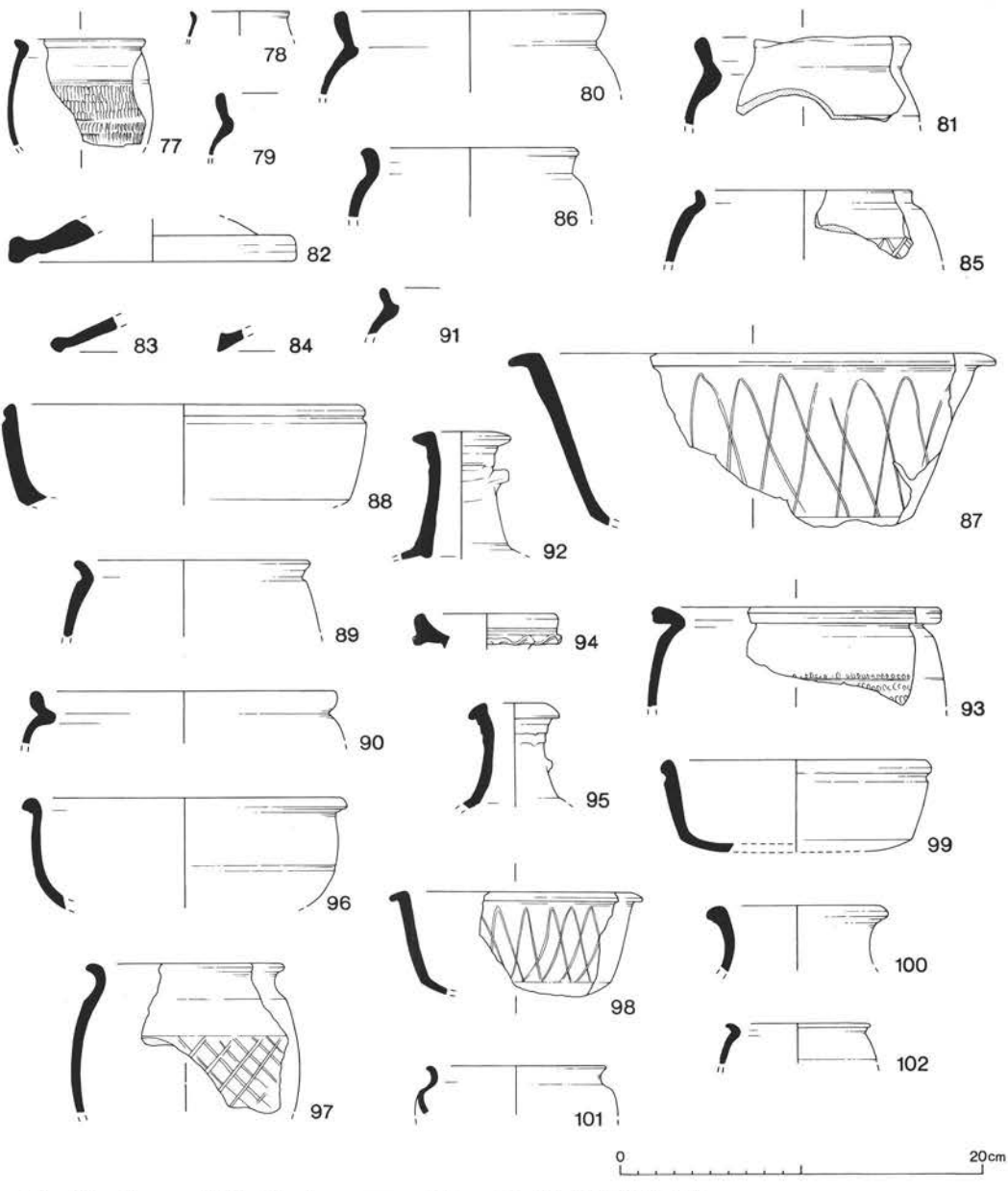

Fig. 19: Roman Little Chester: coarse pottery nos. 77–102. Scale 1:4.

[1339] Not illustrated. GR; a flat-rimmed dish with acute lattice. BB1; a flat-rimmed dish with acute-angled lattice. Total sherds: 7.

94 WW rim of narrow-necked vessel.

95 WW ring-necked flagon top.

96 [1340] GR bowl with bead rim, linking sherds from [1301], [1297], [1291], [1270] and [1261].
97 [1340] BB1 jar.
98–99 [1340] BB1 dishes.
100 [1340] OW narrow-necked jar.
101 [1340] NVC beaker.
102 [1340] OW beaker.
103 [1340] DBY jar in an off-white fabric.
104 [1340] DBY jar.
105 [1340] DBY narrow-necked jar.

[1340] Not illustrated. OW; a jar, two roller-stamped and two rouletted body sherds probably from beakers. GR; a rusticated sherd, a carinated beaker(?). BB1; a small jar (Gillam 1976: no. 21), a jar with almost upright rim, a jar (*cf.* Gillam 1976: no. 3), an undecorated dish base. DBY; a narrow-necked jar (rim form uncertain), four lid-seated jars and a jug handle with single groove. Total sherds: 221.

106 BB1 jar.

[1345] Not illustrated. NVC; indented beaker with barbotine scales. WW; flask body sherds with horizontal red painted bands. Total sherds: 26.

107 [1350] WW carinated bowl, probably a Racecourse product. Linking sherds in [1297], [1310] and [1261].

[1350] Not illustrated. GR; a jar or bowl rim sherd. BB1; a flat-rimmed dish (*cf.* Gillam 1976: no. 61), and a bead rim dish. DBY; two undiagnostic body sherds. Total sherds: 16.

108 [1351] WS beaker or small jar with everted rim. Total Sherds: 16.

Phase 35/4: Gully and oven cut into rampart

[1294] Not illustrated. DBY; a lid-seated jar. Total sherds: 4.

[1326] Not illustrated. GR/BBT; a flat-rimmed dish, grey orange fabric with very black highly burnished surfaces. Total sherds: 5.

Phase 35/5: Refurbishment of rampart; layers dumped on rear of rampart

[1245] Not illustrated. NVC; a large base and lower body of bag-shaped beaker with traces of barbotine decoration on lower body, a 'hunt cup' type with barbotine tendrils and devolved cornice rim (*cf.* Howe *et al.* 1980: no. 29). WW; a flagon base. OW; body sherds of a large jar. GR; two bases. BB1; two undecorated plain rim dishes, and a bead rim dish with acute-angled lattice decoration (*cf.* Gillam 1970, 32: no. 317). DBY; a lid-seated jar rim. Total sherds: 67.

109 [1258] BB1 jug rim.

[1258] Not illustrated. NVC; a large beaker base, two bag-shaped beakers with simple curved rims, a castor box lid with plain rim and rouletted decoration and a single sherd of a closed form. WW; flagon rim with internal rebate, a double-grooved handle and a large base. OW; beaker body sherd with very rough rouletting. GR; sherd from a possible carinated bowl with burnished lines approx. 60 degrees. BB1; a flat-rimmed dish with acute-angled lattice, two dish bases, one with loop decoration on underside, one body sherd with obtuse-angled lattice, probably from a jar. DBY; seven lid-seated jar rims. Total sherds: 170.

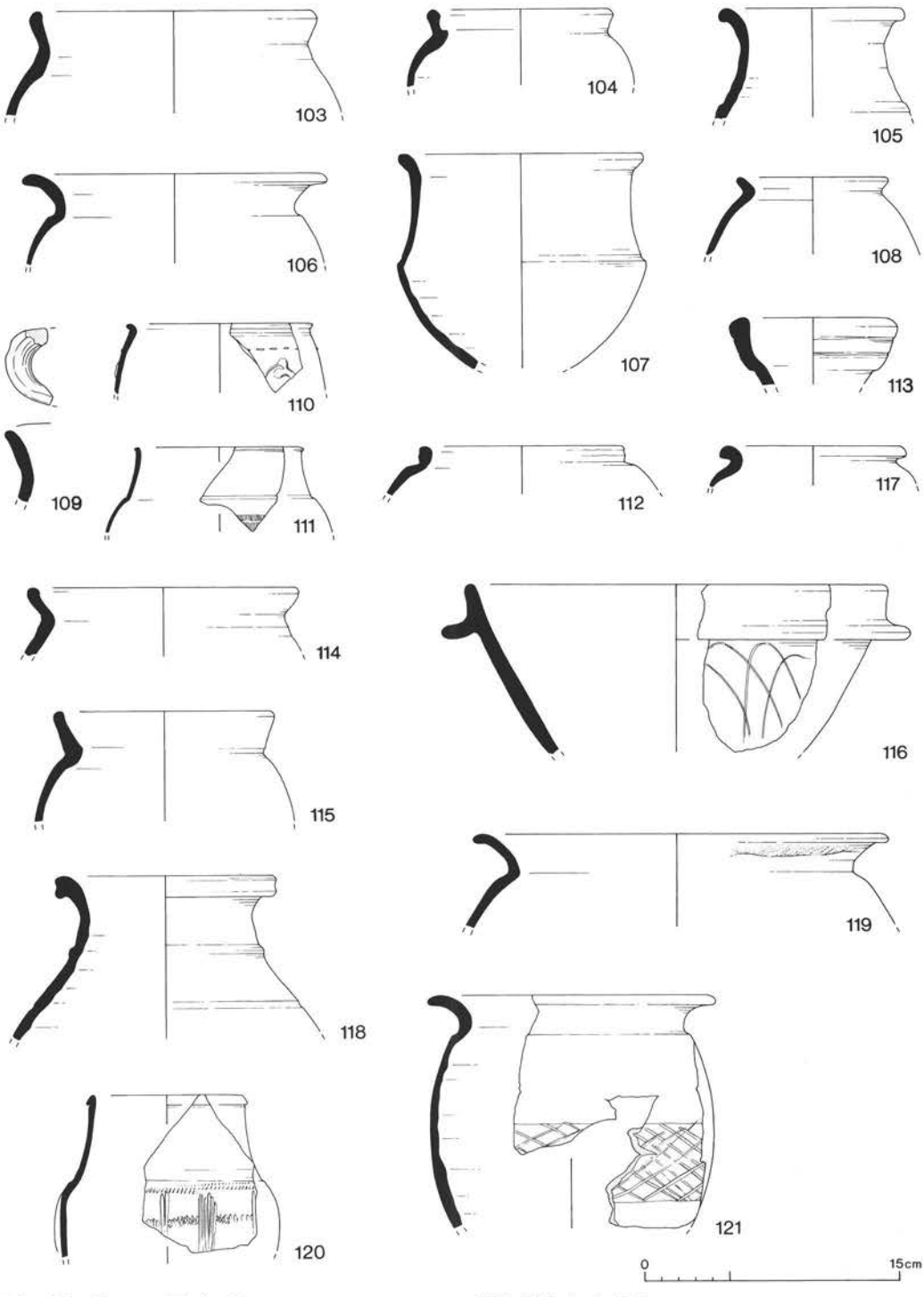

Fig. 20: Roman Little Chester: coarse pottery nos. 103–121. Scale 1:4.

110 [1259] NVC beaker.
[1259] Not illustrated. WW; a ring-necked flagon rim and a flask sherd with horizontal red painted bands. OW; a jar with everted rim and a rouletted beaker sherd. GR; a rusticated sherd. BB1; a plain rim dish with acute-angled lattice, a flat-rimmed dish with acute-angled lattice, and a flat-rimmed dish undecorated with flat base. DBY; two distorted lid-seated jar rims and a narrow-necked vessel, probably a jar. Total sherds: 54.
[1260] Not illustrated. GR; three rim sherds in a white fabric with grey surfaces from a carinated bowl, almost certainly a Derby Racecourse product. BB1; base sherds from a jar. DBY; two lid-seated jar rims. Total sherds: 20.
111 [1261] Rhenish Ware beaker.
112 [1261] BB1 jar.
[1261] Not illustrated. NVC; a sherd of a closed form, possibly a jug, a bag-shaped beaker with bead rim, red colour-coat and pink fabric. WW; a probable flagon base with hole punched through centre, a segmental bowl with red painted flange, a flagon rim with internal rebate, a bowl with bead rim, and a lower body sherd of a flask with red painted bands. GR; two high shouldered neckless jars, a flat-rimmed dish with acute-angled lattice, and two dish bases with white fabrics and grey surfaces. BB1; undecorated flat-rimmed dish (*cf.* Gillam 1976: no. 41), a flat-rimmed dish with acute-angled lattice, four undecorated bead rimmed dishes, four undecorated plain-rimmed dishes (one example similar to Gillam 1976: no. 79), two dish bases, one with loops the other with zigzags on the underside and two jars, exact forms uncertain. DBY; ten lid-seated jar rims. CG; a rolled-over rim jar. Total sherds: 448.
[1269] Not illustrated. WW; a ring-necked flagon rim. OW; a beaker sherd, roller-stamped. GR; a necked jar. BB1; a jar, probably turntable finished. DBY; two small lid-seated jar rims. Total sherds: 14.
[1292] Not illustrated. BB1; a small jar, no surviving decoration. DBY; a lid-seated jar rim. Total sherds: 15.
113 [1297] WW flagon Top.
114 [1297] A DBY lid-seated jar.
[1297] Not illustrated. NVC; two bag beakers with barbotine decoration. WW; a ring-necked flagon rim with internal rebate, two flagon handles, and a sherd with red painted horizontal band, possibly from a flask. OW; an everted-rim beaker and a rouletted sherd possibly from the same vessel. GR; two everted-rim jars, and one neckless high-shouldered jar, an undecorated flat-rimmed dish. BB1; a bead rimmed dish, two flat-rimmed dishes with acute-angled lattice. DBY; two sherds from a narrow-necked vessel, probably a jar, and four lid-seated jars. Total sherds: 130.
[1310] Not illustrated. RW; lower body sherd of a roughcast beaker white fabric. WW; a flagon. OW; three everted-rim beaker sherds. GR; an undecorated plain-rimmed dish. BB1; a flat-rimmed dish, an undecorated bead rimmed dish (linking sherd from [1297]). DBY; two lid-seated jars with upright rims. Total sherds: 70.

Dating: Phases 35/3, 35/4, and 35/5

The character of the pottery from all three phases is fairly homogenous. DBY was the predominant coarse ware. The BB1 forms are predominantly Antonine. The range of

imported pottery includes a Rhenish ware beaker (no. 111) and East Gaulish samian dating to the late second or early third century. This indicates that the sequence of rampart construction and refurbishment belongs to the end of the second century.

Phase 35/6: Construction of extension south of Structure of 1

[1335] Not illustrated. DBY lid-seated jar. Total sherds: 4.

[1336] Not illustrated. NVC; beaker sherds with rouletting. BB1; a jar, no decoration present. Total sherds: 18.

Dating: Phase 35/6

DBY forms the most abundant coarse ware group. East Gaulish samian and the NVC beakers may indicate a third century date for the group.

Phase 35/7: Occupation layer abuts Phase 36/6 extension

[1337] Not illustrated. NVC; beaker, with a tall neck and bead rim. (*cf.* Howe *et al.* 1980: no. 52). Total sherds: 5.

115 [1342] DBY jar.

[1342] Not illustrated. NVC; a 'hunt cup' type beaker sherd with barbotine decoration. BB1; a dish with incipient flange. DBY; a lid-seated jar. Total sherds: 16.

[1343] Not illustrated. NVC; slit-folded beaker. BB1; a jar body sherd with obtuse lattice. DBY; a lid-seated jar with upright rim. Total sherds: 31.

[1344] Not illustrated. DBY; a lid-seated jar. Total sherds: 3.

Dating: Phase 35/7

This small group contains third century coarse ware types and East Gaulish samian. A date between *c.* AD 200 and *c.* AD 240 seems probable.

Phase 35/8: Construction trench cutting front of rampart

[1257] Not illustrated. WW; two body sherds, one with red paint decoration. GR; one undiagnostic body sherd. DBY; two undiagnostic body sherds. Total sherds: 5.

[1284] Not illustrated. WW; an undiagnostic sherd. Total sherds: 1.

[1303] Not illustrated. GR; an everted-rim jar. Total sherds: 10.

Dating: Phase 35/8

This phase is stratigraphically contemporary with Phases 35/3, 35/4, and 35/5. There is nothing in the group to suggest otherwise.

Phase 35/9: Construction of stone defences at front of rampart

[1203] Not illustrated. WW; a flagon handle. BB1; two jar rim sherds, form uncertain. Total sherds: 29.

[1213] Not illustrated. WW; a large ring-necked flagon top. Total sherds: 5.

[1217] Not illustrated. NVC; two plain and two cornice rimmed beakers. GR; a cavetto rim jar, a fragmentary everted-rim ?jar, and two rouletted sherds. BB1; a jar with obtuse lattice, rim form uncertain, and a neckless high-shouldered jar rim sherd. DBY; two lid-seated and a rolled-over rim jar. Total sherds: 82.

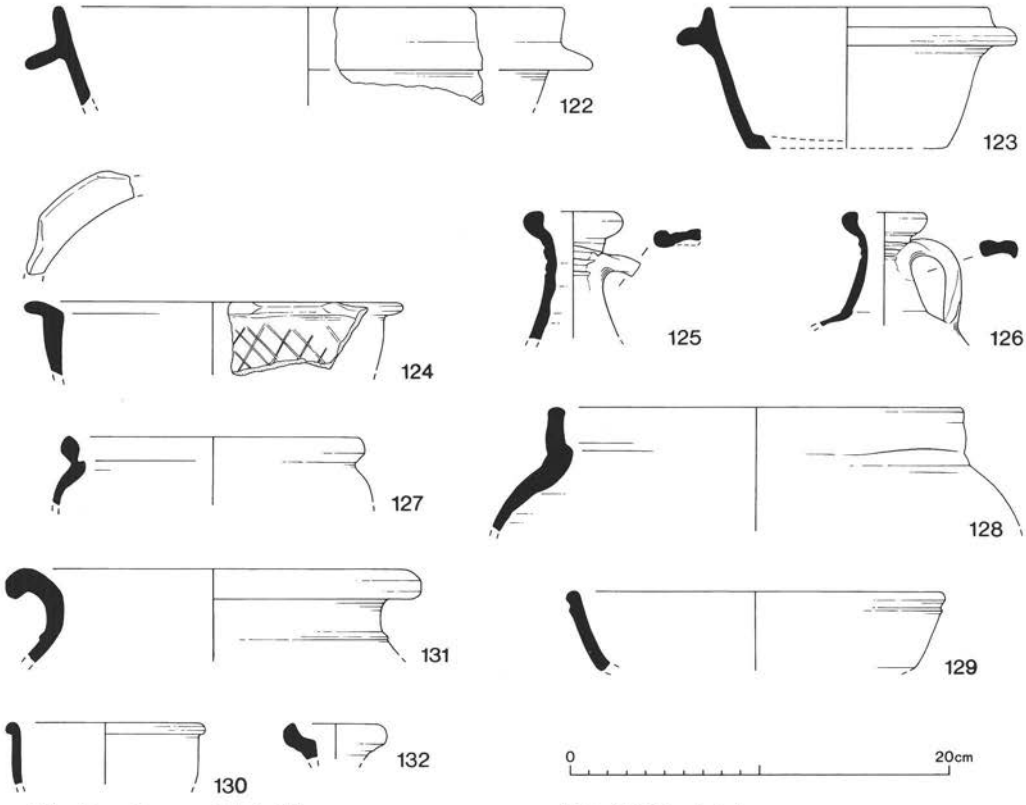

Fig. 21: Roman Little Chester: coarse pottery nos. 122–132. Scale 1:4.

[1242] Not illustrated. BB1; a lid and a bead rim dish. DBY; body sherds only. Total sherds: 17.
[1255] Not illustrated. BB1; a fragmentary flat-rimmed dish. Total sherds: 4.

Dating: Phase 35/9

BB1 and DBY are the predominant coarse wares. The BB1 jar with obtuse lattice and the NVC beaker types indicate a mid third century date.

Phase 35/10: Pit with coin hoard cutting layers of Phase 35/7

116 [1329] BB1 bead-and-flange dish.
117 [1329] DBY jar.
118 [1329] GR narrow-necked jar.
119 [1329] BB1 jar.
120 [1329] NVC beaker.
121 [1329] GR/BBT jar with obtuse lattice. (Fig. 20)
122 [1329] GR bead-and-flange dish.
[1329] Not illustrated. CGC; a Central Gaulish bag beaker with rouletting. RW; two indented Lower Rhineland beakers with rouletting. NVC; a tall-necked beaker in a buff fabric with rouletting, and two sherds from closed forms both with dark

brown surfaces. OW; a cup imitating samian form 33. GR; a flat-rimmed dish, and a possible bowl rim. GR/BBT; a jar with obtuse lattice (as no.121). BB1; an undecorated bead-and-flange dish, four jar sherds with obtuse lattice, an undecorated plain rim dish and a jar rim of second century type. DBY; two lid-seated and five with rolled-over rim jars. Total sherds: 221.

123 [1341] GR bead-and-flange dish.
[1341] Not illustrated. GR; a bead-and-flange dish. Total sherds: 16.

Dating: Phase 35/10

[1329] produced a large group of pottery with a number of readily dateable sherds. The character of the pottery suggests a date in the late third/early fourth centuries. The associated coin hoard (Hoard 3) gives a possible *terminus post quem* for the group *c.* AD 285.

Phase 35/11 Features cutting refurbished rampart (follows Phase 35/5)

[1240] Not illustrated. BB1; a dish base with underside loop decoration. DBY; four lid-seated jar rim sherds. Total sherds: 30.

Dating: Phase 35/11

DBY formed the principal element in a group that contained no samian. As a whole little can be said in terms of date for such a small group. All the pottery could be residual.

Phase 35/12: Layers post-dating stone defences

[1246] Not illustrated. WW; a single body sherd.

The Nursery Garden Site

Area 36

Phase 36/1: Deposits pre-dating structure

124 [1552] BB1 flat-rimmed dish with pouring lips.
[1552] Not illustrated. WW; 23 flagon rims, 30 tops and 27 handles, a beaker rim sherd. WS; a base, probably a flagon. GR; a flagon handle with single groove. BB1; a flat-rimmed dish (*cf.* Gillam 1976: no. 65), a jar rim sherd (form uncertain) and a body sherd with acute-angled lattice, probably a jar. Total sherds: 822.

125–26 [1557] WW single handled ring-necked flagons.
[1557] Not illustrated. WW; 28 flagon rims, 43 tops, and 30 handles. GR; two rusticated sherds. BB1; a base of a dish with underside loop decoration. DBY; a jar rim, form uncertain. Total sherds: 823.
[1563] Not illustrated. GR; two rusticated jars. Total sherds: 3.

Dating: Phase 36/1

WW formed the largest component, with layers 1557 and 1552 almost entirely comprised of Hadrianic/Antonine single-handled, ring-necked flagons possibly from the Mancetter/Hartshill manufactory. Only a small sample of the WW from these layers was recovered. The presence of DBY and Central Gaulish samian datable to the period *c.* 135–165 indicates a mid second century date for the group.

Phase 36/2: Construction of building

[1542] Not illustrated. WW; two undiagnostic body sherds. Total sherds: 3.
[1531] Not illustrated. WW; two ring-necked flagon rim sherds. OW; a rouletted sherd. DBY; an undiagnostic body sherd. Total sherds: 34.

Dating: Phase 36/2 (part 1)

The group probably dates to the second half of the second century. [1574] produced Antonine Central Gaulish samian.

[1553] Not illustrated. NVC; a curved rim beaker. GR; a jar sherd with acute-angled lattice. BB1; a dish (form uncertain) with arc decoration on exterior. DBY; two undiagnostic body sherds. Total sherds: 59.

127–28 [1556] DBY lid-seated jars.
[1556] Not illustrated: WW; 12 flagon rims, 22 tops, 17 handles. BB1; a flat-rimmed dish with lattice decoration (*cf.* Gillam 1976: no. 75) and a sherd with acute-angled lattice, probably a jar. Total sherds: 322.

Dating: Phase 36/2 (part 2)

The DBY sherd and Central Gaulish samian dating to the period *c.* AD 135–170 points to a date in the second half of the second century.

Phase 36/3: Layers to south post-dating construction

[1525] Not illustrated. BB1; a dish (*cf.* Gillam 1976: no. 70). DBY; a ?jar base and 12 body sherds. Total sherds: 25.

Phase 36/4: Layers to west post-dating construction

129 [1526] B1 dish with grooved and beaded rim.
[1526] Not illustrated. GR; a body sherd with acute-angle lattice, probably a jar. Total sherds: 18.

130 [1549] OW small bowl or cup with beaded rim.
[1549] Not illustrated. BB1; two flat-rimmed dishes (*cf.* Gillam 1976: nos. 60 and 64), body sherds and the base of a jar. DBY; two base sherds, probably jars. Total sherds: 28.

Dating: Phase 36/4

Phase 36/3 probably belongs to the late second century. Phase 36/4 contexts were made up almost entirely of WW single-handled, ring-necked flagons. BB1 was the next largest element, with jars almost insignificant. DBY was present in small quantities. A date in the later second century seems probable.

Phase 36/5: Robber trenches

131 [1519] A DBY jar with a heavy rolled-over rim. Total Sherds: 5.

132 [1520] WW flagon with rebated rim.
[1520] Not illustrated. GR; a jar with fine vertical rustication. BB1; a jar with acute angle lattice. DBY; a base and lid-seated jar rim. Total sherds: 11.
[1544] Not illustrated. DBY; a lid-seated jar rim sherd. Total Sherds: 2.

Dating: Phase 36/5

The absence of any third century forms indicates a late second century date for the phase.

Area 37

Brief comments only are given and no pottery is illustrated.

Phase 37/1: Road surface

A small assemblage amounting to 17 sherds (359g), excluding samian. There were few diagnostic sherds in the group as a whole. All layers contained DBY, [1610] the rim of a lid-seated jar with a 'cupped' rim. A fragmentary and abraded base of a NVC beaker of the 'hunt cup' type came from [1608] (linking with three sherds from [1607]). Little of the decoration survived except for a horizontal band of underslip barbotine 'dots' on the lower body.

Dating: Phase 37/1

The presence of Derbyshire Ware points to a date after AD 140/150, while the presence of the beaker indicates a probable terminal date for the group in the early third century at the latest.

Phase 37/2: Road surface

[1607] produced 30 sherds (593 g), excluding samian. DBY jars were the largest component. The few diagnostic sherds in the group comprised a single rim sherd belonging to a BB1 plain-rimmed dish with interlocking arc decoration (*cf.* Gillam 1970, 33: no. 329, dated *c.* AD 190–340), and a White Ware 'hammerhead' unpainted mortarium rim with part of the spout surviving and three bands of reeding around the flange. It is almost certainly a Mancetter/Hartshill product.

Dating: Phase 37/2

In view of the probable early third century *terminus post quem* for Phase 37/1 and the presence of the unpainted 'hammerhead' mortarium and the BB1 dish in the group, this phase is best placed in a mid third century or later context.

Phase 37/3: Road surface

Five contexts [1602], [1603], [1604], [1605], [1606] belonging to a probable resurfacing of the road produced 269 sherds (3926g), excluding samian. Again DBY jars were the most common vessel represented.

Dating: Phase 37/3

This phase must be placed in the later third century at the earliest.

Discussion

A total of 5618 sherds (60.35 EVE) from 160 phased Roman contexts at the Pickford's Garage site has been divided into six ceramic periods based on site phasing. An additional period has been interpolated from the North-West Sector pottery (Birss 1985, 114). The data for each period was calculated by amalgamating the relevant contexts and phases and is summarised in Tables 5–11. Pottery from the Nursery Garden site was not

included in this analysis because of difficulties in close dating Area 36 and the small size of the sample in Area 37. Stratigraphic ambiguities mean that part of Structure 1 (Phases R2/1–R2/4) also has been excluded. Brief comment has been made on these groups where significant.

The ceramic periods have been used to provide an overview of the ceramic history of the site with an emphasis on the coarse wares. Dating of forms is based on published parallels and site stratigraphy. Comments on the samian and amphorae are based on the catalogues produced by B. Dickinson and D. F. Williams.

Period 1: c. AD 80 to 120 (Flavian-Trajanic)

Any contexts belonging to this period lay below the level of excavation on the Pickford's Garage site. Additionally, these deposits were sealed by a layer of metalling (Phase 35/1) and only a small number of early sherds occurred in residual contexts.

Fabrics and trade

Little new information can added to the evidence from the North-West Sector (Birss 1985, 116, tables 4–10). The bulk of the pottery in this period is of local origin with small amounts of imported fine wares (samian and colour-coats) and amphorae. It seems likely that the Racecourse kilns began production and supplied the bulk of the Grey and Oxidised Wares in this period. There was a greater percentage of rusticated vessels and Calcite Gritted Ware than in later periods. The few sherds of Verulamium Region White Ware appearing in the earliest phases of the Pickford's Garage site belong to this period. The samian was mainly South Gaulish with La Graufesenque an important supplier. Amphorae include Dressel 2–4 carrying wine from Campania; Richborough 527 possibly from Italy; Camulodunum 186 carrying fish sauce from Spain; and Dressel 20, olive oil from Baetica, southern Spain.

Assemblage composition

Birss (1985, 114) noted that the coarse pottery from the earliest period at Little Chester contrasted with that from Strutt's Park in the small numbers of first century collared-rim flagons and late La Tene cordoned cups, beakers, and platters. This accords with the later date (*c.* AD 80) proposed for the foundation of Little Chester.

A number of the forms produced by the Racecourse potters have their ancestry in the conquest period. For example, the concave-sided carinated bowls (Brassington 1971, 48: fig. 5 nos. 9–11) are reminiscent of Camulodunum forms 211–14 and would not be out of place in a mid late first century context (Swan 1984, 125). However, at Brixorth similar vessels were dated to the Hadrianic or Antonine (early mid second century) (Woods 1970 fig. 24 nos. 166–69). The platter types are imitations of the Gallo-Belgic Camulodunum form 16. Though not closely datable, they are usually considered to belong to the later first century AD, possibly continuing into the early second century. Samian forms included 27, 33 (cups), 30, and 37 (bowls).

Period 2: c. *AD 120–140 (Hadrianic)*

1349 sherds (18.04 EVE) from 51 contexts representing the construction of Structure 1 and metalling underlying the rampart (Phases R1/1, R1/2, and R3/1).

Fabrics and trade (Tables 5 and 6)

This period is comparable with North-West Sector phase 2. The sources of pottery were much the same as in Period 1. Locally produced Grey and Oxidised wares are predominant, with Grey Wares forming 45% of the pottery. The growth of the Racecourse industry may have been in response to increased demand for pottery from the developing small town of *Derventio* and its hinterland. The appearance of BB1 (under 5%) marks the beginning of wider provincial trade.

The low percentage of mica dusted and lead glazed wares implies they may be more characteristic of the Trajanic (98–117) than the Hadrianic period (117–138). Of the White Wares, Mancetter/Hartshill dominated the market, with the few Verulamiam Region sherds being residual. White Slipped wares, possibly of local origin, belong almost exclusively to Periods 1 and 2 and were never common. This corresponds with their dating at Lincoln (Darling 1984, 52) and Chester (Ward and Carrington 1981, 28). The proportion of non-samian colour-coats was small and restricted to beakers. The range included Anderson's North Gaulish fabric (Anderson 1980), which Symonds (1990) has suggested was made outside the region normally regarded as 'North Gaul'. Another group of sherds in a white fabric with rough-casting (e.g. Fig. 16: 21) was possibly derived from the Rhineland or Gaul. Central Gaulish sources, particularly Les Martres-de-Veyre, had replaced their South Gaulish counterparts as the main samian suppliers. The bulk of the amphorae consists of Dressel 20 vessels from southern Spain. These were supplemented by Gauloise 4 wine amphorae from Gaul.

Ware	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
Samian	4.22	11.88	9.68	6.74	13.39	7.72
C	0.37	3.30	2.63	6.34	6.69	15.94
LG	0.07	–	–	–	–	–
MD	0.14	–	–	–	–	–
Mo	0.44	6.60	3.50	–	8.13	0.16
Am	8.67	16.17	13.11	21.82	10.04	2.09
WW	26.38	16.83	16.44	5.55	13.39	4.18
WS	2.66	8.58	0.20	–	2.39	–
OW	5.85	14.52	6.87	9.92	0.95	0.64
GR	45.07	15.84	9.29	8.73	7.17	7.08
GR/BBT	0.07	0.33	0.10	–	0.47	6.28
BB1	4.74	11.55	11.45	20.63	16.26	14.00
DBY	–	10.56	25.98	20.23	20.57	39.77
CG	1.18	0.33	0.45	–	–	1.44
MCW	0.07	–	0.23	–	0.47	0.64

Table 5 : Pickford's Garage: the percentage of wares in each ceramic period. Calculations based on sherd count.

Abbreviations:
C: Colour-coat; LG: Lead-glazed; MD: Mica Dusted Ware; Mo: Mortaria; Am: Amphorae; WW: White Wares; WS: White Slipped Wares; OW: Oxidised Wares; GR: Grey Wares; GR/BBT: Grey Ware/Black-burnished Type; BB1: Black-burnished Ware category 1; DBY: Derbyshire Ware; CG: Calcite Gritted Wares; MCW: Miscellaneous Coarse-Wares.

Assemblage composition (Table 6)

BB1 flat-rimmed dishes (Gillam 1976: nos. 35–41 and 54–66) had by and large replaced Grey Ware platter types imitating Camulodunum form 16. Carinated bowls (Brassington 1971, 48: fig. 5 nos. 1–6) were the frequent bowl type, though the rarity of reeded-rim bowls (Brassington 1971, 50: fig. 6 nos. 19–20) in the contexts of this period indicates that this form was in decline. Segmental bowls with painted flanges (Brassington 1971, 50–51: fig. 7 nos. 37–100) are also present. Samian bowl forms include forms 37 and 18/31R. The neckless everted-rim jar was the predominant jar form. These were typical of the Racecourse industry (Brassington 1971, 55–57: fig. 9 nos. 153–61), the mass of which are undecorated Grey Ware vessels. Examples with bands of rouletting and rustication are not uncommon. Oxidised and White Ware vessels also are encountered. Narrow-necked jars (including an example in BB1, Fig. 16: 20) and storage jars with heavy rims are the other locally produced forms. These are supplemented by BB1 cooking pot types (Gillam 1976: nos. 1–3).

Cup forms are exclusively samian Drag. 33 with a few form 27. Imported non-samian fine wares are confined to rough-cast bag beakers with cornice rims (Fig. 16: 21). Supplementary to these are a number of locally produced neckless everted-rim beakers in Grey Ware. The standard flagon type, the single-handled, ring-necked variety (Gillam 1970, 5: no. 4) is found in a range of fabrics including, most commonly, White Slipped and Grey Wares. They often have poorly defined mouldings (Fig. 16: 5). Collared-rim or 'Hofheim' type flagons are absent.

Lids are in local Grey and Oxidised fabrics (Brassington 1980, 25: fig. 12 no. 368) or BB1 (Wallace and Webster, 1989: nos. 12–13), but are never common. They tend to have simple rims. Other vessel types present include White Ware flasks with horizontal painted bands, and inkwells (Fig. 16: 23).

	IC	NVC	WW	WS	OW	GR	GR/BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	0.11	–	–	–	–	0.11
Dishes	–	–	–	–	–	–	–	0.19	–	–	0.19
Bowls	–	–	–	–	0.41	0.33	–	–	–	–	0.74
Jars	–	–	0.52	–	1.33	5.95	–	0.65	–	0.07	8.52
Beakers	0.11	–	–	–	–	0.15	–	–	–	–	0.26
Flagons	–	–	6.87	0.30	–	0.55	–	–	–	–	7.72
Jugs	–	–	–	–	–	–	–	–	–	–	–
Lids	–	–	–	–	0.05	0.35	–	0.10	–	–	0.50
Tazze	–	–	–	–	–	–	–	–	–	–	–
Misc.	–	–	–	–	–	–	–	–	–	–	–
Total	0.11	–	7.39	0.30	1.79	7.44	–	0.94	–	0.07	18.04

Table 6 : Period 2 (c. AD 120–140). Estimated Vessel Equivalents by ware and form.

Abbreviations (for Tables 6–11)
IC: Imported Colour-coats; NVC: Nene Valley Colour-coat; WW: White Wares; WS: White Slipped Wares; OW: Oxidised Wares; GR: Grey Wares; GR/BBT: Grey Ware/Black-burnished Type; BB1: Black-burnished Ware category 1; DBY: Derbyshire Ware; CG: Calcite Gritted; x: present.

Period 3: c. AD 140–180 (Mid second century)

303 sherds (2.4 EVE) from 21 contexts representing the occupation of Structure 1 and ancillary structures, and burnt deposits sealed by the rampart (Phases R1/3, S/2, and 35/2).

Fabrics and trade (Tables 5 and 7)

Broadly comparable with North-West Sector phase 3, this period is characterised by the first appearance of Derbyshire Ware (10.56%). An early Antonine appearance for this ware has been noted (Webster 1961, 105, nos. 3 and 4; Birss 1985, 116, table 5). The Derbyshire Ware industry replaced the Racecourse as the principal source of coarse wares in Period 4. Outside Little Chester, Derbyshire Ware has a marked north and midland distribution at this time. It is present in mid second century contexts at Wall, Staffordshire and Brough-on-Noe, Derbyshire (Jones and Webster 1969).

The origins of Derbyshire Ware are little understood at present. It has been noted that in form and fabric, it resembles 'Eifelkeramik' or Mayen Ware lid-seated jars (Swan 1984, 126) produced in the middle/lower Rhine and Mosselle areas of Germany from the mid first century to the fifth century (Richardson 1986, 109). These vessels were exported over much of the Northern provinces, including late Roman Britain (Peacock 1982, 154). In fabric they share the principal characteristics of Derbyshire Ware, being highly fired, hard and gritty, stoneware-like in appearance with a pimply surface.

With the closure of the Racecourse kilns, Grey Wares decline to just under 16% and supply becomes more diverse. A quantity was found in association with the Derbyshire Ware production site at Lumb Brook (Brassington and Webster 1988, 24, 28), and may have been side products of that industry. Imported fine wares other than samian appear to have been shut out of the market. Of the Romano-British fine wares, Nene Valley products make their first appearance. Vessels from the Verulamium fire deposit, dated AD 150–155/160, and from the Bancroft villa fire deposit, dated AD 160–170, indicate that Nene Valley colour-coated ware achieved wide circulation in the early years of the industry (Marney 1989, 116). The Mancetter/Hartshill manufactory probably continued

	IC	NVC	WW	WS	OW	GR	GR/ BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	0.05	–	–	–	–	0.05
Dishes	–	–	–	–	–	–	–	0.39	–	–	0.39
Bowls	–	–	–	–	–	0.15	–	–	–	–	0.15
Jars	–	–	–	–	–	0.25	–	0.14	0.27	–	0.66
Beakers	–	0.65	–	–	0.34	–	–	–	–	–	0.99
Flagons	–	–	0.10	–	–	–	–	–	–	–	0.10
Jugs	–	–	–	–	–	–	–	–	–	–	–
Lids	–	–	–	–	–	x	–	–	–	–	x
Tazze	–	–	0.06	–	–	–	–	–	–	–	0.06
Misc.	–	–	–	–	–	–	–	–	–	–	–
Total	–	0.65	0.16	–	0.34	0.45	–	0.53	0.27	–	2.40

Table 7 : Period 3 (c. AD 140–180). Estimated Vessel Equivalents by ware and form

to dominate the market in White Wares and Mortaria. No Lead Glazed or Mica Dusted wares are found in Period 3 assemblages. The amphorae types were confined to Dressel 20 and Gauloise 4. Both perhaps increase in volume. Central Gaulish sources continue to dominate the samian market.

Assemblage composition (Table 7)

The range of forms in this period is probably artificially narrow due to the small size of the assemblage. The low figure for platters suggests no new supply. This class is replaced by BB1 dish types. These straight-sided vessels include the flat-rimmed (Gillam 1976: nos. 35–41 and 56–66) and bead rimmed (Gillam 1976: nos. 70–71) varieties. The only bowl form present was the reeded-rim bowl. This was not common in Period 2 contexts and may therefore be residual.

The most significant new form is the Derbyshire Ware lid-seated jar (Kay 1962: Type A). BB1 jar forms show little change from the previous period. Neckless everted-rim jars were no longer reaching the site in any quantity and may have ceased production altogether. The White Ware jars of Period 2 are no longer represented and flagon types are confined to single handled, ring-necked varieties. The Nene Valley industry supplied a number of colour-coated beaker types. These included vessels with cornice rims and barbotine decoration (Fig. 17: 33), undecorated examples with curved rims (Fig. 16: 31), and small vessels with plain rims (Fig. 17: 34). Tazze (Gillam 1970, 34: no. 347) make an appearance. This period also sees a marked increase in proportion of undecorated vessels. Decoration is confined to acute lattice decoration on BB1 jars, and rouletting on beakers. The samian consists of mid to late Antonine types. Cups are exclusively form 33, bowls comprise forms 30, 37, 31, 31R and 18/31R; dishes are mostly form 79.

Period 4: c. AD 180–200/210 (Late second century)

2882 sherds (31.7 EVE) from 60 contexts representing the construction and refurbishment of the rampart and occupation of Structure 1 and ancillary structures (Phases R3/3, 33/1, S/3, 35/3, 35/4, 35/5, 35/8).

Fabrics and trade (Tables 5 and 8)

The principal feature of this period is the increase in the volume of Derbyshire Ware from 10.56% to 25.98%, and the diversity of forms produced. This increase is largely at the expense of Grey and Oxidised Wares, down to 9.29% and 6.87% respectively. BB1 shows a diversity of sources including possible Rossington Bridge/South Yorkshire products, although decreasing slightly to 11.45%. The close proximity of the Hazelwood and Holbrook kiln sites and the volume of Derbyshire Ware in Period 4 levels indicate that Little Chester was geographically well situated to act as a market centre for the distribution this fabric. The market expanded in this period. For example, Derbyshire Ware is found in mid to late second century contexts at several sites in Leicester (Pollard *pers. comm.*). The growth of this industry may represent a period of prosperity for Little Chester and its hinterland during the later second century.

The non-samian colour-coats were supplied by continental producers (Rhenish Ware), or more frequently by the Nene Valley industry. East Gaulish samian makes its first appearance, the bulk being derived from Rheinzabern although La Madeleine also is represented. The Mancetter/Hartshill manufactory may have continued to dominate the

	IC	NVC	WW	WS	OW	GR	GR/ BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	–	–	–	–	–	–
Dishes	–	–	–	–	–	1.00	0.10	4.34	–	–	5.44
Bowls	–	–	0.95	–	0.62	1.30	–	–	–	–	2.87
Jars	–	–	–	0.20	0.68	1.49	–	2.16	9.17	0.15	13.85
Beakers	0.20	0.79	–	–	1.24	0.24	–	–	–	–	2.47
Flagons	–	–	6.46	–	–	0.30	–	–	–	–	6.76
Jugs	–	–	–	–	–	–	–	x	–	–	x
Lids	–	–	–	–	–	–	–	–	0.15	–	0.15
Tazze	–	–	–	–	–	–	–	–	–	–	–
Misc.	–	x	0.16	–	–	0.15	–	–	–	–	0.31
Total	0.20	0.79	7.57	0.20	2.54	4.48	0.10	6.50	9.32	0.15	31.85

Table 8 : Period 4 (c. AD 180–210). Estimated Vessel Equivalents by ware and form.

White Ware market. Oxidised products which tentatively may be attributed to Mancetter/ Hartshill were also reaching Little Chester. Dressel 20 and Gauloise 4 were the only amphora types reaching the site.

Assemblage composition (Table 8)

The dishes are all second century types, with the flat-rimmed variety the most frequent. Straight-sided, plain-rimmed varieties (Gillam 1976: no. 77) appear for the first time. Imitations of these vessels are occasionally found in Grey Ware. Bowls are largely samian forms 37 and 31R, with a few form 30. The principal jar forms are Derbyshire Ware lid-seated and rolled-over rim types (Kay 1962: Types A and B) and BB1 cooking pots. A number of the Derbyshire Ware lid-seated jars are of a small size (Fig. 19: 91). Neckless everted-rim jars are almost certainly residual by this time. Other jar forms include narrow-necked jars.

This period is marked by the appearance of late second century beaker types: Nene Valley folded beakers (Hartley 1960b: fig. 4 nos. 4 and 5) and Rhenish Ware indented beakers (Greene 1978, 18–19, fig. 2.3: nos. 5 and 6). The coarse ware beakers also increase in volume, with both everted-rim (often with a band of rouletting) and bag-shaped forms appearing in Oxidised fabrics. Other forms from the Nene Valley include the Castor Box, which tend to be small vessels with well-executed rouletting. Cup forms are exclusively samian Drag. 33. Diversity in Derbyshire Ware is indicated by the production of narrow-necked jars (Jones and Webster 1969: fig. 2 no.8), lids (Brassington 1969, 108, fig. 2), mortaria (two sherds from the rampart), and jugs (Symonds *pers. comm.*). The flagons are all Antonine types, but appear to decline in frequency. The Mancetter/Hartshill manufactory now completely dominates the market. BB1 pinched-neck jugs (Wallace and Webster 1989) are present in small quantities. The range of mortaria forms includes Drag. 45.

Period 5: c. AD 200/210–230/240

252 sherds (1.5 EVE) from 6 contexts representing occupation of ancillary structures and occupation overlying the rampart (Phases S/4 and 35/6).

Fabrics and trade (Tables 5 and 9)

Ceramics dating to the third century are difficult to identify with any certainty and the following conclusions are tentative. The apparent contraction of the range of fabrics and forms may be related to the small size of the sample, as in Period 3. No new samian supplies reach the site after AD 240 at the latest. BB1 forms typical of the early third century appear, all derived from the Dorset/Poole Harbour industry. The coarse ware market is dominated by this industry, which increases its market share to over 20.63%, with the Derbyshire Ware kilns at 20.23%. Rossington Bridge/South Yorkshire products are not found in period 5 contexts. White Wares reduce to 5.55% in volume, and this decline is paralleled in the Milton Keynes region (Marney 1989, 113). Oxidised Wares increase to nearly 9.92%. East Gaulish samian forms the bulk of the fine wares. The Nene Valley is the main supplier of Romano-British fine wares. The range of amphorae remains as in the previous period.

Assemblage composition (Table 9)

The range of forms and fabrics appears to be limited, although this may be related to sample size, as in Period 3. BB1 straight-sided, incipient-flanged dishes (Gillam 1976: nos. 42–44) are one of the few new vessels types of the period. Segmental bowls in Oxidised Ware are the only bowl form. Derbyshire Ware is restricted to the common jar forms (Kay 1962). Grey Wares appear to be confined to storage jars and everted-rim jars. The jar forms show little or no typological change from the previous period. The beaker types are much the same as in Period 4. The White Ware ring-necked flagon typical of Hadrianic/Antonine contexts may continue into the third century, but this is doubtful. The overall picture is of a move towards vessel class/fabric specialisation, although Oxidised Ware and BB1 show more variety.

Period 6: c. AD 230/240–270/280

209 sherds (2.98 EVE) from 13 contexts representing refurbishment of rampart and insertion of stone defences (Phases 35/7, 35/9).

	IC	NVC	WW	WS	OW	GR	GR/ BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	–	–	–	–	–	–
Dishes	–	–	–	–	–	–	–	0.25	–	–	0.25
Bowls	–	–	–	–	0.50	–	–	–	–	–	0.50
Jars	–	–	–	–	0.36	0.22	–	0.10	0.25	–	0.93
Beakers	–	0.07	–	–	–	–	–	–	–	–	0.07
Flagons	–	–	–	–	–	–	–	–	–	–	–
Jugs	–	–	–	–	–	–	–	–	–	–	–
Lids	–	–	–	–	–	–	–	–	–	–	–
Tazze	–	–	–	–	–	–	–	–	–	–	–
Misc.	–	–	–	–	–	–	–	–	–	–	–
Total	–	0.07	–	–	0.86	0.22	–	0.35	0.25	–	1.75

Table 9: Period 5 (c. AD 200–240). Estimated Vessel Equivalents by ware and form.

	IC	NVC	WW	WS	OW	GR	GR/ BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	–	–	–	–	–	–
Dishes	–	–	–	–	–	–	–	0.07	–	–	0.07
Bowls	–	–	–	–	–	0.05	–	–	–	–	0.05
Jars	–	–	–	–	–	0.18	–	0.11	0.84	–	1.13
Beakers	–	0.58	–	–	–	–	–	–	–	–	0.58
Flagons	–	–	1.00	–	–	–	–	–	–	–	1.00
Jugs	–	–	–	–	–	–	–	–	–	–	–
Lids	–	–	–	–	–	–	–	0.15	–	–	0.15
Tazze	–	–	–	–	–	–	–	–	–	–	–
Misc.	–	–	–	–	–	–	–	–	–	–	–
Total	–	0.58	1.00	–	–	0.23	–	0.33	0.84	–	2.98

Table 10 : Period 6 (c. AD 230–280). Estimated Vessel Equivalents by ware and form.

Fabrics and trade (Tables 5 and 10)

The picture is much the same as in the previous period. Derbyshire Ware (20.57%) and BB1 (16.26%) remain the predominant coarse ware fabrics. Locally produced Grey Wares continue to decline. The production of White Wares and Oxidised Wares probably had ceased. The market in Romano-British fine ware continues to be dominated by the Nene Valley manufactory. Imported colour-coats are not present. This period is marked by a substantial decline in the supply of amphorae. The range of types appears to increase, but this is misleading. The two sherds of Richborough 527 are generally dated to the first century but may continue into the early second century (Peacock and Williams 1986, 112). The flat-bottomed Gauloise 4 appears almost to disappear, although the Dressel 20 type possibly continues to reach the site. The samian probably is all residual by this period.

Assemblage composition (Table 10)

BB1 jars with cavetto rims and a narrow mid body zone of obtuse lattice appear (Gillam 1970, 16: no. 145), although the latest dish types arrive in the following period. Bowls decline further in freqency and are found only in Grey Ware. The low vessel equivalence for this form may indicate that they had ceased to be produced. Derbyshire Ware jars show no typological change from earlier periods. Nene Valley beaker forms include the funnel neck (Howe *et al.* 1980: no. 52) and bag beakers with curved or devolved cornice rims (Howe *et al.* 1980: no. 47). The Antonine White Ware flagon types are probably residual by this period. Lids in BB1 reappear but may be residual. Overall assemblage composition is much the same as in Period 6 with, apart from BB1, a narrow range of forms and fabric/vessel class specialisation.

Period 7: c. AD 270/280 onwards

621 sherds (3.58 EVE) from 9 contexts representing a coin hoard and the construction of a hypocaust (Phases S/5, 35/10).

	IC	NVC	WW	WS	OW	GR	GR/ BBT	BB1	DBY	CG	Total
Platters	–	–	–	–	–	–	–	–	–	–	–
Dishes	–	–	–	–	–	0.50	–	0.26	–	–	0.76
Bowls	–	–	–	–	–	–	–	–	–	–	–
Jars	–	–	–	–	–	0.50	0.31	0.28	1.50	–	2.59
Beakers	–	0.23	–	–	–	–	–	–	–	–	0.23
Flagons	–	–	–	–	–	–	–	–	–	–	–
Jugs	–	–	–	–	–	–	–	–	–	–	–
Lids	–	–	–	–	–	–	–	–	–	–	–
Tazze	–	–	–	–	–	–	–	–	–	–	–
Misc.	–	–	–	–	–	–	–	–	–	–	x
Total	–	0.23	–	–	x	1.00	0.31	0.54	1.50	–	3.58

*Table 11 : Period 7 (post-*c. *AD 270). Estimated Vessel Equivalents by ware and form.*

Fabrics and trade (Tables 5 and 11)

Study of the latest phase of ceramics is complicated by the truncation of the latest deposits by post-Roman activities. No exclusive fourth century deposits survived at either Pickford's Garage or the Nursery Garden site. The bulk of the coarse wares comprises Derbyshire Ware (39.77%) and BB1 (14%). This period sees the widest distribution of Derbyshire Ware, perhaps indicating economic prosperity in the region. It occurs in late third century contexts on Hadrian's Wall (Gillam 1940). Grey Wares, presumably of local origin, remained fairly static at 7.08%. These may have been produced in association with Derbyshire Ware, as at the Lumb Brook kiln, where activity is attested from the mid second to the early fourth century (Brassington and Webster 1988, 24, 32). Local BB1 imitation fabrics increase in volume at the end of the third century to 6%. The Nene Valley continues to dominate the trade in Romano-British colour-coats. No new supplies of samian were reaching Britain after the mid third century. The supply of amphorae had dried up almost completely. Dressel 2–4 vessels appear in stratified contexts for the first time, but this type is normally dated from the late first century BC to the mid second century AD (Peacock and Williams 1986, 106).

Assemblage composition (Table 11)

The main forms are jars, dishes and beakers. The latest beaker form from the Nene Valley manufactory, the slit-folded beaker, is present (Howe *et al.* 1980: no. 53). Bowls are absent. This period marks the appearance of the straight-sided, bead and flange dish in BB1 (Gillam 1976: nos. 46–49) and imitations in Grey Ware (Fig. 21: 122). BB1 flat-rimmed dishes and incipient-flanged dishes are no longer being produced, although the plain and bead-rimmed types continue. The supply of White Ware flagons has completely ceased. Ceramic flagons are generally rare in later contexts, their place being taken by metal or glass vessels. The production of Oxidised vessels virtually appears to have ceased. The only type in this fabric is an imitation Drag. 33 cup. This may have been the local response to the disappearance of samian after the mid third century. Decorated vessels tend to be in BB1 or Nene Valley colour-coat. BB1 dishes, if decorated, have

burnished 'arcs', and the jars an increasingly narrower zone of mid body obtuse lattice often delineated by horizontal burnished lines above. The Nene Valley slit-folded beakers have rough bands of rouletting on the shoulder.

The wider range of forms, such as bowls and dishes produced by the late Nene Valley industry, is not present in stratified Roman contexts. This indicates that the latest types arrived at Little Chester after the turn of the fourth century. Likewise Oxfordshire red colour-coat vessels occur entirely in post-Roman contexts, indicating that they arrived towards the end of the century. This appears to be a common feature on sites outside the core market area for this ware, as at Chelmsford (Going 1987, 3) and Lincoln (Darling 1977, 12).

Conclusions

A feature of the pottery discussed above is the low EVE values for groups other than Period 2 (the construction of Structure 1), and Period 4 (the construction of the rampart). While the low sample in Period 3 reflects the restricted excavation of deposits below the rampart, a greater fragmentation of assemblages may be expected from the latest phases of occupation (Periods 5–7). As noted above, the size of the sample affects the apparent range of forms and fabrics represented, and this limits the conclusions which can be drawn from comparison between periods. However, changes in the assemblage may reflect variations in site function and economic prosperity, as well as cooking and eating habits.

Local production provided Little Chester with the bulk of its coarse pottery requirements. The range of forms produced suggest that the Little Chester workshops had a considerable life span, with an active life of around sixty years starting in the Flavian (Period 1) and closing in the early Antonine (Period 3). Derbyshire Ware first appears in Period 3 and production probably continued until the end of Roman occupation. No chronological sequence can be discerned in the range of products, with the ubiquitous lid-seated jars subject to little typological development. This conservatism and specialisation may indicate that these vessels were produced and distributed for their contents and, in the manner of amphorae (Challender 1965), did not evolve in response to fashion.

Only three non-local industries competed with any degree of success. Dorset BB1 appears to have commanded a regular market from the Hadrianic (Period 2) onwards; the Mancetter/Hartshill manufactory dominated the market in White Ware flagons and mortaria in the second century and continued to supply mortaria into the fourth century; and the Nene Valley provided the bulk of the colour-coats from Period 3. The Nene Valley and Mancetter/Hartshill producers managed to market only a limited range of forms. The decline in samian noted at the North-West Sector in the Hadrianic period (Period 2) cannot be equated with a decline, or a reduced level of occupation at Little Chester (Webster 1961, 109; Wheeler 1985c, 300–01). The supply of amphorae was at its greatest in Periods 2–5. Thereafter the amounts declined considerably, indicating no new supply after the mid third century.

During the late first-early third centuries (Periods 1–4) there is a diversity of form and fabric. This is at its greatest in Period 4, and largely ceases in the early third century (Period 5), with only the BB1 industry regularly supplying a range of vessel classes. The range of fabrics also declines. White Slipped fabrics probably ceased to be produced in

the mid second century, White Ware (other than Mortaria) in the early third century, and Oxidised Ware largely by the mid third century. The character of the final sequence of ceramics cannot be established beyond doubt due to post-Roman disturbances. No stratified groups can be dated securely to the fourth century. Examination of residual groups in post-Roman contexts indicates the continued deposition of pottery to the end of the Roman occupation of Britain.

AMPHORAE by D. F. Williams (Fig. 22, Tables 12 and 13)

Well over 1300 amphorae sherds were recovered from the site, comprising a number of rims, handles and spikes, together with many body sherds (Williams 1991). Where possible, these have been classified according to form and fabric. The classification of types is based on Dressel (1899), Laubenheimer (1985), the Camulodunum series (Hawkes and Hull 1947) and Peacock and Williams (1986), supplemented by descriptive terms suggested by Peacock (1971; 1977a, b) and in common usage. The overwhelming single type present is the common southern Spanish globular olive-oil vessel, Dressel 20. Gaulish wine was also clearly reaching the site in reasonable amounts, as was southern Spanish fish produce. Amongst the smaller amounts of amphorae recorded were ?wine amphorae from the Bay of Naples region, and the types Richborough 527 and Palestinian, as well as a number of unidentified forms.

Type	Weight	% of total weight	Sherds	% of total sherds
Dressel 20	112,227 g	88.4%	1,004	73.0%
Gauloise 4	6,360 g	5.0%	198	14.4%
'Black sand' fabric	274 g	0.2%	14	1.0%
Camulodunum 186sp	818 g	0.6%	7	0.5%
Southern Spanish	5,383 g	4.3%	49	3.6%
Richborough 527	58 g	–	2	0.2%
?Palestinian	68 g	–	5	0.4%
Undesignated	1,838 g	1.5%	95	6.9%
Totals	127,026 g		1,374	

Table 12: Amphorae fabrics by weight and sherd count

Dressel 20 (Fig. 22)

This is the most common amphora form to be found on Romano-British sites (Peacock and Williams, 1983). It was made in great numbers at many kilns situated along the banks of the River Guadalquivir and its tributaries, between Seville and Cordoba, in the Roman southern Spanish province of Baetica, and used almost exclusively for the long-distance transportation of the local olive-oil. This familiar globular-shaped amphora form was in production throughout most of the Roman occupation of Britain, with some typological development, mainly to the rims. A number of the latter were recovered from Little Chester, and these can be given approximate dates when compared with similar dated material from Augst in Martin-Kilcher's (1983) detailed typology of Dressel 20 rims.

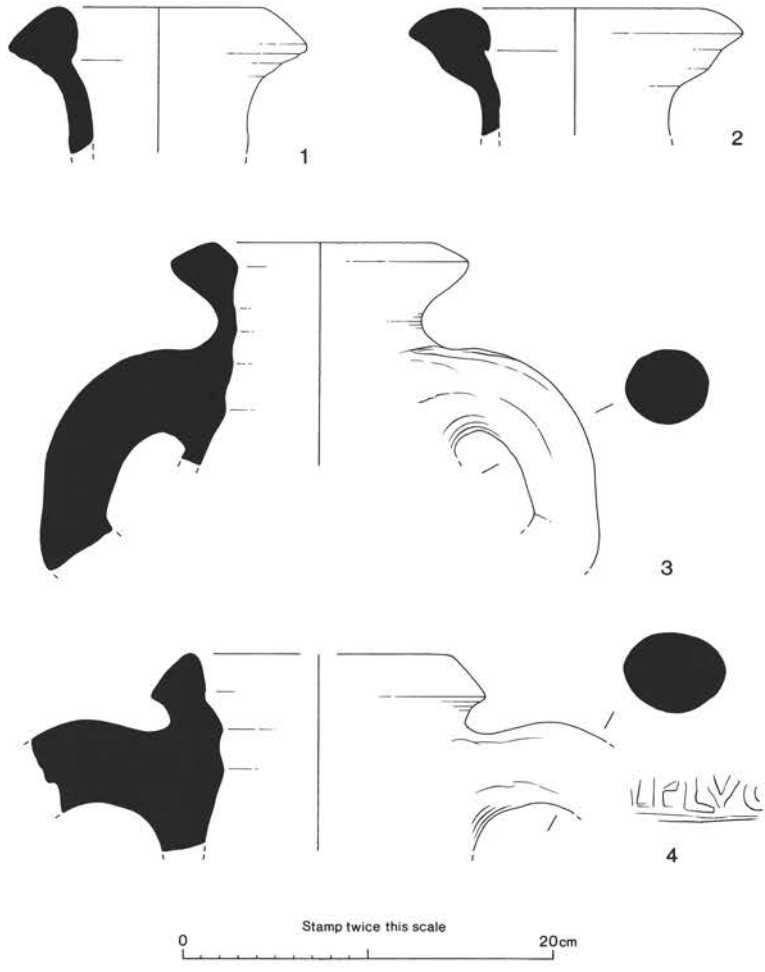

Fig. 22: Roman Little Chester: amphorae nos. 1–4. Scale 1:4. Detail of stamp. Scale 1:2.

1 [912] Phase 33/1
Dated at Augst to the mid second century AD (*ibid.* no. 29).

2 [539] Phase R1/-
Dated at Augst late first century AD till the mid second century AD (*ibid.* no. 30).

3 [501] Phase R1/4
Dated at Augst around the mid first century AD (*ibid.* no. 32).

4 [725] 28 unstratified.
A fairly similar type is dated at Augst late second century AD to mid third century AD (*ibid.* no. 40). A handle stub is attached to the rim on which is an incomplete and unidentified stamp in ansa reading from the summit of the handle downwards ?LV...

5 [558] Phase R1/2. (not illustrated)
Possibly similar to an early second century type at Augst (*ibid.* no. 24).

6 [1200] 35 unstratified. (not illustrated)
Only a very small portion of rim remains, but possibly a second century AD type.

Gauloise 4

It is difficult to be absolutely certain in the absence of rims, but in all probability the handles, bases and body sherds belong to the flat-bottomed southern Gaulish amphora type Gauloise 4/Pelichet 47, or at any rate a closely related form (Laubenheimer 1985). This amphora form predominantly carried wine and in Britain does not seem to appear on sites dated before the Boudiccan revolt, but then becomes very common and continues up to the late third to early fourth centuries AD (Peacock 1978; Peacock and Williams 1986, Class 27).

'Black Sand' Fabric

The majority of the sherds are in a dark red to reddish-brown fabric, with the exception of one which is buff-coloured. In all the sherds there are conspicuous dark-coloured grains of augite clearly visible to the naked eye. This is the well-known 'black sand' fabric, generally assumed to originate in the area of Italy around Pompeii and Herculaneum and to be found in the local pottery, tiles and bricks of that region (Peacock 1977a). Three of the sherds from Little Chester come from the shoulder junction of an amphora, and this is likely to be a Dressel 2–4 type. The remaining sherds in all probability represent this form as well. It is difficult to be certain given the small size of the sherds, but five may well originate from the same vessel. These Little Chester vessels would almost certainly have carried wine and can probably be dated to the first, or possibly early second century AD. It is not yet clear how far the eruption of Vesuvius in AD 79 would have affected pottery production in the region (*cf.* D'Arms 1981).

Camulodunum 186sp

A portion of handle and six plain body sherds may well belong to this particular amphora type, which was made along the southern Spanish coast from the late first century BC to the early second century AD, and carried the local fish-based products (Peacock 1974; Peacock and Williams 1986, Classes 17 and 18).

Southern Spanish

It is difficult to be certain, but two portions of handles and forty-seven body sherds, probably all one vessel, may possibly belong to an amphora originating from the coastal regions of southern Spain (Peacock 1971; Peacock 1974). Fish-based products were almost certainly carried and the vessel probably dates to the first or second centuries AD.

Richborough 527

Two small body sherds in the characteristic coarse, greyish-green, volcanic fabric associated with the Richborough 527 type (Peacock and Williams 1986, Class 13). In a recent paper by the writer and Paul Arthur, it is suggested that the origin of this heavy elongate amphora form is perhaps more likely to be found in Campania, Italy, than the Massif Central region of France, previously considered a possible source (forthcoming; Peacock 1977b). The majority of the British finds date to the first century AD, although it is clear that production of this form lasted much longer. Three Richborough 527

vessels have recently been recovered from early to mid third century AD deposits at New French Wharf in London, while a large cache from the Temple of Augustus at Pozzuoli are dated to the later second century AD/early third century AD (Green 1986; Williams and Arthur forthcoming). The rather wide mouth of this type may indicate that the contents carried were bulkier than a liquid, possibly some kind of fruit.

?Palestinian

Five ridged body sherds, possibly all from the same vessel, in a hard, rough, sandy fabric, dark grey throughout (between Munsell 10YR 5/1 and 4/1). Thin sectioning and study under the petrological microscope shows frequent subangular to subrounded grains of quartz, some cryptocrystalline limestone and the odd grain of tourmaline. The petrology is reminiscent of certain late Roman Palestinian amphorae and may well suggest a similar source, although there are noticeable differences in the hand-specimen of these latter vessels compared with the Little Chester sherds (Peacock and Williams 1986, Classes 48 and 49). Given the fragmentary nature of the Little Chester sherds, it is difficult to say with any confidence exactly what type of form is represented here.

Undesignated

[725] One thickish everted rim and a body sherd with part of a smallish oval handle attached. It is difficult to identify and provenance these particular sherds. Both are most likely to be from the same vessel and appear in a hard, somewhat rough, sandy fabric, light red throughout (Munsell 2.5YR 6/8). Thin sectioning and study under the petrological microscope shows little but frequent subangular grains of quartz and a little shelly limestone, giving few pointers to a likely source area.

[1500] This rim, which is slightly scalloped on its inner edge, may represent a flagon. Alternatively it is possible that it may be a variation on the flat-bottomed southern French amphora Gauloise 7, which has a somewhat similar rim, and was produced during the first and second centuries AD (Laubenheimer 1985).

[1212] One ridged body sherd.

[1305] Two ridged body sherds — possibly eastern Mediterranean. From same vessel as [1212]?

	Dressel 20	Gauloise 4	Camulodunum 186	Richborough 527	Dressel 2–4	Total
Period 1	–	–	–	–	–	–
Period 2	118	11	1	–	–	130
Period 3	41	7	–	–	–	48
Period 4	207	55	–	–	–	262
Period 5	34	7	–	–	–	41
Period 6	9	1	–	2	–	12
Period 7	3	–	–	–	2	5
Total	412	81	1	2	2	498

Table 13: Amphorae. Numbers of sherds by ceramic period

Amphorae Stoppers

Fragments from a number of thin 'stoppers' which were sometimes used to seal the necks of amphorae. As far as one can tell, the form appears to be somewhat similar to those used for Dressel 20 and Haltern 70 amphorae recovered from the Port-Vendres II shipwreck, though it seems likely that the type was in fairly general use (*cf.* Colls *et al.* 1977, fig. 14). The majority of the Little Chester examples are fairly fine-textured and white to buff in colour, though there are a couple of red coloured pieces also present.

THE ROMAN GLASS by D. A. Allen

The Roman glass assemblage comprises about 225 vessel fragments, four beads, one counter, and nineteen fragments of window glass. Most of the vessel glass is blue-green in colour: 125 fragments in all. 88 fragments are colourless, ten are pale green, and two are amber. One further fragment, no. 17, is likely to have been polychrome, since it bears evidence of marvered trailing or marbling. However, it is so badly burnt that its original colours are indeterminable. This, together with the two amber fragments [660] and [668], are the only pieces which may represent the brightly coloured glasses popular for tableware during the first century.

Two categories of vessel, drinking cups and bottles, are well represented, with the overwhelming majority of identifiable fragments belonging to one or the other.

The drinking cup assemblage is remarkable in its uniformity. In a maximum vessel count of 38 cups, 35 belong to the same well-defined type (Isings 1957: form 85b). This is a simple cylindrical cup of colourless glass, with slightly inturned, fire-rounded rim, and two concentric base rings, the outer being folded from the base of the vessel wall, the inner an applied coil. The rim diameters range from 70–130mm, but are most often 80–90mm. A variation in which the rim is slightly out-turned, with a fine horizontal trail applied beneath the rim and above the base, is represented here by nos 11 and 11v. This is often called the Baldock type, after a complete example from that cemetery (Percival Westell 1931, 275–76: fig. 6 no. 4828). Other, less common, variants have engraved decoration (e.g. Allen 1985, 268: fig. 118, no. 1 from Derby Racecourse Cemetery) or are painted (e.g. Charlesworth 1959, 44–46: fig. 5).

The plain version is very common and was clearly the most popular cup form in common everyday usage, between the years *c.* AD 160–230. More than sixty, for example, have now been recognised from excavations at Verulamium (e.g. Wheeler and Wheeler 1936, 186: fig. 29 no. 24), forty to fifty from excavations in and around the fortress at Caerleon (e.g. Allen 1986a, 111–13: fig. 43 nos. 68–73) and about forty from excavations at Corbridge (e.g. Allen 1988, 293: fig. 132, nos. 42–44). What is unusual here is the high proportion present in a relatively small glass assemblage from a single series of excavations over a limited area (nos. 7–11a-x). Whether this indicates standardisation of supplies to the inhabitants, or whether it reflects activity over a very limited period, during which a principal pastime was drinking (and breaking glasses!), it is difficult to say.

The remaining drinking cups include one, no. 4, which has the same rim form as those discussed above, but is unusual in being pale green rather than colourless. It may belong to the same general period of use.

No. 5 has features which identify it as a form of carinated beaker with hollow-ground ridges, and extensive rotary-polishing on its outer surface. Fragments similar to these are not uncommon, usually in second century contexts, but complete finds are rare. A vessel from Panticapaeum in the Crimea may give some indication of the original form (Jaffé 1978, 23–24: fig. 33). Dated fragments have come from contexts of AD 75 and AD 100–270 at Fishbourne (Harden and Price 1971, 347: figs. 139–40, nos. 53 and 58, Pl. XXVII), from a context of AD 125–60 at Lower Thames Street, London (Jones 1980, 86: fig. 49, no. 435), and from one of AD 115–130 at Verulamium (Charlesworth 1972, 206: fig. 77, 45 xiii, no. 5).

No. 6 can only be identified as belonging to a broad group of cups and beakers decorated with horizontal wheel-cut lines. These first appeared towards the end of the first century, and were made in a variety of shapes during the second and third centuries. Body fragments nos. 18–19 may represent similar vessels, or alternatively may be from cylindrical flasks or bottles.

Bottle fragments total 60, of which 59 belong to the blue-green, mould-blown variety in common usage during the second half of the first and the second centuries. These were made in a wide variety of sizes and shapes, and were used as containers to transport a range of liquids. Of the fragments whose body shape can be identified, 26 are from prismatic bottles. Although only two of these can be recognised with certainty as coming from a square bottle, most of the others are likely to represent this variant, since it was the commonest and the longest-lived, continuing to be made until the end of the second century and possibly beyond. Hexagonal bottles went out of use early in the second century, and rectangular and octagonal bottles were in limited production during the mid to later second century. Cylindrical bottles, represented here by five fragments, also more or less disappear after the Trajanic period.

The prismatic bottles nearly always had moulded trade-marks on their bases. These covered a wide range of designs, but one of the commonest devices is varying numbers of concentric circles, often with corner motifs, as on no. 15. The diagonal cross, surrounded by one or two circles, or a square, is also relatively common. Charlesworth has listed a number of examples (1966, 33–34), and more are listed with reference to a base like no. 15 from the Roman civil settlement at Doncaster (Allen 1986b, 106: fig. 24, no. 7).

There is one colourless bottle fragment, a broken handle (no. 16). This may be from a cylindrical vessel with one or two handles (Isings 1957: forms 126 and 127). These glass containers were, to a certain extent, the later Roman replacements for the earlier blue-green bottles, but were never as common. The one-handled version first appeared during the late second century, and those with two handles began in the third century. Both were most common during the later third and fourth centuries.

The few fragments from vessels other than drinking cups and bottles include one large plate or dish of cast and ground glass (no. 1), two bowl fragments (nos. 2–3) and two flask or jug fragments (nos. 12–13).

Colourless cast and ground bowls, plates and dishes became quite common during the Flavian, Trajanic and Hadrianic periods, replacing coloured versions of the same forms which had been popular in pre-Flavian times. They were occasionally highly decorated (e.g. Charlesworth 1975, 404–06, fig. 4 from a context of AD 60–125 at Wroxeter), and both plain and decorated versions vary in rim shape and overall size. No. 1 is likely to have been quite large, perhaps similar to a plate, with rim diameter 290mm, found with

an *as* of Hadrian and much Hadrianic pottery in Jenkins Field, Caerleon (unpublished, National Museum of Wales).

Bowls with tubular rims, like no. 2, were most popular during the later first and earlier second centuries, but were not restricted to that period. The most likely form is a cylindrical body, with or without ribs, and with an applied solid base ring, as at Faversham, Kent (Harden *et al.* 1968, 84: no. 110) and Litlington, Cambridgeshire (Jaffé 1978, 36–37: no. 65b).

Insufficient remains of bowl rim no. 3, or of flask or jug fragments nos. 12 and 13, to identify or date them with any certainty.

There are a further six catalogued body and base fragments (nos. 17–22) whose vessel forms cannot be identified, but whose presence on the site is worth noting. No. 17 appears to have had decoration in the form of marvered trailing, which was popular during the first century, but occurs at other periods too. This piece is so badly burnt that it can offer no further information, and indeed it remains a possibility that it belongs to the Post-Medieval period.

Two fragments (nos. 18–19) are decorated with horizontal linear cutting. They could belong to a variety of forms from the Flavian period to the fourth century. The same is true of the pale blue-green fragment with applied self-coloured trail (no. 20). Two base fragments (nos. 21–22) are common shapes which cannot be closely identified.

None of the four beads (nos. 23–26) nor the gaming piece or counter (no. 27) can be closely dated. All are types which occur frequently throughout the Roman period. Melon beads (no. 27) are found in first and second century contexts (Guido 1978, 100).

The 19 fragments of window glass are all of the cast, matt-glossy variety, in use to about AD 300 (Boon 1966). Most are blue-green, but there are two greenish-colourless and three pale green fragments. Three fragments show the characteristic 'thumb' profile of edge pieces of the cast panes.

The assemblage may thus be summarised as containing very little exclusively first century material, and nothing that is characteristic only of the late Roman period. Most of the glass would fit comfortably into a second to third century date range, and shows remarkable homogeneity within that. There are no fragments from anything that could be described as luxury items, but tableware and containers in common circulation are well represented.

Catalogue (Fig. 23)

Plate, bowls, beakers and cups

Cast and ground

1 [107] Phase S/3. Small fragment, almost certainly from the base of a large plate or dish of colourless glass; whitish iridescent surfaces. Flat base, with circular rotary polishing marks clearly visible; part of a moulded base ring extant. Diameter of base ring *c.* 140mm.

Blown

2 [1504] Topsoil. Rim fragment of a bowl of blue-green glass; some patchy iridescence. Rim folded inward and downward, then outward and downward, forming hollow tubular collar, diameter *c.* 140mm.

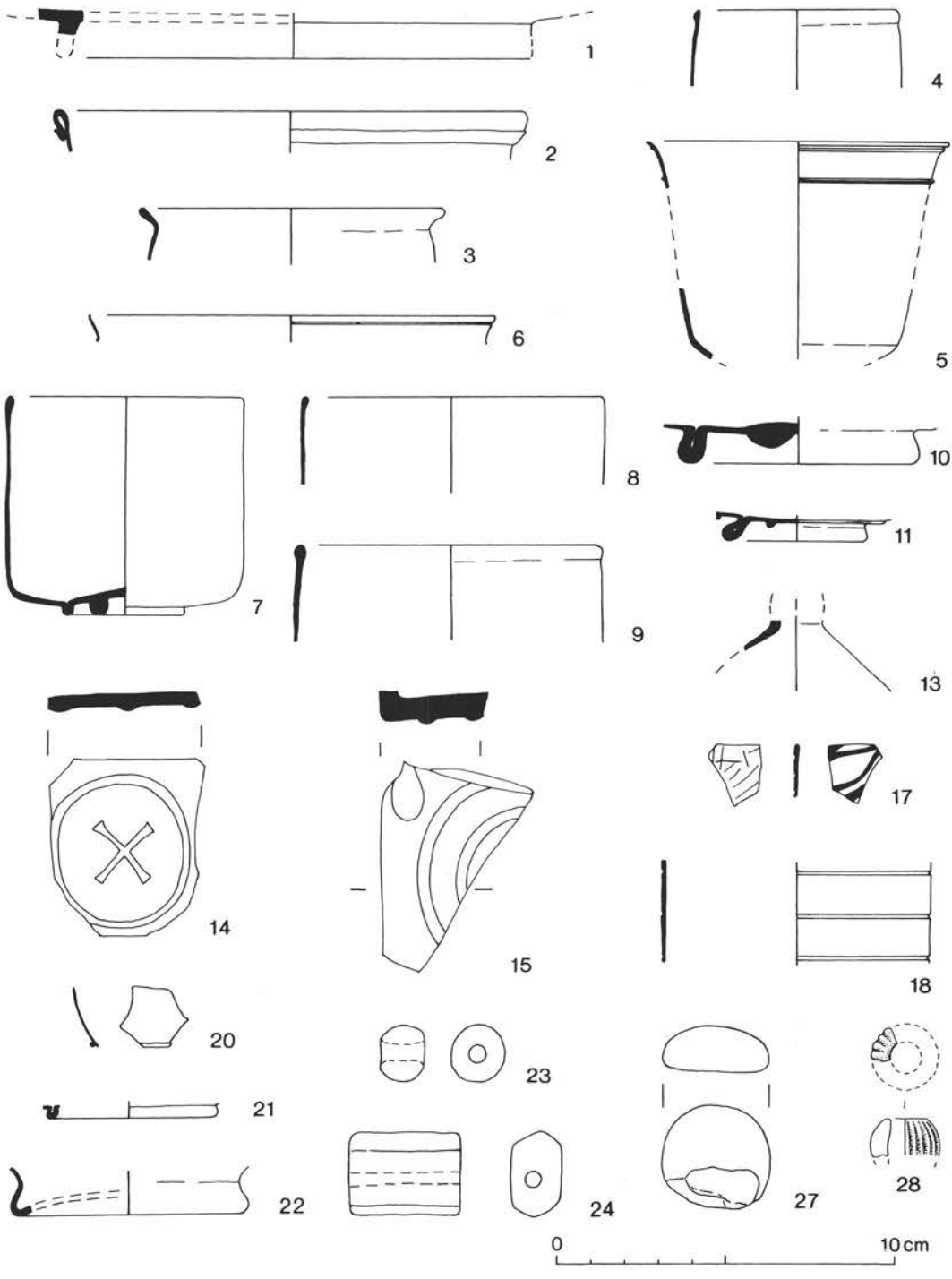

Fig. 23: Roman Little Chester: Roman glass nos. 1–11, 13–15, 17–18, 20–24 and 27–28. Scale 1:2.

3 [026/US] Unstratified. Rim fragment of a bowl of blue-green glass; flaking iridescent surfaces. Rim fire-rounded and thickened, and outflared, diameter *c.* 140mm.
4 [784] Phase R3/2. Rim fragment of a cup of pale green glass; surfaces iridescent. Rim fire-rounded and thickened, and turned very slightly inward, diameter *c.* 60mm.
5 [549] Phase R1/2. Rim and two body fragments, almost certainly from the same beaker or cup of iridescent glass; now opaque white, with flaking iridescence. Rim outflared and ground smooth, with one hollow-ground ridge immediately beneath, and at least one more further down the side. Lower side has rotary-ground carination. Diameter of rim *c.* 90mm.
6 [1354] Phase 35/2. Rim fragment of a beaker or cup of colourless glass. Rim outflared slightly and ground smooth, with horizontal wheel-cut line beneath. Diameter of rim *c.* 120mm.
7 [766] Not phased. Many fragments forming complete profile of a cup of colourless glass. Rim fire-rounded and thickened and turned very slightly inward. Body cylindrical; base has outer pushed-in tubular base ring, inner applied coil. Height 63mm, diameter of rim 68mm, diameter of outer base ring 36mm.
8 [1245] Phase 35/5. Rim fragment of a cup of greenish-colourless glass, as above. Diameter of rim 90mm.
9 [1335] Phase 35/6. Rim fragment of a cup of clear colourless glass, as above. Diameter of rim 90mm.
10 [178] Phase S/6. Base fragment of a cup of colourless glass; flaking whitish iridescence. Outer pushed-in solid base ring, with central applied coil of streaky olive green glass. Part of a large pontil scar survives. Diameter of outer base ring 70mm.
11 [118] Phase S/2. Base fragment of a cup of colourless glass; surface dulled, some flaking iridescence. Outer pushed-in tubular base ring, inner applied coil. Fine self-coloured, horizontal trail survives just above outer base ring. Diameter of outer base ring 48mm.

Flasks/jugs

12 (not illustrated) [53] Phase R2/3. Neck fragment of a flask, jug, or possibly bottle, of pale green glass; surfaces iridescent. Cylindrical neck, diameter *c.* 20mm
13 [897] Lower neck and shoulder fragment of a flask or jug of blue-green glass; surfaces iridescent. Narrow constriction at base of neck, diameter *c.* 14mm; sloping shoulder suggests rounded conical or bulbous body.

Bottles

14 [1500] Topsoil. Base of a square bottle of blue-green glass. Moulded basal design comprising a circle surrounding a diagonal cross. Width of sides 52mm.
15 [1258] Phase 35/5. Base fragment of a prismatic bottle of blue-green glass. Surviving moulded basal design comprises two concentric circles, with a small irregular oval, presumably in one of the corners of the base.
16 (not illustrated) [1504] Topsoil. Many crumbled fragments of an angular, multi-ribbed bottle handle of colourless glass. Dimensions not determinable.

Miscellaneous body and base fragments, vessel types uncertain

17 [1264] Phase 35/13. Fragment of burnt glass; one rounded edge may represent a rim, or may have been rounded by accidental burning. Colour appears now as black, with whitish-iridescent surfaces. Outer surface has linear indentations, which

	Plate	Bowl	Cup/ beaker	Cup	Flask/ jug	Bottle	Uncertain vessel type	Bead	Counter	Window fragment
Phase R1/1	–	–	–	–	–	1	–	–	–	–
Phase R1/2	–	–	–	3	–	1	–	–	–	–
Phase R1/3	–	–	–	–	–	1	–	–	–	–
Phase R2/1	–	–	–	–	–	2	–	–	–	–
Phase R2/2	–	–	–	–	–	1	–	–	–	–
Phase R2/3	–	–	–	–	1	–	–	–	–	–
Phase R3/1	–	–	–	–	–	–	–	–	–	–
Phase R3/2	–	–	2	–	–	1	–	–	–	–
Phase S/1	–	–	–	–	–	–	–	–	–	–
Phase S/2	–	–	1	–	–	–	–	–	–	–
Phase S/3	1	–	2	–	–	2	–	–	–	–
Phase S/4	–	–	–	–	–	1	–	1	–	–
Phase S/5	–	–	–	–	–	–	–	–	–	–
Phase 33/1	–	–	–	–	–	–	–	–	–	–
Phase 33/2	–	–	–	–	–	–	–	–	–	–
Phase 35/1	–	–	–	–	–	–	–	–	–	–
Phase 35/2	–	–	–	1	–	4	–	–	–	–
Phase 35/3	–	–	1	–	–	5	–	–	–	–
Phase 35/4	–	–	–	–	–	–	–	–	–	–
Phase 35/5	–	–	2	–	–	2	2	–	–	–
Phase 35/6	–	–	1	–	–	–	–	–	–	–
Phase 35/7	–	–	–	–	–	–	–	–	–	–
Phase 35/8	–	–	–	–	–	–	–	–	–	–
Phase 35/9	–	–	–	–	–	–	–	–	–	–
Phase 35/10	–	–	1	–	–	–	1	–	–	–
Phase 35/11	–	–	–	–	–	–	–	–	–	–
Phase 35/12	–	–	–	–	–	–	–	–	–	–
Phase 36/1	–	–	–	–	–	–	3	–	–	–
Phase 36/2	–	–	–	–	–	–	1	–	–	–
Phase 36/3	–	–	–	–	–	–	–	–	–	–
Phase 36/4	–	–	–	–	–	–	–	–	–	–
Phase 37/1	–	–	–	–	–	–	–	–	–	–
Phase 37/2	–	–	–	–	–	–	–	–	–	–
Phase 37/3	–	–	1	–	–	–	–	–	–	–
Post-Roman/ unphased	–	2	32	–	1	38	6	3	1	12
Total	1	2	43	4	2	59	6	4	1	19

Table 14 : Summary of Roman glass: number of fragments from phased contexts.

probably occurred accidentally during burning. Inner surface bears part of four curving marvered trails, now dark, but original colour indeterminable.

18 [150] Phase R1/4. Body fragment of colourless glass. Body shape apparently cylindrical, with three surviving parallel wheel-cut grooves. Diameter of body *c.* 80mm.

19 (not illustrated) [150] Phase R1/4. Body fragment of colourless glass, with two surviving parallel wheel-cut lines. Diameter of body *c.* 80mm.

20 [153] Phase R1/4. Lower body fragment of pale blue-green glass, with part of one applied, self-coloured horizontal trail. Diameter of body indeterminable.

21 [951] Not phased. Base fragment of colourless glass. Pushed-in tubular base ring, diameter *c.* 50mm.

22 [026/US] Unstratified. Base fragment of pale green glass; flaking iridescent surfaces. Pushed-in open base ring, diameter *c.* 70mm.

Beads and counters

23 [026/US] Unstratified. Small, roughly spherical bead of streaky, opaque pale blue glass; surfaces dulled. Height 6mm, diameter 8mm.

24 [102] Phase S/2. Large hexagonal bead of pale green glass; thick layer of flaking iridescence. Flattened hexagonal section, with central longitudinal perforation. Length 17mm; height 7mm; width 13mm.

25 (not illustrated) [941] Phase 33/3. Small fragment, probably the corner of a square or rectangular bead of green glass; surfaces iridescent. Length of bead 4mm.

26 (not illustrated) [977] Not phased. Small fragment of a square-sectioned bead of dark blue glass. Length of bead 5.5mm.

27 [512] R1/4. Fragment of a plano-convex disc of black glass; surfaces iridescent. Undersurface irregular, diameter *c.* 16mm.

28 [982] GMA Not phased. Fragment of a melon bead of turquoise faience. Diameter *c.* 16mm.

THE ROMAN COINS by J. A. Davies

A total of 295 coins was recovered, including 6 from the Nursery Garden site. Just 50 of these are site finds, while the remainder come from three hoards. Hoard 1 and hoard 2 comprise *denarii* and belong to the mid second century. A much larger hoard comprises 214 *antoniniani*, forming by far the largest single component of the collection, deposited after *c.* AD 280. The separate components will be considered individually.

The Site Finds

The 50 site finds include 46 Roman and four post-Roman coins. A chronological summary is provided in Table 15. The group is not typical of a normal Romano-British site distribution and the features which make the collection distinctive can be described. The main feature of this group is the predominance of late first and second century coin. The coin list opens with an *as* of Domitian, dating from the years AD 74–79, with appreciable loss continuing under Hadrian (AD 117–138) and Antoninus Pius (AD 138–161). The two *denarii* hoards, described below, also both terminate with coins of Pius. The strong loss drops off after this reign. A breakdown showing the denominations present to AD 180 is presented in Table 16. The majority of these earlier coins are seen to

		Pickford's Garage site		N. W. Sector		Strutt's Park		Nursery Garden site	
		No.	%	No.	%	No.	%	No.	%
I	(to AD 41)	–	–	–	–	1	5.6	–	–
IIa	(41–54)	–	–	–	–	3	16.7	–	–
IIb	(54–68)	–	–	3	7.5	7	38.9	–	–
III	(69–96)	1	2.7	1	2.5	7	38.9	1	20.0
IV	(96–117)	4	10.8	1	2.5	–	–	–	–
V	(117–38)	4	10.8	1	2.5	–	–	1	20.0
VI	(138–61)	5	13.5	2	5.0	–	–	–	–
VIIa	(161–80)	1	2.7	1	2.5	–	–	–	–
VIIb	(180–92)	1	2.7	–	–	–	–	–	–
VIII	(193–222)	2	5.4	4	10.0	–	–	–	–
IXa	(222–238)	–	–	2	5.0	–	–	–	–
IXb	(238–259)	1	2.7	–	–	–	–	–	–
X	(259–275)	6	16.2	15	37.5	–	–	1	20.0
XI	(275–296)	10	27.0	7	17.5	–	–	2	40.0
XII	(296–317)	–	–	–	–	–	–	–	–
XIIIa	(317–330)	–	–	1	2.5	–	–	–	–
XIIIb	(330–348)	–	–	1	2.5	–	–	–	–
XIV	(348–364)	2	5.4	1	2.5	–	–	–	–
XVa	(364–378)	–	–	–	–	–	–	–	–
XVb	(378–388)	–	–	–	–	–	–	–	–
XVI	(388–402)	–	–	–	–	–	–	–	–
		37		40		18		5	
1st–2nd century		2		1		1		–	
3rd–4th century		2		1		–		1	
Illegible		–		–		1		–	
Total		40		42		21		6	

Table 15 : Chronological breakdown of coins from Little Chester sites. Coin numbers are separated into twenty-one Issue Periods.

be *aes* (bronze, copper and brass issues) and half of these are the single denomination of *asses*.

It has been shown that *aes* of the first and second centuries could circulate for very lengthy periods, into the mid third century (Reece 1974b). Whether this was a regular or sporadic occurrence is not yet understood. However, the observation has served to question the use of such coins to date individual contexts with precision. In practice, the degree of wear on specific coins can indicate whether they were circulated for prolonged periods. In general, a heavy degree of wear will normally be encountered on such coins from civil sites in Britain, suggesting that extended use was common practice. The early coins from *Derventio* noticeably lack the excessive wear which is seen on *aes* from most town sites. This factor, together with the high percentage of earlier finds, which include *denarii*, serves to confirm that these coins do represent strong coin use between *c.* AD 70 and the end of the second century but not extended use beyond those years.

	Denarius	Sestertius	Dupondius	As
Domitian (AD 81–96)	–	–	–	1
Nerva (AD 96–98)	–	–	–	2
Trajan (AD 98–117)	2	–	–	–
Hadrian (AD 117–138)	1	2	–	1
Antoninus Pius (AD 138–161)	–	1	1	3
Marcus Aurelius (AD 161–180)	–	1	–	–
Totals	3	4	1	7

Table16 : Pickford's Garage: the coin denominations, to AD 180.

The second main period of coin loss represented by the Pickford's Garage coins comes in the late third century, from AD 259 until the years preceding the reign of Carausius, in AD 287. These years saw high coin loss at all occupied sites in Britain and the values recorded are typical of other Romano-British settlements in this respect. It is also to this period that the large hoard belongs. Following the high late third century values, coin loss virtually ceased, with just two coins belonging to the fourth century. Both are irregular Fel Temp Reparatio issues struck between the years AD 354–364.

The excavations undertaken by Hazel Wheeler, between 1979–1980, produced a coin assemblage of comparable size to that from Pickford's Garage, originating from an area situated within the north-west corner of the assumed line of the defensive wall (Wheeler 1985a, 135–37). Those forty two Roman coins form a similar chronological distribution to that described above, and they have been listed in Table 15 for comparison. Although two contemporary imitations of Claudian *asses* were identified, the assemblage lacks a significant presence of earliest issues and has a significantly high percentage of late first and second century coin. There is a comparable minor peak at the start of the third century (AD 193–222) and, again, an overwhelming peak between AD 259 and 294. Fourth century coin is again very light. It can be concluded that the coins from the North-West Sector and the Pickford's Garage site are closely comparable groups, apart from the presence of the two Claudian *asses* at the former, which probably derive from early military presence in the vicinity.

The main features of Roman site coin loss can be emphasised by separating the relative percentages into four chronological phases, as shown in Table 17 (see Reece 1974b). Phase A (to AD 259) represents the Augustan coin system and this value is below 25 per cent at most sites. Phase B (AD 259–294) coin normally dominates the coin lists of Romano-British towns. Phase C (AD 296–330) is always very low. Phase D (AD 330–402) tends to be just lower than Phase B from towns, and is almost invariably is excess of 20 per cent. These two *Derventio* assemblages can be seen to be distinctive in their high Phase A and low Phase D values, while exhibiting typical town loss values in the late third century (Phase B).

An additional assemblage from *Derventio* which can be used for comparison is that from the early fort at Strutt's Park, situated to the west of the River Derwent. A total of twenty-one Roman issues has been recorded from that site (figures taken from Brassington 1970, 25–26 and Dool 1985a, 30) and comprise what can be termed a typical early military coin assemblage, made up of Claudian *aes* and Republican *denarii*. This

		Pickford's Garage	N.W. Sector	Strutt's Park	Nursery Garden
Phase A	to AD 259	50	37.5	100	40
Phase B	AD 259–296	45.2	55	–	60
Phase C	AD 296–330	–	2.5	–	–
Phase D	AD 330–402	4.8	5	–	–

Table 17 : The relative percentages of Roman coins from Little Chester sites, separated into four Phases.

group contrasts with that from Pickford's Garage in an apparently complementary manner. The figures are again shown in Table 15. The tightly restricted military group ends with Domitian (AD 81–96).

The feature of strong early loss from Pickford's Garage contrasts in content with the typical military assemblage from Strutt's Park and it also begins later; precisely when the latter list closes, opening with two *asses* of Domitian. The early coin in question is predominantly bronze and, in particular, *asses*, which were the lowest denomination in common use in Roman Britain. The ratio of *asses* to other coins present is higher than for most urban sites. This indicates an everyday use of coin on the site, which was certainly not the practice at all sites during the first and second centuries in Britain. There are also thirty-five early *denarii*, including those from hoards, which indicates good early coin supply to the site. The supply and use of this coin may well indicate an unusual role for the site, with perhaps an administrative presence here. The silver coins all came from the vicinity of a single building, which may show that it had an official function, perhaps associated with the local administration of financial affairs.

The sudden fall-off of coin loss at the end of the third century is apparent at both the North-West Sector and Pickford's Garage sites. Loss ceased during the mid 280s at Pickford's Garage, while the North-West Sector list includes slightly later British Empire issues (AD 287–296). Both sites appear to have seen little use after that date. Just five, normally prolific, fourth century issues have been recovered from these two sites, in total. This must indicate minimal presence there at that time, with the latest coins from both belonging to the years between 354–364.

Hoard 1

A hoard of 25 *denarii* was recovered from [26/138], the fill of a stake hole [26/137] in ancillary structures adjoining Structure 1, on the Pickford's Garage site. The hoard was found as a compact mass of coins which could have been deposited in a cloth or leather container, although no evidence of this was found in the concretion. Although it is possible that the original size was greater, there was no evidence of disturbance and the deposit appears to be complete. The coins are all in a good legible condition and exhibit few signs of wear. They range in date from the reign of Vespasian (from AD 76) to Antoninus Pius (AD 138–161). Most date from the reigns of Trajan and Hadrian. Of particular interest is a *denarius* of Antoninus Pius (cat. 71) which is a hybrid issue, combining a reverse of Faustina II. The hoard closes between AD 145–161.

Hoard 2

Six *denarii* were recovered from [28/783] an occupation layer within Room 3 of Structure 1 on the Pickford's Garage site. The coins were found scattered within a small area, with no evidence of a container. They range in date from Vespasian (AD 69–79) to Antoninus Pius (AD 138–161). All except the oldest are in very good condition, exhibiting little wear. The chronological range of the group is exactly the same as for the previous, larger, hoard and it closes at the same time, between *c.* 145–161.

	Hoard 1	Hoard 2
Vespasian (AD 69–79)	1	1
Titus (AD 79–81)	1	–
Domitian (AD 81–96)	3	–
Nerva (AD 96–98)	1	–
Trajan (AD 98–117)	7	1
Hadrian (AD 117–138)	9	–
Antoninus Pius (AD 138–161)	3	4
Totals	25	6

Table 18 : Composition of the denarius hoards, by emperor.

A breakdown of the coins from the hoards, by emperor, is shown in Table 18. These groups may have originally been contained in purses which have since decayed, perhaps representing the pay and savings of individuals. They further serve to confirm the period of most intensive occupation at the site, during the second century.

Hoard 3

A total of 214 *antoniniani,* which were discovered in a pit post-dating the rampart [35/1329] in Area 35 of the Pickford's Garage site, clearly comprise a hoard despite the absence of a container. Just one official coin, dated to AD 270, was accompanied by 212 irregular *antoniniani*, or barbarous radiates, together with one illegible coin. The bulk of the irregular component was bound together in a single concreted mass and which has been painstakingly separated by staff at the Ancient Monuments Laboratory.

The barbarous radiates are predominantly of small module, with 150 examples falling into the minim category of 13mm diameter or less. Although most do now suffer some corrosion, they do not generally show signs of wear. The hoard coins seem to have been put together when newly struck and uncirculated. Types represented are mainly imitations of the Gallic Emperors Tetricus I and II, together with Victorinus, which is the usual situation within this coinage. However, there are less common copies of the emperors Gallienus (cat. 134), and Aurelian/Probus (cat. 129).

The 270s and 280s were a period of prolific hoarding in Britain. This particular hoard is a late barbarous radiate hoard; comprising mainly minims and with very few regular coins present (Davies 1988). It would probably have been buried during the early 280s. Hoards buried up to the late 270s contained more regular coins and had a higher percentage of large irregular coins. Late barbarous radiate hoards also contain less coins than earlier deposits, seldom containing in excess of 2,000 items. Most number between 100–500. *Derventio* is typical of hoards deposited after *c.* AD 280 and before the reign of

	Context	Date	Catalogue no.
Phase R1/1	[645]	96–8	5
	[675]	69–192	1
	[675]	98–117	6
Phase R1/2	[628]	121–22	12
Phase R1/3	–	–	–
Phase R2/1	–	–	–
Phase R2/2	–	–	–
Phase R2/3	–	–	–
Phase R2/4	[30]	270–4	30
Phase R3/1	–	–	–
Phase R3/2	[783]	157–8	76–81 Hoard 2
Phase S/1	[138]	145–61	51–75 Hoard 1
Phase S/2	–	–	–
Phase S/3	–	–	–
Phase S/4	–	–	–
Phase S/5	–	–	–
Phase 33/1	–	–	–
Phase 33/2	–	–	–
	Context	Date	Catalogue no.
Phase 35/1	[025/6]	96–8	4
	[025/6]	119	11
Phase 35/2	–	–	–
Phase 35/3	[1350]	138–61	15
Phase 35/4	–	–	–
Phase 35/5	–	–	–
Phase 35/6	–	–	–
Phase 35/7	–	–	–
Phase 35/8	–	–	–
Phase 35/9	–	–	–
Phase 35/10	[1320]	268–84	82–295 Hoard 3
	[1321]		
	[1329]		
	[1330]		
	[1337]		
	[1341]		
Phase 35/11	–	–	–
Phase 35/12	–	–	–
Phase 36/1	–	–	–
Phase 36/2	[1531]	74–9	2
Phase 36/3	–	–	–
Phase 36/4	–	–	–
Phase 37/1	–	–	–
Phase 37/2	–	–	–
Phase 37/3	[1602]	270–84	35
	[1602]	275–84	44

Table 19 : Summary of coins from phased contexts.

Carausius. It is probable that the production of these coins ceased by *c.* AD 284 (Boon 1967; Mattingly 1982) but some minim hoards could have been buried after that date, perhaps as late as AD 287. The large number of hoards deposited in Britain at this time has been commented on (Robertson 1974) but a full explanation has yet to be put forward. However, it can be pointed out that this proliferation coincides with the greater availability of small bronze coins in the economy and the wider adoption of coin use generally, across Britain (Davies 1988).

With regard to location, late barbarous radiate hoards tend to predominate away from the south east of Britain. They occur mainly in the Avon and Somerset area and in the Midlands. They were apparently most common in areas where the more Romanised south-east gave way to the less Romanised north and west of Britain.

The *Derventio* hoard is one of eight recorded deposits of similar type discovered between the north Wales border and South Yorkshire (Davies, forthcoming). The *Derventio* hoard contains a number of coins which are associated with recognised barbarous radiate die and style groups. Five examples (cat. 154, 167, 179, 213, 261) belong to the extensive group recognised by H. B. Mattingly, which are characterised by a V-shaped neck and an angular figure of Sol on the reverse (Mattingly 1963; 1967). Another (cat. 151) belongs to Mattingly's PAX group (Mattingly 1960, 963). A further example (cat. 150) belongs to a die group originally recognised in the Meare Heath, Somerset, hoard (Davies 1986, Group B). These links provide further important evidence for the wide circulation of these coins. The recognition of examples from common mints is a painstaking process which will eventually help us to understand more about the production of this coinage. Examples from individual mints are now being recognised from opposite ends of the country and are providing new information about the production and circulation of these coins.

In conclusion, this late barbarous radiate hoard is typical of a number of such deposits, buried probably between AD 280–284, in Britain. Such 'minim' hoards share similarities of size, composition and location (Davies 1988). The *Derventio* hoard was assembled from the products of different irregular mints, including eight coins from previously recognised die/style groups. The coins appear to have been accumulated in an uncirculated state. This deposit was associated with the same building as the second century hoards and *denarii*. Whether that structure maintained a kind of treasury function or whether this hoard was accumulated for other reasons, perhaps as a personal store of wealth, is unclear at present.

	Context	Type	Denomination	Reference	Date	Mint	Condition
Site Finds							
1	[675]	illegible R: illegible	*denarius*	RIC -	69–192	–	corroded
2	[1531]	Domitian R: illegible	*as*	RIC -	74–9	Rome	W/ corroded
3	[897]	Domitian R: illegible. Hilaritas? stg. l.	*as*	RIC -	81–96	–	VW/VW

	Context	Type	Denomination	Reference	Date	Mint	Condition
4	[25/6]	Nerva R: illegible	*as*	RIC -	96–8	–	VW/VW
5	[645]	Nerva R: illegible	*as*	RIC -	96–8	–	corroded
6	[675]	Trajan R: illegible - corroded away	*denarius*	RIC -	98–117	–	corroded
7	[301]	illegible R: illegible	possible *sestertius*	RIC -	98–c.200	–	corroded
8	[794]	Trajan R: S.P.Q.R. OPTIMO PRINCIPI VIA TRIANA	*denarius*	RIC 2: 267	112–14	Rome	SW/SW
9	[1211]	Hadrian R: illegible	*sestertius*	RIC -	117–38	–	VW/VW
10	[1527]	Hadrian R: illegible	*denarius*	RIC -	117–38	–	VW/VW
11	[25/6]	Hadrian R: P.M.TR.P.COS III	*denarius*	RIC 2: 110	119–22	Rome	SW/SW
12	[628]	Hadrian R: P.M.TR.P.COS.III FORT.RED., S.C.	*as*	RIC 2: 617	121–22	Rome	UW/UW
13	[975]	Hadrian R: COS.III., S.C.	*sestertius*	RIC 2: 633	125–28	Rome	UW/W
14	[U/S]	Antoninus Pius R: illegible	*as*	RIC -	138–61	–	VW/VW
15	[1350]	Antoninus Pius R: illegible Ceres stg. r. holding torch and corn ears.	*sestertius*	RIC -	138–61	–	corroded
16	[822]	Antoninus Pius R: ANNONA AVG, S.C.	*dupondius*	RIC 3: 656	140–44	Rome	SW/SW
17	[157]	Antoninus Pius R: BRITANNIA COS IIII, S.C.	*as*	RIC 3: 934	154–5	Rome	SW/SW
18	[844]	Antoninus Pius R: BRITANNIA COS IIII, S.C.	*as*	RIC 3: 934	154–5	Rome	SW/SW
19	[1211]	Marcus Aurelius R: illeg. Liberalitas stg.1.	*sestertius*	as BMC 1506	161–80	Rome	W/VW
20	[U/S]	Commodus R: LIB.AVG.P.M.TR.P.XV COS VI	*denarius*	RIC 3: 208	190	Rome	SW/SW
21	[941]	Septimius Severus R: illegible	base *denarius*	RIC-	193–98	–	W/W
22	[941]	Caracalla R: PONTIF.TR.P.XI.COS.III	base *denarius*	RIC 4: 100	208	Rome	W/W
23	[U/S]	Philip I R: P.M.TR.P.IIII COS II P.P.	*antoninianus*	RIC 4: 4	274	Rome	SW/SW
24	[U/S]	Postumus R: VICTORIA AVG	*antoninianus*	Elmer 125	259–68	principal mint	SW/SW
25	[301]	illegible R: illegible	*antoninianus*	–	260–94	–	corroded

	Context	Type	Denomination	Reference	Date	Mint	Condition
26	[1600]	illegible R: illegible	–	–	260–402	–	corroded
27	[301]	Victorinus R: INVICTVS	*antoninianus*	Elmer 683	268–70	Cologne	VW/VW
28	[725]	Claudius II R: FIDES EXERCI	*antoninianus*	RIC 5: 34	268–70	Rome	corroded
29	[1200]	Victorinus R: INVICTUS	*antoninianus*	Elmer 683	268–70	Cologne	UW/UW
30	[30]	Tetricus I R: PAX AVG	*antoninianus*	Elmer 771	270–4	Cologne	UW/UW
31	[150]	barbarous radiate	diam. 17mm	–	270–84	–	VW/VW
32	[941]	Tetricus II R: PIETAS AVGG	*antoninianus*	Elmer 773	270–4	Cologne	UW/UW
33	[1200]	barbarous radiate	diam. 15mm	–	270–84	–	corroded
34	[1600]	Claudius II DIVO CLAVDIO R: CONSECRATIO altar	*antoninianus*	RIC 5: 261	270	–	corroded
35	[1602]	barbarous radiate Tetricus II R: SPES AVGG	diam. 17mm	–	270–84	–	UW/UW
36	[945]	barbarous radiate	diam. 18mm	–	270–84	–	–
37	[U/S]	barbarous radiate Tetricus I R: SALVS AVGG	diam. 13mm	–	275–84	–	VW/VW
38	[941]	barbarous radiate Victorinus R: INVICTUS	diam. 12mm	–	275–84	–	W/W
39	[942]	barbarous radiate Tetricus I R: PAX AVG	diam. 14mm	–	275–84	–	W/W
40	[941]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
41	[1200]	barbarous radiate	diam. 11mm	–	275–84	–	corroded
42	[1200]	barbarous radiate Tetricus II	diam. 12mm	–	275–84	–	corroded
43	[1200]	barbarous radiate Tetricus II	diam. 14mm	–	275–84	–	corroded
44	[1602]	barbarous radiate	diam. 8mm	–	275–84	–	corroded
45	[155]	House of Constantine R: FEL TEMP REPARATIO falling horseman	diam. 17mm irregular	–	354–64	–	corroded
46	[150]	House of Constantine R: FEL TEMP REPARATIO falling horseman	diam. 14mm irregular	–	354–64	–	SW/SW

	Context	Type	Denomination	Reference	Date	Mint	Condition
Hoard 1							
47	[138]	Domitian, *Caes*ar R: COS IIII Pegasus r.	*denarius*	RIC 2: 238 (Vespasian)	76	Rome	SW/SW
48	[138]	Divus Vespasianus R: S.C., on shield capricorns	*denarius*	RIC 2: 63 (Titus)	80–1	Rome	SW/SW
49	[138]	Domitian R: IMP.XIX COS XIIII CENS.P.P.P.	*denarius*	RIC 2: 140	88–89	Rome	SW/SW
50	[138]	Domitian R: IMP.III COS XV CENS P.P.P.	*denarius*	RIC 2: 148	90	Rome	SW/SW
51	[138]	Domitian R: IMP.XXI COS XV CENS P.P.P.	*denarius*	as RIC 2: 149	90	Rome	SW/SW
52	[138]	Nerva R: LIBERTAS PVBLICA	*denarius*	RIC 2: 19	97	Rome	SW/SW
53	[138]	Trajan R: S.P.Q.R. OPTIMO PRINCIPI	*denarius*	RIC 2: 184	103–4	Rome	SW/SW
54	[138]	Trajan R: COS V P.P. S.P.Q.R. OPTIMO PRINC DAC. CAP.	*denarius*	RIC 2: 98	103–11	Rome	SW/SW
55	[138]	Trajan R: COS. V P.P. S.P.Q.R. OPTIMO PRINC DAC.CAP.	*denarius*	RIC 2: 98	103–11	Rome	SW/SW
56	[138]	Trajan R: S.P.Q.R. OPTIMO PRINCIPI	*denarius*	RIC 2: 190a variant	103–11	Rome	SW/SW
57	[138]	Trajan R: P.M.TR.P.COS.VI P.P. S.P.Q.R. FORT.RED.	*denarius*	RIC 2: 318	114–17	Rome	SW/SW
58	[138]	Trajan R: P.M.TR.P.COS VI P.P. S.P.Q.R.	*denarius*	RIC 2: 355 variant	114–17	Rome	SW/SW
59	[138]	Trajan R: PARTHICO P.M.TR.P.COS VI P.P. S.P.Q.R.	*denarius*	B.M.C. 626	114–17	Rome	SW/SW
60	[138]	Hadrian R: PARTH.F.DIVI.NER.NEP.P.M.TR.P.COS CONCORD.	*denarius*	RIC 2: 9	117	Rome	SW/SW
61	[138]	Sabina R: CONCORDIA AVG	*denarius*	RIC 2: 391	117–36	Rome	SW/SW
62	[138]	Sabina R: VESTA seated l., holding Victory and sceptre.	*denarius*	RIC 2: 410	117–36	Rome	SW/SW
63	[138]	Hadrian R: P.M.TR.P.COS III	*denarius*	RIC 2: 80	119–22	Rome	SW/SW
64	[138]	Hadrian R: P.M.TR.P.COS III	*denarius*	RIC 2: 86	119–22	Rome	UW/SW
65	[138]	Hadrian R: COS III Roma seated l.	*denarius*	RIC 2: 165	125–8	Rome	SW/SW

	Context	Type	Denomination	Reference	Date	Mint	Condition
66	[138]	Hadrian R: COS III Roma seated l.	*denarius*	RIC 2: 165	125–8	Rome	SW/SW
67	[138]	Hadrian R: LIBERALITAS AVG P.P. COS III	*denarius*	RIC 2: 217	132–4	Rome	SW/SW
68	[138]	Hadrian R: COS III FORT.RED.	*denarius*	RIC 2: 360	134–8	Rome	SW/SW
69	[138]	Antoninus Pius R: TR.POT.COS II	*denarius*	RIC 3: 58	139	Rome	SW/SW
70	[138]	Antoninus Pius R: IMPERATOR II	*denarius*	RIC 3: 111	143–44	Rome	SW/SW
71	[138]	Antoninus Pius ANTONINVS AVG PIVS P.P. hybrid R: VENVS Faustina II type	plated *denarius*	rev. as RIC 2: 517	c.145–161	–	SW/SW
Hoard 2							
72	[783]	Vespasian R: illegible	*denarius*	RIC -	69–79	–	VW/ smooth
73	[783]	Trajan R: P.M.TR.P.COS III P.P.	*denarius*	RIC 2: 32	100	Rome	SW/SW
74	[783]	Diva Faustina R: AVGVSTA	*denarius*	RIC 3: 373	141–61	Rome	UW/SW
75	[783]	Marcus Aurelius, C*aes*ar R: COS DES II	*denarius*	RIC 3: 426	144	Rome	UW/SW
76	[783]	Antoninus Pius R: COS IIII	*denarius*	RIC 3: 229a	153–4	Rome	SW/SW
77	[783]	Antoninus Pius R: TR.POT.XXI COS IIII	*denarius*	RIC 3: 274	157–8	Rome	SW/SW
Hoard 3							
78	[1330]	illegible R: illegible	*antoninianus*	–	268–84	–	corroded
79	[1330]	DIVO CLAVDIO R: CONSECRATIO altar	*antoninianus*	RIC 5: 261	270	–	W/UW
80	[1341]	barbarous radiate R: struck partly off-flan	diam. 16mm	–	270–84	–	corroded
81	[1341]	barbarous radiate DIVO CLAVDIO R: CONSECRATIO altar	diam. 16mm	–	270–84		corroded
82	[1341]	barbarous radiate?	diam. under 17mm	–	270–84	–	corroded lump
83	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	corroded

	Context	Type	Denomination	Reference	Date	Mint	Condition
84	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	corroded
85	[1329]	barbarous radiate	diam. 15mm	–	270–84	–	corroded
86	[1329]	barbarous radiate R: female fig.adv. l.	diam. 14mm	–	270–84	–	UW/UW
87	[1341]	barbarous radiate	diam. 16mm	–	270–84	–	corroded
88	[1337]	barbarous radiate	diam. 15mm	–	270–84	–	–
89	[1341]	barbarous radiate	diam. 16mm	–	270–84	–	–
90	[1341]	barbarous radiate	diam. 15mm	–	270–84	–	–
91	[1321]	barbarous radiate Tetricus I R: PAX AVG	diam. 16mm	–	270–84	–	–
92	[1321]	barbarous radiate Victorinus R: SALVS AVG	diam. 14mm	–	270–84	–	–
93	[1321]	barbarous radiate	diam. 15mm very irregular flan	–	270–84	–	–
94	[1321]	barbarous radiate Tetricus II R: SPES AVGG	diam. 18mm	–	270–84	–	–
95	[1321]	barbarous radiate	diam. 15mm	–	270–84	–	–
96	[1321]	barbarous radiate R: female fig.stg. l.	diam. 14mm	–	270–84	–	–
97	[1321]	barbarous radiate	diam. 17mm	–	270–84	–	–
98	[1321]	barbarous radiate	diam. 14mm	–	270–84	–	–
99	[1321]	barbarous radiate Victorinus R: INVICTVS	diam. 14mm	–	270–84	–	–
100	[1321]	barbarous radiate	diam. 14mm	–	270–84	–	–
101	[1341]	barbarous radiate	diam. 15mm square flan	–	270–84	–	–
102	[1341]	barbarous radiate Tetricus II R: ewer	diam. 17mm	–	270–84	–	–
103	[1341]	barbarous radiate R: Mars, advancing r.	diam. 17mm	–	270–84	–	–
104	[1341]	barbarous radiate Tetricus II R: SPES AVGG	diam. 15mm	–	270–84	–	–
105	[1341]	barbarous radiate Tetricus I R: SALVS AVGG	diam. 14mm	–	270–84	–	–
106	[1341]	barbarous radiate Victorinus R: INVICTVS	diam. 15mm	–	270–84	–	–
107	[1341]	barbarous radiate Tetricus II R: ewer	diam. 16mm	–	270–84	–	–

	Context	Type	Denomination	Reference	Date	Mint	Condition
108	[1341]	barbarous radiate R: male fig.stg. l.	diam. 15mm	–	270–84	–	–
109	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	–
110	[1341]	barbarous radiate Tetricus I	diam. 15mm	–	270–84	–	–
111	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	–
112	[1341]	barbarous radiate Tetricus II	diam. 15mm	–	270–84	–	–
113	[1341]	barbarous radiate DIVO CLAVDIO R: altar	diam. 15mm	–	270–84	–	–
114	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 15mm	–	270–84	–	–
115	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	–
116	[1341]	barbarous radiate	diam. 14mm	–	270–84	–	–
117	[1341]	barbarous radiate Victorinus R: VIRTVS AVG	diam. 17mm	–	270–84	–	–
118	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 16mm	–	270–84	–	–
119	[1341]	barbarous radiate Tetricus I	diam. 14mm	–	270–84	–	–
120	[1341]	barbarous radiate R: altar derivative	diam. 14mm	–	270–84	–	–
121	[1341]	barbarous radiate (silvered)	diam. 14mm	–	270–84	–	–
122	[1341]	barbarous radiate R: male figure, to r.	diam. 15mm	–	270–84	–	–
123	[1341]	barbarous radiate Tetricus II R: sacrificial implements	diam. 10mm	–	275–84	–	UW/UW
124	[1341]	barbarous radiate Tetricus I R: ewer	diam. 9mm	–	275–84	–	W/UW
125	[1341]	barbarous radiate R: Pax/Victoria	diam. 13mm	–	275–84	–	corroded
126	[1341]	barbarous radiate Tetricus I	diam 13mm	–	275–84	–	corroded
127	[1341]	barbarous radiate Tetricus I R: FIDES MILITUM	diam. 11mm	–	275–84	–	UW/UW
128	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	corroded
129	[1341]	barbarous radiate Aurelian/Probus R: 2 figures, facing	17 x 12mm	–	275–84	–	corroded

	Context	Type	Denomination	Reference	Date	Mint	Condition
130	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	W/W
131	[1341]	barbarous radiate	16 x 14mm	–	275–84	–	corroded
132	[1341]	barbarous radiate Victorinus R: INVICTUS	diam. 11mm	–	275–84	–	corroded/ UW
133	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	corroded
134	[1341]	barbarous radiate Gallienus R: VIRTVS AVG	16 x 13mm	–	275–84	–	UW/ corroded
135	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	corroded
136	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
137	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 11mm	–	275–84	–	corroded
138	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	corroded
139	[1341]	barbarous radiate Tetricus I R: VIRTVS AVGG	diam. 14mm	–	275–84	–	UW/UW
140	[1341]	barbarous radiate R: struck half off-flan.	diam. 13mm	–	275–84	–	corroded
141	[1341]	barbarous radiate Tetricus I R: ewer	diam. 11mm	–	275–84	–	corroded
142	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	corroded
143	[1341]	barbarous radiate	diam. 14mm	–	275–84	–	corroded
144	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	corroded
145	[1341]	barbarous radiate	15 x 12mm	–	275–84	–	corroded
146	[1341]	barbarous radiate Victorinus R: INVICTUS reversed	diam. 11mm	–	275–84	–	UW/UW
147	[1341]	barbarous radiate R: Pin figure	diam. 11mm	–	275–84	–	UW/UW
148	[1341]	barbarous radiate very crude bust R: female fig.	diam. 13mm	–	275–84	–	UW/UW
149	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
150	[1341]	barbarous radiate Victorinus	diam. 15mm	–	275–84	–	UW/UW
151	[1341]	barbarous radiate Tetricus I/II R: PAX AVG 'Pax Avg Group'	diam. 14mm	–	275–84	–	corroded
152	[1341]	barbarous radiate Tetricus I	17 x 13mm	–	275–84	–	corroded
153	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	corroded

	Context	Type	Denomination	Reference	Date	Mint	Condition
154	[1341]	barbarous radiate Victorinus R: INVICTUS 'Invictus/ewer Group'	diam. 14mm	–	275–84	–	UW/UW
155	[1341]	barbarous radiate DIVO CLAVDIO R: CONSECRATIO altar	diam. 14mm	–	275–84	–	UW/UW
156	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	corroded
157	[1341]	barbarous radiate Tetricus I R: SPES PVBLICA	diam. 9mm	–	275–84	–	W/W
158	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	corroded
159	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	UW/ corroded
160	[1341]	barbarous radiate Tetricus I/II R: SPES	diam. 13mm	–	275–84	–	UW/UW
161	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	corroded
162	[1341]	barbarous radiate R: female fig.stg. 1.	diam. 9mm	–	275–84	–	UW/UW
163	[1341]	barbarous radiate R: female fig.stg. 1.	diam. 10mm	–	275–84	–	UW/UW
164	[1341]	barbarous radiate Tetricus I R: FIDES MILITVM	diam. 13mm	–	275–84	–	corroded
165	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	corroded
166	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
167	[1341]	barbarous radiate R: 'Invictus/ewer Group'	diam. 14mm	–	275–84	–	corroded
168	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	corroded
169	[1341]	barbarous radiate Tetricus II	diam. 14mm	–	275–84	–	UW/ corroded
170	[1341]	barbarous radiate Tetricus I R: square-bodied figure	diam. 14mm	–	275–84	–	UW/UW
171	[1329]	barbarous radiate	diam. 14mm	–	275–84	–	corroded
172	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	corroded
173	[1341]	barbarous radiate	diam. 8mm	–	275–84	–	corroded
174	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	corroded
175	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
176	[1320]	barbarous radiate Victorinus R: INVICTVS	diam. 11mm	–	275–84	–	corroded
177	[1320]	barbarous radiate Tetricus I/II R: SPES	diam. 12mm	–	275–84	–	UW/UW

	Context	Type	Denomination	Reference	Date	Mint	Condition
178	[1330]	barbarous radiate R: pin figure	diam. 12mm	–	275–84	–	W/W
179	[1330]	barbarous radiate Victorinus R: INVICTVS 'Invictus/ewerGroup'	diam. 15mm	–	275–84	–	W/W
180	[1330]	barbarous radiate Tetricus II	diam. 20mm	–	275–84	–	corroded
181	[1330]	barbarous radiate Tetricus I/II R: female fig.stg.	diam. 11mm	–	275–84	–	UW/UW
182	[1330]	barbarous radiate R: pin figure	diam. 11mm	–	275–84	–	UW/UW
183	[1330]	barbarous radiate Tetricus I R: PAX AVG	diam. 14mm	–	275–84	–	UW/UW
184	[1330]	barbarous radiate Victorinus R: PROVIDENTIA AVG	diam. 13mm	–	275–84	–	UW/ corroded
185	[1330]	barbarous radiate	diam. 10mm	–	275–84	–	UW/ corroded
186	[1330]	barbarous radiate R: stylised figure	diam. 10mm	–	275–84	–	UW/UW
187	[1330]	barbarous radiate	diam. 10mm	–	275–84		corroded
188	[1330]	barbarous radiate Tetricus I R: PAX AVG	diam. 13mm	–	275–84	–	corroded
189	[1330]	barbarous radiate Victorinus R: INVICTVS	diam. 11mm	–	275–84	–	corroded
190	[1330]	barbarous radiate Tetricus I R: SPES PVBLICA	diam. 14mm	–	275–84	–	corroded
191	[1330]	barbarous radiate R: small female fig.	diam. 13mm	–	275–84	–	UW/UW
192	[1330]	barbarous radiate R: ewer	diam. 13mm	–	275–84	–	W/W
193	[1330]	barbarous radiate	diam. 13mm	–	275–84	–	UW/UW
194	[1330]	barbarous radiate	diam. 9mm	–	275–84		W/W
195	[1330]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
196	[1330]	barbarous radiate	diam. 10mm	–	275–84	–	UW/ corroded
197	[1330]	barbarous radiate	diam. 11mm	–	275–84	–	UW/ corroded
198	[1330]	barbarous radiate Tetricus I/II R: SPES	diam. 12mm	–	275–84	–	UW/UW

	Context	Type	Denomination	Reference	Date	Mint	Condition
199	[1330]	barbarous radiate R: as SPES	diam. 8mm	–	275–84	–	UW/UW
200	[1330]	barbarous radiate	diam. 12mm	–	275–84	–	corroded
201	[1337]	barbarous radiate	diam. 9mm	–	275–84	–	–
202	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
203	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	–
204	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
205	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	–
206	[1321]	barbarous radiate	diam. 8mm fragment	–	275–84	–	–
207	[1321]	barbarous radiate Tetricus I R: ewer	diam. 11mm	–	275–84	–	–
208	[1321]	barbarous radiate	diam. 10mm	–	275–84	–	–
209	[1321]	barbarous radiate	diam. 11mm	–	275–84	–	–
210	[1321]	barbarous radiate	diam. 10mm	–	275–84	–	–
211	[1321]	barbarous radiate Tetricus II R: female fig.stg. l.	diam. 12mm	–	275–84	–	–
212	[1321]	barbarous radiate tiny engraving R: male figure	diam. 8mm	–	275–84	–	–
213	[1321]	barbarous radiate Victorinus R: INVICTVS 'Invictus/ewer Group'	diam. 14mm	–	275–84	–	–
214	[1321]	barbarous radiate Tetricus I R: SALVS AVGG	diam. 12mm	–	275–84	–	–
215	[1321]	barbarous radiate	diam. 13mm	–	275–84	–	–
216	[1321]	barbarous radiate DIVO CLAVDIO R: altar	diam. 11mm	–	275–84	–	–
217	[1321]	barbarous radiate R: design	diam. 12mm	–	275–84	–	–
218	[1321]	barbarous radiate	diam. 11mm	–	275–84	–	–
219	[1321]	barbarous radiate	diam. 9mm	–	275–84	–	
220	[1321]	barbarous radiate Tetricus II R: ewer	diam. 10mm	–	275–84	–	–
221	[1321]	barbarous radiate R: male fig.l.	diam. 13mm	–	275–84	–	–
222	[1321]	barbarous radiate	diam. 13mm square flan	–	275–84	–	–
223	[1321]	barbarous radiate R: female fig.stg. l.	diam. 11mm	–	275–84	–	–
224	[1321]	barbarous radiate	diam. 9mm	–	275–84	–	–

	Context	Type	Denomination	Reference	Date	Mint	Condition
225	[1321]	barbarous radiate	diam. 9mm	–	275–84	–	
226	[1321]	barbarous radiate Victorinus	diam. 12mm	–	275–84	–	–
227	[1321]	barbarous radiate Claudius II	diam. 13mm	–	275–84	–	–
228	[1321]	barbarous radiate R: male figure	diam. 11mm	–	275–84	–	–
229	[1321]	barbarous radiate	diam. 8mm	–	275–84	–	–
230	[1321]	barbarous radiate	diam. 10mm	–	275–84	–	–
231	[1321]	barbarous radiate	diam. 13mm incomplete flan	–	275–84	–	–
232	[1321]	barbarous radiate Tetricus II R: ewer	diam. 10mm	–	275–84	–	–
233	[1321]	barbarous radiate	diam. 12mm	–	275–84	–	–
234	[1321]	barbarous radiate	diam. 13mm	–	275–84	–	–
235	[1321]	barbarous radiate	diam. 12mm	–	275–84	–	–
236	[1321]	barbarous radiate Tetricus I R: ewer	diam. 11mm	–	275–84	–	–
237	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	–
238	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	–
239	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	–
240	[1341]	barbarous radiate R: figure with staff	diam. 10mm	–	275–84	–	–
241	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
242	[1341]	barbarous radiate Victorinus R: VIRTVS AVG	diam. 8mm	–	275–84	–	–
243	[1341]	barbarous radiate R: altar derivative	diam. 10mm	–	275–84	–	–
244	[1341]	barbarous radiate DIVO CLAVDIO R: eagle	diam 10mm	–	275–84	–	–
245	[1341]	barbarous radiate Victorinus R: altar	diam. 13mm	–	275–84	–	–
246	[1341]	barbarous radiate Victorinus R: SALVS AVG	diam. 12mm	–	275–84	–	–
247	[1341]	barbarous radiate R: male fig.stg. r.	diam. 11mm	–	275–84	–	–
248	[1341]	barbarous radiate Tetricus I R: FIDES MILITVM	diam. 13mm	–	275–84	–	–
249	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	–

	Context	Type	Denomination	Reference	Date	Mint	Condition
250	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	–
251	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 12mm	–	275–84	–	–
252	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
253	[1341]	barbarous radiate R: female fig.stg.	diam. 12mm	–	275–84	–	–
254	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	–
255	[1341]	barbarous radiate R: pin figure	diam. 11mm	–	275–84	–	–
256	[1341]	barbarous radiate R: male fig.	diam. 10mm	–	275–84	–	–
257	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
258	[1341]	barbarous radiate R: female fig.stg. l.	diam. 8mm	–	275–84	–	–
259	[1341]	barbarous radiate R: ewer	diam. 10mm	–	275–84	–	–
260	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	–
261	[1341]	barbarous radiate R: illegible 'Invictus/ewer group'	diam. 14mm square flan	–	275–84	–	–
262	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
263	[1341]	barbarous radiate R: altar	diam. 9mm	–	275–84	–	–
264	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	–
265	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	–
266	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 12mm	–	275–84	–	–
267	[1341]	barbarous radiate R: tiny fig.running l.	diam. 10mm	–	275–84	–	–
268	[1341]	barbarous radiate	diam. 8mm	–	275–84	–	–
269	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
270	[1341]	barbarous radiate Victorinus R: INVICTVS	diam. 13mm	–	275–84	–	–
271	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 11mm	–	275–84	–	–
272	[1341]	barbarous radiate	diam. 13mm	–	275–84	–	–
273	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 12mm	–	275–84	–	–
274	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
275	[1341]	barbarous radiate silvered R: altar	diam. 9mm	–	275–84	–	–

	Context	Type	Denomination	Reference	Date	Mint	Condition
276	[1341]	barbarous radiate R: female fig.stg. l.	diam. 8mm	–	275–84	–	–
277	[1341]	barbarous radiate	diam. 10mm	–	275–84	–	–
278	[1341]	barbarous radiate R: female figure	diam. 11mm	–	275–84	–	–
279	[1341]	barbarous radiate	diam. 9mm	–	275–84	–	–
280	[1341]	barbarous radiate	diam. 8mm	–	275–84	–	
281	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
282	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 12mm	–	275–84	–	–
283	[1341]	barbarous radiate Tetricus I R: VIRTVS AVGG	diam. 11mm	–	275–84	–	–
284	[1341]	barbarous radiate Tetricus II	diam. 12mm	–	275–84	–	–
285	[1341]	barbarous radiate R: altar derivative	diam. 10mm	–	275–84	–	–
286	[1341]	barbarous radiate	diam. 8mm	–	275–84	–	–
287	[1341]	barbarous radiate Tetricus I R: PAX AVG	diam. 10mm	–	275–84	–	–
288	[1341]	barbarous radiate	diam. 13mm (thin, square flan)	–	275–84	–	–
289	[1341]	barbarous radiate R: pin figure	diam. 11mm	–	275–84	–	–
290	[1341]	barbarous radiate	diam. 11mm	–	275–84	–	–
291	[1341]	barbarous radiate	diam. 12mm	–	275–84	–	–

Table 20 : Catalogue of Roman coins.

Abbreviations: VW: very worn; SW: slightly worn; W: worn; UW: unworn.
References: BMC Mattingly (1966); Elmer (1941); RIC Mattingly, Sydenham et al. (1923).

THE ROMAN BROOCHES by D. F. Mackreth (Fig. 24)

All are made from copper alloy.

Colchester Derivatives

Both have or had their springs held in the Polden Hill manner: an axis bar passes through the spring and pierced plates at the ends of the wings, the chord being held by a rearward-facing hook behind the head of the bow.

1 LAY [645] Phase R1/1. Each wing has a moulding at the end. The spring was repaired in antiquity by inserting a new axis bar whose right-hand end was bent up and over the top of the wing. The junction of the bow with the wings is masked on each side by a curved moulding rising from the wings. The bow has two grooves on

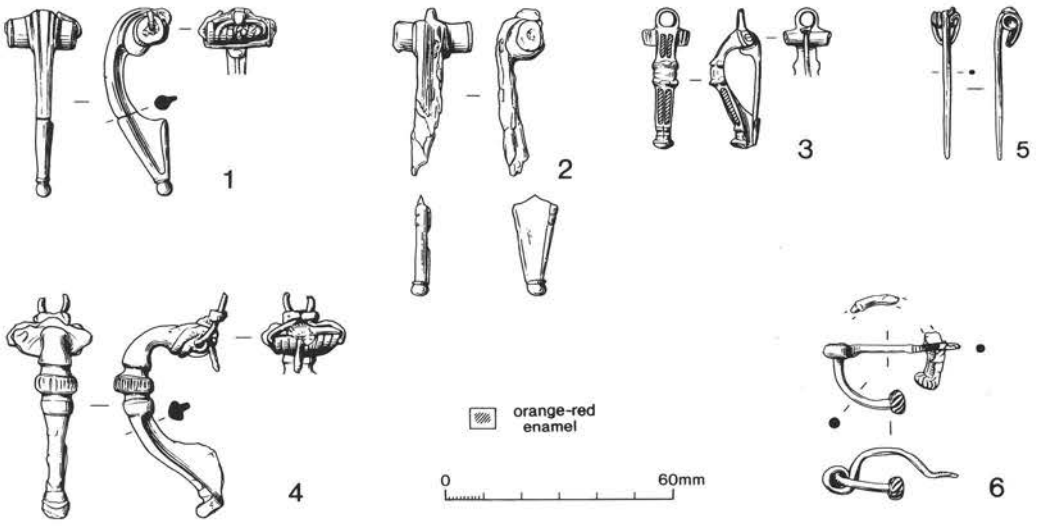

Fig. 24: Roman Little Chester: Roman brooches. Scale 1:2.

the head. The foot knob has a thin cross-moulding which forms the base for the catch plate whose return has a groove across the top.

2 LSI [1270] Phase 35/3. Heavily corroded and now in two pieces, the design is the same as that of Brooch 1, but for a central buried ridge running down the upper bow to a V formed by two diagonal lenticular bosses.

Both belong to a major family whose homeland is in the West Midlands, although examples are to be found all over Roman Britain. The chief functional variation is the substitution of a hinged pin for the sprung one. Brooches with this were made somewhere in the southern Pennines. Neither of these is an early specimen and a recent review of the dating (Mackreth forthcoming, a) concluded that the general *floruit* runs from the last quarter of the first century to *c.* AD 150/175.

Unclassified

3 LBA [649] Phase R1/1. The pin is hinged. The wings are stepped, the right-hand one being better formed than the other. The bow has a knop in the middle imitating the petalled form found on the Trumpet type. Above and below the knop are two longitudinal cells for enamel now discoloured. The foot knob has two cross-mouldings above it.

An example of a miscellaneous group of Colchester Derivatives which sport knops derived from the Trumpet type. Not all the knops are of this pattern and it is a feature of the group that there is no predominant design. However, this brooch does belong to one of the very few definable sub-groups, although its enamelled design is not typical (e.g. Mackreth 1985, 287: fig. 125, 17). Unfortunately, dating is virtually non existent but, in general terms, the *floruit* should be broadly the same as that of most of the Trumpet type: latest first century to *c.* AD 150/175, the terminal date of most British bow brooches. However, although some Trumpet varieties have a longer life, both in manufacture and use, the present specimen should not be allied with these.

Trumpet

4 LSF [1261] Phase 35/5. The spring is mounted on a loop behind the head and is held in place by a wire extension, forming a loop whose waist is caught by a collar made from a strip which has a groove across its front. The brooch shows signs of extensive wear down its front and the details of the mouldings are best seen on the sides and back. The trumpet head is damaged by corrosion, but was very wide in proportion to its depth. On either side are remains of curvilinear relief decoration. The bow knop consists of a broad and prominent moulding, with a reeded front, separated by flutes in the middle from mouldings top and bottom. The top moulding consists of two ridges, the bottom one of three. The lower bow appears to be plain. The foot knob is a large reeded moulding, reflecting the bow knop, under a small moulding. The profile of the brooch is slightly distorted, but had been a continuous curve from top to bottom.

The writer has recorded no parallel for this form of Trumpet with relief decoration. Nor does the brooch belong to an obvious group within the overall family. A characteristic, which may prove to be a determining feature when more examples have come to light, is the very wide head. At the moment, it appears that this is more at home in the north, perhaps specifically in the area running from Lincoln up the east side of the Pennines. Recent discussion of the dating of Trumpets (Mackreth forthcoming, b) concluded that the general range ran from before AD 75 to AD 150/175 with some being made later and several examples lasting into the early third century. One feature, however, which may indicate a relatively early date in the overall range is the continuous curve in the profile: commonly, the profile is straight, or even recurved, beneath the knop. If this holds true, then the present brooch should definitely date to before AD 125/150, but if the possible group lying east of the Pennines should be confirmed, the curved profile may prove to be a consistent feature and not related to a typological development.

Fragment

5 LTK [1527] Phase 36/6. The complete spring, with an internal chord, and pin, possibly from a Trumpet brooch: the pin is a little too long to suit Plate brooches with this kind of pin.

Penannular

6 LNA [792] R1 not phased. Copper alloy penannular brooch. Band circular in section with simple knob-shaped terminals, each decorated with incised diagonal lines. A small part of the band is missing. The pin is arched in the centre of the brooch, and wound in a spiral around the band. Original diameter *c.* 30mm.
Fowler's Type A2, dating from first century BC onwards, some occurring in Anglo-Saxon graves (Fowler 1960).

ARTEFACTS OF COPPER ALLOY, IRON, BONE AND CERAMIC

by A. G. Kinsley

Introduction

The finds comprise a diverse collection of costume fittings, including brooches pins and buckles; domestic equipment, including vessel parts and fittings, knives, spoons and a

ladle; implements connected with writing (a stylus and seal-box); gaming pieces and a die; various locks, keys, latch-lifters and other fittings for attaching to timber objects or structures; and various tools for working wood or metal. Also present are toilet items and a needle.

In keeping with previously published excavations, notably the North-West Sector, the industrial area, and cemetery (Dool, Wheeler, *et al.* 1985, 32, 37, 140–43, 210–14, 269–74), no artefacts of an unequivocally military nature, such as parts of swords, spears, shields, armour, and artillery bolts have been identified.

The published catalogue includes only a small proportion of the artefacts recovered in the excavations: copper alloy, 21 of 162 (13.0%); iron, 24 of 718 including nails (3.6%); ceramic, 13 of 13; worked bone, 23 of 29 (79.3%). The catalogue includes artefacts of identified function, and those unidentified, but with potentially diagnostic form. Dating evidence is noted where available. Many of the objects are of types already recorded from published excavations at Little Chester (Dool, Wheeler, *et al.* 1985, 32, 37, 140–43, 210–14, 269–74) and no extensive literature search for parallels has been attempted. The unpublished remainder of the artefacts are largely fragmentary and are dealt with in full in the archive.

Select Catalogue

Most of the identifications and comments made here are based on those of Manning (1985) and Crummy (1983). References to 'Manning' quote the relevant catalogue number.

Copper alloy artefacts (Figs. 25 and 26)

1 LAH [118] Phase S/2. Parts of plate and loop of copper alloy buckle. Plate hollow sheet, 60mm (incomplete?) x 14mm. Loop 19 x 17mm.

2 LAI [150] Phase R1/4. Copper alloy fitting, possibly cast, roughly square with turned-down edges and rivet detached from central rivet hole, but adhering in corrosion. 20 x 22mm.

3 LAK [153] Phase R1/4. Copper alloy lever lock key on ring. Ring D-shaped, the bar is rectangular in section, while the curved part is D-shaped in section. The shank of the key is hollow, and the plate has two slots in the sides and three grooves in the end. Ring 24 x 20mm, key shank length 21mm.
This would have worked a lock similar to a modern rotary mortice lock. A very similar key was found in the lock of a wooden box with iron and copper alloy decorative fittings at Colchester (Crummy 1983, 85–88).

4 LAP [542] Phase R1/2. Copper alloy terminal with iron stem. Terminal with grooved base, S-shaped body, ending in sphere with collar. Stem is bent, 4mm square in section, with tip missing. Although the radiograph could not show the method of joining the two elements, to judge from the weight the copper alloy terminal is a solid casting. Length of copper alloy terminal 33mm.

5 LAR [547] Phase R1/3. Copper alloy pin in four parts. One end tapering to a point, the other slightly bent and flattened. Length 112mm.
Possibly used as a hair pin. Crummy dates plain bone pins to 50–200 (Crummy 1983, 28).

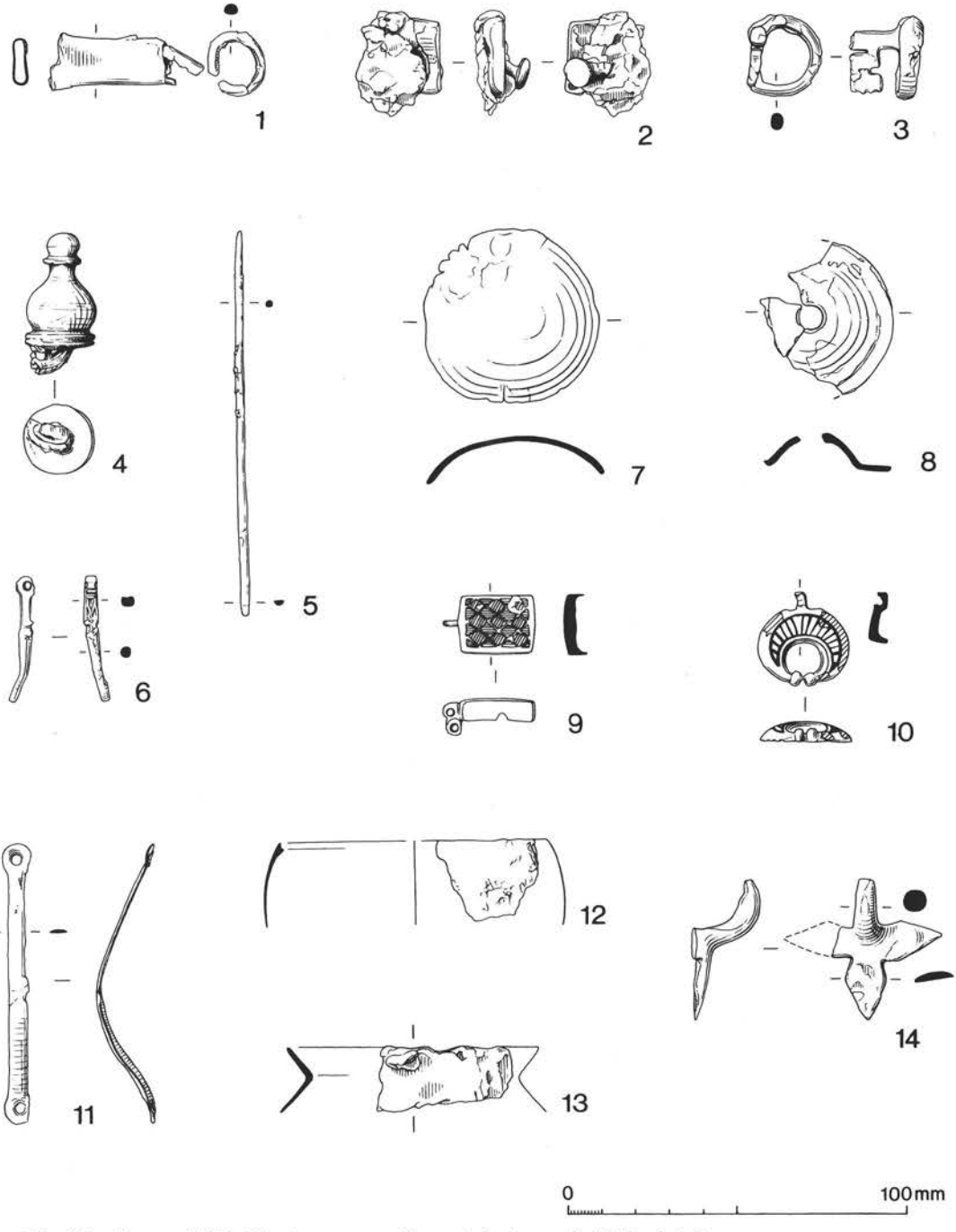

Fig. 25: Roman Little Chester: copper alloy artefacts nos. 1–14. Scale 1:2.

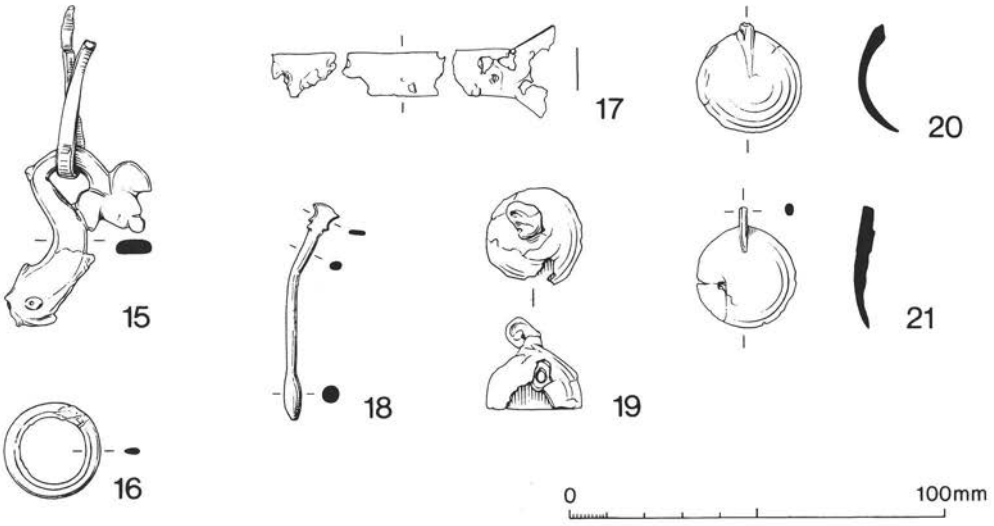

Fig. 26: Roman Little Chester: copper alloy artefacts nos. 15–21. Scale 1:2.

6 LAZ [649] Phase R1/1. Copper alloy object. Upper part rectangular in section, a rectangular panel with chip-carved V-shaped motif and a looped end with transverse grooves; lower part circular in section tapering to an oval section near tip. Tip missing (ancient damage). Possibly a buckle tongue. Bent length (incomplete) 36mm.

7 LED1 [725] Not phased. Sheet copper alloy plain hollow hemisphere, fissured and dented prior to burial. 52 x 52mm.

8 LED2 [725] Not phased. Sheet copper alloy hollow flanged hemisphere. Central perforation and groove round inner edge of flange. Incomplete, diameter 46mm.

9 LDA [789] Phase R2/2. Copper alloy seal-box lid. Surface is rough on interior. Lower edge has a semi-circular cut-out in centre of each long edge. Rectangular, with hinge in form of projecting lug with two perforations. Lower perforation has signs of wear from opening of hinge. Enamel inlaid into a tesselation of diamond-shaped cells, alternately green and blue (green is indicated by horizontal shading). Interior contained only soil. 21x16mm excluding hinge.
Enamelled seal boxes of this type are likely to date to the second or third centuries (Crummy 1983, 103–04: 2522, fig. 106).

10 LFA [824] Phase R2/1. Copper alloy pendant with niello inlay. Crescent-shaped with a knob on each terminal. C-shaped in section, with recently broken suspension loop on top edge. Inlaid crescent-shaped field of parallel lines bounded by a single line. 27 x 27mm.

11 LHA [862] Phase R3/1. Copper alloy fitting. Strip with pierced lobed terminals, D-shaped in section. Length 82mm.

12 LMA [898] Phase 33/1. Piece of copper alloy ?vessel rim with five fragments. Curved with one rebated edge, rest broken. Mineralised organic remains adhering to concave (inner?) surface. Incomplete: 25 x 30mm.

13 LRM [1200] Phase 35/13. Piece of sheet copper alloy. Curved, and bent into L-shape in section. Probable vessel rim. Incomplete, 39 x 26mm.

14 LUC [1602] Phase 37/3. Copper alloy escutcheon with trefoil head. One arm and tip of loop broken off. Inner surface of arms coated with white metal. Tests by wet microchemical analysis were negative for silver, but positive for tin: presumably the remains of soldered attachment to vessel. Length (incomplete) 44mm.

15 LPD [1110] Not phased. Part of copper alloy drop handle. In form of dolphin with three-lobed tail, the centre lobe terminating in a knob, and two upper and two lower fins. A single eye is represented with a punched or incised dot-in-oval, and the snout is missing. The object is flat on the reverse. Round the tail is looped a U-shaped strip, rectangular in section, of which one end tapers to a point, the other is missing. Length 53mm.

The snout would have been extended into a bar forming the handle proper, while the other end of the bar would have terminated in a similar dolphin, reversed. The attached clip must be some kind of staple securing the handle to the object from which it has become detached (*cf.* Cunliffe 1971).

16 LRG [1200] Unstratified. Copper alloy ring. A single longitudinal groove on one side. The lightness of the object suggests that it is hollow and therefore pressed from a sheet; the groove may be the join of the sheet edges. Diameter 25mm.

17 LSQ [1305] Phase 35/3. Copper alloy sheet object. Strip widening at one end into a triangular plate. Holed by corrosion, no original perforations. Width of strip 11mm.

18 LQG [945] Phase 33/3. Copper alloy ?probe with bent shank. Head flattened with semi-circular and angular cut-outs, shank circular in section, bulbous tip also circular in section. Possibly a toilet implement. Length (bent) 57mm.

It could have been used for removal of cosmetics from the face, and the application of medicaments to eye and ear. Larger, similar implements with a second spoon-shaped end were used in surgery and cosmetics (Crummy 1983, 60–61).

19 LRL [1200] Unstratified. Copper alloy bell. Hollow hemisphere with short length of wire inserted through central hole and secured by looped end. Diameter 25mm.

The clapper is missing, but Crummy illustrates one from Colchester with an iron clapper. It is attached to an arm ring of twisted copper alloy wire, possibly plated with white metal, along with a polychrome bead (Crummy 1983, 38: 1610, fig. 41).

20 LSD [1259] Phase 35/5. Copper alloy spoon bowl. Domed disc with linear ridge terminating in square projection at rim, handle missing. 28 x 26mm.

21 LSN [1301] Phase 35/3. Copper alloy spoon bowl. Domed disc with ridge continuing beyond edge in projecting bar, oval in section, handle missing. Reflective white metal was identified on both sides, indicating that the object had a surface coating of tin. Diameter of disc 27mm.

Round bowled spoons of this type date at Richborough from the second half of the first and the second centuries (Wilson 1968).

Miscellaneous iron objects (Figs. 27–30)

1 MDB [40] Phase S/6. Iron loop. U-shaped, the ends have been attached to a figure-of-eight-shaped plate. The loop was originally complete prior to conservation. 18 x 15mm.

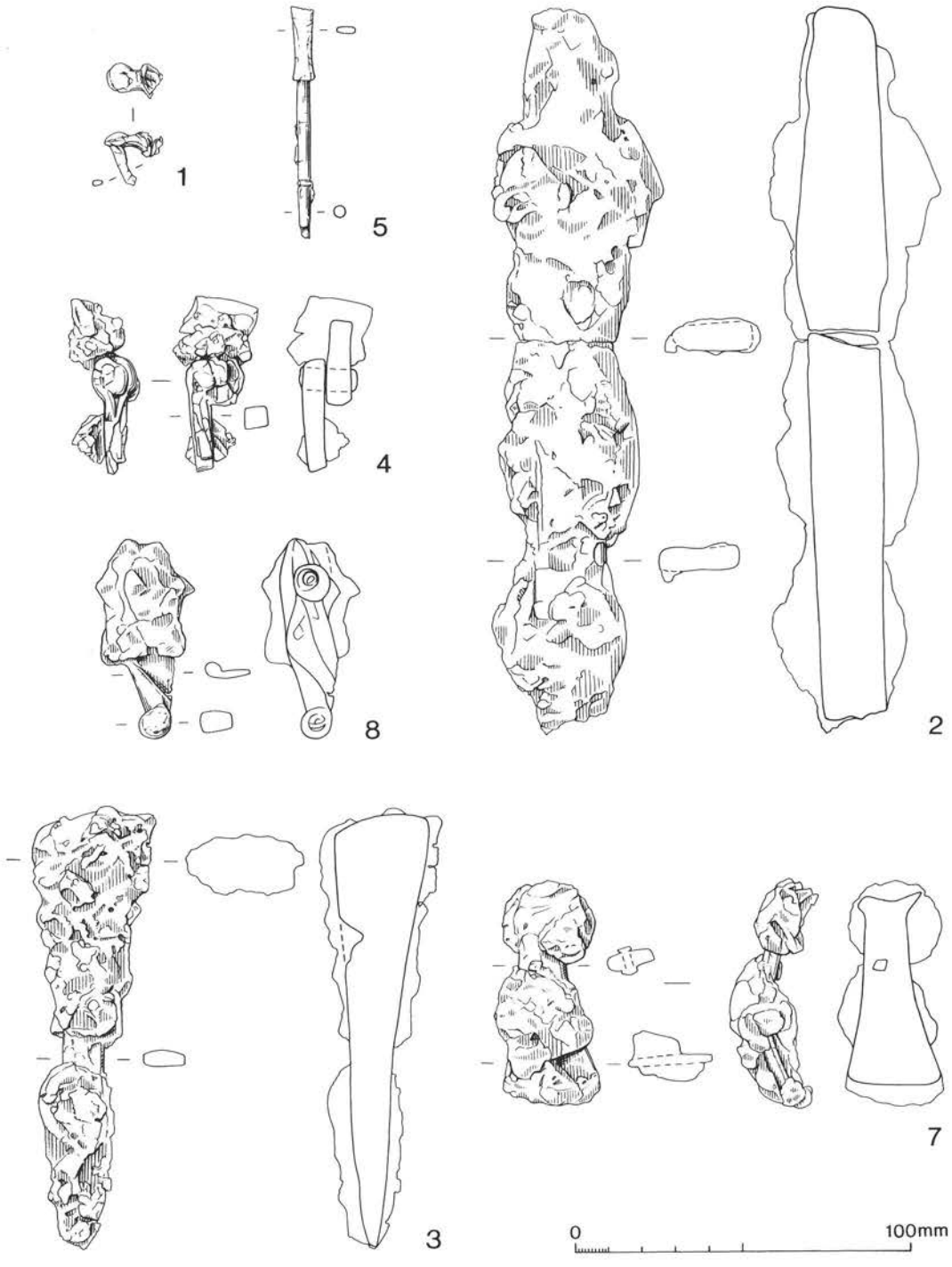

Fig. 27: Roman Little Chester: iron artefacts nos. 1–5 and 7–8. Scale 1:2.

2 MHA [54] Phase R2/2. Flat, rectangular iron bar, with one rounded and one squared end. Widens at stepped edge, 80mm from rounded end. Length 210mm, flattened oval in section, 8mm thick.

3 PAA [727] Phase R2/5. Triangular iron bar, rectangular in section. Slightly curved, seen from side. Length (measured from radiograph) 128mm, thickness 10mm.

4 QFB1 [900] Phase 33/1. Iron hinge. Two square-sectioned bars each with a terminal loop, looped around a hinge-bar. Length of longer hinge element 35mm.

5 RBC [945] Phase 33/3. Iron stylus. Eraser end broadened and flattened, with concave sides, shank circular in section with two transverse grooves, other end broken. Length (incomplete) 68mm.

6 SBG/SBH [1216] Phase 35/13. Iron object in two joining pieces. Strip, tapering towards one end, curved round and broken off at other. Central perforation. Length 147mm.

7 SCR [1261] Phase 35/5. Iron fitting. Flat, curved strip narrowing towards centre, where there is a single rivet, and perhaps broadening towards other end, but broken off. Section rectangular in central area. Length (incomplete) 64mm.

8 TAT [1507] Phase 36/6. Iron object. Roughly rhomboid plate with one scalloped edge. One end cleaned to original surface revealed cylindrical boss terminal with tapering raised ridge along one edge of plate. Other end not cleaned due to fragility of object, but radiograph suggests further boss close to opposite end, and suggests that bosses formed from coiled strips. Mineral preserved organic material on uncleaned end of object. Length (from radiograph) 58mm.

9 NTA1 [555] Phase R1/4. Ladle with hemispherical bowl and straight handle. Separate detail at lower left on drawing shows a view of the now detached ladle bowl from above. Length (possibly missing only very tip of handle) *c.* 900mm; handle circular to oval in section, diameter 10mm in centre tapering to 8mm at broken end.
NTA2 [555] Phase R1/4. Rod with one end bent round into an angular loop, of which part is missing; the other appears to broaden and thin out, with part of the tip missing. The looped end has a ring of 30mm diameter adhering to it, but not passing through the loop. Length *c.* 510mm.
The ladle bowl is attached by corrosion products to rod close to its looped end; evidently the two objects were buried adjacent to one another in the ground. These two objects, now adhering through corrosion, might be two halves of the same ladle, in which case it was broken in two before deposition. The total length would have been about 1.41m, but in any case the length of the handle is remarkable for the small size of the bowl. It could have been used for reaching into tall amphorae placed upright, perhaps containing a substance stored in large quantities but used sparingly.

10 BBG [4] Phase R1/4. Iron punch. Roughly square in section, tapers at head, section more circular near tip, which also tapers. Length 76mm.

11 RED [950] Phase 33/3. Iron ?punch. Square in section, flat, unburred head. Tapers towards point, angle of taper increasing over last 8mm, on two sides at least. Resembles a 'common' graver. Length 63mm. Smith's punch (*cf.* Manning A23–26).

12 SEY [1329] Phase 35/10. Iron punch. Chamfered, square-sectioned head tapering to circular-sectioned shank, tip missing. Length (not quite complete) 107mm. Smith's punch (*cf.* Manning A23–26).

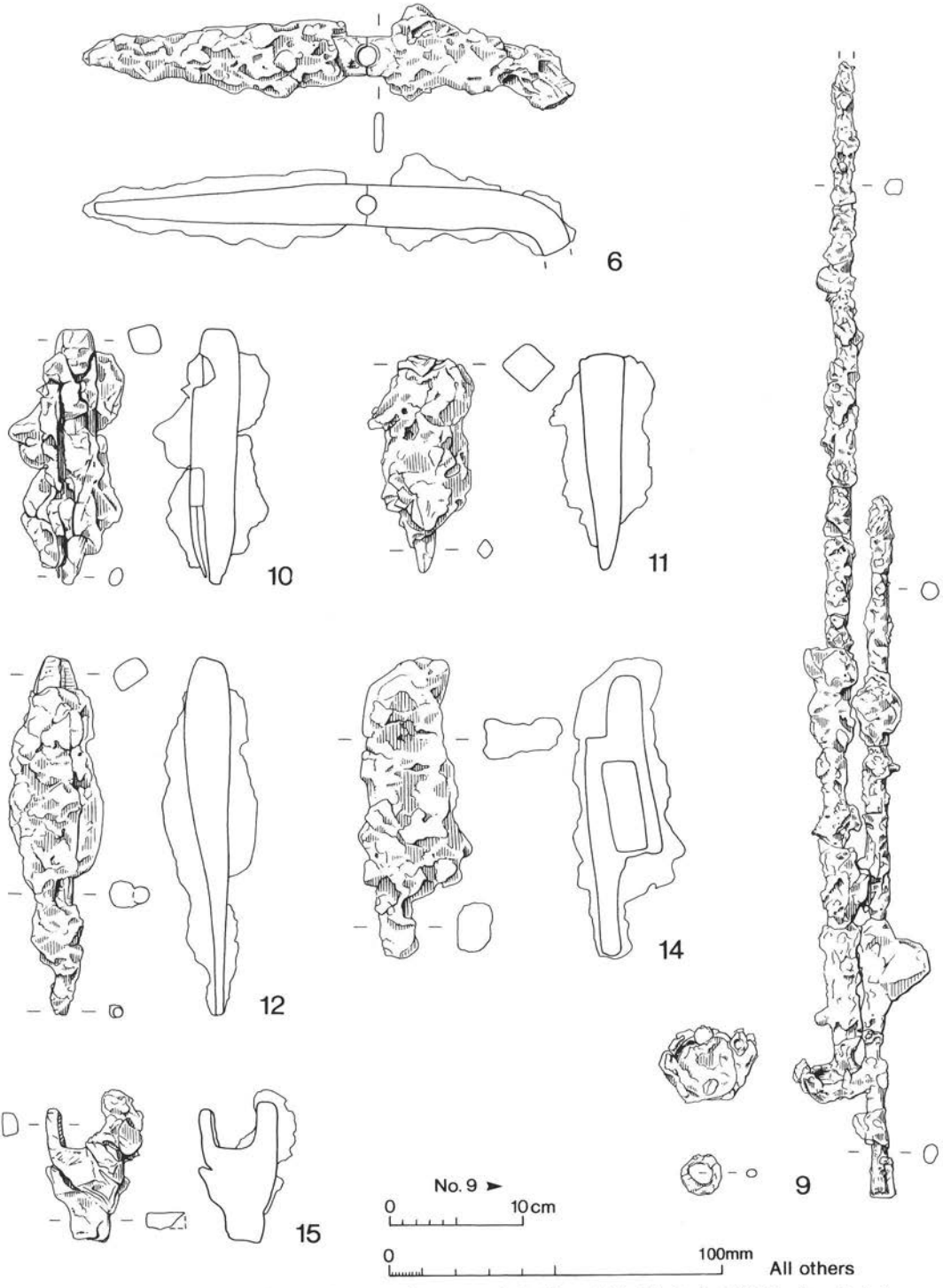

Fig. 28: Roman Little Chester: iron artefacts nos. 6, 8–12 and 14–15. Scale 1:2. No. 9 scale 1:5.

13 MXA1 [113] Phase S/3. Bucket handle in five pieces. Square in section, looped ends, diameter of bucket *c.* 250mm. Section diameter 12mm.
Bucket handle. A very common type of find. The bucket would have been made of wooden staves and solid base, bound horizontally with two or three hoops of iron (Manning P13).

14 MXA2 [113] Phase S/3. Iron lock bolt. A rectangle of rod with one length projecting from one corner, and another, wider, from the opposite corner. Length (measured from radiograph) *c.* 80mm.
This would have been fixed by a pin (tumbler) dropped though it, which could be lifted by a latch-lifter or key passed through the lock and engaged in a hole in the pin, thus freeing the bolt to be moved to one side (see SBF) (*cf.* Crummy 1983, 124: no. 4134).

15 SDK [1270] Phase 35/3. Iron object. Y-shaped bar. Broken at base of stem. Length (incomplete) 39mm, rectangular in section, maximum thickness 9mm.
Possibly another fragment of lock bolt but one would expect this to be asymmetrical.

16 SBF [1214] Phase 35/13. Iron lift key. Crescent-shaped bar attached to central shank. Shank square in section, bar flattened towards tips. Length between terminals 41mm.
Used for lifting lock tumblers (see no.14 MXA2). (Manning O23).

17 SCT [1261] Phase 35/5. Iron ferrule or spearhead socket. Dimension from radiographs: diameter 17mm tapering to 7mm; length 47mm (*cf.* Manning S80 (ferrule) V30 (spearhead)).

18 SCV & SCW [1261] Phase 35/5. Tang and base of blade of iron knife in two pieces. Tip missing. Length (incomplete) 80mm, width (from radiograph) 29mm.
Knife, Manning Type 24. This type has an S-shaped back. An Iron Age type which continued into the Roman period, passing out of use in the later first, or second centuries. Pieces such as this are usually found at the end of chains.

19 SGC/SGD [1355] Phase 35/3. Iron linked ring and D-shaped loop. The ring is circular in section. The link has one circular looped end which encloses the ring, and a circular-sectioned shank; the other end has a biconical terminal which passes through a circular hole in the bar of the D-shaped loop. The latter is generally circular in section, while the bar of the D is flattened and thinned. Total length (measured from radiograph) 163mm.
It is generally assumed that such objects would have been used for suspending cookng vessels over a fire (Manning S4).

20 UAK [1612] Phase 37/1. Iron loop hinge. Flat bar with thick looped end and thinner squared end with two perforations. The endmost hole is oval, the innermost is circular set at the edge of a linear recess. A further recess without a hole, *c.* 5mm square was located on the other side of the object about 70mm from the looped end. Length 167mm.

21 SEA [1297] Phase 35/4. Length of iron ?loop hinge. 9mm square in section at broken end, tapering to looped end, where 3mm square. Length (incomplete) 65mm.
Manning fig. 31: 2. A matching bar with terminal looped through the end of no. 20 (UAK) would have formed the hinge; such hinges lack rigidity and are best suited to vertically-mounted shutters or lids.

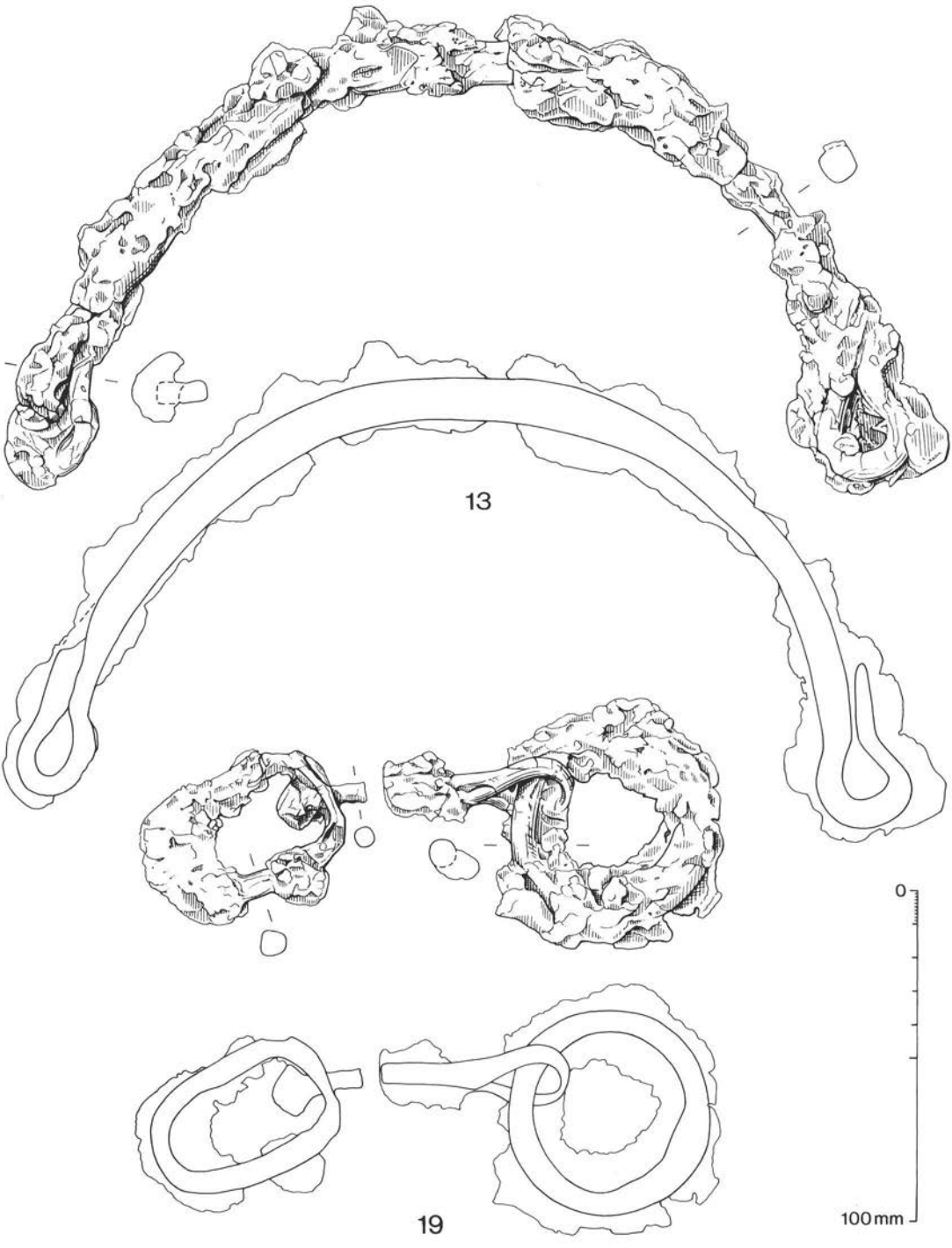

Fig. 29: Roman Little Chester: iron artefacts nos. 13 and 19. Scale 1:2.

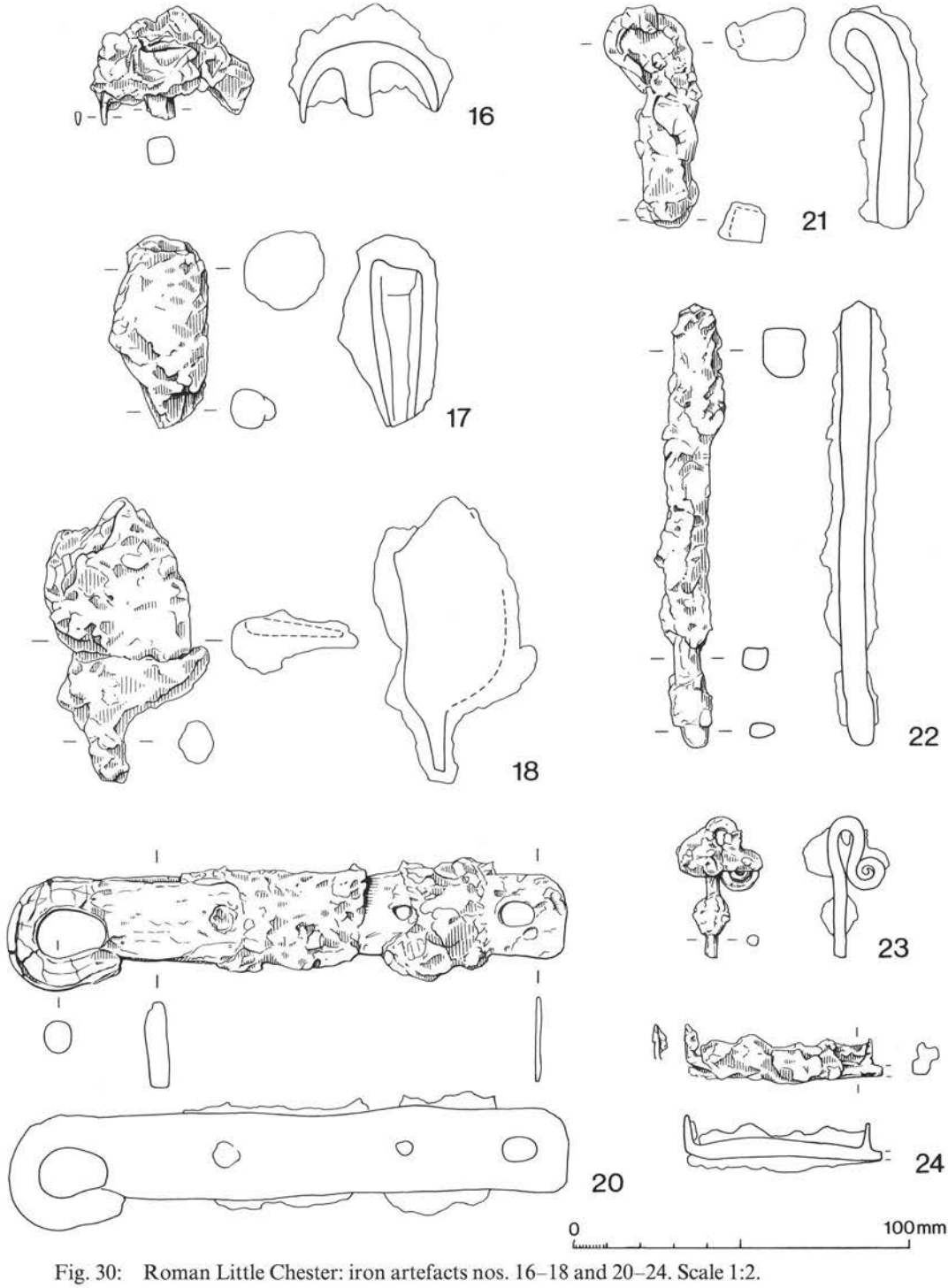

Fig. 30: Roman Little Chester: iron artefacts nos. 16–18 and 20–24. Scale 1:2.

22 RAG [945] Phase 33/3. Iron ?mortise chisel. Bar, near rectangular in section, flattened at one end, other end broken off. Slightly curved towards complete end. Length (incomplete) 130mm, section 8x6mm (*cf.* Manning B40).

23 TCT [1549] Phase 36/4. Iron rod with decorative terminal. Circular-sectioned, with end bent round and finished in a spiral. Length (incomplete) 42mm.

24 NPA [512] Phase R1/4. Iron object. Consisting of flat bar with two projecting spikes, one barbed. Length 61mmm.
Possible joiner's dog (Manning R52). All the examples illustrated by Manning have only two spikes, while this appears to extend an unknown distance beyond the spike at one end.

Iron nails

In an attempt to extract information from this numerous but unprepossessing type of artefact, several numerical analyses have been attempted.

Over the site as a whole, quantities of each type were as follows (Table 21):

	Quantity identified
Hobnails	52
Type 1	315
Type 2	13
Unidentified	55
TOTAL	435

Table 21 : Types of iron nails.

Types 1 and 2 are after Manning (1985, 133–35), the former with a flat or domed head, the latter with a narrow, upright head, which would be self-countersinking. Identifications were normally made without radiographs.

52 hobnails were identified, but only four contexts produced more than one: 17 from [941], seven from [40], and 3 each from [153] and [1258]. Almost all must represent casual loss. The seventeen coded [941] are unstratified and were not found together. Hobnails can only be certainly identified as such when found in a compact group, representing a boot sole.

The small numbers of nails of type 2 prevent meaningful comparison of the frequency of each type in each area, and the remaining statistics are restricted to those of type 1, with a flat head.

These nails were divided into those with a right-angled bend (RA), an obtuse angle bend (OA), a curved bend (C), straight (S), and unknown (incomplete), with the following results (Table 22):

RA	OA	C	S	Unidentified	TOTAL
3	40	48	136	88	315

Table 22 : Iron nails. Types of bend.

Despite the high proportion of straight nails, only one showed mineralised wood adhering, suggesting that many had been buried without use. The curved nails presumably represent those withdrawn in order to re-use timber, while the right-angled nails, and perhaps those with obtuse angles must have been deliberately clenched. The angled nails were measured for the length from the base of the head to the start of the bend,with the following results (Table 23):

Length to bend (mm)	Quantity
0	5
1–9	2
10–19	9
20–29	18
30–39	5
40–49	1
50–59	1
60–69	1
73	1
TOTAL	43

Table 23 : Iron nails. Frequency of lengths to bend.

A length-to-bend measurement of 0mm presumably indicates a head bent while inserting the nail, or a nail hammered in at an angle, then the head hammered flat, but the remaining figures do suggest a common timber thickness of around 20–30mm, indicating that this technique was largely restricted to relatively lightweight joinery. There are twenty-nine right or obtuse angled nails whose total length is also known, and there is no clear correlation between length to bend and overall length (Table 24).

Finally, the numbers of nails were considered by context and by phase, and compared with equivalent numbers of non-nail metal and bone artefacts, and with non-nail iron artefacts. Those contexts with relatively numerous nails also produced relatively large numbers of the other classes of artefact, suggesting that numbers were probably related to the volume of deposit excavated (figures in archive).

Objects in other materials (Figs. 31 and 32)

1 KAA [5] Phase R1/4. Bone disc. Concave depression on upper surface, with central depression and concentric markings suggesting turning. Flat rim with single groove in edge. Reverse cut off flat. Diameter 19mm.

2 KCA [102] Phase S/4. Bone disc. Central depression within four concentric incised circles. Reverse convex: possibly outer surface of bone. Diameter 22mm.

3 KCB [102] Phase S/4. Bone disc. Central depression within five concentric incised circles. Reverse convex: possibly outer surface of bone. Diameter 20mm.

4 KEA [832] Not phased. Bone disc. Central depression within three concentric incised circles. Single groove perpendicular to outer edge. Reverse flat. Diameter 23mm.

5 KHB [905] Not phased. Bone disc. Flat on both sides, one has central depression. Diameter 17mm.

Bend type	Length	Length to bend
OA	32	13
OA	36	8
OA	40	20
OA	43	20
OA	45	18
OA	45	15
OA	45	24
OA	47	25
OA	47	15
OA	49	32
OA	50	30
OA	51	25
OA	51	21
OA	52	25
OA	53	13
OA	54	27
OA	54	20
RA	54	20
OA	55	38
OA	56	25
RA	56	25
OA	57	40
OA	60	55
RA	60	20
OA	62	25
OA	63	30
OA	65	60
OA	69	18
OA	80	73

Table 24 : Iron nails. Above, correlation of length to bend to overall length, in order of overall length. Below, nails in order of length and in order of driven length.

6 KJC [941] Phase 33/3. Bone disc. Upper side convex with central depression, flat on reverse with irregular shallow scar. Diameter 26mm.

7 KKF [1258] Phase 35/5. Bone disc with central depression within seven incised concentric circles. Flat on reverse. Diameter 26mm.

8 GBA [112] Phase S/3. Stone disc. Chamfered edges, flat and unweathered on reverse, suggesting object broken off the end of a cylinder. Diameter 11mm.

9 GCA [87] Phase S/5. Disc shaped from sherd of samian ware. Diameter 18mm.

10 GDA [113] Phase S/3. Disc shaped from sherd of mortaria. Diameter 20mm.

11 GDB [113] Phase S/3. Disc shaped from sherd of mortaria. Incised grooves on upper face. Diameter 18mm.

12 GDC [113] Phase S/3. Disc in fine, off-white fabric, possibly shaped from a pot sherd. Diameter 16mm.

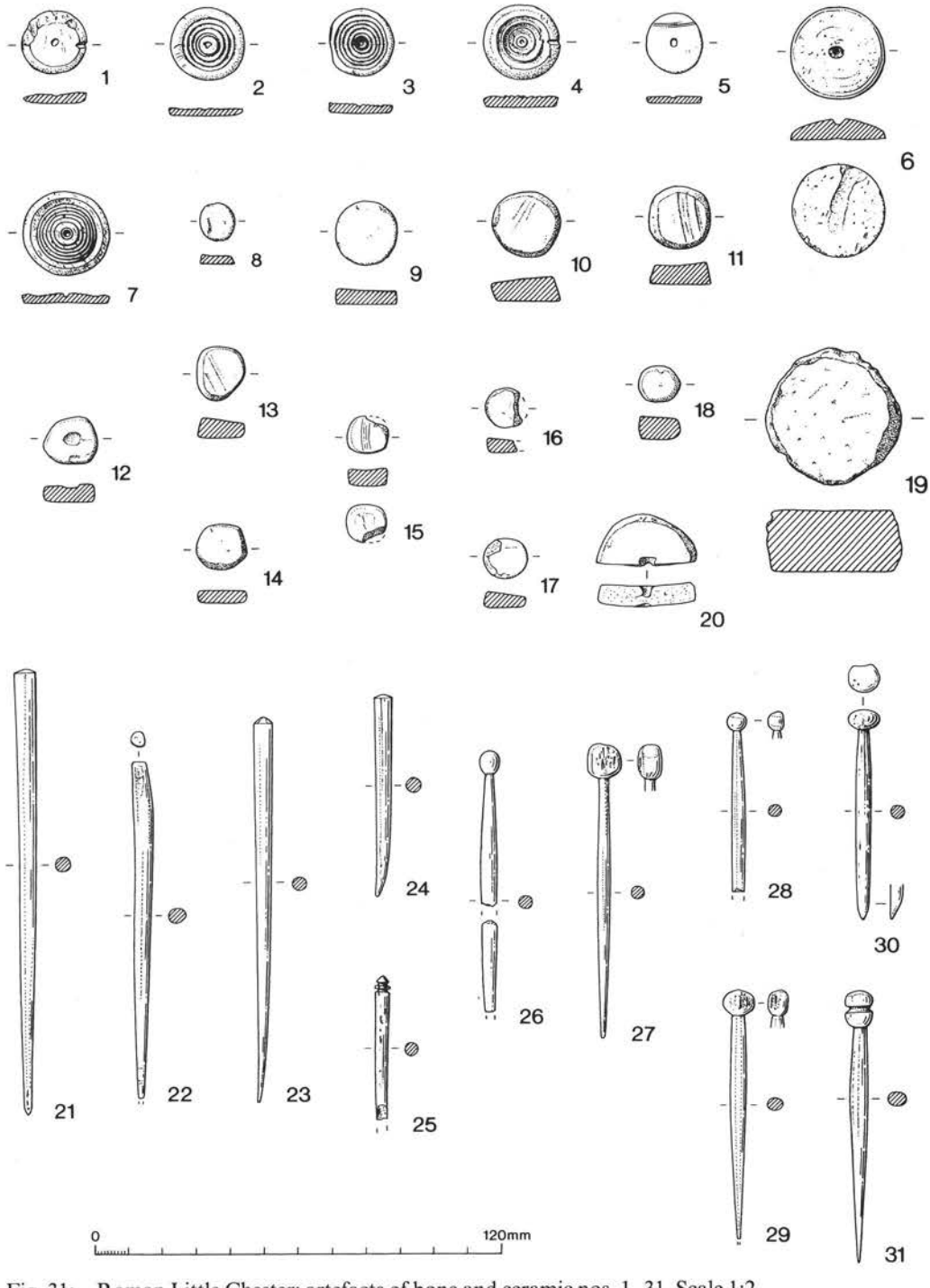

Fig. 31: Roman Little Chester: artefacts of bone and ceramic nos. 1–31. Scale 1:2.

13 GDD [113] Phase S/3. Disc shaped from potsherd in fine, off-white fabric. Diameter 16mm.
14 GDE [113] Phase S/3. Disc in fine, off-white fabric. Diameter 15mm.
15 GDF [113] Phase S/3. Disc shaped from potsherd in fine, off-white fabric Curved incised groove on upper surface.Part of one edge broken off. Diameter 13mm.
16 GDG [113] Phase S/3. Disc in fine, off-white fabric. Part of one edge broken off. Diameter 12mm.
17 GDH [113] Phase S/3. Disc in fine, off-white fabric. Part of one edge broken off. Diameter 13mm.
18 GDI [113] Phase S/3. Disc in fine, off-white fabric. Diameter 13mm.
19 GHA [734] Phase 33/3. Disc shaped from a tile. Diameter 41mm.
20 GIA [725] Unstratified. Half of disc shaped from samian ware sherd. Partly-bored perforations on both sides at original centre; presumably broke during boring operation. Diameter 30mm.

Bone and glass counters such as these are very common individual finds; although sets are rarer. Numbers 10–18 above might represent a small set, but it is not known if these were found together in the ground. A hoard of 126 was found in a bag at Ravenglass, Cumbria (early third century or earlier), as well as three of slate, similar to the plain ones from Little Chester (Potter 1979). The hoard consisted of 76 counters with concentric grooves, 42 with a single drilled spot on one side, one with three drilled spots on one side, and seven glass counters.

Bone pins

Type 1, plain head. At Colchester, these pins span virtually the whole Roman period (Crummy 1983, 21).

21 KJE [945] Phase 33/3. Bone pin with tapering shaft and plain, convex end. Length 131mm.
22 KJD [945] Phase 33/3. Bone pin. Tapering shaft and flat end. Length 99mm.
23 KKE [1245] Phase 35/5. Bone pin with tapering shaft and plain, convex end. Length 112mm.
24 KKH [1261] Phase 35/5. Bone pin. Tapering shaft with convex head. Possibly a re-shaped broken fragment of a larger pin. Length 59mm.

Type 2, transverse grooves below head.

Pre-Flavian to *c.* 200 at Colchester (Crummy 1983, 21).

25 KKJ [1340] Phase 35/3. Part of bone pin. Pointed head decorated with two incised grooves. Tip missing. Length (incomplete) 42mm.

Type 3, spherical-headed.

At Colchester *c.* 150–late third/fourth century (Crummy 1983, 21–22).

26 KJB [941] Phase 33/3. Two non-joining parts of bone pin with oval head. Length of larger fragment (incomplete) 46mm.
27 KKA [1200] Unstratified. Bone pin with flattened, roughly spherical head. Length 87mm.
28 KKB [1200] Unstratified. Bone pin with roughly spherical head. Tip and facet on head broken off. Length (incomplete) 53mm.

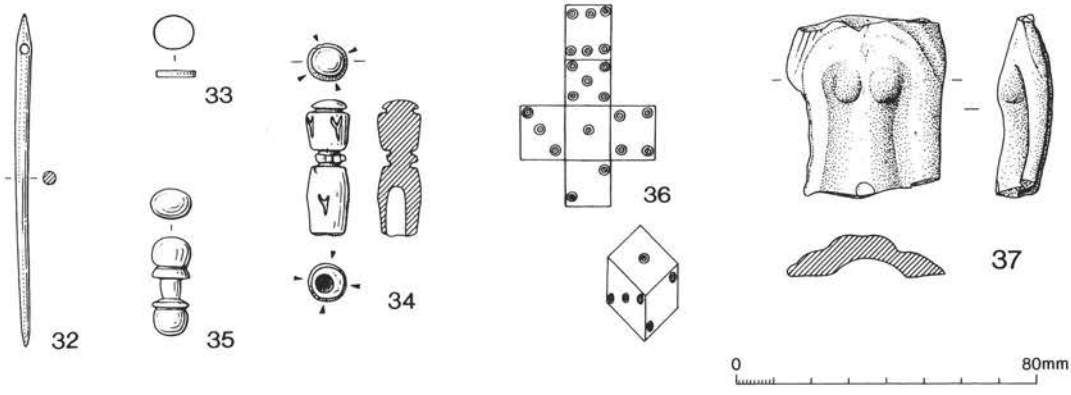

Fig. 32: Roman Little Chester: artefacts of bone and ceramic nos. 32–37. Scale 1:2.

29 KKC [1212] Phase 35/13. Bone pin with flattened, roughly spherical head. Length 73mm.

30 KLC [1601] Phase 37/4. Bone pin with flattened, spherical head. Point missing. Length (incomplete) 61mm.

Unclassified

31 KGA [734] Phase 33/3. Bone pin. Roughly spherical head with central groove. Shank thickens before tapering to a point. Length 79mm.
These large, thick pins were probably used as hairpins, although 24 is very short, and might have been used as a peg or awl (Crummy 1983, 19: 162). Colchester dates may not be valid for Derby, as the forms are very simple and could easily be used at different times in different places.

Bone needle

32 KKI [1270] Phase 35/3. Bone needle with pointed, perforated head. Length 87mm.
Needles such as this belong to Crummy's type 1 with pointed head, coming from contexts at Colchester ranging in date from the second century to post-Roman. They were used for sewing coarse cloth (Crummy 1983, 65).

Miscellaneous bone objects

33 KCC [102] Phase S/4. Ring of ?bone. Diameter 10mm.

34 KDA [725] Unstratified. Bone object: handle or terminal. Domed terminal above tapering cylinder, above collar (largely broken off), above barrel-shaped section, all separated by grooves. Cylinder and barrel each decorated with incised Y-shaped motif as arrowed on drawing. Hole pierced longitudinally down length. Length 31mm.

35 KFA [877] Phase R2/1. Bone object. Each end consisting of a roughly-spherical terminal with collar, ends joined by a thinner central shank. Carved, not turned. Length 26mm.

36 KHA [905] Not phased. Bone die. Slightly rectangular in shape. Each 'spot' consists of a dot within two concentric incised circles. The opposite faces each add up to

seven. The 'three' and 'four' faces (the end grain of the bone) are extremely highly polished. 12 x 12 x 15mm.

Clay figurine

37 GEA [555] Phase R1/4. Fragment of a hollow figure in fine white clay representing the front part from shoulder to stomach of a naked female form. The arms are by the sides and a tress of hair is preserved in projecting fragments over each shoulder. The mark at the centre of the base of the fragment is the result of damage, not a representation of a navel. The reverse is hollow with smeared thumb-prints suggesting that the clay has been pressed into a mould. Round the edge there is a flattened rim with irregular scars, perhaps the mating face for the other half of the figure. Height (incomplete) 47mm.

An account of objects of this type can be found in Jenkins (1959). Figures of this type are fairly common in Britain and are products of an industry established in the Samian factories in France, and may date from the mid first century AD onwards. Jenkins concludes that the figure is based on classical representations of Venus, but as no goddess of love is known in the Celtic pantheon, the figure represents a Celtic deity whose name is not known. This deity is venerated in both Gaul and Britain, a member of the circle of female deities displaying the attributes of a mother goddess, concerned with fertility, abundance and good health, and is known as the 'pseudo-Venus'. In Gaul, numerous Romano-Celtic, and Classical temples have produced similar figurines, and they are frequently found at the sites of sacred springs and spring sanctuaries, suggesting an association with the water cults. Some finds come from burials. In 1959 around one hundred such figures were known in Britain, widely distributed mainly in civilian areas, south-east of the Fosse Way, and especially London.

ARTEFACTS OF STONE (Figs. 33–34)

Shale

1 HKE [1207] 35/Modern. Segment of shale bracelet. Internal diameter *c.* 58mm, thickness 7mm; polygonal section with encircling grooves and ridges. On the inside, a median ridge with two very shallow grooves to one side. On the outside, two ridges divided by a central groove; two shallow grooves to one side.

Carved stone

2 HBA [689] Phase R1/1 (central foundation). Carved stone. One roughly dressed face with mortar adhering. The edge of the adjoining face has a shallow triple moulding, the two outer mouldings narrower than the inner one. The remainder of this face projected forward of the moulding, but has sheared off. Millstone Grit. Width of moulding 38mm, depth 5mm. Total size of fragment 189 x 114 x 21mm.

Querns

All the stones are of the flat rotary type. All are of Millstone Grit, probably from a Derbyshire source, with just one fragment of imported lava. There is considerable variety in size and execution, including stones of hand quern size and others of small millstone size, almost certainly turned by human or animal power rather than water driven.

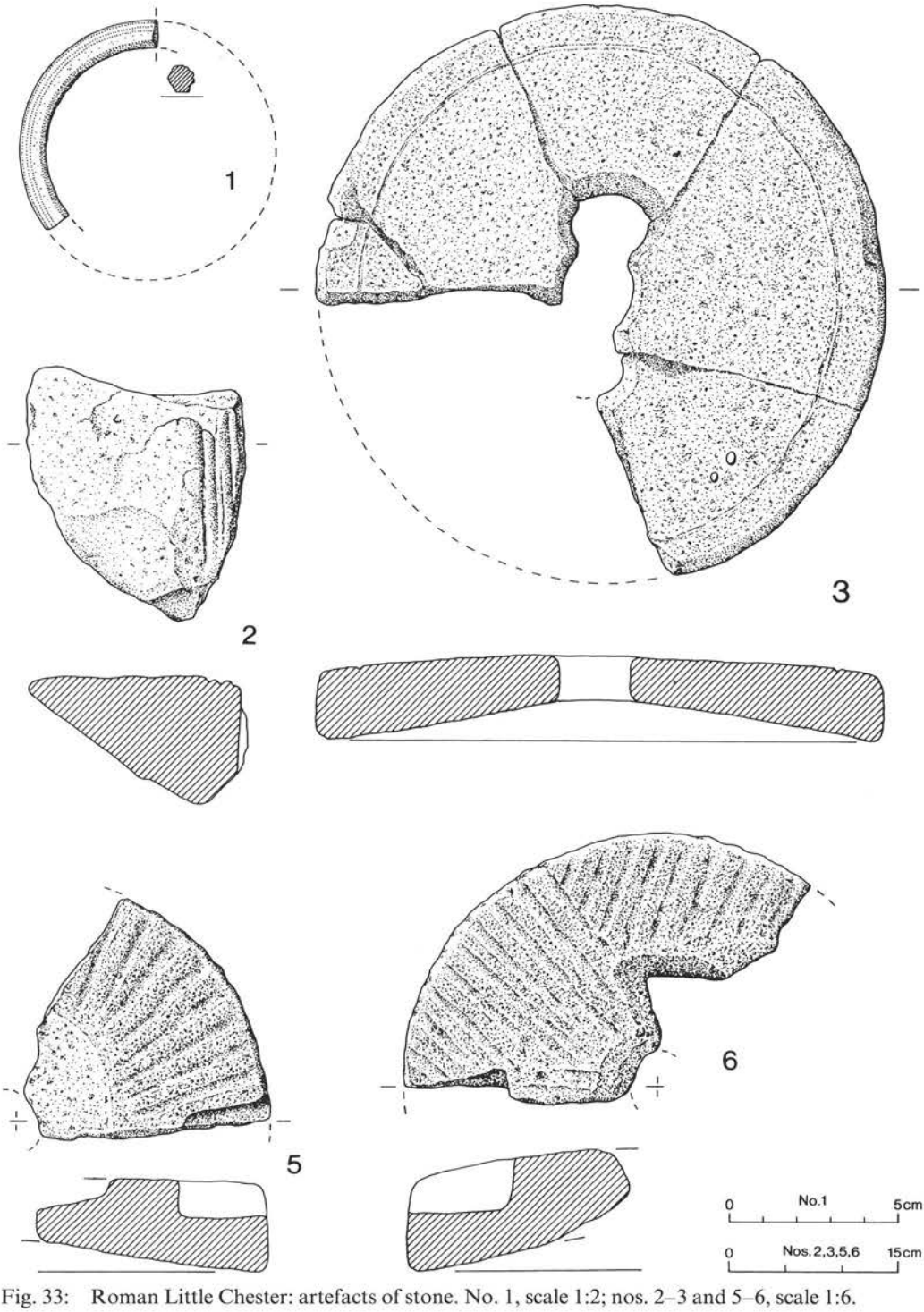

Fig. 33: Roman Little Chester: artefacts of stone. No. 1, scale 1:2; nos. 2–3 and 5–6, scale 1:6.

3 HAA [118] Phase S/2. Upper stone in six joining pieces. The central hole (diameter 63mm) is flanked by two ovoid perforations indicating a rynd or bridge flanked by two hoppers. A rectangular recess (20 x 40mm) in the rim may have accommodated a handle. There is a concentric groove 36mm from the rim. Diameter 510mm, thickness 75mm.

The groove near the rim can only have a decorative function; it is probably a skeuomorphism of the imported lava querns which had an upstanding rim around the edge of the upper stone. No. 8 has a similar groove.

4 HAB [118] Phase S/2. Complete lower stone, with some damage to the rim. Flat base. The central perforation tapers from the base (diameter 40–60mm). Diameter 462mm, thickness 87mm.

A substantial portion of no. 3 directly overlay no. 4, which suggests that the stones, although not a matching pair, were used together. However, if they had been used together, even fairly little, one would expect a rim to have developed on the grinding face of the larger, upper, stone. The upper stone is much less weathered than the lower.

5 HNE [1200] 35/Topsoil. Sector of a hand quern upper stone with radial handle slot and decorative pattern of incised radial lines on the upper surface. Vertical incised lines on the rim. A shallow hopper slopes down to the central hole. Diameter approximately 450mm, thickness 84mm.

This quern is of a standard pattern fairly common in Derbyshire and the surrounding counties, which could be the products of a single workshop, perhaps on the Ashover Grit.

6 HND [1200] 35/Topsoil. Sector of a hand quern upper stone with handle slot in the upper surface, which is divided into decorative harps filled with parallel scoring. Vertical lines on the rim. There is a dovetail-shaped aperture, joining up with the central hole, which carried the rynd to centre and supported the stone. As slots for metal rynds are usually fairly narrow, this might have been of wood. Diameter 450mm, thickness 108mm.

7 HJA [1504] 36/Topsoil. Fragments of large upper stone with off-centre hopper hole or dovetail recess. Pecking on upper surface and rim. Very pebbly stone. Diameter 708mm, thickness 105mm.

8 HNC [1200] 35/Topsoil. Sector of large upper stone. Segments of two off-centre perforations, probably one a hopper hole and the other to take a drive arm. There is a concentric groove 27mm from the rim, similar to no. 3. Diameter 864mm, thickness 153mm.

This size of this stone suggests a mill stone rather than a hand quern. It seems most likely that it was top driven.

Not illustrated:

9 HKA [1549] Phase 36/4. Almost complete hand quern upper stone. Pecked upper surface. The concave grinding surface has a worn pattern of radial pecking. Vertical lines on the rim. Diameter 414mm, thickness 111mm, central hole diameter 39mm.

10 HGF [901] Phase 33/1. Half of hand quern lower stone. Flat base. Hour glass perforation (minimum diameter 36mm). Diameter 459mm, thickness 96mm.

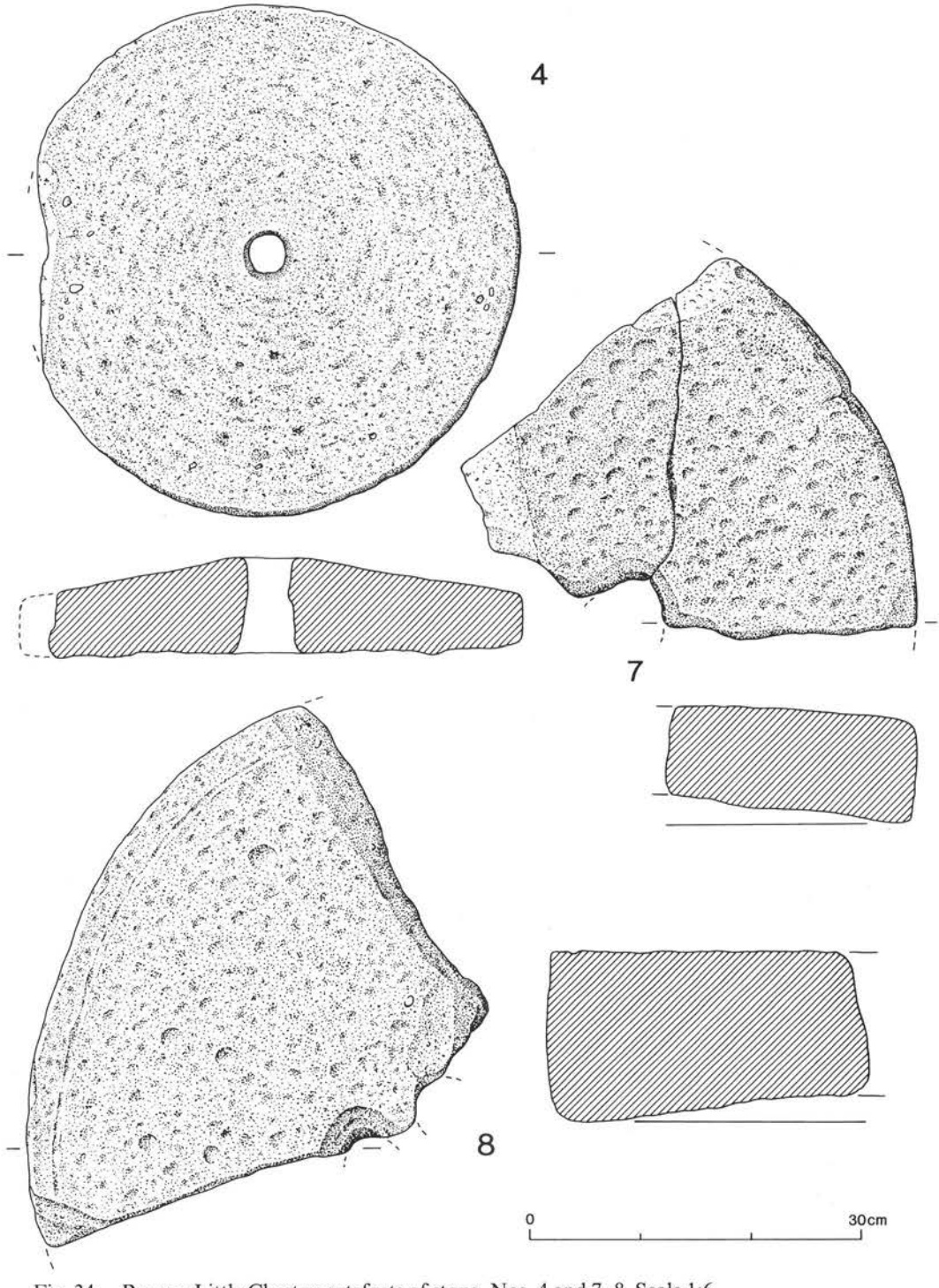

Fig. 34: Roman Little Chester: artefacts of stone. Nos. 4 and 7–8. Scale 1:6.

11 HGB, HGC, HGD [1504] 36/Topsoil. Three joining sectors of a hand quern lower stone. Grinding surface divided into sectors by radial lines, no sign of infilling with parallel striations. Vertical lines on rim. Concave base with pecking. Central hole tapering from base, minimum diameter 48mm. Diameter 444mm, thickness 87mm.
12 HLA, HLB [926] R3 not phased (fill of drain). Half of lower millstone, and segment probably from same stone. Pecking on grinding face. Flat base. Hourglass perforation, minumum diameter 15mm. Diameter 639mm, thickness 126mm.
13 HJC [1504] 36/Topsoil. Sector of hand quern lower stone, as no. 5. Central hole diameter 60mm. Diameter 360mm, thickness 75mm.
14 HJD [1504], HKB [1549] Phase 36/4 and 36/Topsoil. Both halves of a hand quern lower stone. Partly reshaped as building stone. Flat base. Hourglass perforation, minimum diameter 18mm. Diameter 440mm, thickness 120mm.
15 HGE [901] Phase 33/1. Segment of hand quern lower stone with flat base and pecked grinding surface. Diameter 432mm, thickness 66mm.
16 HGH [901] Phase 33/1. Sector of hand quern lower stone with concave base and pecked grinding surface. Central hole tapering from base, minimum diameter 27mm. Diameter 432mm, thickness 102mm.
17 HGG [901] Phase 33/1. Sector of hand quern lower stone with flat base. Central hole tapering from base, minimum diameter 54mm. Diameter 450mm, thickness 93mm.
18 HNA [1200] 35/Topsoil. Fragment of lower stone with flat base. Circular scoring on grinding face, due to wear against upper stone. Central hole diameter 60mm. Thickness 60mm.
19 HMA [300] 029/Topsoil. Segment of lower stone with flat base. Grinding surface scored with parallel lines in a pattern of harps, worn towards centre. Diameter 720mm, thickness 69mm.
20 HPB [1602] Phase 37/3. Segment of ? upper stone. Radial pattern of scoring on top (as no. 3). Diameter 624mm, thickness 90mm.
21 HOA [1210] 35/Modern. Segment of ? upper stone with a squared perforation. Thickness 93mm.
22 HPA [1600] 37/Topsoil. Fragment of upper stone. Lava. Concave grinding surface with incised harp pattern. Central hole tapers from top, minimum diameter 93mm. Thickness 96mm.
23 HJB [1504] Phase 36/Topsoil. Segment of hand quern lower stone. Flat base. Diameter 408mm, thickness incomplete.
24 HNB [1200] 35/Topsoil. Sector of lower stone. Flat base. Diameter 660mm, thickness 93mm.
25 HFA [569] R1 not phased. Fragment of hand quern lower stone. Flat base. Hourglass perforation, minimum diameter 42mm. Diameter 444mm, thickness 96mm.

BUILDING MATERIALS

The Roman Tile by T. S. Martin

1345 fragments of tile (excluding unphased material) were recovered from the Pickford's Garage site. Of these, 612 (45.5%) occurred in phased Roman contexts and the remainder in post-Roman levels.

The tile types comprise roofing tile, *imbrex* and *tegula* (30.55%); box flue tile from heating systems (7.65%); and wall tile (5.27%), the large flat Roman brick used in bonding courses in walls. All of the tiles were in red-orange fabrics. Tile from Roman contexts too fragmentary to classify has been categorised as miscellaneous (27.43%), that from post-Roman contexts as uncertain (29.07%). No complete examples of any type were recorded. Quantification by the number of fragments of each type is summarised as Table 25.

Phase	*Tegula*	*Imbrex*	Wall tile	Box tile	Miscellaneous	Uncertain	Total
R1/1	1	–	–	–	–	–	1
R1/2	2	–	–	–	3	–	5
R1/3	13	–	3	–	2	–	18
R2/1	–	–	–	–	–	–	–
R2/2	–	2	–	–	4	–	6
R2/3	–	–	–	–	18	–	18
R2/4	–	–	2	–	–	–	2
R3/1	5	3	–	–	23	–	31
R3/2	2	–	–	–	8	–	10
S/1	–	–	–	–	–	–	–
S/2	37	14	8	–	34	–	93
S/3	66	14	4	11	28	–	123
S/4	15	7	–	2	29	–	53
S/5	6	2	–	2	49	–	59
33/1	10	–	–	–	2	–	12
33/2	–	–	–	–	–	–	–
35/1	–	–	–	–	–	–	–
35/2	–	–	–	–	–	–	–
35/3	20	3	2	–	36	–	61
35/4	6	1	2	1	1	–	11
35/5	16	9	1	1	27	–	54
35/6	–	–	–	–	1	–	1
35/7	–	–	–	–	–	–	–
35/8	–	1	–	–	–	–	1
35/9	5	2	1	–	25	–	33
35/10	–	–	1	–	11	–	12
35/11	–	–	–	–	–	–	–
35/12	–	–	–	–	–	–	–
PR	73	76	47	86	68	391	741
Totals	277	134	71	103	369	391	1345

Table 25: Ceramic tiles. Numbers of fragments summarised by phase. (PR = post-Roman contexts)

No attempt has been made to sub-divide into individual fabrics. Assuming a trading pattern of only localised movement of bulky and heavy items, a local origin can be presumed.

A number of *tegulae* and wall tile fragments bore finger signature marks. However, none were complete enough to distinguish any individual characteristics.

Only tentative conclusions can be drawn from the small groups recovered. The principal use of tile was for roofing. *Tegula* fragments occurred in the construction of Rooms 1 and 3, and imbrices in Room 3, indicating the presence of a tiled roof in the primary phase, although there is insufficient evidence to conclude whether Structure 1 had a tiled roof. 39 per cent of all tile occurred in the area south of the main building, where debris accumulated from the frequent replacement of ancillary structures. A substantial group of box tiles in Phase S/3 indicates the provision of heating systems by the later second century. Several of the box tiles were scored using a bone comb.

Painted Wall Plaster by G. Shaw

Only a small quantity of painted wall plaster was recovered from the site. This consisted of 427 pieces which had a total surface area of approximately 0.33 square metres (average size per piece 3 x 2.5cm). The small number of pieces prevents any meaningful statistical analysis and it is therefore only possible to comment generally on the fragments.

The most common form of decoration in Roman Britain appears to have comprised a dado surmounted by a central zone, which was divided into panels by various lines and stripes. There was often a frieze above the panels. The majority of wall plaster recovered during excavation consisted of pieces painted with one colour only, or the multi-coloured lines and stripes associated with the panel frameworks.

The extant plaster provided no firm evidence for figurative work and only one piece which might suggest foliate decoration. However, this piece was too badly abraded to be able to state with certainty what the pattern had been.

A small number of pieces pointed to the fact that there had been schemes more decorative than the plain panels. However, the pieces were too small to identify any patterns or schemes. Three pieces came from a pattern which comprised wavy lines on a multi-coloured background. These could have come from a highly decorated band separating panels, or the centre of the panel itself.

Eighteen pieces had a pink background which had been partially overpainted with yellow, black and grey and once again it is possible that these pieces came from a scene in the centre of a panel, but one cannot say this with absolute certainty in view of the lack of evidence.

The style of painting and the surface of the plaster was of average quality and a limited range of colours was represented. The colours present were white, red, pink, maroon, yellow, green and black.

The depth of the plaster was not more than 2cm on any fragment and it is, therefore, not possible to comment on the surface to which the plaster had been applied, for example whether it was of wood or stone. One fragment had possible lath impressions, parallel grooves 7mm apart, on the underside.

The plaster fragments were catalogued for the archive by Eileen Appleton. Ten fabrics were distinguished by colour, inclusions and aggregate size, but appear to represent only day-to-day variations in mixing. Four occurred as undercoats to other fabrics. There are two examples of plaster applied over an earlier surface in the same fabric, one previously painted [725, 733]. The associations between surface and undercoat types suggest two main groups, but little distinction can be made by phase or location. Approximately 40

per cent of the plaster was recovered from robber trenches and other post-Roman contexts. Of the remainder, the largest samples came from Room 3 (Phase R3/2) and the area south of the main building (Phases S/4 and S/5).

The plaster from the Nursery Garden site was of a single hard fabric, painted in white and shades of red-brown. A similar fabric occurred in small quantities as the earliest stratified plaster at the Pickford's Garage site (Phases R1/3, R3/2 and S/2).

SOILS by Matthew Canti

The rampart was sampled with a view to explaining the construction methods and materials used. Monoliths were taken from a longitudinal section of the rampart on the west side of Area 25 (Fig. 8), and a transverse section on the south side of the cellar in Area 35 (Fig. 9) (unpublished sections). Samples for thin section manufacture were taken from an upper pebble/sand layer and a lower sand layer, in the Area 35 section.

The rampart was constructed mainly of grey silty clay with intercalations of yellowish sandy materials; towards the top and rear, these layers became increasingly pebbly. The coarse layers are perhaps the most unusual aspects of this structure. They vary from small lenses to long bands traceable for over 2 metres. They are frequently picked out by iron staining which has developed into pans in some places. In the Area 35 section, the bands were notably absent from the central area, but could be found at the top (sand and pebbles) and bottom (pure sand) of the exposure.

Full descriptions of the macromorphology and micromorphology of the samples are included in the excavation archive. In summary, the following features need to be explained in a natural, constructional or post-constructional context:-

1) The source of the heavy silty clay
2) The occurence of darker silty clay bands in the Area 25 section (note that these are only dark relative to the matrix of the sample; they are the same colour as the central silty clay mass of the Area 35 sample).
3) Bands, lenses and diffuse patches of sand, sometimes associated with the darker silty clay, sometimes not. Where interfacing with dark clay, exhibiting sharp boundaries; where interfacing with paler clay, boundaries sometimes diffuse.
4) Iron-staining associated with sand features and existing as independent mottles.

Typically, an alluvial valley, such as *Derventio* occupied, would offer mainly silts and sands for building materials; neither of these would remain particularly stable after the binding effect of roots had disappeared. Examination of borehole records for the area shows, however, that thin patches of clay exist very locally (Table 26). If layers such as these were the source of the clay, then they could provide an explanation for at least some of the small sand lenses and diffuse contamination. The clay may have been dug spit-by-spit so that the earliest layers would be relatively pure; later, as the pit became exhausted, the final spits would have additional sand and gravel adhering from the underlying layers.

This explanation does not suffice for the more continuous sand bands. Even if the rampart was built strictly blockwise, there would surely have been vertical displacement and even vertical orientation for some of these contaminant layers. It is clear, then, that the bands must have been deliberately laid down, probably to facilitate trafficking of clay over the sticky surface.

Aiton & Co. (SK 35873700)	Cable Works (SK 35633783)
(*c.* 750m S.E. of site)	(*c.* 450m N.E. of site)
3.07m made ground 1.69m blue clay over gravel	1.07m clay and gravel over sand and gravel

Table 26: Borehole records of local clay sources (adapted from Frost and Smart 1979; see also Crofts and James 1984

The relationship between the sand and darker clay layers must fit into this pattern. In the Area 25 section, the lenticular shape apparent in SS154 is consistently repeated at different scales. The following construction method would appear to fit this, and most of the other noted features:-

a) The natural clay (which is dark-type) is dug and ? carted to the site. In this process large numbers of the spits break into smaller pieces or disintegrate entirely.
b) Sand is thrown (thick or thin depending on stickiness) onto the anticipated pathway over the existing structure.
c) Where clay still intact, blocks are laid. The remaining dross is shovelled out over and among the blocks.
d) More sand is laid, some of which falls among the dumped material and some on the block surfaces.
e) The next load is brought over the new surface, squashing the blocks (to produce the lens shapes of dark clay), sealing a mixture of sand and 'clay-rubble' into the surrounding areas (the lighter clay).

After construction was complete, the textural and density variations further increased the colour differential. The looser sand/clay infill tended to oxidise and reduce more quickly (greater mottling and iron loss to the sand bands); lost its organic content faster; and, on exposure in section, it dries faster, especially at the surface.

This scheme obviously relies on an unproven source of dark clay being present. From borehole evidence this does not seem unlikely. The alternative would have to invoke the stripping of very large areas of turf; and also explain why the highly sensitive iron staining fails to mark the turf/turf boundaries; and justify the use of sand bands on a more or less non-sticky surface.

Haphazard factors within the scheme can explain those sections which do not completely conform. The central 'sandwich' of nearly pure clay, represented in the Area 35 sample, would have to be an area where dump or block construction was possible without recourse to traffic over the structure; perhaps the clay here was brought round to the building face. The increasing use of sand and pebbles (very evident in the Area 25 section) may reflect shortage of clay; or possibly a need to level up the increasingly unmanageable surface of the deposit.

THE MAMMALIAN AND BIRD BONES by Mary Harman

All of the bones were examined; those noted by the excavator as being from late disturbed contexts were not listed individually but the range of species was noted, together with anything unusual. The state of tooth eruption and wear, and of epiphyseal fusion, was

recorded in the list of bones so that age could be assessed where useful, from the criteria published by Silver (1963, 250–68).

Table 27 shows the total numbers of bones from the different species of mammals and birds identified in different phases and areas of the site.

A number of human bones was found: these are listed briefly:

1 [877] Phase R2/1. Part femur shaft: adult.
2 [1301] Phase 35/3. Nearly complete: newborn baby.
3 [1245] Phase 35/5. Parts of skull, humerus and tibia: infant.
4 [1258] Phase 35/5. Part femur: adult.
5 [1329] Phase 35/10. Skull fragment: infant.
6 [1606] Phase 37/3. Ribs, clavicle, humerus and femora: infant.

Further bones occurred in disturbed levels:

7 [773] Phase R3/3. Bones from two infants.
8 [1501 & 1508] Phase 36/6. Bones from one or two infants.

The burial of infants on occupation sites is not unusual, and helps to explain the scarcity of babies in many Romano-British cemeteries. The two adult bones are more difficult to explain, but being incomplete, they would not be immediately recognisable as human, and the presence of one in the construction layers of the building on the Pickford's Garage site suggests that these two bones are likely to be scattered from an earlier burial or burials on or close to the site, and disturbed in antiquity.

Of the mammals, nearly all the bones are from domestic animals, as Table 27 shows; few were found in the structures on the Pickford's Garage and Nursery Garden sites, the great majority being deposited during the construction phase of the former building (R1/1, R2/1, R3/1), the construction of the rampart of the defences (35/3), and in the post-rampart phases in the same area (35/4–11).

The bones from the construction of Structure 1 show a preponderance of cattle: about twice as many cattle bones as bones from sheep, nearly three times as many from sheep as from pig. These include waste bones as well as bones from the meat bearing parts of the animal. Most of the bird bones are from domestic poultry. Several raven bones could all be from one bird, none of them being duplicated, and the bird or birds may have been kept as a pet.

In the construction of the rampart there are slightly more cattle bones than those of sheep; both outnumber pig bones three to four times. Part of a fallow deer skull and part of a red deer metatarsal are two of the three deer bones on the site.

In groups deposited after the rampart construction, two in particular (Phases 35/4 and 35/5), yielded a considerable number of bones. Proportions of the main domestic animals are similar to those in the construction layers. Another red deer metatarsal was found in Phase 35/9; a few bones from both horse and dog occur in the rampart layers. Most of the bird bones are from domestic fowl, though other poultry are represented, and there are single bones from a small duck, probably wigeon, a plover, and two from raven. [1341] (Phase 35/10) contained a sheep hide, or the bones discarded from processing a hide: the skull and mandibles, all four cannon bones, and a few toe bones, from a horned lamb, probably about six months old. It has been suggested that the hide may have been used to contain a coin hoard.

Despite the paucity of bones from the occupation of Structure 1, there are interesting features: all of the hare bones recognised from the site came from these phases, and the

A:	Cow	I:	Fowl
B:	Sheep	J:	Duck
C:	Pig	K:	Goose
D:	Dog	L:	Raven
E:	Horse	M:	Wader
F:	Hare	N:	Sawbill
G:	Red deer	O:	Dove
H:	Fallow deer	P:	Woodcock
		Q:	Wigeon

Key to Table 27 below

Pickford's Garage Site: Structure One

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
R1/1	56	35	12	–	1	–	–	–	7	–	–	1	–	–	–	–	–
R1/2	11	14	10	–	–	1	–	–	9	–	–	–	–	–	1	2	–
R1/3	6	8	3	–	–	–	–	–	6	1	–	–	–	–	–	–	–
R2/1	60	23	10	–	–	–	–	–	6	2	1	6	2	–	–	–	–
R2/2	9	7	12	–	–	1	–	–	36	4	–	–	–	4	1	1	–
R2/3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R2/4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R3/1	15	5	1	1	–	–	–	–	9	1	–	–	–	–	–	–	–
R3/2	2	5	–	–	1	–	–	–	7	–	–	–	–	–	–	–	–
S/1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S/2	4	19	5	–	–	2	–	–	14	2	1	–	–	–	–	–	–
S/3	2	11	12	–	–	–	–	–	10	1	1	–	1	–	–	–	?1
S/4	11	20	8	–	–	1	–	–	14	2	1	–	2	–	–	–	–
S/5	8	4	1	–	–	–	–	–	6	–	1	–	–	–	–	–	–
33/1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
33/2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Pickford's Garage Site: Defences

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
35/1	1	5	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
35/2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
35/3	135	113	29	4	–	–	1	1	9	2	–	1	–	–	–	–	–
35/4	84	29	7	7	–	–	–	–	3	–	1	–	–	–	–	–	–
35/5	221	136	26	6	1	–	–	–	36	3	3	1	1	–	1	–	1
35/6	2	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
35/7	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
35/8	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
35/9	16	27	9	–	1	–	1	–	1	–	–	–	–	–	–	–	–
35/10	7	7	–	1	–	–	–	–	2	–	–	–	–	–	–	–	–
35/11	6	3	2	–	–	–	–	–	1	–	–	–	–	–	–	–	–
35/12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Nursery Garden Site

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
36/1	4	2	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–
36/2	3	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
36/3	1	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
36/4	15	11	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
37/1	5	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
37/2	5	5	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
37/3	27	14	3	1	–	–	–	–	5	–	–	–	–	–	–	–	–
Total	715	514	154	20	7	5	2	1	183	20	9	9	6	4	3	3	2

Table 27 : Numbers of bones from different species, by phase.

proportion of bird bones to mammal bones is greater than in other areas of the site. The bird bones are almost entirely from parts of the carcass which would normally be cooked, whereas the mammal bones, though almost entirely from edible species, include pieces such as hoof bones which would usually be discarded before reaching the kitchen, so that not all of the bones are dining refuse; some of them might be expected to get no further than the slaughterhouse. Most of the bird bones are from domestic fowl, with some from duck, goose and dove, probably domestic. But there are also bones from a sawbilled duck, probably red breasted merganser or goosander, and from small waders, some probably woodcock, some plover, probably golden plover or lapwing. So there is evidence for the consumption of game in addition to domestic animals.

Most of the bones are from mature animals, though some are from young ones, and there are several from the rampart construction and post-rampart layers from very small piglets, probably newly born, scarcely worth eating. The presence of these piglet bones and of waste bones on the site indicate that animals were probably slaughtered in the vicinity and may have been kept on or near the site. Apart from the bones from the sheep hide, there is no evidence of 'industrial' waste, and not a great deal of rubbish accumulated in the structures during their use.

Most of the waste is probably related to food consumption. The predominance of cattle bones indicates that it was mostly beef which was eaten; although there are twice as many cattle bones as sheep bones, cattle would have produced far more than twice the amount of meat.

DISCUSSION

The Status of Roman Little Chester

Little Chester is believed to have originated with military occupation *c.* AD 80. This corresponds with Agricola's occupation of the forts at Chesterfield (Ellis 1989, 124), Brough-on-Noe, Melandra, and throughout the Pennines (Hartley and Fitts 1988). Flavian strata have been investigated at the North-West Sector and other sites (Wheeler 1985c, 300), but the present excavations shed no light on this period of occupation.

The size and location of the Flavian fort remain unknown. There are three possibilities: the fort was on an entirely different site from the later defences; it was larger than the later defended area; or, it was smaller and some or all of the Flavian-Hadrianic occupation found under the later defences was in a *vicus*, or in an annex to the fort.

The great activity in the earlier levels, the rapid development of an extensive civilian settlement and, in particular, the pottery industry are consistent with a military presence, despite the absence of inscriptions, military equipment, buildings or defences.

How long Little Chester remained in military control is uncertain. The site has produced only a small proportion of Hadrianic-early Antonine samian, but the evidence of abandonment in the Hadrianic period is disputed (Wheeler 1985c, 301). At the North-West Sector the crowded pattern of buildings gave way to an apparently open area (Wheeler 1985c, 302), yet timber buildings were constructed in the south-east (Wilson 1973, 285; Sparey-Green *pers. comm.*), and an ambitious stone structure was erected in the Nursery Garden area (Brassington 1996, 92). Like Chesterfield (Ellis 1989, 125), the fort may have been reduced in size.

Many *vici* failed after the withdrawal of the military (Walker 1986, 155–70) but Little Chester was able to continue because of good communications and the strength of the local economy. Coin loss continued at a high rate throughout the period and does not suggest any recession following a military withdrawal. The site was well placed in relation to both the hinterland of the Trent and routes north into the Peak, and the transhipment of Derbyshire lead to the Trent for export via the Humber (Dool and Hughes 1976) may have been a major factor.

There is an alternative view, that the survival of Little Chester was due not solely to favourable economic circumstances. The government may have fostered the development of the site as a regional centre for the Corieltauvi, over 25 miles from the tribal capital at Leicester, perhaps with a *mansio* and fiscal control over the lead industry. While the initial settlement may have comprised a fort and dependent *vicus*, it was this administrative role which stimulated the growth of a sophisticated and prosperous community, and a social elite who practiced burial in Italianate tombs (Wheeler 1985c, 300).

A grid of two roughly parallel streets, Old Chester Road and Stukeley's 'gravelled road', was in use by the early Antonine period (Dool 1972, 9), and a drainage system extended along Old Chester Road. It is in this apparently civilian context that the stone building was erected at the Pickford's Garage site in the late Hadrianic or early Antonine period.

However, there is evidence of a renewed, or continued, military presence in the early Antonine period. A small granary was built at the North-West Sector (Wheeler 1985a, 53), and timber buildings, possibly barracks, were renewed to the south of the Pickford's Garage site (Webster 1961, 109; Wilson 1973, 285; Sparey-Green *pers. comm.*). At the Racecourse was a group of three distinctive burials believed to be military (Wheeler 1985b, 228). Two hoards of silver were deposited at the Pickford's Garage site at about this time (AD 145–161).

This episode may have been short in duration and military withdrawal was probably complete before the late Antonine defences were constructed. The timber buildings south of the Pickford's Garage site were burnt and levelled, the common method of decommissioning a fort, whilst the North-West Sector was levelled with a thick deposit

of gravel. There was no suggestion of military burials in the walled cemetery established at this time (Wheeler 1985c, 303).

The circuit of the late second century defences is assumed to correspond with the later walled enclosure of seven acres, recorded by Stukeley. This correspondence has been proved, by excavation, only on the east side and south-eastern corner.

The historical context of late second century urban defences has been the subject of debate over many years (Frere 1984, 63; Crickmore 1984, 4–16), but there is agreement that sites throughout Britain were all fortified within a short period of time, and that these works were sanctioned, and probably instigated, by the government in response to the crisis of the years AD 180–185, or the withdrawal of troops from Britain by Clodius Albinus in AD 196. The dating of the Little Chester rampart is consistent with these events, although it is derived from residual material and cannot be defined precisely. Samian indicates a *terminus post quem* of *c.* AD 160, and a coin hoard a *terminus ante quem* of AD 284. East Gaulish wares dated from the late second century to the first half of the third century, but there were no exclusively third century forms from the construction of the rampart. The coarse pottery assemblage indicates a date after *c.* AD 180.

The addition of stone walls to earlier ramparts took place at many sites in the course of the third century; this was a necessary measure to maintain the effectiveness of the defences and need not have been prompted by particular events (Frere 1984).

Small town defences have been classified in two groups (Burnham 1987, 183–85): those which protected a developed urban core, usually of more than 15 acres; and those which enclosed only a small part of the occupied area, usually of less than 10 acres and often with few interior buildings. These small enclosures are often identified as *burgi* (Burnham and Wacher 1990, 33, 35–36). Their role was not primarily the defence of the community, but the strategic protection of roads and administrative centres.

Recent work on the Fosse Way has shown occupation extending over considerable areas outside the defended enclosures at *Margidunum* and Brough, whilst much of the interior of the enclosure at *Margidunum* was clear of buildings (Todd 1973, 68). Extensive extra-mural settlement has yet to be proved at Little Chester, but the limited areas examined show little evidence of flourishing urban life within the enclosure. Both the North-West Sector (Wheeler 1985c, 303) and the Nursery Garden site, where a major stone building was cleared to make way for the rampart (Brassington 1996, 92), appear to have been vacant areas, probably given over to cultivation. Only the building at the Pickford's Garage site is known to have remained in use through the third century, and the incorporation of this building may have been a primary factor in the location of the defences. On the Fosse Way the main road passes through defended enclosures, but the Little Chester enclosure lies on a minor road and Ryknield Street was diverted around the defences.

Structure 1

The plan of the building recorded in excavation is assumed to be largely complete, despite disturbance to the north and west sides. In particular, there was no evidence for a south-western annex to match that at the south-east corner.

The building was modest in scale, occupying a site 16m square, but was clearly of some pretension: it was built of stone on a raised floor platform, with painted wall plaster and

glazed windows, and was positioned broadside to the street close to a cross-roads. Further emphasis was given to the site by the open metalled area to the east. The front wall was integrated with a substantial drain which flanked the street, and this suggests that the construction of the building was linked with a scheme of public works.

The plan appears to have comprised a large public room (Room 1) flanked by a portico on two sides (Room 3) which gave separate access to a private room at the rear (Room 2). The rectangular foundation at the centre of the main room must have supported a prominent feature such as a water tank, a statue plinth or shrine. The building was kept clean and rubbish accumulated only in the area of ancillary structures to the rear. Midden material was incorporated in the construction of the rampart, but there was little subsequent dumping on the rear of the rampart. There was a large number of coins, including two hoards deposited *c.* AD 145–161 and one deposited after *c.* AD 280. The artefact assemblage was otherwise not distinctive; costume fittings, toilet items, domestic equipment, tools, locks and fittings, a set of glass cups, gaming pieces, a stylus, a seal box and a figurine. Poultry and game formed a significant proportion of the bone assemblage, in which cattle predominated, but the sample was small in total.

The possible function remains speculative in the absence of direct evidence. The central feature may suggest a ritual focus, but although the building was similar in area to the usual range of Romano-Celtic temples (Lewis 1966), the eccentric plan is not readily identifiable as a temple, nor was there any supporting evidence of votive objects or inscriptions with the exception of the 'pseudo venus' figurine from a late context.

Despite the central feature, the layout has similarities with a building found at Stonea Grange, Cambridgeshire, which has been interpreted as the headquarters of a *procurator* (Potter and Jackson 1982). There, the principal room is similarly flanked by a portico on two sides, with a smaller room projecting at one corner. The relative scale and quality of the Stonea building suggest that a more junior rank should be sought at Little Chester. The commonest of the provincial officials or *stationarii* were the *beneficiarii consulares* (Walker 1989, 101–03). They are known to have been associated with the forts or their *vici* at Housesteads, Chesterholm, Risingham, Lancaster, Binchester, Greta Bridge and Catterick. These men were officers seconded from the military to the Governor's staff and assigned a variety of duties connected with policing, the collection of tolls and taxes, the supervision of roads and supply lines, and the running of the *cursus publicus*. The siting of the Little Chester building would be consistent with these functions. It cannot be coincidental that in Period 2 the building was incorporated into the rear of the rampart, adjacent to the principal gate and, as argued above, this relationship may have determined the position of the defended enclosure.

Conclusions

A model has been put forward for the development of Little Chester from military origins to an urban settlement, with a possible role as a regional market and administrative centre at the junction of Highland and Lowland economies.

Despite many years of work on aspects of the settlement, the full extent and nature of Roman occupation outside the defences remains unknown. Future work should seek to determine the extent of the settlement and the possible complexity of the street pattern, particularly in the areas to the north and south of the defended area, where much of the land is available for geophysical survey. This would test the suggestion that Little Chester

remained a significant urban settlement after the military withdrawal. Sampling in these areas might also provide evidence of the closing history of the site. The low rate of coin loss in the fourth century and the apparent end of occupation by the middle of the century may be peculiar to the limited areas so far studied. A further problem still outstanding is the location of the defences of the Flavian fort.

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