

ART. II.—*Excavations at Watercrook 1974 : An Interim Report.* By T. W. POTTER, M.A., Ph.D.

Read at Appleby, April 3rd, 1976.

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IN recent decades, the town of Kendal has been subject to a number of extensive and severe floods, caused when the River Kent topped its banks after heavy winter rains. Disastrous inundations occurred in 1874, 1898 and 1927 and, more recently, in 1954 and 1964, and the damage to the low-lying buildings which front on to the river was such that the Lancashire River Unit began to devise schemes to prevent any future flood of these proportions. The scheme that was finally adopted involved considerable deepening and widening of the river channel, both through Kendal itself and in the reaches to the south, and, by 1972, it had become obvious that this would involve some disturbance to the site of the Roman fort at Watercrook, situated in low-lying meadows by the River Kent, just over a mile to the south of the centre of Kendal.

By coincidence, it was at this time that the University of Lancaster was proposing to set up a degree structure in archaeology, and, at the suggestion of Prof. Eric Birley, Dr David Shotter, Senior Lecturer in Classics at Lancaster, was investigating the possibility of initiating an annual research excavation at Watercrook, to complement this degree scheme. The landowners, K Shoes of Kendal, and the tenant, Mr W. Dobson, were both enthusiastic about the project and, after the approval of the Department of the Environment, the University acquired a lease on the site and proceeded to set up offices and storage facilities in some of the farm buildings. With my own appointment

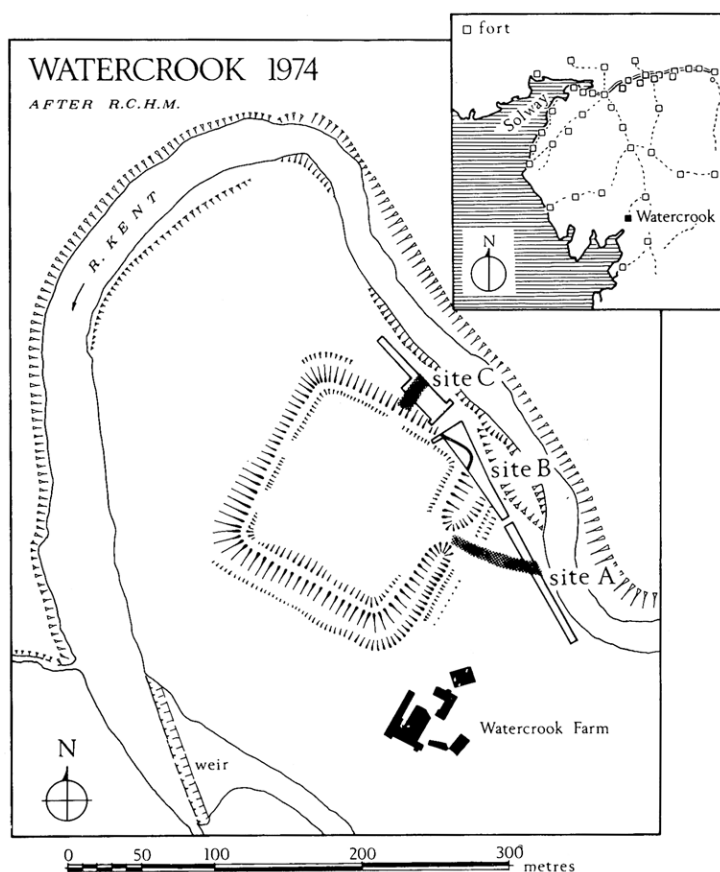


FIG. 1.—Watercrook: general plan showing the 1974 excavations.

Based on survey carried out by Royal Commission on Historical Monuments.

in 1973 as the University's first lecturer in archaeology, with the specific duty of directing the Watercrook excavations, it became clear that the first season would involve an extensive rescue project, in advance of the River Unit's modifications to the channel of the River Kent. The excavations, which were funded by the Department of the Environment and the University

of Lancaster, took place for five weeks in July-August 1974, with a resident volunteer team of about eighty and a very substantial body of local helpers. The site was a very large one, extending for over one-fifth of a mile along the north-eastern bank of the River Kent and including a major part of the fort's defences, as well as part of the *vicus* (Plate I, Fig. 1). At the time of writing, an exploratory rescue campaign is planned for January 1975, along the north-western loop of the river, and a second major rescue excavation will take place in July 1975.

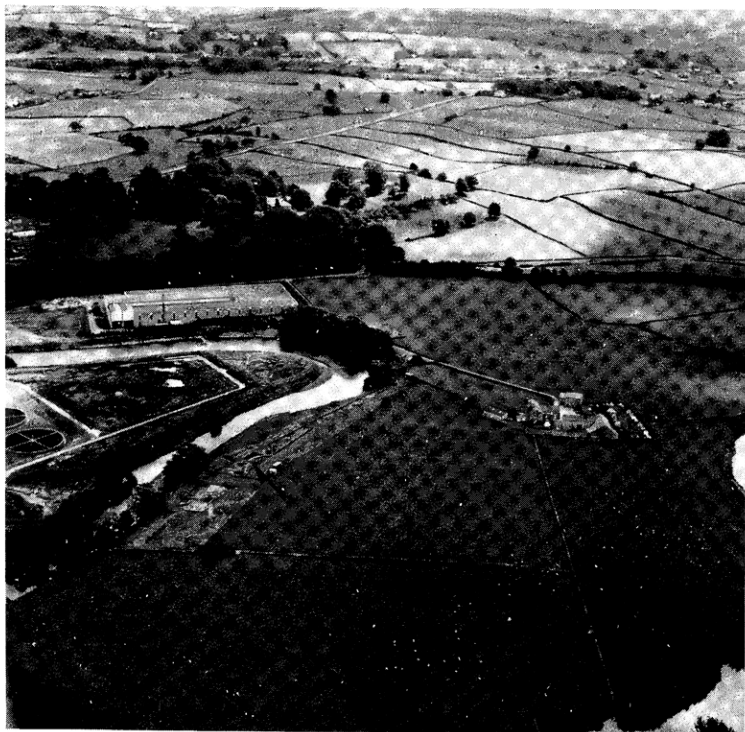


Photo: T. W. Potter

PLATE I.—Watercreek: The 1974 excavations, looking east.
Arrowed: The eastern angle of the fort.

However, in view of the importance of the results from the 1974 excavations, it has seemed advisable to place on record without delay the principal conclusions, together with some description of the major finds. Inevitably, the conclusions we have drawn are of a very preliminary nature and will no doubt undergo considerable modification as the long-term project of excavation proceeds. It is hoped that interim reports will regularly appear in these pages and that the definitive account of the fort and its *vicus* will be published in one or more monographs.

Acknowledgements.

The organisation, execution and publication of a major excavation necessarily involves the co-operation and support of many more people than can be mentioned here. The excavation was funded by the Department of the Environment and the University of Lancaster and special thanks are due to Miss Dorothy Charlesworth, both for her work of organisation and her advice during the excavations. Dr David Shotter shouldered much of the day-to-day administrative load, as well as making the photographic record and evaluating the numismatic and epigraphic evidence. Richard Andrews, Nicholas Hakiel, Elizabeth Tutty and John Witherington supervised the sites and Peter Fisher, Robert Poulton and Gerald Dudgeon acted as site assistants. Helen Lockwood and David Longley ran the Finds Department and David Longley also drew the finds and has contributed to sections of this report. Finally, amongst the staff, Mrs Lian Lister provided a superb cuisine under taxing circumstances.

A particular debt of thanks is due to the specialists, who produced their reports in record time, particularly Mrs Felicity Wild, whose study of the very large quantity of Samian ware is fundamental to the

conclusions advanced here, and to Mrs K. F. Hartley (mortaria stamps), Dr M. Henig (gemstone), Mr J. J. Paterson (amphorae stamps), and to Mr R. A. H. Farrar of the Royal Commission on Historical Monuments, upon whose new survey of Watercrock Fig. 1 is based. Our thanks are also due to the Lancashire River Unit for their active co-operation; to the landowners, K Shoes, and particularly Mr Robert Somervell, Mr Major and Mr J. Watton; and to the tenant, Mr W. Dobson. We would also like gratefully to acknowledge the help of Mr Tony Turner of the Kendal Museum (where the finds will eventually be stored), of Miss Mary Burkett and Mr John Anstee of the Abbot Hall Museum, Kendal, and of our numerous friends in the Kendal Group of this Society, particularly Mr John Marsh. We also owe a considerable debt to many colleagues at the University of Lancaster, including Dr A. Betjeman, Mr J. Cansfield, Mr A. E. Croft, Mr R. Grinyer, Mr E. Phillips, Mr J. Thompson, Prof. M. M. Wilcock, and especially Mrs June Clayton and Mrs Janet Atkins who did much of the secretarial work and typed the manuscripts. Finally, a special tribute must be paid to Miss Clare Fell, whose guidance and advice has been a major factor in the success of the project.

Previous research at Watercrock.

The site of Watercrock has been known for over three hundred years but there has been little attempt at systematic exploration.¹ Something of the street plan was revealed under drought conditions in 1887 and recorded by a local surveyor, Mr Arthur Hoggarth, and the essential accuracy of his plan has been confirmed by aerial photographs taken by Prof. St Joseph and by a geophysical survey undertaken by Dr Derek Blundell of the University of Lancaster.² Systematic excavation has, however, been confined

to two small campaigns, one in 1930/31, when Colonel O. North cleared part of the North-West Gate³ and the other in 1944, when Colonel North and Mr E. J. W. Hildyard cut two sections across the south angle of the fort.⁴ These excavations furnished an outline history of the fort which was thought to have been established by Agricola in c. A.D. 80 and to have continued in occupation down to the end of the fourth century. These conclusions derived, however, from a very small sample of material and, as will be shown below, require substantial modification in the light of the present excavations.

2 THE EXCAVATIONS.

The area of the north-east defences of the fort was divided for excavation purposes into two sites, identified as B and C (Fig. 1). Whilst the North-East Gate itself, the *porta praetoria*, lay beyond the excavation area, the whole of the defences between the gate and the east angle of the fort was available for examination, although substantial sections of the outer ditch system had disappeared through erosion. Excavation showed that not only had the masonry facing-stones been almost totally removed from the fort wall but that there was also ubiquitous evidence for intrusive pits, presumably dug in the main by stone robbers. As a result, sealed deposits were rare and in every layer there was a strong possibility of contamination.

Phase I (Fig. 2).

The earliest fort on the site was built with turf and clay ramparts and, presumably, timber buildings. The rampart, a substantial section of which was excavated in the eastern angle of the fort, measured just over 4 m. in width (Fig. 3) but nowhere survived to a height of more than 50 cm. It rested upon the ginger silt

WATERCROOK 1974 SITES C & B: EAST ANGLE OF FORT

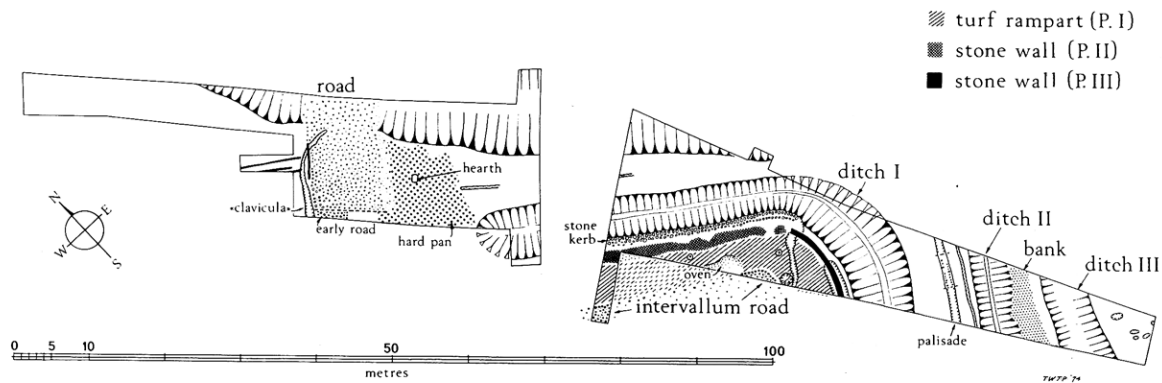


FIG. 2.—General plan of the eastern corner of the fort.



Photo: D. C. A. Shotton

PLATE II.—Watercreek: The eastern angle of the fort, looking south-east.

which forms the subsoil in this area of the site, and it is apparent that this had been stripped of turf before the rampart was built. There was no trace of any timber corduroy. The turfs varied considerably in composition, from those with a high clay content to those containing a large proportion of humus. The turfs were generally very distorted in shape but measurable examples seemed to correspond fairly well with the recommended size of 1 x 1.5 Roman feet (Vegetius, *de re mil*, iii, 8).⁵

Behind the rampart lay the *intervallum* road which

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SECTION ACROSS N.E. RAMPART

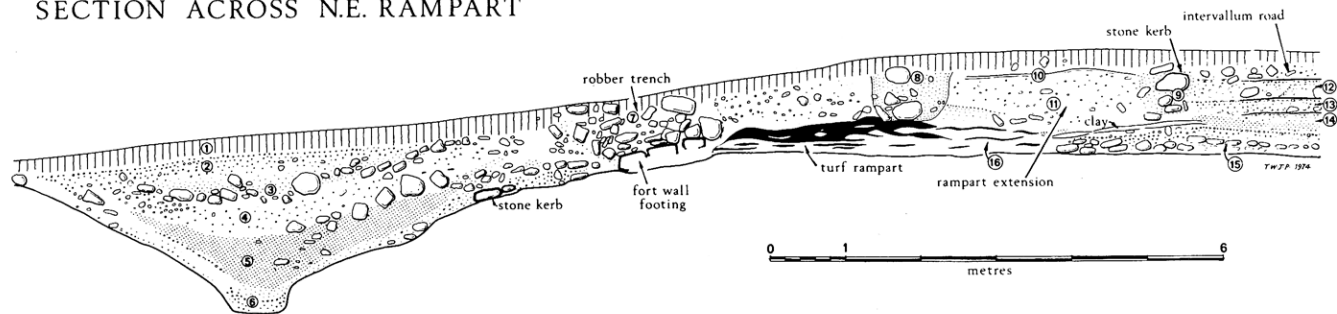


FIG. 3.—Section through the north-east defences of the fort.

was investigated at two points. It rested upon a layer of grey clay, above which was a make-up of rubble and a thin skin of cobble metalling. The full width of the road was not determined nor were there any clear traces of buildings within the part of the fort interior that was investigated. Two post pits of this phase were found within the fort corner but did not correspond with any recognizable structure.

Beyond the rampart lay a triple ditch system which extended for a distance of 36 m. from the outer face of the rampart. All these ditches continued in use into the later Roman period and consequently it is impossible to determine with certainty the form of the original defences. However, the shallow, rounded profile of the outer ditch (ditch III) implies a later

WATERCROOK 1974

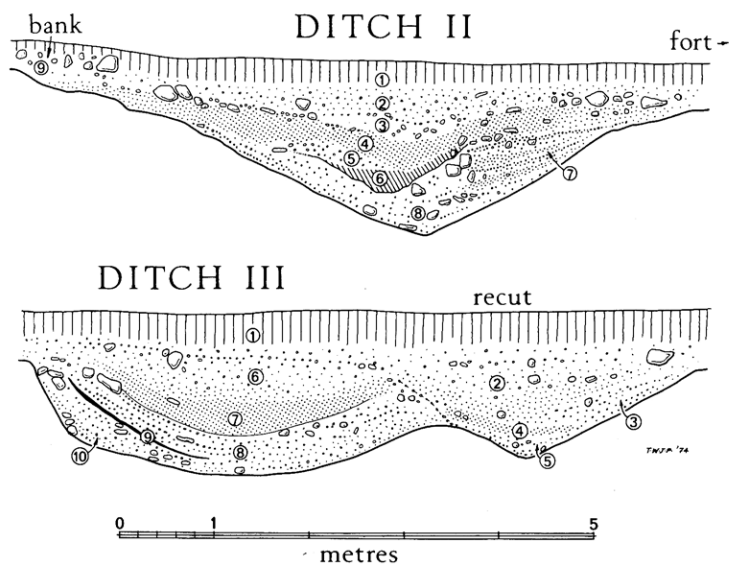


FIG. 4.—Sections of ditches II and III on south-east side of fort.

period of construction and this is to some extent borne out by a complete absence, even in a residual context, of pottery which predates the mid second century. Indeed, a triple ditch system would be most unusual in a pre-Antonine fort and thus it seems likely that the original fort at Watercreek was protected by two ditches.

These two ditches were separated by a berm, 8 m. in width, along which ran a U-shaped trench, 50 cm. in width and 25-30 cm. in depth (Plate III). Two parallel rows of stakeholes were set into the bottom



Photo: D. C. A. Shotton

PLATE III.—Palisade trench between ditches II and III, with two parallel rows of stakes showing as soil marks. Scale divisions: 50 cm.

of this trench. The stakes had been spaced at intervals of 30 cm. or less, and averaged 10 cm. in diameter. Larger posts, up to 25 cm. in diameter, had been inserted at about 2 m. intervals. Clearly, the stakes formed part of a stout palisade, which probably comprised parallel rows of sharpened stakes or a solid fence, built of inclined timbers. Samian ware from the trench suggests that the palisade was built in phase I.

In Site C, on the north-east side of the fort (Figs. 1, 2), both the north-east road and a curved timber feature which flanked the road on its north side were found. The road in its first phase (Fig. 5) was 4 m. wide and steeply cambered. It rested upon a thin layer of grey clay, above which was a thick layer of rubble, surfaced with small river cobbles. On the north side of the road was a narrow trench which ran more or less parallel with the road for some 9 m. before curving inwards in a similar manner to a clavicula-type entrance. The excavated area did not include the full extent of the trench, but it was at its widest and deepest at the south-west end, being over a metre in width and 1.35 m. in depth (Fig. 5). It gradually became narrower and shallower as it headed north-east, but throughout its whole length it retained an unweathered rectangular profile, indicating that it had been dug to support timber uprights. All the timbers had been subsequently withdrawn but in places impressions in the lower fill of the trench showed that the timbers were of substantial dimensions, approaching 30 x 30 cm. in size. They had been placed so as to form a solid timber wall, protecting the north-east side of the fort gate.

The other side of the road yielded no trace of timber structures but this area was covered with a thin layer of hard pan, the eastern edge of which was fairly strongly differentiated from the loose sand and gravel which formed the subsoil in the rest of the area (Fig. 2).

WATERCROOK 1974 SECTION OF N.E. ROAD

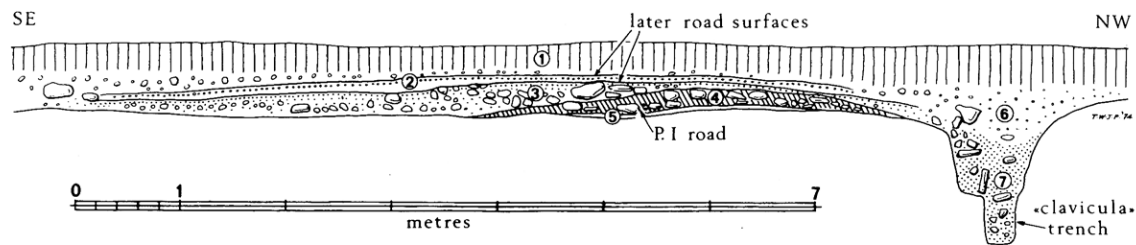


FIG. 5.—Section through north-east road of the fort.

The curved edge of the hard pan so closely matched the curve of the clavica-type timber trench to the north, that an artificial origin seems very likely. Full soil analyses have yet to be completed but it was noted that a thin hard pan had invariably formed at the base of the turf rampart (caused perhaps by the action of the acids in the turfs upon the iron in the gravels) and a possible explanation for the hard pan may well be that the east side of this road was flanked by a turf rampart, which was subsequently demolished; but this remains highly conjectural.

Chronology.

No stratified deposits were found which necessarily represent rubbish accumulated in the first period of the fort's history and, consequently, heavy reliance must be placed upon the distribution of closely datable types like Samian and coins. A full statistical analysis of the very large quantity of Samian from these excavations is not yet available but Mrs Wild's preliminary evaluation has shown that purely Flavian types are very rare and that the main series begins with Flavian-Trajanic forms. Typical Flavian forms like Dragendorff 29 are, for example, quite absent and she concludes that there is little Samian ware that is necessarily earlier than c. A.D. 90. The coarse pottery and coins conform closely with this picture: the coarse-ware series begins with late Flavian types whilst the coin series, studied in detail in section 8 *infra*, shows little strength before the reign of Trajan and, as Shotter has underlined, is totally at variance with the sort of coin series to be expected from an Agricolan site. Thus it seems very likely that the earliest fort examined in these excavations was a post-Agricolan foundation.⁶

Phase II (Fig. 2).

The principal feature of this phase was the rebuilding of the fort wall in stone,⁷ coupled with a heightening of the rampart. The fort wall was inserted into the front of the turf rampart, leaving a narrow berm between the front of the wall and the ditch. The wall itself represented two periods of build, the later of which is discussed below, under phase III. Over the whole stretch of fort wall that was uncovered in these excavations, only two facing stones remained *in situ* (Fig. 3); both were of yellow sandstone. Here the wall measured c. 1.20 m. in width, and had a very shallow foundation trench suggesting a shoddy and perhaps rapid build. Elsewhere, the line of the wall was traceable only as a robber trench, filled with rubble and a crumbly yellow cement (Plate II).

The rampart was both heightened and extended in this phase (Fig. 3). A layer of sandy soil was dumped over the turf rampart of phase I, enlarging it by 1.5 m. on the inside edge. In places, the rampart was further consolidated by the laying of slabs of flagstone. The *intervallum* road was also rebuilt, with the first of three surfaces (Fig. 3). Just to the north of the east corner of the fort, an oven was inserted into the back of the rampart (Fig. 2). The oven wall had been extensively disturbed but sufficient was preserved to show that it conformed to the normal circular model and had been lined with clay, set against a backing of stones. To the east of it (Fig. 2) was an irregular trench cut through the phase I deposits and some 30-40 cm. into the silt subsoil; a careful search revealed no evidence for timber uprights and it may well have served as a drain.

The fort was protected by a triple ditch system (Fig. 2) although it is not clear whether all the ditches were constructed in this period. The inner ditch (I), which averaged over 6 m. in width and 1.60 m. in

depth, was V-shaped in profile and had a square cleaning-channel at the bottom. Its inner lip was revetted over part of its length with a kerb, built of irregular stone slabs (Fig. 3, Plate II), presumably placed there both to consolidate the footings of the fort wall (which had, as noted above, only very shallow foundations) and to prevent erosion of the ditch lip in the easily weathered, gravel/sand subsoil.

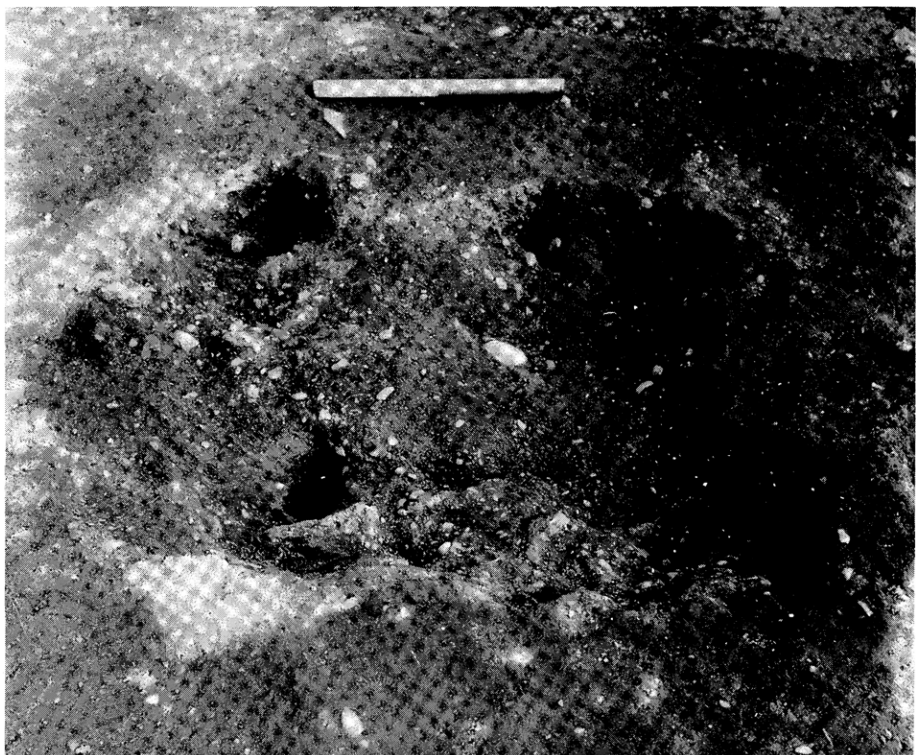


Photo: D. C. A. Shotton

PLATE IV.—Iron-smithing furnace, Site C.
Scale divisions : 20 cm.

The second ditch, II, varied considerably in character. On the south-east side of the fort where it averaged over 6 m. in width and 1.50 m. in depth (Fig. 4), it had a weathered profile but must originally have resembled closely the shape of ditch I; in places, there were traces of a cleaning-channel in the bottom. On the north-east side of the fort, however, its form and proportions were quite different; here it had been enlarged to well over 11 m. in width (the outer lip was not located) and was more than 3 m. in depth. It had a wide, U-shaped profile, with steep and comparatively unweathered sides, suggesting that it had been left open for only a fairly brief period. The lower 2 m. of its fill comprised numerous soil tips, which included many thin lenses of charcoal and ash and large quantities of iron slag. The deposit had the characteristics of a deliberate backfill, which evidently derived in part from the debris of an iron-working site. However, the only evidence for metal-working in the vicinity of the ditch comprised a small rectangular furnace, measuring 1.10 x 0.70 m. (Plate IV), built on the berm between ditches I and II (Fig. 2). The furnace had a number of perforations around the bowl, which yielded a number of small lumps of slag. Similar furnaces, which may have been used for smithing, have been found in the North West at Deansgate, Manchester, Northwich, Middlewich and Wilderspool.⁸ No other furnaces were found within the excavated area, but the quantity of slag in ditch II implies a substantial metal-working area and it is possible that the ditch itself was partly a quarry, for extracting iron ore.

Ditch III (Fig. 4) was located only on the south-east side of the fort and must have been removed by river erosion on the north-east side. As noted above, it is not easy to reconstruct the chronology of the ditch system where the ditches remained in use over a long

period of time, but it seems probable that ditch III was dug in phase II. The ditch was subsequently recut but in its first period had a shallow, U-shaped profile, which was very weathered. It was in the order of 4.5 m. in width and about 1.20 m. in depth.

Chronology.

The dating of the building of the fort in stone is complicated by an absence of sealed (as opposed to stratified) groups: almost every section showed signs of later disturbance. Since the fort wall had been completely robbed of masonry, the best guide to its date is the rampart extension. Stratified groups from the later rampart yielded two coins, one of Trajan and the other of Hadrian, and a fairly large collection of pottery, including a large sample of Samian. Mrs Wild's analysis of the Samian shows that the bulk of this pottery is of Hadrianic-early Antonine type; indeed, at one point the later rampart was found to rest upon a substantial part of a Form 18/31R bowl by Dagomarus of Lezoux, datable to c. A.D. 125-140. The evidence therefore is in favour of an early Antonine date for the rebuilding of the rampart. This does not necessarily imply that the first stone fort wall belongs to this period and there are two pointers towards a marginally earlier date. Firstly, the "clavicula" trench yielded in its demolition layer pottery of Trajanic-Hadrianic type but no sherds of Hadrianic-Antonine date. Secondly, the drain cut through the phase I rampart yielded only Hadrianic sherds. Thus, there is a possibility that the stone work may be of Hadrianic date whilst the rampart was extended in the early Antonine period; but this is a highly conjectural conclusion and a firm decision must rest upon the excavation of properly sealed deposits.

The duration of the phase II occupation is also somewhat conjectural. Both the Samian and coarseware

imply unbroken occupation down to the end of the second century or early in the third century. During this period, however, ditch II was filled in on the north-west and was allowed to silt up on the south-east side, and this may suggest an interruption in the garrisoning of the site. The coins suggest renewed occupation in the early third century but no building activity can with certainty be connected with this.

Phase III (Fig. 2).

The later history of the fort will only become clear when the interior is excavated. However, as the dating evidence discussed below shows, the fort does not seem to have been strongly garrisoned in the later Roman period, and may well have been abandoned for a large part of that time. The present excavations did yield some evidence, however, for a late remodelling of the defences, although whether this represents a one period reconstruction is not yet certain.

The clearest evidence for the remodelling of the defences came from the east angle of the fort, where part of the wall was rebuilt. The rebuild was represented by a stretch of wall core, which stood to a height of over 60 cm. and was 70-75 cm. in width (Plate II). The rubble in the core was bonded with a distinctive hard grey cement. No facing stones were left *in situ* and both the core and the foundation trench terminated at the east corner, without continuing along the north-east side of the fort; thus the rebuild either represents a patching of the old wall or was never completed.

The ditch system seems also to have been partly refurbished in the late Roman period. The evidence was most clear in ditch III, when the U-shaped ditch of phase II was replaced by a smaller, V-shaped ditch, just over 3 m. in width and a metre in depth (Fig. 4). By this time, ditch II had been filled up on the

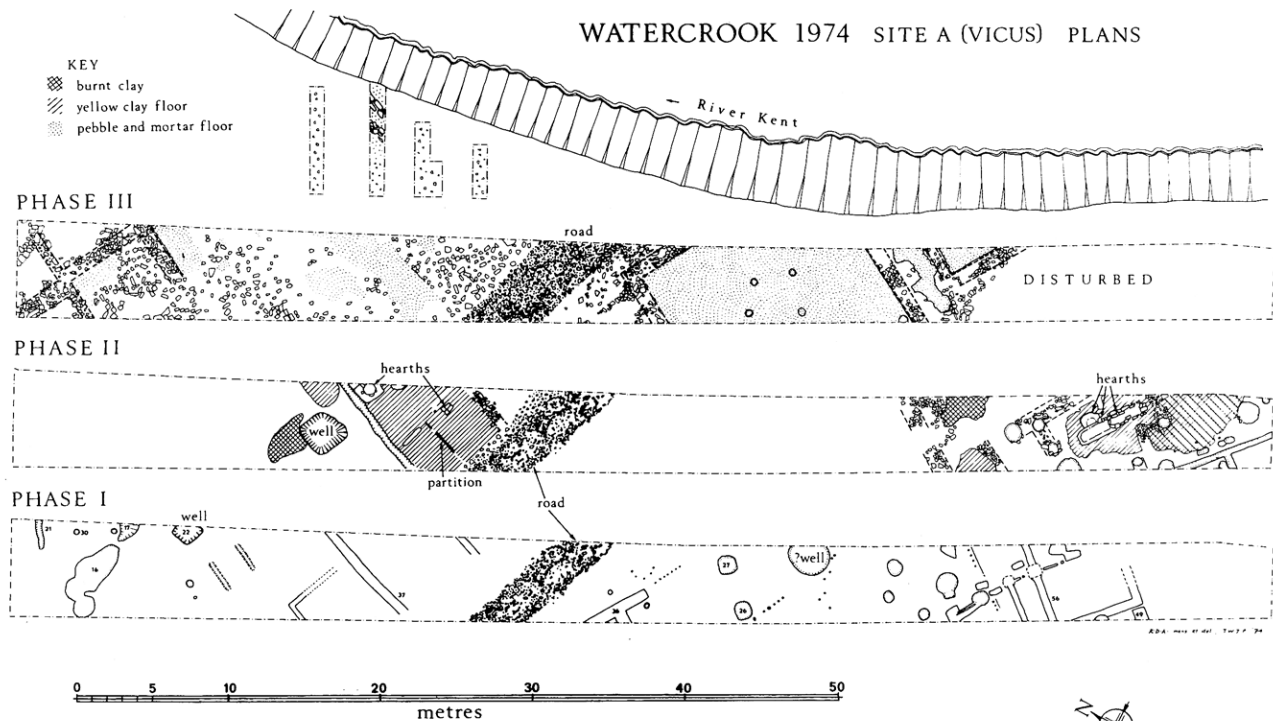
north-east side, and the road carried across the ditch (Fig. 2); on the south-east, the ditch had silted up naturally, and the spoil from ditch III was heaped over the lip of ditch II, forming a low bank.

Chronology.

The only stratified group of material of this phase derived from ditch III, the fill of which yielded a number of sherds of third century date, as well as a few pieces which may belong to the early fourth century. This provides a general indication of the date of the recut. No dating evidence for the rebuild of the fort wall was found, but there was a thin scatter of late third or early fourth century pottery in this area. The coins, which included issues of Gallienus, Victorinus and Tetricus I (2), in general terms match this dating. Thus a late third or early fourth century date for phase III seems likely. However, there was no evidence, either numismatic or ceramic, to indicate that occupation persisted into the mid or late fourth century.⁹

Site A : The Vicus (Figs. 6, 7).

To the south-east of the fort corner, the ground rises gradually towards the edge of the valley. The River Kent has eroded some distance into these deposits since Roman times, and finds of Roman material have not infrequently been made in the eastern river bank.¹⁰ In addition, traces of a paved ford have also been noted at the point where the river swings north-west. This therefore has always seemed a probable area of *vicus* development,¹¹ particularly along the south-east fort road, and was an obvious zone to investigate in 1974. Thus, a long trench, over 90 m. in length and 5-6 m. in width, was cut more or less parallel with the river bank, so as to include the



great majority of the threatened area. In the event, this did not prove a satisfactory method of investigating the site, for the area exposed was neither large enough to give complete building plans nor did it cut through the features at right angles. However, a useful stratigraphic sequence was recovered which provides a fairly clear idea of the way in which this part of the *vicus* developed. The occupation divides into four main phases which are described in chronological sequence. The dating evidence is summarised in a subsequent section.

Phase I.

The principal feature of Site A throughout its history was the north-east road of the fort, which ran diagonally through the centre of the site. The road was laid out at the beginning of occupation in this area; it was 2.5-3 m. in width and steeply cambered (Fig. 7). The base of the road was formed of a thick layer of rubble, which was surfaced with small cobbles.

Timber buildings flanked both sides of the road, although too little was uncovered to provide a coherent plan, and the buildings to the south-east of the road were better preserved than those on the north-west side. The structures were trench-built and, where measurable, had internal widths of about 5 m.; they clearly belong to the "strip-house" category of building. A number of pits, including wells and cess-pits, were found and, in addition, a series of short lengths of stakeholes, extending for 1-2 m. and laid out parallel with the walls of the buildings. The stakeholes do not appear to have formed part of the strip houses and it may be tentatively suggested that they formed fences, demarcating yards or gardens.

WATERCROOK, 1974: SITE A (VICUS) SECTION

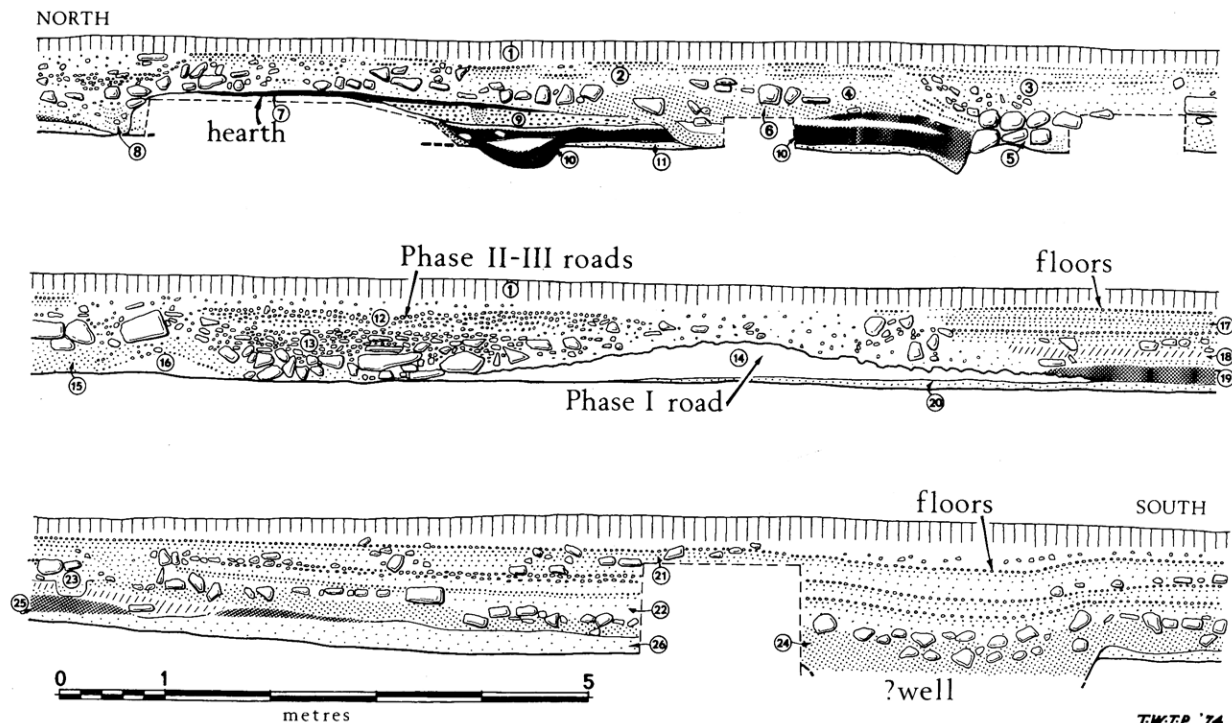


FIG. 7.—Section through part of the vicus area.

Phase II.

In this period, the road was considerably extended towards the north and new buildings constructed on both its north and south sides. The northern house had an overall width of 6 m., and was further subdivided by narrow wattle and daub partitions; it fronted directly on to the road. One wall had a rubble footing, whilst the other comprised a trench holding timber uprights. The floor was made of yellow clay, in which were set two tile hearths.

Immediately to the south of the road, no trace of any building was found but, at the south-eastern end of the site were the badly disturbed remains of a substantial house which overlay the phase I building. There were some traces of rubble footings but no coherent plan emerged. There were, however, several areas of yellow clay floor, set in which were three clay and stone hearths, one circular and two rectangular. The hearths represented three successive phases of construction, with the circular hearth as the earliest. A large area of burnt clay lay to the east of these hearths.

Phase III.

With the exception of a large area of floor to the south-east of the road, the upper levels on the site were very badly damaged and, when the topsoil had been stripped, presented only a baffling mass of rubble with occasional patches of mortar floor. The south-eastern end of the site proved to have been very disturbed in the nineteenth century but the other areas of rubble appeared to represent a solid layer of make-up for a mortar floor. In addition, some of the rubble appeared to be arranged in linear patterns, suggesting wall footings. These inferred wall footings are indicated on the plan (Fig. 6) by dashed lines but it should be

emphasised that they are highly conjectural, and no traces of foundation trenches were found.

The only well-preserved area of floor lay to the south-east of the road. The floor was composed of a good quality mortar set with river pebbles, and excavation demonstrated a number of resurfacings, giving a total thickness of 30-40 cm. (Fig. 7).

Phase IV.

The structures described under phase III represent the latest identifiable buildings in the site. However, a thin scatter of late third-century coins and some third-century pottery may imply a fourth phase of occupation, but unrepresented in structural or stratigraphic terms.

Chronology.

The deposits in Site A yielded a considerable quantity of pottery, including a large sample of Samian ware and a wide range of coarsewares, some of which are illustrated in Figs. 10-13. The distribution of the dated Samian by feature and phase is presented in table 1, whilst the dating of the coarsewares is discussed in section 5 *infra*, and the coins are listed by phase in section 8. Not all the features represent closed groups and it is apparent from table 1 that the phase I layers underwent considerable disturbance during the construction of the later buildings. Nevertheless, it is possible to provide an approximate chronology for the phases in Site A, and the following dates are suggested.

Phase I: Flavian-Trajanic.

Phase II: Hadrianic- ?early Antonine.

Phase III: Antonine- ?early third century.

Phase IV: mid-late third century.

TABLE 1.
Site A (*vicus*) : distribution of dated Samian wares.

<i>Phase I</i>	Flavian	Flavian/ Trajanic	Trajanic	Trajanic/ Hadrianic	Hadrianic	Hadrianic/ early Antonine	Antonine
A56		2					
A36		4			[1]		
A27		1		1			
A16	6	4	1	2			
A49		1				1	
A10	1	8		3	1		1
A37	3	10	1				
A22		11		?1			

Phase II

A48		1			?1		
A47					1		
A46		3			4		
A39		1					
A23		1					
A24		1					
A29	1	1					
A31		1		1			
A44		1					

Phase III

A3							4
A4		2		1		1	43
							(up to c. 190)
A5					1		
A9		1			2	1	

3 THE SMALL FINDS.

by

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The excavations yielded a considerable number and variety of small objects. A major study would clearly be inappropriate at this stage; instead, a selection of

the more important and interesting objects has been illustrated (Figs. 8, 9), together with a full description, whilst the remaining objects are listed below, according to category.

Objects of military character.

A wide range of weapons are represented by the finds. These include: a sword pommel and the hook and pommel of a small sword or dagger; spearheads (5); knife blades (6); catapult bolts (2) and nine iron arrowheads. All but one of these arrowheads comprise a type with triple barbs and pronounced tangs, whilst the other type is a socketed, leaf-shaped form. Most of these arrowheads derive from unstratified or undated contexts, but one was found in deposits dating to the first half of the second century and may imply the presence in the Watercreek garrison of a detachment of archers.¹² An additional pointer to the composition of the garrison is provided by the occurrence of a number of examples of horse equipment. These include: the ring and bar of two snaffle bits, as well as fragments of perhaps three other examples; parts of two horseshoes; and a circular harness attachment with a central boss, around which was a setting for enamelling. The "dress-fastener", illustrated in Fig. 9, no. 13, should also probably be included in the category of harness attachments.¹³

In addition, a number of objects may have been used to decorate uniforms, including various fragments of bronze sheeting and piping, and a lozenge-shaped attachment, made in silvered bronze. A cuirass attachment, comprising two thin bronze strips, joined by rivets, and seven circular bronze studs were also found.

One stud has a floreate design, closely paralleled by an early second century example at Verulamium (cf. S. S. Frere, *Verulamium* (1968), Fig. 37, no. 98). Finally, the list also includes eight buckles, all but one made in iron.

Other objects.

Both the fort and *vicus* area yielded a wide range of objects representing domestic occupation, as well as items of furniture and building fittings. These fittings included hinges in iron, bronze and bone, ring hooks and several fragments of locks, bolts and an iron key. There were also a number of pieces of lead sheeting which had been folded over or coiled in strips. One fragment has two square nail holes and linear incisions. There were also a large number of iron objects. Many require further cleaning and consolidation before the nature of the object can be recognised, but identifiable types include a small length of chain links; seven iron hooks; two blades from sets of shears; a cart linch pin; seven styli; and a number of rings and rods.

Amongst the domestic objects are thirteen brooches. The dominant type is the trumpet brooch (cf. Fig. 8, nos. 1, 2), seven examples of which were found, representing classes R ii, iii and iv (R. G. Collingwood and I. A. Richmond, *The Archaeology of Roman Britain* (1969) 296-297); a dolphin brooch; a plain two-piece Colchester derivative form; a square plate brooch inlaid with rectangles of red and black *millefiori*; two disc brooches (cf. Fig. 8, no. 4); and a bronze penannular brooch. Other items include fragments of three finger rings, one with an intaglio (Fig. 8, no. 5); the handle of a *ligula*; the ear-scoop and tweezers from toiletry sets; bone and bronze needles; bone and jet hairpins (Fig. 8, no. 7); a fragment of a rectangular silvered mirror, and part of a dress-hook. Numerous beads were found, amongst them six melon beads and three cylindrical beads, all in green or turquoise glass paste. There were also fragments of three glass bangles (Fig. 9, no. 10). Gaming pieces in both stone and bone were represented amongst the finds and other objects include part of a leather shoe, a skillet handle, spindle

whorls in both lead and stone and a number of loom weights.

1. (S.F. 300, Gp. AEH). Bronze trumpet brooch with a bulbous waist knob set between acanthus leaves, and triple cordons. Six-turn spring, with a chord, and a now broken loop.

Group R iv (R. G. Collingwood and I. A. Richmond, *The Archaeology of Roman Britain* (1969), 297). First half of second century. Site A (*vicus*), phase II.

2. (S.F. 276, Gp. ADJ). Bronze trumpet brooch. The waist knob takes the form of a flattened disc and the acanthus leaves are highly stylized. There is thin ribbing along the sides of the bow and a line of small relief squares along the inner margin of the catchplate, which is a repair, riveted onto the broken original. Disc foot with a narrow band of diagonal hatching, and a similar spring to 1 (*supra*).

Group R ii (Collingwood and Richmond, *op. cit.*, 297); probably second quarter second century. Site A (*vicus*), phase II.

3. (S.F. 252, Gp. APG). Silvered bronze plate brooch in the form of a duck. The eyes are set with blue enamel whilst the plumage is indicated by alternating blue and green enamel cloisons. The type is not uncommon and widely diffused: cf. RCHM, *Eburacum* (1962), pl. 34; S. S. Frere, *Verulamium Excavations* (1972), Fig. 31; and, for "hen brooches", Bow Broch, Midlothian (*Britannia* i (1970), Fig. 10, no. 8), Brough Castle, Westmorland (*Antiquities of Roman Britain*, British Museum (1958), Fig. 11, no. 40). Collingwood and Richmond (*op. cit.*, 300) suggest a predominantly eastern distribution. A mid-late second century date is suggested by contexts at York and Verulamium. Site C, under late road cobbling.
4. (S.F. 333, Gp. ACY). Bronze disc brooch with four radial projections. The central design comprises a raised circular plate, decorated with circular motifs around a central boss. The brooch was probably enamelled. For a generalised parallel cf. Collingwood and Richmond, *op. cit.*, Fig. 106, no. 102 (Woodeaton); *Antiquities of Roman Britain*, British Museum (1958), Fig. 11, no. 37 (London). Nor' Nour (Scilly Isles) also provides generalised parallels (*Arch. J.* cxxiv (1967), Fig. 22). Site A (*vicus*), Antonine.

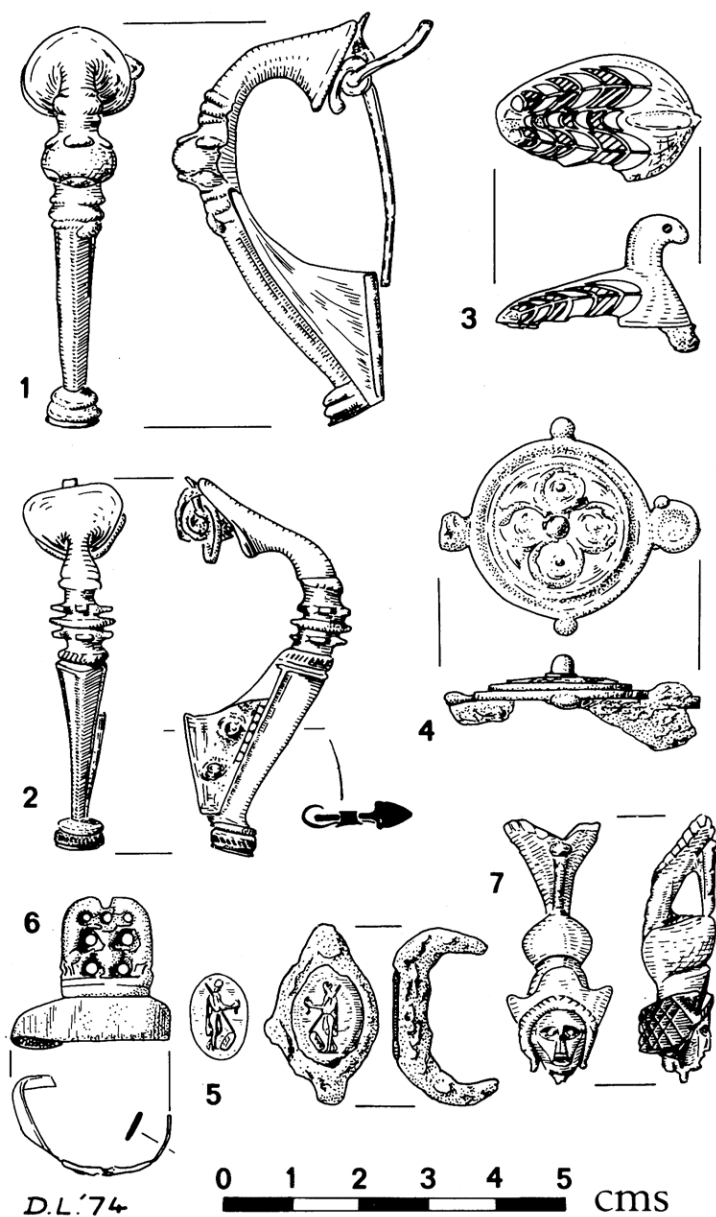


FIG. 8.—Small finds. Scale 1:1.

5. Signet ring with an onyx intaglio. *Vicus* (Site A), phase II. cf. Plate V. Dr Martin Henig has kindly contributed the following note:

The iron ring is of simple form, characteristic of the Early Empire (external diameter 25 mm.; width across bezel 15 mm., narrowing to 2 mm. at lowest surviving point on hoop). There are good parallels from Wall, Staffordshire, and from Great Casterton, Rutland.¹⁴ A similar ring with hoop rather more flattened in section, but apparently contemporary, is also widespread: an example found in Cirencester is set with a stone cut with the same device as the Watercrock specimen.¹⁵

An onyx intaglio is affixed to the bezel, its long axis lying along the main axis of the ring.¹⁶ The stone is ovoid in shape with a bevelled edge (upper surface, 10 x 7.5 mm.; expanding down to approximately 12.5 x 10 mm.). It is in good condition but there are some signs of wear, especially around the edges.

The device, seen in impression, is Achilles standing to the right with his left leg flexed and the weight of his body supported on his right leg. In his right hand he holds a spear and in his left a plumed helmet which he regards intently, while in the field in front of him is a shield. The figure is derived from Polykleitos's famous *Doryphoros* which was used in Roman times for figures which stood in Gymnasias called Achilleae.¹⁷

I have demonstrated elsewhere that the type, together with others showing the great heroes of Greek mythology, had an especial appeal to the Roman military mind; indeed the great majority of "heroic gemstones" from Britain come from forts.¹⁸ It suffices to point out, for the benefit of readers in North Western England, that similar intaglios depicting Achilles are recorded from Standish (near *Coccium*, Wigan), Lancashire, and from Heronbridge, Cheshire.¹⁹

6. (S.F. 17, Gp. AAH). Silver ring with a worn openwork plaque, comprising two opposed feline animals, who support a central urn. The hoop of the ring is thin and flat, and tapers towards the back. Site A (*vicus*), robber trench.
7. (S.F. 105, Gp. AIG). Carved head of a bone hair pin, with an elaborate crown. Dr J. P. Wild suggests a Severan date, on the basis of the hair-style. From the fill of ditch I.
8. (S.F. 90, Gp. AHI). Melon bead in a blue-green glass paste. Unstratified.



Photo: J. Thompson

PLATE V.—Onyx intaglio from the *vicus*, engraved with the figure of Achilles.

Maximum length of the intaglio : 12 mm.

9. (S.F. 246, Gp. ACF). A rectangular object, carved out of yellow soapstone, with an inverse stamp, P. CLODI, incised into one end of the stone. From the make-up for the phase III buildings at the north end of Site A (*vicus*). No exact parallel has been found for this stamp; the lettering and form of the impression closely resemble a Samian stamp and it may be compared generally with the stamps used by oculists to label and advertise their wares. However, unlike the normal range of oculists' stamps, there are no remarks about the description or properties of the salve (cf. J. Liversidge, *Britain in the Roman Empire* (Cardinal 1973), 337-338).
10. (S.F. 110, Gp. ABD). Glass bangle, plano-convex in section. Pale blue-green glass with a central band of diagonally striped blue and white glass. Site A (*vicus*), phase III make-up.
11. (S.F. 342, Gp. AAH). Part of a bone toggle, geometrically decorated with bands of incised lines, hatching and concentric circles. The toggle is perforated by part of what was originally a rectangular slot, and has a hollow core. The core contained a small bone peg, presumably to retain a strap, passed through the central slot. We are grateful to Mr G. M. Leather for showing us a similar, though smaller, example, from Ravenglass, made from stag's antler (cf. CW2 lxx (1970), 290).²⁰ Site A (*vicus*), robber trench.
12. (S.F. 3, Gp. AHB). Base of a terracotta figurine. Mould-made and very worn. The figure leans against a rock and, on analogy with a very similar example from London (*Antiquities of Roman Britain*, British Museum (1958), Fig. 30, no. 5), may well represent Venus. An unstratified find from the eastern angle of the fort.
13. (S.F. 273, Gp. ACO). Bronze button and loop fastener, resembling Wild's Class III (*Britannia* i (1970), 138-140), a late first-second century type. Wild (*art. cit.*, 145-6) has provided convincing arguments to support their identification as harness-fittings. Site A (*vicus*), phase III; an Antonine context.

EXCAVATIONS AT WATERCROOK

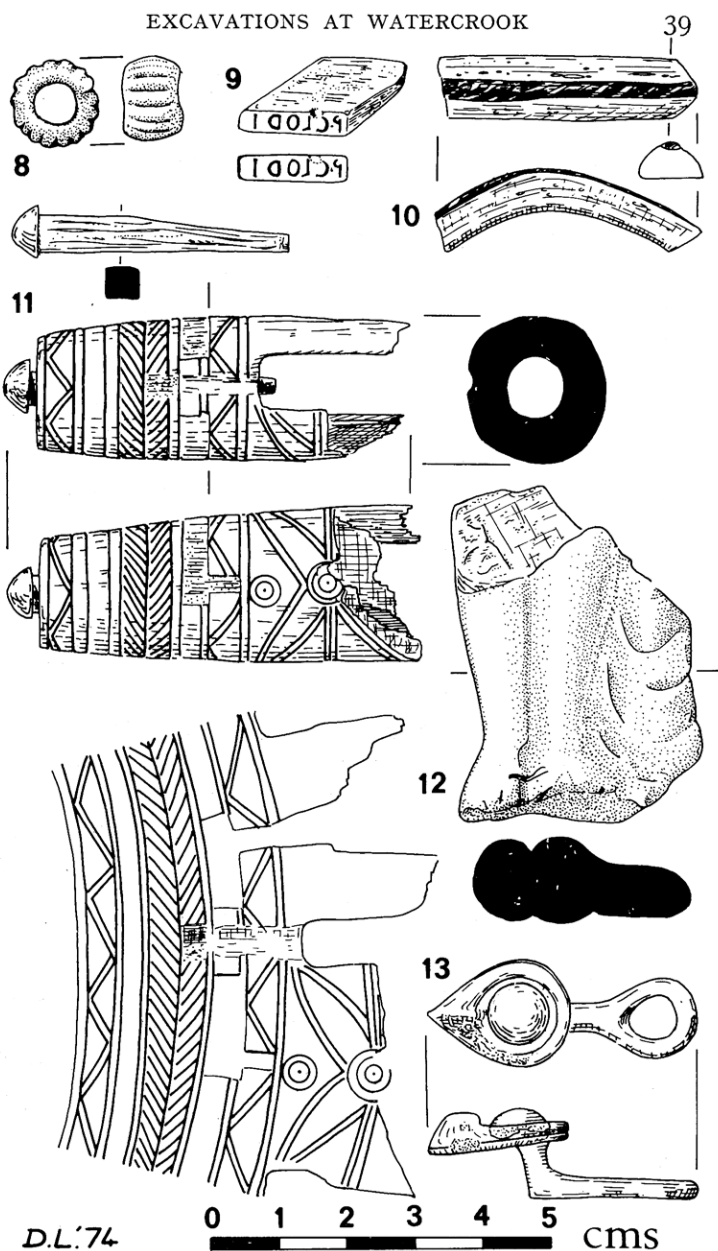


FIG. 9.—Small finds. Scale 1:1.

4 THE INSCRIPTIONS AND GRAFFITI.

by

D. C. A. Shotter, B.A., Ph.D.

The Inscriptions.

No formal inscriptions were found during the course of the 1974 excavations: however, one badly abraded brick-stamp (S.F. 120, Gp. APF) does offer information about the Roman Army's link with Watercrock. It is on a *tegula* fragment measuring 4.7 x 5.1 x 2.2 cms.; the stamp has a double frame, the outer one being 3.2 cms. wide, the inner one 1.9 cms. The specimen bears the right-hand end of a relief-stamp consisting of letters 1.5 cms. high which, though barely readable, seem to give]XVV. There can be no doubt that if the reading is correct the stamp belongs to the Legio XX Valeria Victrix.

The epigraphic record for Watercrock is extremely slight;²¹ it contains an altar found in 1687 (and now lost) which carried a dedication by one Valens, who may have been a *procurator Augusti*, to gods and goddesses (752). Equally unsatisfactory is the altar seen before 1732 by Horsley which carries a dedication to a goddess, whose name is now beyond sure recovery (753). The third surviving inscription (754) is a tombstone slab of one P. Aelius Bassus, erstwhile centurion of the 20th Legion. This stone which is generally taken to have been part of an imposing funerary monument, offers at least some slight clues as to date. In the first place it suggests the influence over Watercrock of Aelius Surinus, a centurion of the 6th Legion, possibly acting as a *centurio regionarius*: such an arrangement is immediately suggestive of the third century. It also refers to the *Fiscus Dominorum* — that is a time of joint emperors. Birley²² preferred a pair early in the third century.

Little of Watercrock's military or civilian history is revealed by these inscriptions. Most weight has in fact been attached to the *Antonine Itinerary* and the *Notitia Dignitatum*; *Iter X* of the Itinerary gives a route from *Glannaventa* (generally taken to be Raven-glass) to *Mediolanum* (Whitchurch).²³ It has generally been assumed that *ALONE*, which occupies a position between *GALAVA* (usually taken as Ambleside) and *GALACUM* (taken as Burrow in Lonsdale), is Watercrock, and thus lies on an important route linking the western Lake District with the main military route linking Chester with Hadrian's Wall.

The *Notitia Dignitatum*²⁴ places at *ALIONE* (presumably the same site as *ALONE* of *Iter X*) the *Cohors III Nerviorum* from Gaul. This unit had a long history of service in Britain, being mentioned in diplomas of 122, 124, 130 and 135, as well as on a lead sealing from Newstead.²⁵ Birley²⁶ has suggested that, on the analogy of other auxiliary units raised from the Nervii, this unit may have had no cavalry attachment; such a situation would appear to be a considerable disadvantage for a Lake District fort. In any case, the 1974 excavations have produced items of metalwork which certainly belong to equestrian equipment.²⁷ This would suggest at least that if the Cohort were stationed at Watercrock at all, it did not see the whole of its British service at the site.

This alone might not provide sufficient ground for questioning the identification of the *Notitia*'s *ALIONE* with Watercrock; more serious, however, is the absence of fourth-century coins and the infrequency of fourth-century pottery in the 1974 excavations, which suggests that the site may have been unoccupied at least in the post-367 period, if not earlier. If this trend is repeated in subsequent excavations, it will raise for serious reconsideration the question of whether Watercrock should be mentioned at all in this section of the *Notitia*.

Stamp.

The stone stamp bearing the inverse mark P. CLODI is described elsewhere (on p. 38 and Fig. 9, no. 9).

The Graffiti.

- 1-3. (AQO 1020; AHQ 2141; AAF 182) On the exterior surface of bases of Samian vessels, various cruciform devices.
4. (ABR 1040) On the exterior surface of base of Samian vessel, a cruciform device.
5. (ABR 1040) On interior basal surface of no. 4, a pair of interlocking circles incised with a compass.
6. (AEQ, G6) On exterior basal surface of coarse vessel, a cruciform device.
7. (AAV 403) On wall sherd of Samian vessel, below decorated panel in cursive script]MAE[
8. (AAF, G2) On wall sherd of Amphora incursive script]TTIX.
9. (AAF, G2A) On wall sherd of same Amphora as no. 9 in cursive]L.
10. (AQO 700) On Amphora handle, in large capital M[.
11. (AAF 185) On exterior surface of Samian base $\overset{x}{V}$ or conceivably <X; in either case it will represent a batch number (15 or 110).
12. (ACO 2081) On exterior surface of Samian base A[.
13. (AQO 1016) On exterior surface of Samian wall sherd, in capitals PAL[.
14. (ACD 1571) Incised in capital letters around the outside of the footing of Drag. 33 cup, CANDID[. The final four letters have subsequently been effaced by three horizontal strokes.
15. (S.F. 108: Gp. APB) Incised in capital letters on a fragment of lead sheeting]MVV[.

5 THE COARSE POTTERY.

by

D. M. T. Longley, B.A., J. H. S. Witherington, B.A.,
T. W. Potter & Helen Lockwood.

Comparatively few closed groups of material were found in the 1974 excavations, largely because the areas under study lay beyond the main centres of occupation. The major exception is the trench through the *vicus* (Site A), which yielded quite large quantities of stratified pottery. A selection of these wares is illustrated here, together with an important group from the timber trench ("clavicula") which flanked the north-east fort road in Site C. The parallels and dates are from J. P. Gillam, *Types of Roman Coarse Pottery Vessels in Northern Britain* (Newcastle 1970), cited as Gillam.

Site A: Phase I.

A group of Flavian-Trajanic date.

Fig. 10.

1. (AFM 442). Amphora in a buff granular fabric.
2. (ADQ 455). Jar in a smooth light grey fabric with dark grey surface. Cf. Gillam 109. A.D. 90-130.
3. (AEE 450). Mortarium in a buff sandy fabric. Cf. Gillam 243. A.D. 100-140.
4. (AFN 437). Bowl in a dull pink fabric with micaceous grits on the surface.
5. (AEE 420). Jar in a light grey fabric. Cf. Gillam 107 for general type. A.D. 80-130.

Site A: Phase II.

The Samian and coins imply a Hadrianic date for this phase, whilst the coarse wares suggest that occupation may have persisted into early Antonine times.

6. (ADA 354). Dish in a buff fabric with dark grey exterior and vertical rouletting.
7. (ACY 387). Jar in a soft smooth light grey fabric with dark grey surface.
8. (ADA 355). Dish in a dark grey fabric.

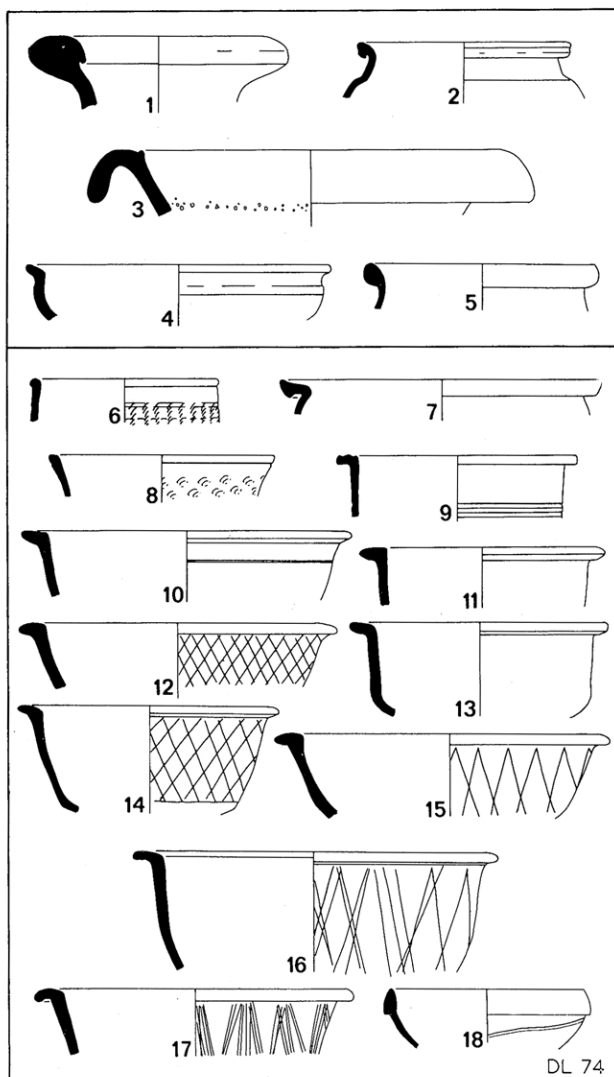


FIG. 10.—Coarse pottery. Scale 1:5.

1-5 : Site A, phase I.

6-18 : Site A, phase II.

9. (AEF 422). Reeded-rim bowl probably with burnished exterior though now very worn. Smooth light grey fabric. A.D. 80-130.
10. (AFB 475). Black burnished bowl in a light grey sandy fabric.
11. (ACY 388). Bowl in a black burnished fabric. Lightly fired. A.D. 80-130.
12. (ACS 425). Bowl in a black burnished fabric with acute lattice decoration.
13. (ACY 386). Bowl in a black burnished fabric. A.D. 80-130.
14. (ADB 441). Bowl in a black burnished fabric with acute lattice decoration. Cf. Gillam 221. A.D. 140-180.
15. (ACY 392). Bowl in a black burnished fabric with acute lattice decoration. Cf. Gillam 307. A.D. 120-160.
16. (ACS 177). Bowl in a black burnished fabric with irregular acute lattice decoration. Cf. Gillam 221 for the general type. A.D. 140-180.
17. (ACS 423). Bowl in a sandy hard grey burnished fabric. Cf. Gillam 220. A.D. 120-160.
18. (ADA 296). Bowl in a soft light grey fabric.

Fig. 11.

19. (ADA 353). Jar in a soft smooth buff coloured fabric with grey exterior.
20. (ACS 176). Jar in a black burnished fabric.
21. (ADA 356). Jar in a dark grey fabric.
22. (ACY 446). Jar in a light grey sandy fabric with dark grey exterior.
23. (ACY 432). Jar in a gritty buff fabric with a dark burnished exterior.
24. (ACY 390). Jar in a hard grey fabric with a dark grey sandy exterior.
25. (ADV 454). Jar in a light grey sandy fabric.
26. (ADA 251). Jar in a grey sandy fabric.
27. (ABT 273). Jar in a grey sandy fabric.
28. (ACY 391). Jar in a light grey fabric with slightly granular exterior.
29. (ADA 352). Jar in a light grey fabric with slightly granular exterior.
30. (ACY 448). Jar in a light grey sandy fabric with dark grey exterior. Rustic ware decoration. A.D. 100-130.

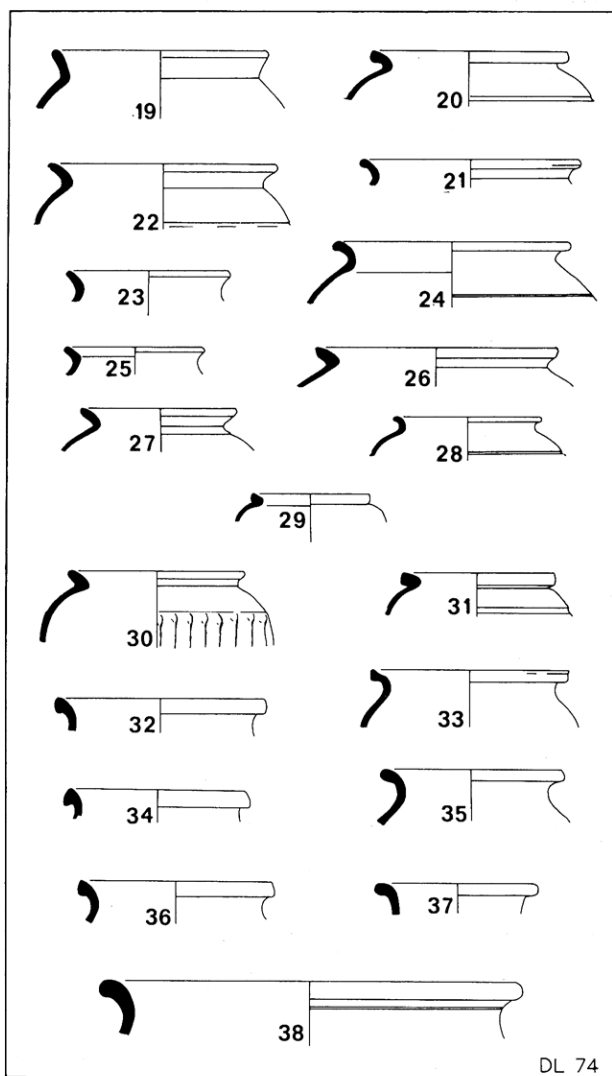


FIG. 11.—Coarse pottery. Scale 1:5.
Site A, phase II.

- 31. (ABT 261). Jar in a grey sandy fabric. Possibly rustic ware. Cf. Gillam 98. A.D. 80-130.
- 32. (ADA 351). Jar in a soft smooth grey fabric.
- 33. (ADA 350). Jar in a light grey fabric.
- 34. (ADA 357). Jar in a soft smooth buff fabric with grey exterior.
- 35. (ADA 315). Jar in a soft light grey fabric.
- 36. (ADA 322). Jar in a soft light grey fabric.
- 37. (ABT 138). Jar in a light grey fabric with darker exterior.
- 38. (ADA 349). Jar in a soft smooth grey fabric.

Fig. 12.

- 39. (ACS 430). Lid of light grey granular fabric with darker exterior.
- 40. (ADV 290). Amphora in a buff granular fabric.
- 41. (ADA 510). Amphora in a soft smooth orange fabric with a cream-coloured slip.
- 42. (ACS 453). Single-handled, narrow-necked flagon in a gritty buff fabric with dull pink slip. Early second century A.D.
- 43. (ACS 511). Amphora in a slightly sandy buff fabric.
- 44. (ADA 246). Single-handled, ring-necked flagon in a soft smooth orange fabric. Cf. Gillam 2. A.D. 70-110.

Site A: Phase III-IV.

Phase III appears in the evidence of the Samian and coins to belong to the Antonine period. However, a scatter of third-century coins and pottery suggests a fourth phase of occupation, but without trace of substantial structures. See Section 2, *supra*.

- 45. (AAH 414). Jar in a dark grey burnished fabric.
- 46. (AAH 413). Amphora in a buff granular fabric.
- 47. (AAH 415). Jar in a smooth orange fabric with buff-coloured exterior.

Fig. 13.

- 48. (AAH 39). Jar in a black burnished fabric with obtuse lattice decoration. Cf. Gillam 124. A.D. 120-160.
- 49. (AAH 501). Jar in a black burnished fabric and lattice decoration. Cf. Gillam 121. A.D. 120-160.
- 50. (AAH 7). Jar in a black burnished fabric. Cf. Gillam 133. A.D. 160-220.

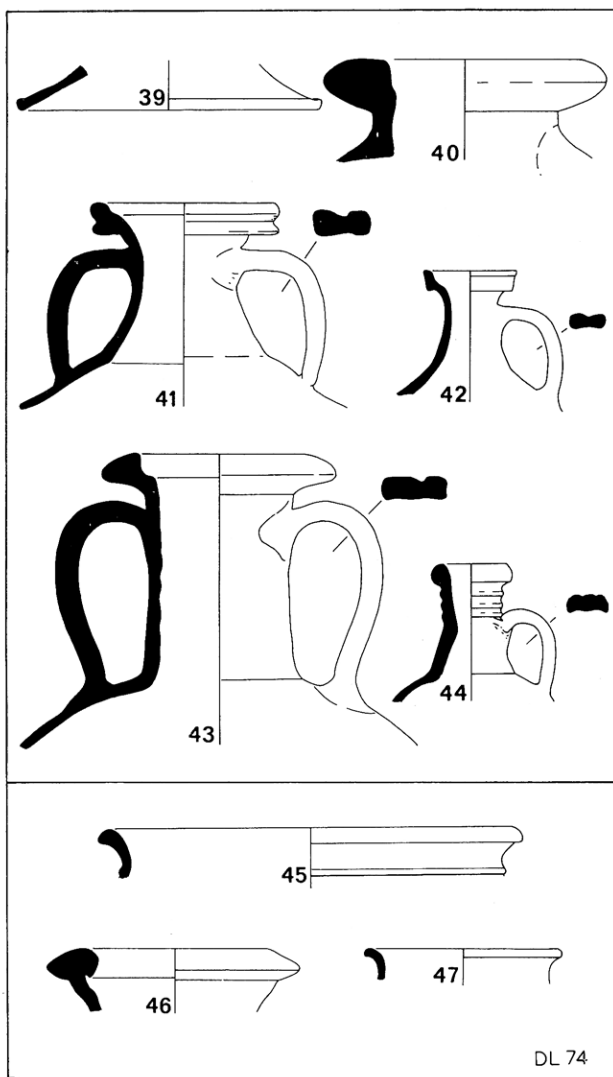


FIG. 12.—Coarse pottery. Scale 1:5.

39-44 : Site A, phase II.

45-47 : Site A, phase III.

51. (AAH 6). Jar in a black burnished fabric. Cf. Gillam 135. A.D. 170-250.
52. (AAH 502). Jar in a black burnished fabric accidentally burnt in oxidising conditions to a grey and orange colour. Cf. Gillam 125. A.D. 120-180.
53. (AAH 40). Dish in hard grey burnished fabric. Cf. Gillam 307. A.D. 120-160.
54. (AAH 42). Jar in a black burnished fabric.
55. (AAH 503). Bowl in a black burnished fabric with lattice decoration. Cf. Gillam 308 for general type. A.D. 130-180.
56. (ABT 138). Jar in a light grey fabric with dark grey exterior.
57. (AAH 504). Bowl in light grey sandy fabric with acute lattice decoration. Cf. Gillam 318. A.D. 160-200.
58. (ABT 505). Flagon in a light grey fabric with a grey, slightly sandy surface.
59. (AAH 506). Bowl in an orange sandy fabric with rouletted decoration. Traces of a light brown slip. Imitation Drag. 37.
60. (AAH 507). Dish in a black burnished fabric accidentally burnt in oxidising conditions to an orange and grey colour.
61. (ABT 508). Hammer-head mortarium in a cream fabric with faint grooves on the rim. Mid third to mid fourth century A.D.

Site C: "Clavicula".

Fig. 14.

Both the Samian and the coarse ware imply a Trajanic date for the demolition of the clavicula.

62. (ARC 279). Bowl in a dark grey sandy fabric. Flavian-Trajanic.
63. (ARC 289). Bowl in a buff fabric with a reeded rim. Cf. Gillam 215. A.D. 70-110.
64. (ARC 340). Jar in a smooth light grey fabric with darker surface. Cf. Gillam 101 for the general type. A.D. 70-110.
65. (ARC 222). Ring-necked flagon in a buff fabric with a grey and red slip on the inside, a red slip on the outside. Cf. Gillam 2. A.D. 70-110.

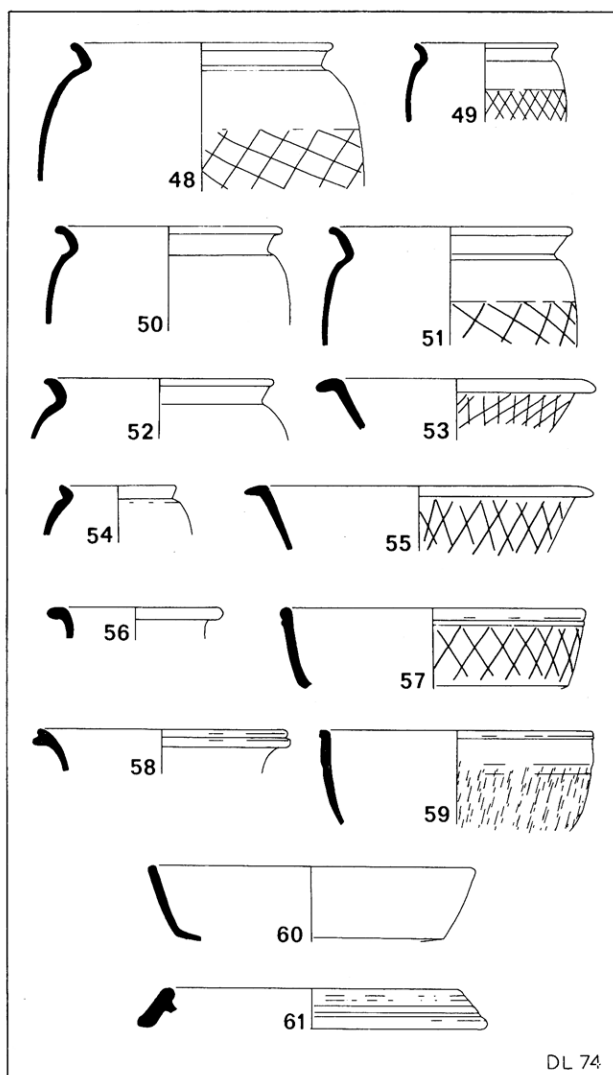


FIG. 13.—Coarse pottery. Scale 1:5.
Site A, phases III-IV.

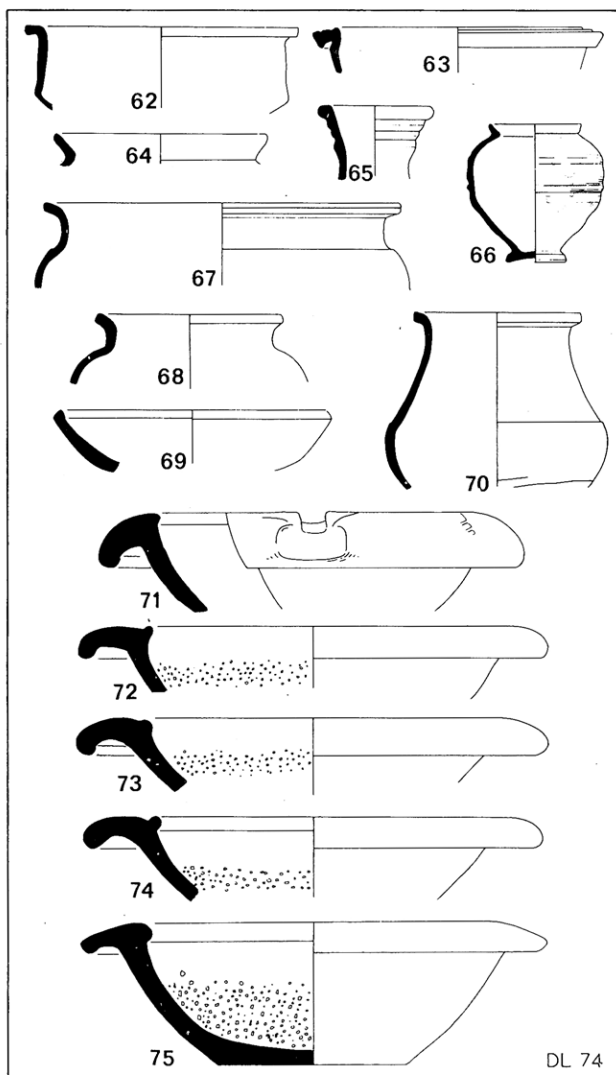


FIG. 14.—Coarse pottery. Scale 1:5.
Site C, "clavicula".

66. (APH 509). Complete beaker in a cream-coloured slip with red straight and wavy lines painted on the shoulder and body. For a similar type of the same size cf. Gillam 167. For a similar profile cf. Gillam 68. A.D. 80-130.
67. (ARC 287). Jar in a smooth grey fabric.
68. (APH 148). Jar in a smooth dark buff fabric.
69. (ARC 288). Shallow dish in a black burnished fabric. Cf. Gillam 337 for the general type. A.D. 70-100.
70. (APH 326). Wide-mouth jar in a smooth grey fabric, lightly fired.

The group of mortaria described below (nos. 71-75) belong generally to late first or early second century types. No. 72 is closely paralleled by an example from Carrawburgh, dated A.D. 100-140 (AA4, 1 (1972), 131, Fig. 14, no. 125), and nos. 72-75 by Gillam 239 (A.D. 80-110). The grits are multicoloured which might indicate a slightly later date.

71. (ARC 293). Mortarium in a red fabric with a pink-cream slip.
72. (ARC 292). Mortarium in a yellow-buff fabric with multicoloured grits on the interior and on the rim.
73. (ARC 291). Mortarium in a buff fabric with multicoloured grits on the interior and on the rim.
74. (APH 152). Mortarium in a buff fabric with traces of an orange slip. Multicoloured grits on the interior and on the rim.
75. (APH 112). Mortarium in an orange fabric with possible traces of a cream slip. Multicoloured grit.

6 THE MORTARIA STAMPS (Fig. 15).

by

K. F. Hartley.

1. (ARG 512). A fragment from a well-worn mortarium, burnt throughout to grey. The broken stamp,]VS, is from a die of the potter Marinus, who worked in the extensive potteries at Brockley Hill where twenty of his stamps have now been found. His work may be dated c. A.D. 70-110 (S. S. Frere, *Verulamium Excavations 1* (1972), 376, no. 26, and Fig. 145, no. 26 for a drawing of a complete stamp from the same die). Brockley Hill: *Arch. J.* cxxix (1972), 86, M58).

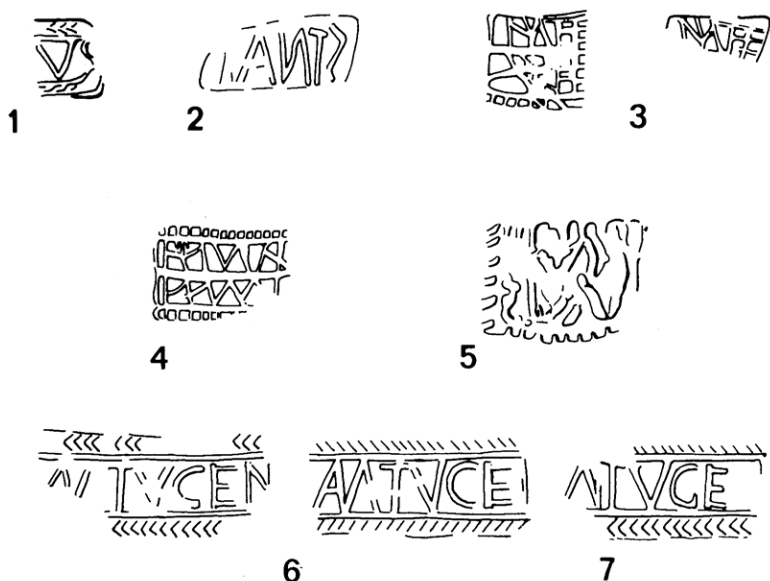


FIG. 15.—The mortaria stamps. Scale 1:2.

2. (AHE 513). A flange fragment in soft, fine-textured fabric almost the colour of oatmeal, and tempered with red-brown, transparent and grey flint grit. Another, unpublished, stamp from the same die is known from Caistor-by-Norwich. The stamps read *STANAI* retrograde and the interpretation is uncertain. The fabric fits perfectly with manufacture in the Norfolk area, perhaps at Caistor-by-Norwich, Hevingham or Brampton where there are known to be kilns, and the rim-profiles are in keeping with this. There is no close dating evidence for him, but there is no evidence that mortaria were made in this area before the second century and the rim from Caistor is certainly not earlier than A.D. 140.

Few stamps of Norfolk potters have been found outside the immediate area — all of these are at sites near the east coast, such as Malton, York, Aldborough, Corbridge and Cramond, where these potters marketed mortaria on a wide-spread but small scale. This is the first of their mortaria, as well as the first of their stamps, to be noted from anywhere in western or central Britain and it may not have reached Watercrook through normal trade.

3. (AEG; ACG 514). A mortarium in soft, fine-textured, pinkish brown fabric with drab almost grey core and traces of cream slip; white quartz, black and red-brown trituration grit. It is stamped on both sides with a trademark which has been recorded from Ambleside, Hardknott and Lancaster. The fabric and the form are typical of mortaria made at Wilderspool (*Arch. J.* cxxx (1973), 77-103 and Fig. 8, o, for a more complete example of this stamp). Stamped mortaria were made at Wilderspool from the early second century to c. A.D. 155/165 and the rim-forms used by this potter certainly indicate a pre-Antonine activity.
4. (AAA 10). A mortarium in exactly similar fabric to the last, stamped with a trademark from a different die. Other examples have been noted from Hardknott; Lancaster (4); Melandra Castle; Ribchester (3); Watercrock and Wilderspool (3). This mortarium is again typical of Wilderspool products and the potter is probably to be dated within the period A.D. 100-140. Watercrock was undoubtedly inside the normal marketing area of the Wilderspool potters (*Arch. J. loc. cit.*, for a full discussion of their work and markets).
5. (AIH 515). A mortarium in soft, fine-textured, pinkish-brown fabric with quartz-like trituration grit. No other example of the two-line stamp is known and no certain interpretation of it can be offered. The fabric, however, would fit with an origin in the Wilderspool potteries in the first half of the second century.
6. (ABD 516). A well-worn mortarium in granular fabric varying in colour from pale pinkish-brown to greyish-cream with traces of orange slip and red-brown, transparent and flint trituration grit. It is stamped on both sides with a stamp of Matugenus of Brockley Hill.
7. (ABE 517). A different mortarium in granular greyish-cream fabric with orange-brown slip. The potter's stamp is from the same die of Matugenus.

Fifty-five stamps of Matugenus as well as one of his dies have been found at Brockley Hill to date (*TLMAS* xviii pt. 1 (1955), 60). In addition to these, one hundred and sixteen have been found throughout England and Wales, including forty-seven certainly or probably from London. Matugenus is recorded on some stamps as the son of Albinus, and the similarity of work confirms that it was the mortarium potter of that name whose work is to be dated c. A.D. 65-90 (S. S. Frere, *Verulamium Excavations* 1 (1972), 371). Two

stamps from Verulamium are from deposits dated earlier than A.D. 120 and, where so prolific a potter as Matugenus is concerned, the complete absence of his stamps from Scotland and from Hadrian's Wall is significant and supports a primarily Trajanic date. A date *c.* A.D. 90-125 is generally indicated for his work.

7 THE AMPHORAE (Fig. 16).

by

J. J. Paterson.

1. Stamp, 7 cms. long, on handle of pale cream clay, round section diam. 4.5 cms.

Read: L E. F. PC

See M. H. Callender, *Roman Amphorae with index of stamps* (1965) no. 841, in particular the example from Chester (*Trans. Chester and North Wales Architect., Arch. and Hist. Soc.* xxvi, 36).

2. Stamp, 4 cms. long, on handle of cream/pink clay, round section diam. 4.5 cms.

Read: QCRA

See Callender, *Roman Amphorae*, no. 1442.

The stamp QCR is found on examples of the globular oil amphora from south Spain, Dressel 20 (this type of amphora was produced over a long period of time, at least from first to third century A.D.; for detailed discussion see M. Beltrán Lloris, *Anforas Romanas en España*, Anejo de Caesaraugusta, VIII (Zaragoza, 1970) 464 ff.).

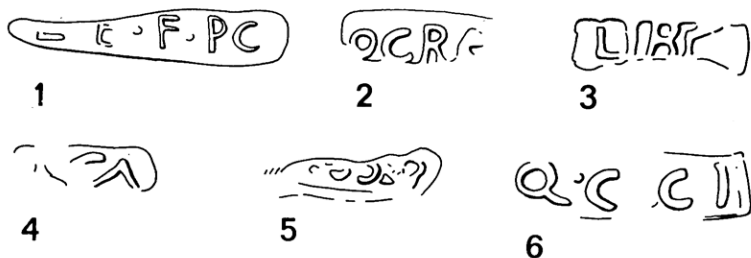


FIG. 16.—The amphorae stamps. Scale 1:2.

3. Stamp, 4.5 cms. long, on handle of pink/brown clay, round section diam. 4 cms.
Faint stamp: probably read: L $\overline{\text{VB}}$ Ç
See Callender, *Roman Amphorae*, no. 981, in particular the example from Chesterholm illustrated in Fig. 10, no. 22.
This stamp is probably to be associated with the stamps of L. Vibius Chrom[], found on Dressel 20 amphora.
4. Incomplete stamp on handle of dark pink clay, round section diam. 4 cms.
5. Stamp, 3.5 cms. long, on handle of pink/brown clay, round section diam. 4.5 cms.
Possible reading: Ç Ç . Ø
See Callender, *Roman Amphorae*, no. 1428a, in particular the example from Ilkley, illustrated in Fig. 14, no. 20.
6. Fragmentary stamp.
Probable reading: Q.C C F, or Q.C C I
See Callender, *Roman Amphorae*, no. 1428d and e, in particular the example from Corbridge, Q. C C I, with the same uncertainty about the reading of the last letter (AA3 viii, 197, no. 34).

8 THE COINS.

by

D. C. A. Shotter, B.A., Ph.D.

Site A (Vicus) (26 coins).

Phase I (1 coin).

1. AR Denarius, Nero (S.F. 294, Gp. ADY) A.D. 54-68
Obv:]ERO[
Rev: Illegible

Phase II (14 coins).

2. AR Denarius, Republican (S.F. 286, Gp. AEH) 32-31 B.C.
Obv: (Legionary series)
Rev: ANT AVG III VIR RPC
3. AR Denarius, Vitellius (S.F. 303, Gp. ACY) A.D. 69
Obv: A VITELLIVS GERM IMP AVG TR P
Rev: LIBERTAS RESTITVTA

(RIC I. 18)

4. AE Sestertius, Vespasian (S.F. 332, Gp. AEH) A.D. 77-78
Obv: T CAES IMP AVG F PON TR P COS VI
 CENSOR
Rev: ROMA S C
 (RIC II, 772)
5. AE Sestertius, Domitian (S.F. 288, Gp. ADJ) A.D. 81-96
Obv:]DOM[
Rev: Illegible
6. AE As, probably Domitian (S.F. 179, Gp. ACG)
Obv:]GERM[after A.D. 84
Rev: Illegible
7. AE As, probably Nerva (S.F. 232, Gp. ACG) A.D. 96-98
 Legends illegible
8. AR Denarius, Trajan (S.F. 180, Gp. ABR) A.D. 98-99
Obv: IMP CAES NERVA TRAIAN AVG GERM
Rev: PONT MAX TR POT COS II
 (RIC II, 11)
9. AE Sestertius, Trajan (S.F. 178, Gp. ACG) after A.D. 103
Obv: IMP CAES NERVAE TRAIANO AVG GER
 DAC PM TR P COS[
Rev: Illegible
10. AR Denarius, Trajan (S.F. 221, Gp. ACG) A.D. 103-111
Obv: IMP TRAIANO AVG GER DACICO
Rev: COS V P P S P Q R OPTIMO PRINC
 (RIC II, 128)
11. AE Dupondius, Trajan (S.F. 222, Gp. ACG) A.D. 114-117
Obv: IMP CAES NERV TRAIANO OPTIMO AVG
 GER DAC PARTHICO P M TR P COS VI
 P P
Rev: SENATVS POPVLVSQUE ROMANVS S C
 (RIC II, 676)
12. AE Dupondius, Trajan (S.F. 131, Gp. ABR) A.D. 98-117
Obv:]TRAIAN[
Rev: Illegible
13. AE Sestertius, Trajan (S.F. 170, Gp. ACA) A.D. 98-117
 Legends illegible
14. AE As, possibly Trajan (S.F. 287, Gp. ADJ) A.D. 98-117
 Legends illegible
15. AE As, Trajan (S.F. 302, Gp. AET) A.D. 98-117
 Legends illegible

Phases III-IV (8 coins).

16. AR Denarius, Nero (S.F. 99, Gp. ABD) A.D. 63-68
Obv: IMP NERO CAESAR AVG P P
Rev: IVPPITER CVSTOS
 (RIC I, 47)
17. AE As, possibly Domitian (S.F. 69, Gp. AAH) A.D. 81-96
 Legends illegible
18. AE Dupondius, Trajan (S.F. 101, Gp. ABD) A.D. 99-100
Obv: IMP CAES NERVA TRAIAN AVG GERM
 PM
Rev: TR POT COSIII P P S C
 (RIC II, 411)
19. AE Dupondius, Antoninus Pius (S.F. 100, Gp. AAH)
 A.D. 154-155
Obv: ANTONINVS AVG PIVS P P TR P XVIII
Rev: BRITANNIA COS IIII S C
 (RIC III, 930)
20. AE As, probably Antoninus Pius (S.F. 75, Gp. ABD)
 Legends illegible A.D. 138-161
21. AR Antoninianus, Gallienus (S.F. 128, Gp. ABP)
Obv: GALLIENVS AVG after A.D. 257
Rev: GENIV AVG
 (RIC V¹, p. 148, no. 197)
22. AE Barbarous imitation, possibly Tetricus
 (S.F. 102, Gp. ABD) A.D. 271-273
 Legends illegible
23. AE Illegible (fragment only) (S.F. 231, Gp. ACJ)

Unstratified (3 coins).

24. AE Domitian (S.F. 1, Gp. AAC) after A.D. 84
Obv: IMP DOMIT AVG GERM COS X[
Rev: Illegible
25. AR Denarius, Septimius Severus (S.F. 156, Gp. ABY)
Obv: SEVERVS PIVS AVG A.D. 206
Rev: P M TR P XIII COS III P P
 (RIC IV¹, 202)
26. AE, probably second half of the third century
 (S.F. 220, Gp. ACP)

Site B (East angle of fort) (15 coins).

South end of site (1 coin).

27. AR Denarius, Trajan (S.F. 98, Gp. AHZ) A.D. 101-2
Obv: IMP CAES NERVA TRAIAN AVG GERM
Rev: P M TR P COS IIII P P
 (RIC II, 57)

Rampart, Phase II (2 coins).

28. AE Dupondius, Hadrian (S.F. 169, Gp. AJO) A.D. 134-138
Obv: HADRIANVS AVGVSTVS P P
Rev: HILARITAS P R COS III S C
 (RIC II, 974)

29. AE Sestertius, Trajan (S.F. 52, Gp. AHT) after A.D. 103
Obv: IMP CAES NERVAE TRAIANO AVG GER
 DAC PM TR P COS[
Rev: S P Q R OPTIMO PRINCIPI S C

Oven, inserted into fort rampart (1 coin).

30. AE Sestertius (S.F. 230, Gp. AKH)
 Fragmentary and corroded; probably not later than
 first half of second century

Construction trench for fort wall (Phase III) (1 coin).

31. AR Denarius, Republican (S.F. 77, Gp. AIH) 32-31 B.C.
Obv: LEG XVI
Rev: ANT AVG III VIR R P C

Ditch I (6 coins).

32. AE As, Domitian (S.F. 139, Gp. AJE) A.D. 81-96
 Legends illegible
33. AE Dupondius, Trajan (?) (S.F. 129, Gp. AIZ) A.D. 98-117
 Legends illegible
34. AE Dupondius, Trajan (S.F. 103, Gp. AJD) A.D. 112-117
Obv: IMP CAES NERVAE TRAIANO AVG GER
 DAC P M TR P COS VI P P
Rev: FORTVNA REDVCI S C
 (RIC II, 629)
35. AR Antoninianus, Gallienus (S.F. 54, Gp. AID)
Obv: GALLIENVS AVG after A.D. 257
Rev: DIANAE CONS AVG
 (RIC VI¹, p. 146, no. 177)

36. AR Antoninianus, Victorinus (S.F. 138, Gp. AIG) A.D. 269-271
Obv: IMP C PIAV VICTORINVS P F AVG
Rev: FIDES MILITVM
 (RIC V¹, p. 396, no. 109)
37. AE Barbarous imitation, possibly Tetricus I
 (S.F. 10, Gp. AHQ) A.D. 271-271
Ditch III (1 coin).
38. AE Sestertius, Trajan (S.F. 168, Gp. AJH) A.D. 103-111
Obv: IMP CAES NERVAE TRAIANO AVG GER
 DAC P M TR P COS V P P
Rev: SPQR OPTIMO PRINCIPI S C
 (RIC II, 496)
- Unstratified* (3 coins).
39. AE Dupondius, possibly Trajan (S.F. 53, Gp. AHX)
 Legends illegible A.D. 98-117
40. AE Sestertius (S.F. 45, Gp. AIH)
 Fragmentary, but not later than first half of second
 century
41. AR Denarius, Alexander Severus (S.F. 76, Gp. AIH) A.D. 228-231
Obv: IMP SEV ALEXAND AVG
Rev: FELICITAS AVG
 (RIC IV², 192)
- Site C (North-east side of fort)* (7 coins).
 Beneath the latest surface of the north-east fort road (3 coins).
42. AE Dupondius, Vespasian (S.F. 137, Gp. AQO) A.D. 69-79
Obv:]SIA[
Rev: S C
43. AE Dupondius, Nerva (S.F. 78, Gp. APU) A.D. 98
Obv: IMP NERVA CAES AVG GERM P M TR
 P II
Rev: IMP II COS III P P S C
 (RIC II, 105)
44. AE As, Trajan (S.F. 140, Gp. AQO) after A.D. 101
Obv:]DAC P M[
Rev: Illegible
- Ditch II* (1 coin).
45. AR Denarius, Hadrian (S.F. 155, Gp. AQQ) A.D. 134-138
Obv: HADRIANVS AVG COS III P P
Rev: FORTVNAE REDVCI
 (RIC, 248)

Unstratified (3 coins).

46. AR Denarius, Vespasian (S.F. 177, Gp. APV) A.D. 69-79
Legends illegible
47. AE, probably barbarous radiate (S.F. 176, Gp. APA)
Second half of third century
48. AE, barbarous imitation, probably Tetricus I
(S.F. 301, Gp. APJ) A.D. 271-273

General Observations (see Fig. 17).²⁸

1. The early part of the series, admittedly on a so far small overall sample, shows that coins of Nerva/Trajan outnumber those of the Flavian period and earlier. On military sites with accepted Agricolan foundation (e.g., Ribchester and Manchester), the reverse tends to be the case, with Flavian outnumbering Trajanic by approximately 2.5 : 1.

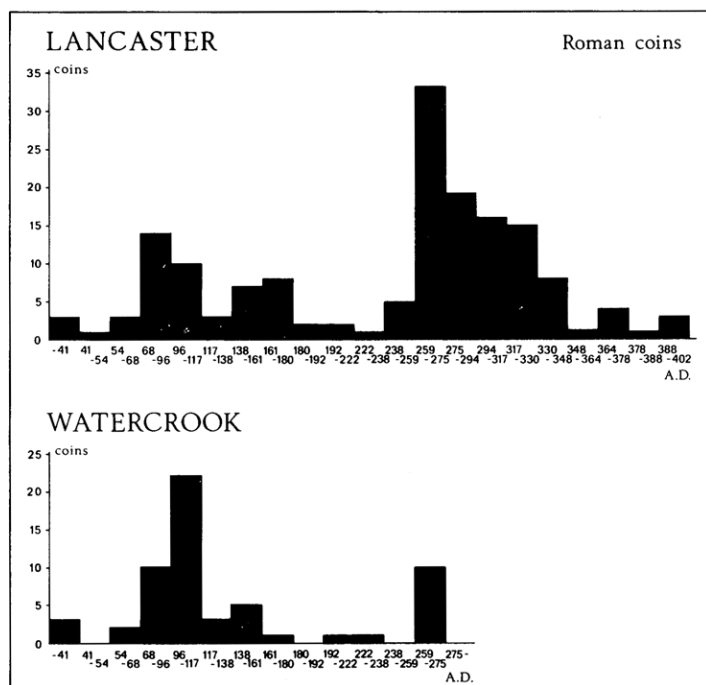


FIG. 17.—Histograms comparing the distribution of coins from Watercrock and Lancaster.

2. The high peak of coins covering the period of Domitian, Nerva and Trajan is quite remarkable recalling the high peak of Flavian coins represented in the sample from the Manchester excavations of 1972.²⁹
3. Emperors of the second century after the Trajanic period are poorly represented (Hadrian 2, Antoninus Pius 2).
4. Whilst there are signs of activity during the Severan period (2 fresh coins of Septimius and Alexander), the latter part of the third century shows a renewed strength — Gallienus (2), Victorinus (1), Radiates (5), of which three probably belong to Tetricus I. It is worth noting that all three coins recorded by North³⁰ belong to this period.
5. No coins were recovered that post-dated A.D. 273. The complete absence of fourth-century coins is a striking feature. This observation applies also to previous excavations and even to reasonably reliable casual finds from the site. The point is clearly made by comparison with Watercrook's near neighbour, Lancaster (Fig. 17).

Previously recorded coins from Watercrook:

- a) Before 1931³¹ — Augustus 1 (AV); Vespasian 1 (AV); Lucilla 1 (AR); Faustina 1 (AE).
- b) 1931 Excavations — Gallienus 1, Claudius Gothicus 1, Tetricus 1.
- c) Casual finds³² (all have been recovered from the deposits being eroded by the river immediately to the east of the 1974 excavations).
 - i) AE Sestertius, Trajan (Legends illegible) A.D. 98-117
 - ii) AE Dupondius, Trajan (*RIC* II, 507) A.D. 103-111
 - iii) AE Sestertius, Trajan (Legends illegible) A.D. 98-117
 - iv) AE Dupondius, Trajan (Legends illegible) A.D. 98-117
 - v) AE As, Hadrian (*RIC* II, 577) A.D. 119-122
 - vi) AE Sestertius, Antoninus (*RIC* III, 1075) A.D. 138-141
 - vii) AR Denarius, Antoninus (*RIC* III, 344) after A.D. 141
 - viii) AE Dupondius, Antoninus (Legends illegible) A.D. 138-161
 - ix) AE As (Legends illegible)
 - x) AE Barbarous imitation, possibly Tetricus I ? A.D. 271-273
 - xi) AR Antoninianus (Legends illegible)

These finds make no significant difference to the trends noted in the coins recovered in the 1974 excavations.

Statistical Summary.

	Site A (<i>vicus</i>)	%	Site B	%	Site C	%	Total	%
Republican	1	3.84	1	6.67	—	—	2	4.17
Nero	2	7.69	—	—	—	—	2	4.17
Vitellius	1	3.84	—	—	—	—	1	2.08
Vespasian	1	3.84	—	—	2	28.57	3	6.25
Domitian	4	15.38	1	6.67	—	—	5	10.42
Nerva	1	3.84	—	—	1	14.29	2	4.17
Trajan	9	34.67	6	40.00	1	14.29	16	33.33
Hadrian	—	—	1	6.67	1	14.29	2	4.17
Antoninus Pius	2	7.69	—	—	—	—	2	4.17
Septimius Severus	1	3.84	—	—	—	—	1	2.08
Alexander Severus	—	—	1	6.67	—	—	1	2.08
Gallienus	1	3.84	1	6.67	—	—	2	4.17
Victorinus	—	—	1	6.67	—	—	1	2.08
Tetricus	1	3.84	1	6.67	1	14.29	3	6.25
Illegible	2	7.69	2	13.33	1	14.29	5	10.42
	—	—	—	—	—	—	—	—
	26		15		7		48	

Notes.

Of the 48 coins, 15 were silver (31.25%), and 33 bronze (68.75%). Of the 15 silver coins 12 were *Denarii* (Republican 2, Nero 2, Vitellius 1, Vespasian 1, Trajan 3, Hadrian 1, Septimius Severus 1, Alexander Severus 1), 3 *Antoniniani* (Gallienus 2, Victorinus 1). The bronze coins were made up as follows: *Sestertii* 8 (Vespasian 1, Domitian 1, Trajan 4, Uncertain 2); *Dupondii* 10 (Vespasian 1, Nerva 1, Trajan 6, Hadrian 1, Antoninus 1); *Asses* 9 (Domitian 4, Nerva 1, Trajan 3, Antoninus 1); Barbarous Radiates 5; totally undecipherable 1.

9 DISCUSSION.

The present excavations at Watercreek, which included within the investigated area a substantial part of the eastern defences of the fort and a modest sample of the *vicus*, yielded a provisional outline history of the site. The evidence now available suggests that the first military occupation of the site did not begin before c. A.D. 90 or perhaps a little later, when a timber-built fort, protected by turf ramparts and a double-ditch system, was established. This does not rule out the presence of an Agricolan fort, which could have been sited at another point in the Kent Valley;³³ but the predominantly Flavian-Trajanic character of the earliest Samian and the paucity of Flavian coins very strongly imply a post-Agricolan foundation for the known fort at Watercreek. Very shortly after the

building of the fort, strip-houses began to appear along the road which left the south-east gate of the fort and then turned eastwards across the Kent Valley. The civilian character of these buildings is demonstrated both by the quantity of domestic objects contained in associated rubbish deposits and by the absence of any distinctive military features in their plan. But this early settlement should, however, probably be regarded as a form of ribbon development rather than as a formal *vicus*, for it is likely that similar buildings were established along some of the other roads leading out of the fort.³⁴

The civilian settlement shows a continuous development into and through the second century but the garrison itself may well have had a more interrupted history. The present indications are that the fort was rebuilt in stone in the late Hadrianic or early Antonine period and that, at about the same period or perhaps a little later, the rampart was raised and extended and the *intervallum* road remade. Whether the fort had a period of abandonment prior to its rebuild is open to conjecture but it should be said that neither Hadrianic coins nor Hadrianic pottery were strongly represented in the sample of material recovered from the area of the fort. However, a garrison does seem to have been maintained during much of the Antonine period (although minor vicissitudes would be hard to detect purely in terms of a numismatic and ceramic series) and, to judge from a slight peak in early third-century finds, may well have been strengthened at that time.

Thereafter, the history of the fort is much more obscure. Both the *vicus* area and the fort are characterised by a marked paucity of mid third-century finds and this may imply a period of abandonment. The artefact series is resumed with a small quantity of later third-century coins and some late third/early fourth-

century pottery, together with some indications of a reconstruction of the fort defences. If so — and the evidence is far from conclusive — then the reoccupation of the fort was short-lived for no fourth-century coins (in a total sample of over 50) have been found and the percentage of fourth-century pottery is very small and could well derive from limited *vicus* occupation or even squatter settlement. This must inevitably cast doubt upon Watercrook's identification as *Alione*, a name which appears in the *Notitia Dignitatum*, a document of fourth-century date,³⁵ and brings into focus the problem of the nature and identity of the garrison. It is hoped that these and other questions will be resolved as systematic exploration of the fort's interior proceeds in future seasons.

NOTE: This paper is published with the assistance of a generous grant from the Department of the Environment.

Notes and References.

- ¹ Eric Birley in CW2 lvii (1957) 13-17 provides a full bibliography; other useful summaries in CW2 viii (1908) 102-108 (by W. G. Collingwood) and CW2 xxx (1930) 96-107 (by R. G. Collingwood). Cf. also *RCHM Westmorland* (1936) 180-181.
- ² D. J. Blundell, A. W. Garside and T. J. Wilton, "Geophysical surveys across the centre of a Roman fort at Watercrook, Kendal". *Prospezione Archeologica* (in press).
- ³ CW2 xxxii (1932) 116-123; CW2 xxxiv (1934) 35-40.
- ⁴ CW2 xlv (1945) 148-162.
- ⁵ This is the most probable reading of a very corrupt text.
- ⁶ Pace North and Hildyard, CW2 xlv (1945) 156, and E. Birley, CW2 lvii (1957) 14. B. R. Hartley (*Northern History*, I (1966) 12) has inferred a post-Agricolan origin for other Lake District forts like Ambleside and Hardknott, from the evidence of the Samian ware.
- ⁷ Miss Philippa Edwards (University of Lancaster) carried out a preliminary geological study of the stones used in the fort wall. Limestone, sandstone and Kirkby Moor flagstone were used in the fort wall core in roughly equal proportions. The sandstone, which was also used as a facing stone, is not a local type, whereas the limestone and flagstone were probably quarried nearby. A calcareous tufa was also represented.
- ⁸ Cf. J. D. Bestwick and J. H. Cleland in G. D. B. Jones, *Roman Manchester* (1974) 143-157.
- ⁹ North and Hildyard record late fourth century pottery (CW2 xlv (1945) 160), but these need not necessarily relate to military occupation.

- ¹⁰ Cf. CW2 xliii (1943) 161; CW2 lxvii (1967) 242. A section of the river bank opposite the central part of Site A was cleaned and drawn by Mr G. M. Leather in 1971.
- ¹¹ *Vicus* development is also likely on the high ground to the north-west of the fort, and traces of buildings there have been detected by geophysical survey.
- ¹² Cf. R. G. Collingwood and I. A. Richmond, *The Archaeology of Roman Britain* (1969) 306.
- ¹³ J. P. Wild, *Britannia* (1970) 145-146.
- ¹⁴ Both of iron. *Proc. Birm. Arch. Soc.*, lxxiv (1958) 24 f., no. 2 = M. Henig, "A Corpus of Roman Engraved Gemstones from British Sites"; *BAR* 8 (ii) (Oxford 1974), 30, no. 183. M. Todd, *The Roman Fort at Great Casterton, Rutland* (Nottingham 1968), 53, no. 18, Pl. iv = Henig, *op. cit.*, 92, no. 705.
- ¹⁵ Of iron. *Trans. Bristol and Glos. Arch. Soc.*, xcii (1973) 208 f., Pl. ii = Henig, *op. cit.*, 112, no. App. 39, Pl. xxv.
- ¹⁶ The upper surface has a bluish tinge. The ground colour of the stone is black.
- ¹⁷ Pliny, *N.H.* XXXIV, x.
- ¹⁸ Cf. M. Henig, "The Veneration of Heroes in the Roman Army", *Britannia* i (1970) 249-265, and especially type 2 on 252-255. Achilles presumably holds the armour of Thetis.
- ¹⁹ *Ibid.*, 254, no. 2a = "Corpus . . .", 66, no. 459 (Heronbridge); C. Leigh, *The Natural History of Lancashire* (Oxford 1700), iii, 81 and Pl. i, 2 = Henig, *op. cit.*, 66, no. 462.
- ²⁰ We are indebted to Mr L. J. F. Keppie for pointing out some very similar examples from Borness, Kirkcudbrightshire and the Victoria Cave, Settle (*PSAS* x (1872-4) 495-497).
- ²¹ *RIB* 752-754.
- ²² CW2 lv (1955) 46 ff.
- ²³ This traditional view is to be interestingly challenged by J. G. F. Hind in a forthcoming paper in a volume on Roman Lancaster. I am grateful to Dr Hind for allowing me to see his paper in draft form.
- ²⁴ *Not. Dign. Occ.*, XL 53.
- ²⁵ *CIL* xvi, 69, 70., 82 and 88: see CW2 xxxvi (1936) 125 for the lead sealing.
- ²⁶ CW2 lvii (1957) 15.
- ²⁷ See section 3.
- ²⁸ Cf. R. Reece, "Roman Coinage in the Western Empire", *Britannia* iv (1973) 227 ff.
- ²⁹ See P. J. Casey in G. D. B. Jones, *Roman Manchester* (1974), 134 f.
- ³⁰ CW2 xxxii (1932) 121.
- ³¹ *Ibid.*, 116.
- ³² I am grateful to Mr A. J. Turner (Curator of the Kendal Borough Museum), Miss M. E. Burkett (Director of Abbot Hall Museum and Art Gallery), and Mr C. A. Ellwood for information about these coins.
- ³³ As at Corbridge where the Agricola fort lay near the Red House Baths, about 1,000 m. from the site of the later fort.
- ³⁴ Particularly along the west road where there are traces of buildings and pottery.
- ³⁵ For which cf. most recently *Britannia* iv (1973) 253-263.