

VII.—ROMAN RUDCHESTER.

REPORT ON EXCAVATIONS, 1924.

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Rudchester¹ has long been known to be the site of the fourth fort from the east end of Hadrian's wall; and like most forts at the east end, it sits astride the Wall. According to the *Notitia*, its Roman name was *Vindobala* and it was garrisoned by the first cohort of the *Frixagi* usually translated as *Friesians*.² Beyond this little was known of Roman Rudchester, even the size of the fort was doubtful. MacLauchlan estimated the area at $3\frac{1}{2}$ acres, although in reality its walls enclose $4\frac{1}{2}$ acres. Relying on Horsley's opinion he thought that the Wall reached the fort just north of the main east and west gates; in reality it strikes the south sides of these gates. He supposed there were four gates; in reality, as at Chesters, there were six.

Bruce and others have repeated MacLauchlan's statements regarding Rudchester, adding nothing to our knowledge. The first object of the recent excavations was to ascertain these elementary facts, and as the fort is comprised in the area to be dealt with in the forthcoming volume of the Northumberland County History, more information regarding it was urgently needed. Hence when in February, 1924, our Society appointed a small excavation committee, it was decided to commence operations by excavating for the south gateway of Roman Rudchester.

¹ Although spelt *Rutchester* by Dr. Bruce and others, *Rudchester* is the form used by its owner, Mr. James, and also on the Ordnance Survey "Map of Roman Britain, 1924," and is now the accepted spelling.

² The first cohort of the *Friesians* were in Britain in 105. They were at one time quartered at *Melandra* and also at Roman Manchester, where as at Rudchester they set up altars to *Mithras*—see *The Roman Fort at Manchester*, by F. A. Bruton, M.A., 1909, pp. 30-47.

South Gateway.—The first trench disclosed the foundation of the spina, or central pier of the south gateway. Though the structure has been stripped of stone down to the Roman ground level, yet a few inches from the south face of the foundation is the builder's setting out line clearly cut in the stone (Pl. V, Fig. 1). This *setting out line* or *hard-line*, as some local masons term it, is 120 degrees from the present magnetic north, and shows where the ashlar rose above the ground level, thus helping to reconstruct the plan (Pl. II). It was a double gatehouse of massive masonry of the type more or less standardised in the Wall forts.³ It consisted of a central pier, or wall pierced by a narrow passage; this wall formed the division between two portals that were spanned by arches at their exterior and interior faces, each with a clear opening about 10 feet wide. Each portal was closed by a two-leaved gate which turned upon pivots shod with iron. When closed the gates shut against a checked stone threshold. The whole was flanked on either side by guard chambers. The position of the doorway to the west guard chamber deserves special notice. The entrance is on the north direct from the fort; thus no one could approach the gate from within unseen by the guard. The eastern guard chamber is entirely destroyed, but its entrance was probably in the usual lateral position as shown on the plan, as it occurs in all the guard chambers at Chesters and Housesteads. There is a parallel to this dissimilar arrangement of the guard chamber doors at Birdoswald.⁴

The west portal of the south gateway was built up at the sill, thus converting it from a roadway into a room. Another alteration to the south gateway, probably made at the time the west portal was built up, was the addition of an inner pair of gates to the east portal. Hadrian's gatehouses originally had but one pair of gates to each portal. These were placed towards the outside of the

³ Recent excavations at the west gateway of Y Gaer have brought to light massive masonry which Dr. Wheeler believes to be pre-Hadrianic. The socket holes for the gate pivots are 11 feet centre and centre—the same as those of Rudchester west gate and almost the same as at the south gate.

⁴ See *Arch. Ael.*, 1st ser., vol. iv, p. 144.



gateway, but in several cases gates were added at the inside. The addition of the inner gates would convert the gatehouse into a blockhouse, or an independent unit capable of defence against an attack from within or without the fort, thus preventing any of the enemy who had penetrated into the fort from opening the outer gates and admitting their friends. A mistake had been made in setting out the pivot hole, which had been first cut in the same line as the pivot hole already existing for the outer gate. But when the outer gate was opened flat against the spina, it would prevent the new gate being fully opened and cause it to project, impeding traffic. Hence a second pivot hole had to be cut, a little further east.

Pl. V, Fig. 2, shows the east side of the base of the north end of the spina; in the offset are the two pivot holes. These are obviously additions and do not occur on the west side of this pier, which was the built up gateway.

Pl. VI, Fig. 3, shows the north wall of the west guard chamber including the west jamb of the doorway and the threshold worn smooth by sandalled feet, also the pivot hole for door.

Pl. VI, Fig. 4, shows the threshold of the west gate of the south gateway. The threshold has a check 3 inches high. It would appear that this would give an awkward jolt to a springless cart crossing the threshold, but perhaps movable wooden ramps were used. A deep check was customary in these Roman gateways, for the pavement within was not very level and the gate had to be given a good clearance of the floor.

Pl. VI, Fig. 4, also shows the building up of the west portal of the south gateway by a wall about 2 feet thick superimposed upon the threshold. Similar building up of some of the gateways of Hadrian's forts has been found elsewhere, and it has been assumed that this was done in the fourth century when the power of Rome was on the wane.

It can, however, be shown that at Rudchester this gateway was built up by about the middle of the second century, for though the fort has been repeatedly and ruth-

lessly robbed of stone and levels disturbed, yet by good fortune an important portion of stratification, showing three levels of Roman occupation, was left undisturbed in this portal.

The building up of this west portal of the gateway converted the road into a room. After the fort was sacked (the lower level of rubbish showed considerable signs of fire) the Romans rebuilt it but did not trouble to clear away the rubbish, simply levelling it and putting a new floor above it.

Pl. VII, Fig. 5, shows the third or top floor as found in 1924. This was carefully removed in layers and a second floor (Pl. VII, Fig. 6) was found about 10 inches lower. This in turn was removed, when the original floor of the room, with a hearth upon it, was disclosed (Pl. VIII, Fig. 7). Obviously the hearth could not have been there when the gateway was in use. Near to this hearth, above the original floor level and below the second floor level in undisturbed Roman strata, was found a piece of Lezoux pottery. It is of the type known as "Puddingpan" pottery and formed part of a bowl about 10 inches in diameter and exactly like one from Puddingpan Rock,⁵ now in the British Museum. The late Professor Haverfield, Mr. Reginald Smith and other authorities agree that this type of pottery came in A.D. 150-160 and went out of use by 190. This piece of pottery dates the first floor level rubbish within the built up gateway as having been deposited in the second half of the second century. Obviously the gateway must have been built up and used as a room for some time before this deposit, hence the building up must have occurred in the second or third quarter of the second century. Other evidence supports this view, for example, the west portal, having been walled up soon after its erection, has a sharp unworn angle at the south end of the spina, whereas the east portal, in use for centuries, has had the angle rounded off by the constant impact of wheels. (See Fig. 1 and Pl. II).

⁵ Pudding-pan Rock in the Thames estuary. See B.M. *Guide to the Antiquities of Roman Britain*, 1922, p. 112.

It may appear from the photograph, Fig. 7, that the sill shows considerable signs of wear, but it is not so much wear as settlement owing to the weight of the superimposed wall.

Pl. VIII, Fig. 8, shows that the checked stone of the sill with the central stop has settled some two inches at its west end, *i.e.*, at the right hand of the photograph.

Drain.—A portion of the floor of the west portal was removed and a drain found running out under the threshold (Fig. 8); but, with the exception of the threshold and one other stone to carry the wall over the drain, it had no cover left either within or without the gateway. The pottery found in the filling in of the drain unfortunately cannot be dated at all closely, but belongs to the first period of the pottery found in the fort. It would be undesirable to have a drain immediately under the floor of the room and it would appear that the drain was filled in when the portal was built up and converted into a room. The drain was evidently known to the builders of the gateway, for the longest stone of the threshold is that bridging the drain, and the fact that this stone and the flagstone outside, which together carry the walling up of the gateway, are the only two cover stones left, indicates that the drain was filled in at, or after, the walling up of the gateway.

The south gate yielded evidence sufficiently satisfactory to justify further excavations, but before describing these, it may be well to give a brief sketch of the fort of Roman Rudchester (Pl. I).

The Roman method of warfare was not to fight from behind walls,⁶ but to seek the enemy in the open field. Nevertheless the Romans by choice always slept behind walls, hence when at night they pitched their tents they dug a trench round them, forming the upcast into a rampart. The commander's tent was always in the centre and those of the troops were arranged round it in the form of

⁶ In the second century the Roman soldier's short sword and throwing-spear were unsuitable weapons for that sort of work. Archers did not constitute any considerable part of the troops on the Wall until some two hundred years later. R. G. Collingwood, F.S.A. in *Roman Britain*, p. 32, and *The Vasculum*, vol. viii, p. 5.

a rectangle, where the lie of the land permitted it, with a clear space for the troops to fall in between the tents and the rampart. In course of time these marching camps became standardised. In Hadrian's time the gatehouses, walls and most of the interior buildings were of stone, nevertheless the transition from camp to castle did not greatly change the general arrangement.

At Rudchester, as at Chesters, there are four main double gateways with their guard chambers and two single or postern gates. The external stone walls were 5 feet thick and served as retaining walls to a bank of earth raised against their inner sides, thus forming strong ramparts which afforded space on the top for the concentration of the defenders and also for platforms for military engines. The rampart walk was continued over the gateways on timber gangways and the guard chambers formed an abutment to the ends of the earth backing. As there were no guard chambers to the postern gates there was a strong return of the stone wall to retain earthen ramparts at these positions. The four corners were rounded off because these forts were developed from earthworks and earth does not easily retain a sharp angle. There were turrets at each angle, and sometimes intermediate turrets, as at Chesters. The centre of the fort was devoted to administrative quarters and roads from all gates led to it. The headquarters varied in detail but presented certain fixed features. The building facing the main street consisted of an open court surrounded by a portico, leading to an inner court having at the back a range of rooms usually five in number. At Rudchester there were five, of which the central chamber formed the Shrine or Chapel of the Standards, the focus of the fort. The discipline and esprit de corps of the Roman army were closely bound up with the veneration of the glittering standards enshrined within these chapels.⁷ In the third century a cellar or strong room was built beneath the Chapel of the Standards. The rooms on either side were offices for the transaction of regimental business. The remainder of the centre third of

⁷ Bosanquet, *Arch. Ael.*, N.S. xxv, p. 227.

the fort was occupied by the commandant's house on the one side, and on the other were the store houses or granaries. The garrison was quartered in the two ends, the main body being in the north, which projects beyond the Wall. The excavations proved the fort to be in many ways like Chesters, though on a slightly smaller scale. This difference of size may be accounted for by the fact that their respective garrisons belonged to different branches of the army, that at Rudchester being infantry, whereas Chesters was garrisoned by cavalry and therefore required extra accommodation for the horses.

Rudchester is bisected by the modern Newcastle and Carlisle road which covers the junction of the Great Wall with the fort, and other important parts.

S.W. Angle.—Trenches were cut in the S.W. angle in the hope of tracing the angle turret; a late flagged floor, consisting mostly of re-used stones, was found (Pl. IX, Fig. 9). This was left undisturbed and the foundations of the angle turret, if still existing, are beneath it.

W. Postern.—The foundations of the south side of the west postern gate were uncovered. Near its north edge was again a setting out line exactly 120 degrees from the north (Pl. IX, Fig. 10).

E. Postern.—From the west postern gate a street ran straight across the fort to the east postern gate. Near the east end a trench was cut, which disclosed part of the pavement of the street (Pl. X, Fig. 11), very much worn by feet and also two wheel ruts 5 feet 3 inches apart. There is also a curious small hollow worn in one of the stones. (A similar smooth worn hollow exists in the pavement of the east postern gate at Chesters.) In this trench was found the upper half of a small altar of the local millstone grit, the only one brought to light (Pl. XIII, Fig. 18). It has a remarkably well-defined focus, but no inscription.

The Store House or Granary.—A trench cut in the line between the east and west posterns revealed a stone channel on the north side of the street connecting these two gateways. Abutting on the north side of this channel

the massive masonry of a portico or loading platform of a granary was found. Pl. X, Fig. 12 shows the S.E. angle with a rectangular sinking fourteen by twelve inches in its upper surface for an angle post. This platform is 32 feet long east and west and 10 feet wide north and south. Its two ends were traced northwards revealing a large granary with buttresses on each side (Pl. XI, Fig. 13). The east side was traced up to the hedge at the edge of the Newcastle and Carlisle road, at which point it was so robbed of stone as to leave no further traces; but the west side was found 4 or 5 courses high in the grass at the side of the road, under which it disappears. A trench was therefore dug at the north side of the road in a line with the end of the granary to ascertain how it had abutted on the Roman street. The removal of a large stone found here disclosed the right angle joint of a drain. Pl. III shows the plan of the granary. The north end, being under the road metal, was not explored, but if the completion of the northern bay and a 10 feet loading platform, the same as at the south end, be allowed for, the granary would occupy exactly the space between the two streets running east and west and would measure 121 feet 6 inches long, or with the two 10 feet platforms, 141 feet 6 inches, thus being the largest Roman granary on the Wall. Floor space was the main consideration in a granary. The interior dimensions of the single granary at Rudchester are 115 feet 6 inches by 23 feet, equalling 295 square yards of floor space. The two granaries at Chesters together only contained 213 square yards of floor space.⁸ Roman granaries were usually built in pairs, but a single trench running 16 feet west, revealed no sign of another granary; there may or may not have been another. Rudchester has, within living memory, been a great grain producing area, and perhaps in Roman times it produced more grain than necessary for the garrison and the large granary may have been used partly for storage pending export. The Britons had to

⁸ Housesteads, 266 square yards; Rough Castle, 115 square yards; Hardknot, 157 square yards; Barhill, 202 square yards; High Rochester, 430 square yards. These figures have been worked out by Mr. R. G. Collingwood, F.S.A.

supply the Roman army with a fixed contribution of corn. In the second and third centuries quantities of corn were shipped from Britain to supply the needs of the Roman garrisons on the Rhine. Indeed, the production and distribution of corn was an affair of the imperial Roman government, forming an important branch of its economic policy. Part of the pay of the soldiers was a daily allowance of unground corn, which had to be ground, thus accounting for the number of broken handmills found in most Roman forts. Five fragments, all of local sandstone, were found at Rudchester.

Parallel with the granary, and occupying the centre of the fort, was the headquarters, frequently called *praetorium* or *principia*. Its entrance would be from the main street on the north, leading into an open courtyard surrounded by a portico. Behind this, a second smaller court also with a portico, at the back of which was a row of offices. A trench was cut through these. The two westernmost appeared to have been the offices of the regimental record keepers; the floor consisted of large flags covered with cement (Pl. XI, Fig. 14), and there was a flue in the division wall between the two chambers (Pl. XII, Fig. 15), showing considerable signs of fire, the sandstone being turned quite red. This chamber was the *tabularium* where the regimental accounts were prepared and kept. The corresponding chamber at Chesters has a large rectangular hearth in the centre—obviously the clerk would require some such comfort. The central chamber as usual had been the Chapel of the Standards, under which was the treasury.

Treasury.—Early in the third century there was added to many Roman forts in Britain a treasury in the form of a cellar under or near to the Chapel of the Standards. At Chesters it is entered from the Chapel of the Standards, but is in the next apartment and is vaulted over, the vault being mostly above ground. At Rudchester (Pl. XII, Fig. 16), it is an obvious insertion under the Chapel. The walls of the cellar are inside the foundations of the Chapel, much of the space between packed with clay to keep it

dry. The floor was also of clay. It is 10 feet 6 inches by 6 feet 7 inches and had been ceiled by corbelling over with flat slabs of stone (Pl. XII, Fig. 16). The top of the ceiling being but little above the ground level the floor of the Chapel of the Standards had been raised two steps, the lower of which was found *in situ* and a large portion of the upper step was lying in the treasury. There were six steps down to the cellar. Pl. XIII, Fig. 17 shows the foot of the stairs. In the cellar was found a considerable quantity of coloured wall plaster, and, though similar plaster has been found at Chesters, there is little doubt that the bulk of the buildings in the fort did not rise to such heights of luxury. In the cellar was also found a base and portion of the shaft (Pl. XIII, Fig. 18), which probably had formed part of the shrine above.

A British halfpenny of 1924 was placed in the filling in of the cellar to indicate to future explorers the date of the present investigations.

The two easternmost chambers were not cleared out.

The trench was carried eastward, revealing a flagged floor, the first flag struck being 4 feet square; the next flag, being broken, was lifted and 12 inches below its level was found an earlier floor consisting of *opus signinum*, *i.e.*, a concrete made with crushed bricks or tiles and lime. It would therefore appear there was a considerable quantity of broken brick about when the first floor was laid. Many fragments of stone and brick roofing tiles were found near this spot, which no doubt was part of the commandant's house. But the only building bricks found were in a hypocaust pier of a large building struck by this same trench, a little further east. The reason that Roman bonding tiles are not common on the line of the wall is that good laminated stone is plentiful here. But stone will not stand burning so well as bricks do, therefore the piers of a hypocaust near to a furnace at Chesters are made of brick whilst others, more remote from the fire, are of stone. This brick pier probably indicated the vicinity of the furnace, but at this point the excavations were discontinued.

The eastern outer wall of this building had large external buttresses (Pl. XIV, Fig. 19) which, if judged by the rule, the later the work, the worse the masonry and mortar, must be late indeed.

The Great Wall.—A trench was cut in the grass on the north side of the Newcastle and Carlisle road ten feet west of the west face of the fort. By burrowing southwards under the road 5 feet 5 inches below the present surface a good north face of the base of the great Wall (Pl. XIV, Fig. 20) was found. It is here unusually elaborate, consisting of a footing of coarse white stone $6\frac{1}{2}$ inches deep and projecting 7 inches beyond the course above it which is 1 foot 2 inches deep and projects 3 inches beyond the next course above, which is 12 inches deep and has a curved face with a 3-inch drafted margin at the bottom and a 2-inch drafted margin at the top.

On the north face of the Wall was found a single loose stone having a chamfer worked on one edge and the rest of the stone left rough. It had obviously formed part of a chamfered string course at the parapet level. A similar stone was found lying at the north side of the Wall a little west of Chesters and Mr. Simpson has found several stones similarly worked lying at the foot of the north side of the Wall. The German *Limes reports No. XI. Kastell Wörth*, p. 6, shows a section of fallen wall with a similar slab *in situ*.

The West Double Gateway.—The first trench dug for the west gateway (Pl. XV, Fig. 21) disclosed the foundation of the central pier. On it is a setting out line exactly 30 degrees from the north. It has been observed that the Romans thought in right angles; 30 degrees plus 90 degrees gives exactly the 120 degrees of the setting out line of the south gateway. Not that the Romans oriented their forts by the sun or the magnetic north, but having settled upon the aspect, they set out these two gates 100 yards apart, exactly at right angles to each other.

The west double gateway proved to be very similar in character to the south gateway, and rather more of it remains, but some of the best preserved portions are under

the Newcastle and Carlisle road. The north portal and its guard chamber have almost entirely disappeared, though what remains of the south half is sufficient to reconstruct the plan (Pl. IV). The width of the guard chambers, however, is not known precisely, for no portion of the north one was found, and the remains of the south guard chamber are entirely under the road metal. Pl. XV, Fig. 22 shows parts of the foundations of the central pier and also portions of the sill of the north gateway and of the wall by which the portal was built up. As at the south gateway, so here, after the building up it was used as a room. Then over that floor was an accumulation of rubbish; over that again a flagged floor at a higher level. Again, within this building up and under the later flagged floor several pieces of Puddingpan pottery were found. Following the foundations eastwards the east end of the spina 5 feet $7\frac{1}{2}$ inches high was found (Pl. XVI, Fig. 23). It is a piece of Roman masonry second to none in any fort on the line of the Wall. Each course is a single stone the full width of the pier, 3 feet 10 inches, and each stone has a drafted margin and a rock face usually termed "rustic masonry," whilst the west face is checked out to allow of the stones of the divisional wall being housed into those of the pier. Only one course of this divisional wall now remains and as the west end of it is also rock-faced, it obviously was not built against but formed the east jamb of the narrow doorway through the wall (Pl. XVI, Fig. 24). The top stone of the pier was only a few inches beneath the sods and has been left uncovered so that the position may be located at any time. The stones are too heavy to be man-handled, therefore in the centre of the top is a dovetailed hole for a lewis used for setting the stone in position (Pl. XVII, Fig. 25). Lewis holes are frequently found in large Roman stones. It is a current belief that the three legged lewis (Pl. XVII, Fig. 26) was used by the Romans for lifting these stones but the bevells at the two ends of this lewis hole vary, and still more important, the length of lewis holes varies considerably—thus at Chesters one at the headquarters is

3 inches by $\frac{5}{8}$ inch and one at the east gate 4 inches, another at the same gateway 5 inches. For the three legged lewis, the holes should be all the same size and certainly must not vary in length more than $\frac{1}{2}$ inch or so. A three legged lewis made for a 3-inch hole will not work in a 5-inch hole. There is however a two-legged form of lewis (Pl. XVII, Fig. 27) which will work in holes varying in length. It consists of two curved plugs of iron so arranged back to back that when the tackle is tightened their heads are drawn together and their feet spread out, accommodating themselves to varying sized holes and gripping the stone whether both bevels are alike or not. This two-legged form of lewis seems more suitable for varying sized holes than the three legged.

The pier at the north east angle of the south guard chamber is also standing to the same height, nearly 6 feet, indeed there are but a few inches of road metal above it and in the evening when the sun is low and the shadows long the pier shows as a distinct rise in the roadway. The sill of the south portal is under the grass between the road metal and the modern wall which bounds the Newcastle and Carlisle roadway on the north (Pl. XVIII, Fig. 28). It also had been built up, and this building up must have been done very soon after the gateway was made, for the sill shows no sign of wear; not only no sign of wear by wheels, but not even by hob-nailed sandalled feet. The masonry of the building up is good but has tilted somewhat to the west, the reason being that the east edge is resting on the large stones of the sill, whereas the foundations of the west side are merely builders' chips. Unlike the south gate, this sill has no central stop stone where the two leaves of the gate met. (The west and south gates at Chesters differ in the same manner.) At the south end of this sill not only was the iron pivot of the gate found *in situ*, but also the iron cup in which it had turned (Pl. XVIII, Fig. 29). The iron shoe for the pivot is 3 inches in diameter and $2\frac{3}{4}$ inches in height, much oxydised, and has what appears to be a lug for attachment to the foot of the gate. When found the interior of the socket contained

fragments of wood. The cup in which it turned consists of a block of iron 4 inches by $3\frac{3}{4}$ inches and $1\frac{1}{2}$ inches thick, having in its upper surface a cup-shaped sinking $\frac{3}{4}$ inch deep for accommodating the pivot of the gate. The iron cup was let flush into the sill, forming a socket superior to the usual form where the pivot merely turned in a hole in the stone. It is believed to be the first of these iron sockets found on the line of the Wall, but there is evidence that they were used elsewhere, for at the east gateway at Chesters there is at each end of the sill a rectangular hole which has puzzled many (Pl. XIX, Fig. 30). The obvious explanation is that originally these rectangular holes contained iron cups as at Rudchester. Iron shoes for the pivots of gates were also found at the west gate and at the west portal of the south gateway at Chesters; there, as here, the gates had been left when the gateways were built up. Leaving the gates in position was not intended to deceive the enemy, for in the examples named at Chesters and Rudchester, the walling-up stood on the sills and filled up the archways just outside the gates, hence the gates were no longer visible externally.

That the built up gateways of both Chesters and Rudchester have unworn thresholds is obviously because they were seldom or never used. The first stage may have been that, so many gates being unnecessary and a weakness, they were habitually kept closed. The second stage may have been that to save the provision of a guard at these gates they were walled up outside. In any case it would appear that after the building of the great Wall the east and west double gateways would be rendered useless, for the Wall was carried up to the fort on a line just south of these gateways (Pl. I). Hence anyone issuing from these gateways would be confined to the berm some 20 feet wide, by the Wall on the one hand and the ditch on the other. There may have been facilities for crossing the ditch but if so they would be a weakness from a military point of view.

At Rudchester, in every case, the building up has been left as found during the recent excavations.

But why and when were they built up?

It has usually been thought that they were built up in the fourth century. Indeed Dr. Bruce,⁹ referring to the south gateway at Chesters, states that "towards the close of the period of Roman occupation the garrisons became weak and demoralised. They no longer depended on their valour or their generalship, but availed themselves of mechanical contrivances to protect themselves from the foe. Among other things, they diminished the size of many of their gateways and walled up others altogether." But Dr. Bruce gives no reason for his opinion that the building up was done towards the close of the Roman occupation. The new evidence at Rudchester is that there it was done either when the Great Wall was built, or else these gates were kept closed from that time and walled up soon after, probably not later than the second or third quarter of the second century. Of these two alternatives the evidence seems to favour the first but does not amount to proof.

The importance of the new evidence is, that it indicates that it was neither lack of Roman valour nor disaster to Roman arms that caused the gates to be built up; but rather, that the progressive experiments which the Romans made on their first fixed frontier in Britain culminated in the building up of the gateways,¹⁰ probably simultaneously with the linking up of the forts by the great Wall which stretched from sea to sea.

MINOR OBJECTS FOUND IN THE EXCAVATIONS.

Iron.—One iron spearhead, 7½ inches long, with a conical socket and triangular point.

One mason's trowel.

A large number of nails.

Bronze.—A bronze ornament, possibly a phalera, Pl. XIX, Fig. 31, shows it full size.

⁹ *Handbook to the Roman Wall*, 5th ed., p. 90.

¹⁰ At Chesters as well as at Rudchester both portals of the west gate and the west portal of the south gate were found built up. But it would appear that at Chesters both portals of the east and west double gateways and one portal of the double north and south gateways were built up leaving four single gateways, and that this was done as part of a general policy, for later forts have usually but four single gateways; for example, Ilkley and Elslack, Yorks.

Four fragments of the umbo of a shield.

One handle of a skillet, $5\frac{1}{2}$ inches long.

A fragment of the bottom of a skillet with raised rings.

One disc, $1\frac{1}{2}$ inches in diameter with a broken loop behind it.

Fragment of a strap fastening.

Sundry pieces of thin bronze plating.

Glass.—A fragment of a native glass bangle.

A piece of Roman window glass.

Bone.—A bone pin with multi-faced head, $4\frac{1}{2}$ inches long, now in the possession of Mr. James of Rudchester.

Pins were used for the hair as well as the dress, there does not appear to be any special feature distinguishing one from the other, possibly many were used indifferently for either purpose.

In addition to the architectural remains already mentioned, there were found two fragments of impost moulding (left with Mr. James at Rudchester) and a much damaged fragment of moulded stone, now in the Black Gate museum.

Two spindle whorls were found, one is made of a piece of Samian ware; they are perforated discs designed to act as flywheels and prolong the twist given to the spindle in spinning, by the thumb and forefinger. One is $1\frac{1}{8}$ inches diameter and the other $1\frac{1}{4}$ inches diameter.

There were also found two similar unperforated discs made of sandstone, sized $1\frac{1}{2}$ inches and $1\frac{3}{4}$ inches. These are usually called checkers and were doubtless used in playing some such games as draughts but they probably came to Britain in the form of stoppers for amphorae. Mr Thompson of Housesteads found the broken neck of an amphora with one of these discs cemented into it. Owing to the strange ways of souvenir collectors it has disappeared.

Three pieces of coal were found at a low level in the trench across the commandant's house. These probably came from some local outcrop. Though the Romans generally used wood and charcoal for their fires, they were aware of the use of coal for heating.¹¹

Coins.—During the excavations fourteen coins were found, the earliest being one of Hadrian's third consulate A.D. 119 onward; the latest Magnentius, A.D. 350-353.

Several of the coins are almost illegible, except to an expert with an intimate knowledge of Roman coinage. Mr. H. Mattingly of the British Museum, Col. G. R. B. Spain, F.S.A. and Mr. Percy Hedley have kindly identified the series. The earliest coin, no. 1, is one of the most interesting, for the obverse bears the head of Hadrian, the builder of the fort and the Wall, the reverse shows Britannia with shield and spear. A modification of this design was adopted by Charles II. for the reverse of British copper coinage, a design still used by the Royal Mint and thus familiar to all.

¹¹ *Cornelii Taciti de Vita Agricolaë*, by J. G. C. Anderson, M.A., Clarendon Press, 1922, p. 182, and B.M. *Guide to Roman Britain*, p. 12.

COINS FOUND AT RUDCHESTER, 1924.

HADRIAN.

1. *As.* *ob.* **IMP CAESAR TRAIANVS HADRIANVS AVG.** Bust r.
rev. **PONT MAX TR POT COS III. S C. BRITANNIA.**
 Britannia personified seated on a rock and holding a spear; by her side a shield. Hadrians third consulate was A.D. 119-138.
2. *As.* *ob.* **HADRIANVS AVG COS III P P.** Lauriated head r.
rev. **(AEGYPTOS. S C.)** Egypt personified reclining l., holding sistrum. Left hand resting on a shield. In front, an ibis.

FAUSTINA I.

3. *As.* *ob.* **(DIVA) FAUSTINA.** Bust r.
rev. **AETERNITAS** Temple of six columns with statue of Faustina A.D. 138-161. (Cohen No. 64.)

FAUSTINA II.

4. *As.* *ob.* **FAVSTINA AVGVSTA PII AVG FILIA** Bust r.
rev. Inscription illegible. Female figure l. Circa A.D. 146-160.

COMMODUS OR M. AURELIUS.

5. *Sest.* *ob.* Inscription illegible. Laureated head r.
rev. Inscription illegible. Fortune seated l. Circa A.D. 161-172.

SEVERUS ALEXANDER.

6. *Base Denarius.* *ob.* **IMP SEV ALEXANDER AVG** Laureated head r.
rev. **ANNONA AVG** Abundance r with cornucopia. A.D. 222-235.
7. *Silver Denarius.* *ob.* **IMP C M AVR SEV ALEXAND AVG** Laureated head r.
rev. **PIETAS AVG** Piety l. holding patera and sacrificing on altar. A.D. 222-235.
8. *Silver Denarius.* *ob.* **IMP SEV ALEXAND AVG.** Laureated head r.
rev. **P M TR P COS III P P.** Mars. l. holding branch in r hand and shield and spear in left. A.D. 229 (Cohen No. 365).

This coin has been cleaned and is now in a mint state.

GALLIENVS.

9. *Base Denarius.* *ob.* **GALLIENVS AVG** Radiated bust r.
rev. **LIBERO P CONS AVG.** Panther l. B in exergue. A.D. 253-268.

CLAUDIUS GOTHICUS.

10. *Æ* 3. *ob.* (IMP CLAVDIVS AVG) Radiated head r.
rev. Illegible. A.D. 269-270.

TETRICUS.

11. *Base Denarius. ob.* IMP C TETRICVS P F AVG. Radiated head r.
rev. PIETAS AVGG. Instruments of Sacrifice.
 A.D. 267-272.

MAXIMIANUS.

12. *Æ* 2. *ob.* IMP MAXIMIANVS AVG Laureated head r.
rev. GENIO POP ROM. The genius of the Roman people
 1. holding cornucopia and patera. A.D. 286-305.
 The best preserved of the copper coins and one of considerable interest.

CONSTANTINE II.

13. *Æ quinarius. ob.* CONSTANTINVS IVN NOB CAES
rev. GLORIA EXERCITVS Two soldiers carrying spears and standards. A.D. 330-337.

MAGNENTIUS.

14. *Æ* 3. *ob.* Illegible.
rev. Christian monogram between the letters Alpha and Omega. A.D. 350-353.

REPORT ON THE POTTERY FOUND AT RUDCHESTER.

By M. R. HULL.

The pottery fragments are of the usual character which is to be expected on the sites on the Wall. Little dating has been possible owing to the absence of stratification. The only sealed deposits were the filling of the drain under the South Gate, and the fillings behind the sealed portals of the South and West Gates, while the disturbed nature of the remainder of the site may be gathered from the intermixture of early black polished ware, Samian, and "vesicular" ware which was produced from every point of the excavations. It is not surprising to find that, while in no case could any considerable portion of a vessel be put together, yet fragments which fitted each other came from several different localities.

The periods referred to in the following report are those of the milecastles and turrets. It is not certain as yet whether these coincide with the occupations of the forts, but in the present case no further evidence is forthcoming, unless indeed the rather larger proportion of Castor ware and of the fourth century "vesicular" ware, which is more in bulk than any other class, may be regarded as evidence of a longer occupation of the forts than of the smaller establishments.

The similarity between the pottery of Binchester and that of the Wall, which is very marked, may be pointed out here, especially as in several points there are common peculiarities. The painted "hook" pattern is only found elsewhere at Ambleside,¹² and then in only one case. No. 91 is only paralleled at Binchester as far as I can discover.

The provenance of the pieces is indicated by the following letters—

A. South west angle, disturbed levels, mostly near surface. B. Praetorium. C. Behind west gate, higher level. D. North west end of granary. E. South west angle, last level. F. North side of west turnpike. G. South side, disturbed level. H. Trench X. I. West gate. J. West postern. K. East of the south gate. L. Filling in of the west guard chamber, south gate. M. Filling in of drain under south gate. N. Trench, south face of the camp. O. Inside south gate. P. South west angle, all found together. Q. South west angle. R. Trench X, south of praetorium. S. Under flagstones north of road. T. Behind west gateway lower level. U. Under 2nd floor, north of south gate. V. Upper level, south gate. W. Praetorium, clerk's office. X. North face of the wall, west of the fort. Y. South gate, just above Hadrian's original floor level. Z. East postern, disturbed level. ZA. Commandant's house. ZB. West of south gate. Zc. Granary.

The periods are, according to Gibson and Simpson.

I—Hadrian to about 180; II—about 180 to about 270; III—about 270 to about 330 A.D.

TERRA SIGILLATA.

Form 37. The fragments represent 13 different vessels, of which 10 are of good ware and glaze and therefore come from central Gaul or are of the earlier period of the eastern Gaul potteries, the remaining three are of light coloured, very soft clay, the poor glaze being worn off the higher parts of the reliefs. The latter are not good and date to the decline of the trade in east Gaul.

No. 1. Fine hard clay with a hard and bright but chippy glaze. Ovalo with corded tassels, decoration in panels. The upright ornament between the bead rows is used by **DIVIXTVS**, Trajan-Antonine.

No. 2. Similar ware but thicker, glaze not so good, pale red. The style of decoration gives it approximately the same date.

No. 3. Small rim frag. of very good ware showing a small neat ovalo with corded tassels ending in a star. The narrow plain band above indicates an early date.

Nos. 4, 5, and 6. Rim fragments with broad, plain margins, each just showing the beginning of the ovalo. Glaze good.

¹² I have, since writing the above, seen the same pattern on the same ware among the pottery found by Mr. F. G. Simpson at Borcovicium now at Chesters museum.

No. 7. Frag. of a small ovalo, not very good.

No. 8. Frag. showing style of large medallions (?) Antonine.

No. 9. Three pieces of a very thick and soft bowl. The large scroll here illustrated was very popular about 140-170 A.D. It is found in nearly every collection of Terra Sigillata covering that period.

No. 10. Another fragment in the same ware and showing the same scroll but smaller.

No. 11. This thick sherd is so much burnt and chipped that little can be made of it. The style is late German.

No. 12. Piece of a thick heavy base, probably from Rheinzabern.

No. 13. Frag. of a rim in fine ware with an excellent glaze.

Form 72 Dech. Rim only, in thin hard ware with a poor, but bright and hard, glaze. Probably from Rheinzabern 160-200 A.D.

Form 45. Nos. 15-21 rim fragments only. This form is not found at Newstead, but is very common at Niederbieber (190-260 A.D.).

No. 22. Diam. 8.5 ins. The bead on the rim is much broken so that it is difficult to say how far it stood up. The form begins about the middle of the first century. It appears at Gellygaer (Dom-Hadr.), but also at Newstead in Antonine times (Curle Pl. XL, 21). Zc.

Form 33. Nos. 23-26. Common throughout the second and third centuries.

Nos. 27 and 27A. Rim frags. of the form May, York Pl. III, 14, and midway between Ritterling's form 1 (Claudian Hofheim) and Walter's 79 which is mid second century. The ware is fine and thin and the glaze very good.

Nos. 28-32 are probably of form 31. About 60 small fragments belong either to form 31, or are half and half (18/31).

Nos. 33-38. Bases of form 31 or Ludovici Sa or Sb. These include the only two stamps found. No. 33 is a piece of a heavy base with a high kick, bearing the stamp . . . ANCN1. *c.f.* Silch. MAIANCN1 on form 33 poor, also MAI . . . CN1 and MAIAICN1, where the potter is said to be of Lezoux. The stamp MAINACN1 occurs also on a vessel from the Pan Rock (150-190 A.D.). Found behind the west gateway. No. 34 is a frag. of a similar base bearing the stamp BELL . . . Probably BELLNICVS, Hadr.-Ant. (Newstead II). There is a stamp BELLVS found at Pfünz and Rottweil but in ruder lettering. No. 35 is a large frag. of a bowl, form Ludovici Sb, almost identical in outline with the vessel referred to above from the Pan Rock. (Illustr. Oswald & Pryce, XLVII, 6). Glaze and clay quite good, roulette notched wreath inside base. From S. gate. Just above the original floor level. Nos. 36-38 frags. of three similar bases.

No. 39. Frag. of a very massive base of a bowl, good light red glaze, probably Rheinzabern late 2nd century.

COARSE WARE BOWLS AND PLATTERS.

No. 40. Most part of a bowl with straight sides obliquely set, and flanged rim. Clay pale grey, fine, medium hard, surface carefully smoothed inside and out, of an even light drab grey colour. Height 2", Diam. 6", *c.f.* Poltross Pl. V, 18, 19 and 20 (period II also III), Corb. 1911, No. 71.

Nos. 41-45. Rim fragments of same type in the same elegant finish and pale greyish white clay with smooth drab grey surface. Diam. 6" to 8". From W, B, F, G, and H.

No. 46. Same type. Clay whitish, smooth, drab coated. Diam. 7.5". ZA.

No. 47. Same type. Thicker and more horizontal flange, clay whitish, coated a smooth grey black. D. Diam. c. 10.5".

No. 48. Same type. Several frags. of a high sided vessel from B, clay greyish white, black coated and smoothed. Good ware. Height about 3.75", Diam. 9.25". From B also came a side frag. and flat base of another similar bowl in fine black polished ware of the same clay.

No. 49. Smooth, well made grey bowl of similar form, scored wavy line round interior wall. Diam. 10.25", clay fine, hard, grey.

No. 50. Rim of bowl of doubtful form, perhaps like the foregoing, dark greyish clay burnt red near the surface and slip coated a smooth matt red, soft. Diam. c. 8.5". B.

No. 51. Frag. of a ledged rim in similar technique. Offset inside like May, Hambleton No. 103 (Arch. LXXII) and Islands Thorns, New Forest, Pl. VIIIa, 4th cent.

No. 52. Large and heavy. Clay gritty black (cooking pot ware) surface roughly smoothed and mottled by fire from blackish to light drab. I. Diam. 13.5".

No. 53. Rim like No. 40. Clay light in weight, core coarse grey-black, surface dull grey, rim and interior smoothed, exterior wall scored looped lines. Diam. 9". ZA.

No. 54. Later form of the same type. Wall curved outwards, clay, hard, coarse and heavy rim clumsily formed. Diam. 8.25". R.

No. 55. Almost identical with the last. Diam. 7.5". Soft clay. A.

No. 56. Frag. probably like No. 40. Clay as No. 48, smooth black polished inside and out, wavy line scored between scored girth grooves on interior wall. C.

No. 57. Frag. of a flanged and beaded rim from E. Light dirty drab clay, soft and much pitted. Diam. 8.25". Pieces of five or six similar rims came from F, J, ZB, S, and N. One in a soft creamy white ware. All too crumbled to be any use.

No. 58. Clay grey, coated a smooth dead black, forms a link with the next type, the demarcation between flange and beading being merely a groove on the horizontal rim. J. Diam. 8.5", *c.f.* May, Silch., p. 115, remarks on *ibid.*, Pl. XLVIII, 60. Period I.

No. 59. Black cook-pot ware. The clay shows three distinct bands of colour in the break, that on the interior is burnt dull red, the core is dark grey-black, the exterior has originally burnt red,

but has soaked up the black colouring matter from the surface. Coated black inside and out and scored intersecting curved lines outside. Diam. 7.5", Height 3". The frags. came together from U, E, O, and D.

No. 60. Another similar, clay well washed, rather soft, showing the same layering. Black coated and polished. Diam. 10.25". ZB.

No. 61 and 62. Frags. of heavy ledged rims. The former in hard grey clay, surface burnt black to a lightish drab. Diam. c. 9". G. The latter in light drab-buff, hard clay, may be a light pelvis. Diam. c. 12". I. C.f. High House M/c., No. 123 (not strat. "very like a common 4th cent. type").

No. 63. Small frag. of a bowl with flange set low down like Poltross Pl. IV, 33 and Huntcliffe Nos. 6 and 7. Clay coarse, light red-buff, coated a brilliant smooth red slip outside, inside left rough. Diam. outside ledge 6.5". F. These bright red imitations of the T.S. form 38 were extensively manufactured by the New Forest potteries in the fourth century. Polt. IV, 33, is grey and of the second period. (Not illustr.)

Nos. 64 and 65. Clay dark grey black, hard, surface finely black polished inside and out. Diam. No. 64, 9.5" (lattice pattern outside) No. 65, 7". Z. It is impossible to say whether these belong to dishes or bowls, c.f. Poltross Pl. III, 31 and 32 (period I), *ibid.*, 5 and 6 (period Ia), Newstead Type 49, and Fig. 26, Nos. 1-6 (Ant.), Balmuildy XLVII, 1-5 (Ant.), it occurs at Appletree turret in period Ib, and is even found at Gellygaer.

Nos. 66-70. Dark grey clay black coated, No. 69, of soft light red clay. Average diam. about 8". From Zc, I, and B, c.f. Corb. 1911, No. 81. Housesteads Fig. 55, No. 9 (*Arch. Ael.*).

No. 71. Hard, coarse, dark grey clay, surface not smoothed. Diam. 8.5". From B. C.f. Haltwhistle Burn No. 18.

Nos. 72-75. Platters with grooved rim. 72. Dark grey cook-pot ware, interior surface well smoothed and polished, outside brownish, vitreous, not smoothed. Diam. 8.25". L. 72a, coarse dark grey. 73. Clay fine, greyish white, surface carefully smoothed and fumed pale grey. Diam. 5", Height 1.25". A. (Poltross Pl. III, V, 22. Period III). 74. Frag. like 72, clay as last, but slip coated a fine, soft, light grey. Diam. c. 7.25". ZB. 75. Outline as last, hard grey clay, surface smoothed. Floor slightly raised. Diam. 6.25", Height 1.5". A.

For the foregoing c.f. Poltross III, 30, period I; Birdoswald turret No. 8 (several) period I; Newstead Type 42, common in the Antonine period.

No. 76. Rim of platter like Poltross V, 42. Blackish cook-pot ware, coated and polished deep black. Scored intersecting curved lines outside. ZB. Another similar from G. The type is of La Tène origin and lasts till the end of the Roman period.

No. 77. Rim of a rounded bowl with slightly thickened lip, clay, whitish, dark grey coated and smoothed. Diam. 6.5". P; c.f. Halt. Burn No. 18, which is, however, really beaded.

No. 78. Rim of bowl in fine, hard, pale buff ware, smooth slip of same colour. Diam. 6.25". B. There is an exactly similar rim from Binchester in the possession of the council of the Durham colleges.

No. 79. Heavy rim in well washed blackish clay with a thick red surface. The outline most resembles the rims of the New Forest red ware, which are generally painted with white patterns. *C.f.* Silch. Pl. LIV, 96; Sussex Arch. Collns. LII, Pl. IX, 6-8; and Ashley Rails Pl. VII, 1-4, VIII, 5-8. Diam. about 13.5". H. 4th cent.

No. 80. Rim of heavy bowl. Clay dark grey, burnt a clear bright red on the under side. Upper side of rim and interior blackened. Diam. 10.5" smooth.

There are several fragments of the flat bases of bowls or platters similar to those described above. One is in fine red clay with a brilliant red coating—the same technique as No. 63.

MORTARS, AMPHORAE, AND VESSELS IN BUFF WARE.

Nos. 81 and 82. Two fragments of the bead and roll type of mortar. 81 is the same as Poltross IV, 1-4, and 6 (Hadrian), Throp, No. 1; Ambleside Nos. 40-44; High House milecastle Nos. 96, 99 and 101 (early 2nd cent.). Diam. 10.5". J. Dull grey clay, burnt buff on the surface with traces of white slip. 82 *c.f.* High Ho. milecastle Nos. 113 and 114 (of uncertain period); Wroxeter types 102-106. Late 2nd cent. or early 3rd. Clay coarse hard cream. Diam. 10.75". B.

Nos. 83 and 84. Two "hammer head" rims, the former of coarse hard red-buff clay, large black grit. Diam. 11" F., the latter of creamy clay, coated dirty white. The prevalent type of mortar on the wall from 200-400 A.D. *C.f.* Poltross V, 1-4 (all period III); High Ho. milecastle, No. 115.

No. 85. Two frags. of a mortar with vertical rim like Corbridge 1911, No. 109; Elslack No. 28; Ambleside No. 50; probably 3rd and early 4th cent. The clay is fine, well washed, light grey at core, otherwise a uniform light buff. The outside of the rim has been slip coated the same colour and is ornamented by widely spaced groups of four vertical lines in red brown paint. Grit on interior fine, black, and copious. The same type, clay, and technique is common at Binchester. Diam. 8.75". H.

No. 86. Frag. of a bowl in fairly hard biscuit-coloured clay. The surface has been carefully polished but has perished. The same type occurs at Binchester in the same clay and style. The interior is decorated with a geometrical pattern in light red brown paint. This piece is the same fabric as the preceding. For the type *c.f.* O.R.L. Pfünz; VII, Schüsseln, 3-5 (grey ware) *c.f.* also Huntcliffe No. 1. Diam. about 10". A.

Nos. 87 and 88. Frags. of two bowls in the same technique, and painted with the running hook pattern shown on the bowl Ambleside Fig. 21, No. 13 (*Trans. Cumb. and Westm. Soc. Ant., N.S., XV*). This pattern is very common among the numerous frags. of this fabric at Binchester, where it was, perhaps, made. There are,

in that collection, a number of large and carefully made bobbin shaped spacers used in packing vessels in the kilns. The ware is in the style of the late painted ware produced at Cologne, but the absence of these particular patterns from collections in the South of England would seem to argue against the possibility of its being imported ware. Not at Colchester, nor Silchester, and Mr. Heywood Sumner, F.S.A., informs me that it does not occur in the New Forest potteries.

No. 87. Diam. 9", fine, hard, creamy clay, well smoothed by slip of the same colour outside the rim and on upper side of the ledge. The pattern is on the ledge and also immediately below the deep groove which marks off the rim; this groove is a constant feature of these bowls at Binchester. No. 88 is a very small fragment. The clay is almost white and not so good as the last, same general outline with a smaller ledge. Pattern below groove only, and not on the ledge. From A, whence came also two large frags. of a mortar in the same fabric with the flat, beaded base which all vessels of this fabric seem to have had.

No. 89. Frag. of an unusual type of mortar after the style of High Ho. turret No. 46, but with thinner and more projecting rim. Thick, coarse, unevenly burnt, red to grey ware, with very large and ugly black gravel inside. The High Ho. specimen was also of heavy red clay and had some quartz grit inside. Unfortunately, as this one, it was unstratified. (Not illustr.)

No. 90. Frag. of broad horizontal rim of a bead and roll mortar in very soft light red clay, very light in weight, too badly damaged to reproduce. *C.f.* Poltross IV, 4; Ambleside 39-41. Of earliest period on the Wall. C.

Also there were several frags. from various parts of the body of vessels similar to those described above, and some heavy side pieces of large amphorae or dolia from E and G. From J came part of the mouth and part of the handle (just showing the corner of the stamp) of such an amphora. Other heavy frags. came from B, ZA, and C. Thinner buff frags. from F, C, and D may be frags. of storage vessels.

From B come a piece of red ware with mortar adhering which may have been used as a tessera.

Nos. 91 and 92. 91 is of fine light grey clay, smoothed outside. Of same fabric and outline as a specimen with two handles at Binchester. Diam. 2½". A., another frag. of this vessel from G. 92 very small frag. clay good, red, with a very smooth red slip coating, grey at core. Diam. about 3". K.

Fragments of bottles or flagons were scanty. A stepped rim is from E and is 1st period, of a similar type is a red neck from J, and perhaps a three ribbed red handle from C.

A curious coarse neck fragment looks as if it belonged to the curious spouted jug O.R.L. 73, Pfünz, Pl. XI, 29 (rough grey clay, like the present example). The Pfünz example is from the

Kastell, which appears to date from the Trajan period. See also May, York, Pl. XV., 3.

URNS, JARS, AND COOK-POTS.

No. 93. Gritty black clay, black coated and polished outside. Diam. 5.25". E. A latticed cook-pot like Poltross IV, 23, 26, 32 (period II); Balmuildy XLIV, 3 (Antonine). The rim type lasts through periods I and II on the Wall, but the gritty black clay is characteristic of the first period. Appletree turret No. 59 is of this type and of the earliest level. *C.f.* also Throp, Nos. 15 and 16.

No. 94. Grey clay, black coated and polished. Probably had lattice pattern. Cook-pot. Diam. 5.75". A. *C.f.* High House turret No. 43. Period Ib; also Poltross IV, 28, and Walwick Fell, 39.

No. 95. Type 93. Gritty grey-blue clay, charged with very fine white particles. Surface finished in the same style as the preceding. Diam. 5". B. *C.f.* Poltross III, 22 (I); IV, 32 (I and II); Outline as No. 93.

No. 96. Fine grey clay. Outside burnished black, traces of a broad groove round shoulder. Diam. 5.75". P. *C.f.* O.R.L. Pfünz VII (Urns), 11; Birdos. turr. No. 11 (I); Appletree turr. No. 72 (Ib); Poltross III, 28 (I).

No. 97. Fine greyish white clay, smoothed and fumed pale grey on surface. Not blackened by fire. Diam. 4.5". E.

No. 98. Similar, fumed darker. G.

No. 99. Clay, pale greyish, surface left granular, of a dirty pale drab colour. Diam. c. 5.5". Not sooted. *C.f.* High House turret No. 43 (Ib); Appletree turret No. 59 (Ia, cook-pot). W.

No. 100. Pale greyish white clay, fine and hard, surface not well smoothed and fumed dark grey. Upper side of rim polished and a burnished line round shoulder. Diam. 5". E. Cook-pot. *C.f.* Birdos. turr. No. 25 (Ia) and Poltross III, 14 (I).

No. 101. Pale yellowish clay, chipping off in scales. Fired to a light grey-pink to pinkish-yellow outside. Not smoothed. Cook-pot. Diam. 5". V.

No. 102. Clay soft, gritty, pale brownish, surface left granulated, muddy brown colour. Rim grooved for lid. Not sooted. Diam. 6". A. *C.f.* May, Hambleden, No. 175 ("late 1st cent."); Common at Pfünz in Terra Nigra.

No. 103. Like last. Clay hard gritty, light grey, surface granular. Burnt a dark grey. Not sooted. F. *C.f.* as last, also Appletree turr. No. 55 (I).

No. 104. Like No. 101. Clay fine, rather soft, dirty white, surface unsmoothed, dark grey, heavily sooted. Traces of a groove round the neck. Diam. 6". N. *C.f.* Appletree turr. Nos. 78, 79 (period Ib).

No. 105. Clay hard light grey, burnt blackish near the outer surface. Surface rough, sooty black. Diam. 6". V. Cook-pot.

No. 106. Several conjoined fragments of the upper part of a vase in "Castor" ware. Clay light pinkish buff, coated a dark chocolate slip. Rim diam. 3" nearly. Pentice moulding with several

lines of rouletting. *C.f. Arch. Ael.*, Ser. 2, Vol. XXV, p. 297, Fig. 55, No. 7; *Silch.* LII, 84 and 88. Probably early fourth century. P, O, and H.

No. 107. Clay dark grey, gritty, fine black coating. Immediately under the rim a scored wavy line, which seems to occur only in the first period on the Wall sites. Diam. 6". B.

No. 108. Clay and technique as last. Diam. 5.25". *Q. C.f. Poltross IV, 25; ibid.*, V, 11, etc. (periods I, II and III); Appletree turr. Nos. 58, 74 and 90 (period I). The rim outline is common on the Wall, and the character of the clay and workmanship indicate an early date for this example.

No. 109. Clay as No. 105. Diam. 6". G. Cook-pot. (Period II).

No. 110. Clay light brownish buff. Surface black coated, rim and shoulder polished, round the lower, unpolished, portion a band of scored lines, below which another three. Rim hollowed for a lid, and with a cordon outside. No marks of turning inside. The style is that of the first period. E.

No. 111. This and the following are of the coarse black clay heavily charged with large white grit, which is the commonest ware in the last period of the Roman occupation on the Wall and also in the signal stations along the Yorkshire coast, Huntcliff, Goldsborough and Scarborough. The reports on the last two sites are unfortunately not yet published, but the rims though very varied in detail, are simply a deep roll, with or without an offset at the shoulder, and with or without a more or less sharp groove just inside. Whether the plain rolled rim with neither offset nor groove is earlier than the others or whether there is any chronological value in the various outlines is so far unknown.

No. 111 and 112. Diam. c. 7.5". F and B. 113. Diam. 6.5". A. 114. Like 111, Diam. 6.25". I. 115. Perhaps of same vessel. B. 116. Diam. 6.5". Frags. from F and B. 117 and 118. Like 112, but thinner. ZB. 119. Like 116. Diam. 6.5". Perhaps of same vessel. W. 120. A similar rim from C. Diam. 7".

Nos. 121 and 122. Were intended to have lids. Diam. 6.5" (P) and 10" frags. from O and C.

The remainder are grooved. 123. Diam. 6.25". *Q.* 124. Diam. 8". Very black from A and C (several frags.). 125. Diam. c. 8". A. 126. Diam. 6.5". A. 127. Diam. c. 8.5". ZA. 128. Small frag. R. 129. Diam. 7". B. 130. Diam. c. 8.5". G. 131. Like 126, Diam. 6.25". *Q.* 132. Diam. c. 10". A. 133. Like 126, but thicker. Diam. 6.5". R. 134 and 135. Same type. Diam. 6". C. 6.5". F. 136. Like 125, massive, Diam. 8". D. 137. Like 124, groove lower down, Diam. 10". ZB. 138. Frag. like 132. J. 139. Like 130. Diam. 7.5". W. Groove very slight. 140. Like 132, but thinner, Diam. 6". B. 141. Frag. like 113, but with slight groove. ZA. 142. Frag. like 129. H. 143. like 126, Diam. 6.5". G. 144, 145, and 147. Similar frags. from B, P, and E. 146. Frag. like 124. Z. 148. Frag. like 125. D. 149. Like 129, Diam. 6.25". J. 150. Frag. like 128. J. 151. Frag. like 126. K. 152. Frag. like 123 (?). B. 153. Diam. about 6.5" (distorted) B.

ADDENDA.

No. 154. A very crude bowl of coarse, dirty grey clay, outside originally smoothed, now much pitted and corroded, interior very rough. Diam. c. 4.5".

No. 155. Frag. in buff clay, sooted inside, from M. Outside surface uneven but smooth, inside showing turning marks. Rim heavy, flat on top. *C.f.* Newstead Pl. XLVI, 30, which is thus described "Cylindrical bowl of somewhat coarse, thick, yellow grey ware, with rather flat rim. Height 4.5", diam. at mouth 3.75", showing traces of fire, probably first century."

The figure of the Newstead example shows an increase of diameter downwards as does the present example, and the turning marks inside are prominent. Diam. of our example 4".

No. 156. Large everted rim of bowl or cook-pot, coarse gritty dark grey clay, surface blackened and smooth. Diam. 9.5". D. *C.f.* Throp, Nos. 21 and 22, High Ho. turret No. 92 (period II); Poltross, V, 5 (period III); also May, Hambleden, No. 163, with hoard of coins deposited about 326 A.D.; Pitt Rivers, Cranbourne Chase I, Pl. XXXII, 5 (4th cent.), and Hengistbury Head, XXV, 3 and 4 (3rd and 4th cent.).

No. 157. Heavy rim of fine grey clay, grey fumed, Diam. c. 5.5". E. *C.f.* Poltross IV, 16, described as a "bottle." (Period II).

No. 158. Undercut rim, rough grey. Diam. c. 7". G.

No. 159. Ditto. Good grey clay, not smoothed, cook-pot. Diam. c. 6". E.

No. 160. Rim like Appletree turret No. 73 (period Ib. Grey, vitreous surface). Clay fine, light grey, surface same colour, smooth. ZA. (Not illustr.).

No. 161. Rim like No. 156, but of more usual size. Clay hard, gritty, blackish, coated dead black and polished. Diam. 5.75". *C.f.* Poltross IV, 23, 26 (period I or II). The black polished finish makes this probably a 1st period piece. Another similar, but with bead at outer lip from Q.

No. 162. Undercut rim Zc. coarse, brownish. Diam. 6".

No. 163. Large pale drab grey rim. Diam. c. 9.5". B.

No. 164. Several fragments of a large "vesicular" pot, burnt a light red, two handles from A appear to belong to it. G. Diam. 7".

MISCELLANEOUS.

Quite a number of pieces of Castor ware turned up, one with part of an animal in barbotine, four with rouletted decoration (two dark slip coated, two coated light red, one of which has had a handle.) Two frags., prob. of one vessel, are of the bag shaped beaker with grit besprinkled surface, like Balmuildy, XLIX, 4 and 5, and a thick piece from a large vessel with silvery bronze, metallic slip glaze, showing part of a bead row in barbotine. Also a piece of a black "varnished" thumb pot or folded beaker. Several small bases may belong to the later period at Castor.

The plain fumed grey fragments call for little comment. Several pieces of good heavy grey ware are probably fourth century. They bear, when decorated, vertical or horizontal scored lines. Two large urns are represented by about their lower half. The foot is flat and the side curves inwards slightly to join the base, like Corbridge (1911), Fig. 5, No. 3. *Ibid.*, No. III.

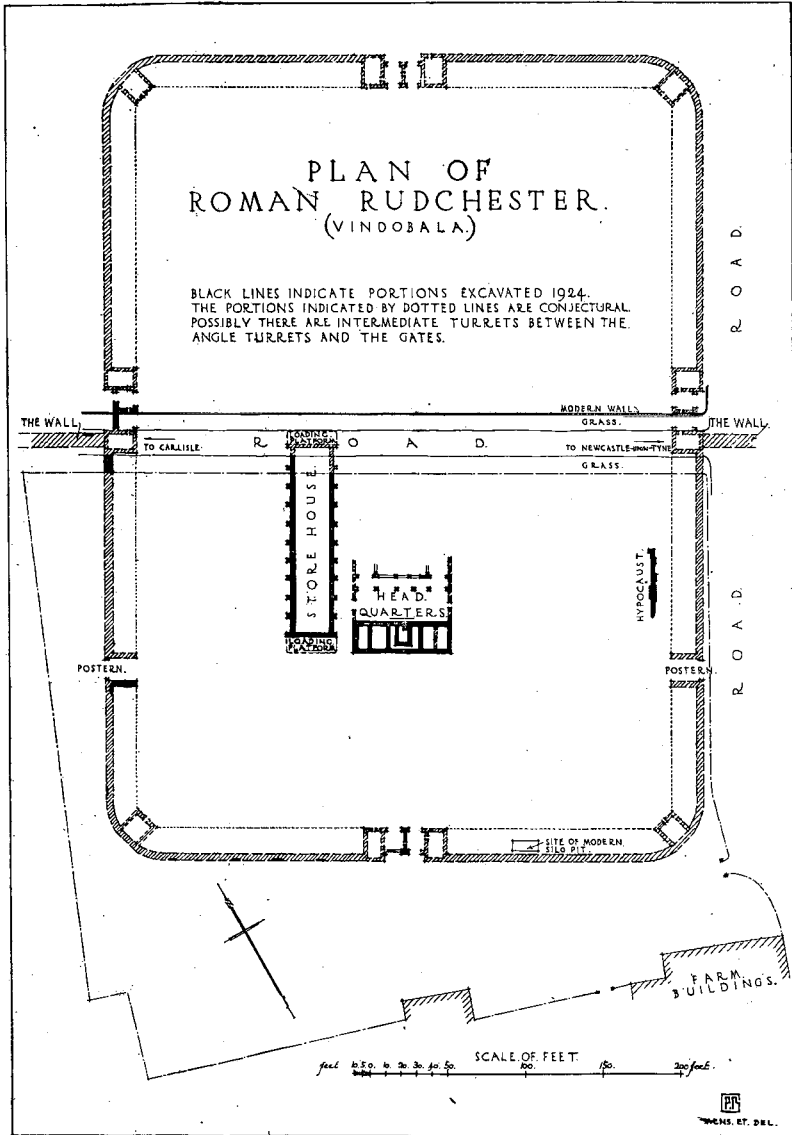
The black fragments include two plain, flat bases from F and I, two beaded ditto. from W and I, and several pieces with the multiple horizontal scoring from vessels like No. 110, and the usual pieces with scored lattice pattern.

Note on the pottery from the filling of the drain under the south gate (M).—This deposit included No. 155, two very small frags. of Samian, two moulded bases, described above, and several black fragments. The deposit may be dated to the first period. The black base is exactly like Poltross. III, 26 (1st period).

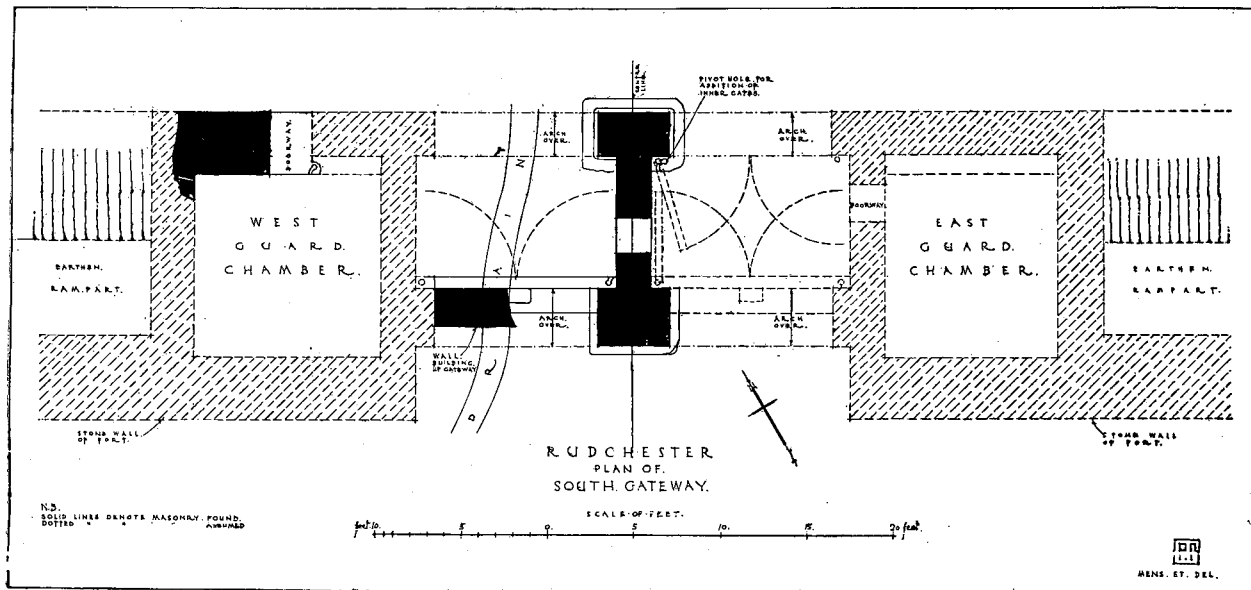
RUDCHESTER, 1924.

REPORT ON THE OSTEOLOGICAL REMAINS, BY PROFESSOR A. MEEK.

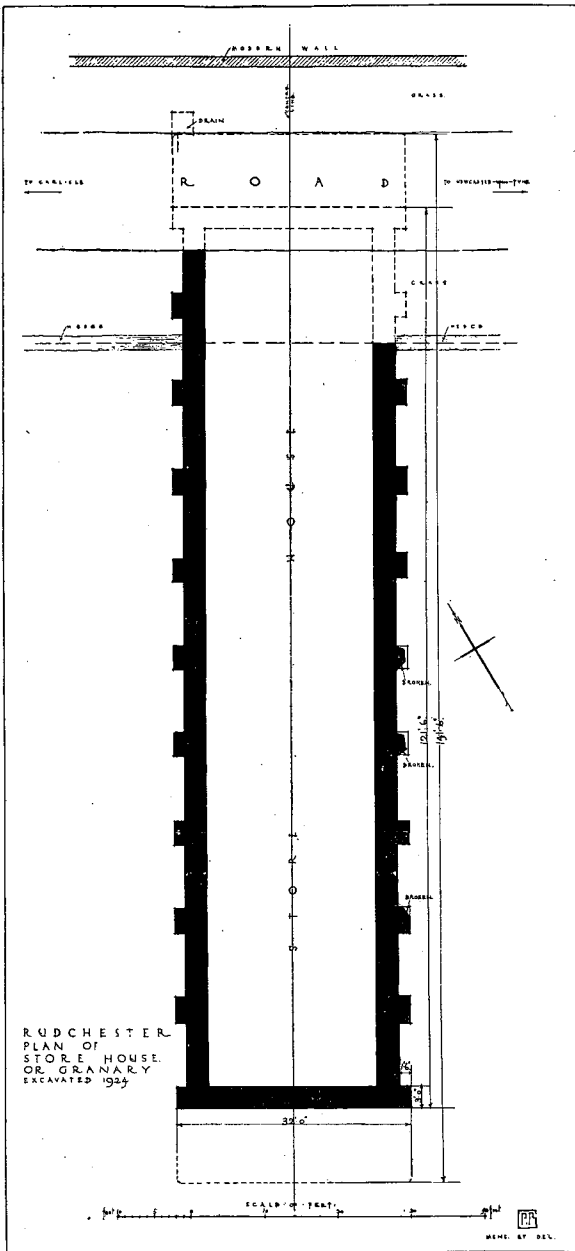
The bones, etc., discovered belonged to the following animals: red deer (*Cervus elaphus*); domestic ox (*Bos taurus*, var. *longifrons*); sheep (*Ovis aries*); pig (*Sus scrofa*); horse (*Equus caballus*); two varieties of dog—terrier and sheepdog (*Canis familiaris*); fowl (*Gallus bankiva*); snail (*Helix aspersa*); and one or two valves of the oyster (*Ostrea edulis*, var. *rutupina*).



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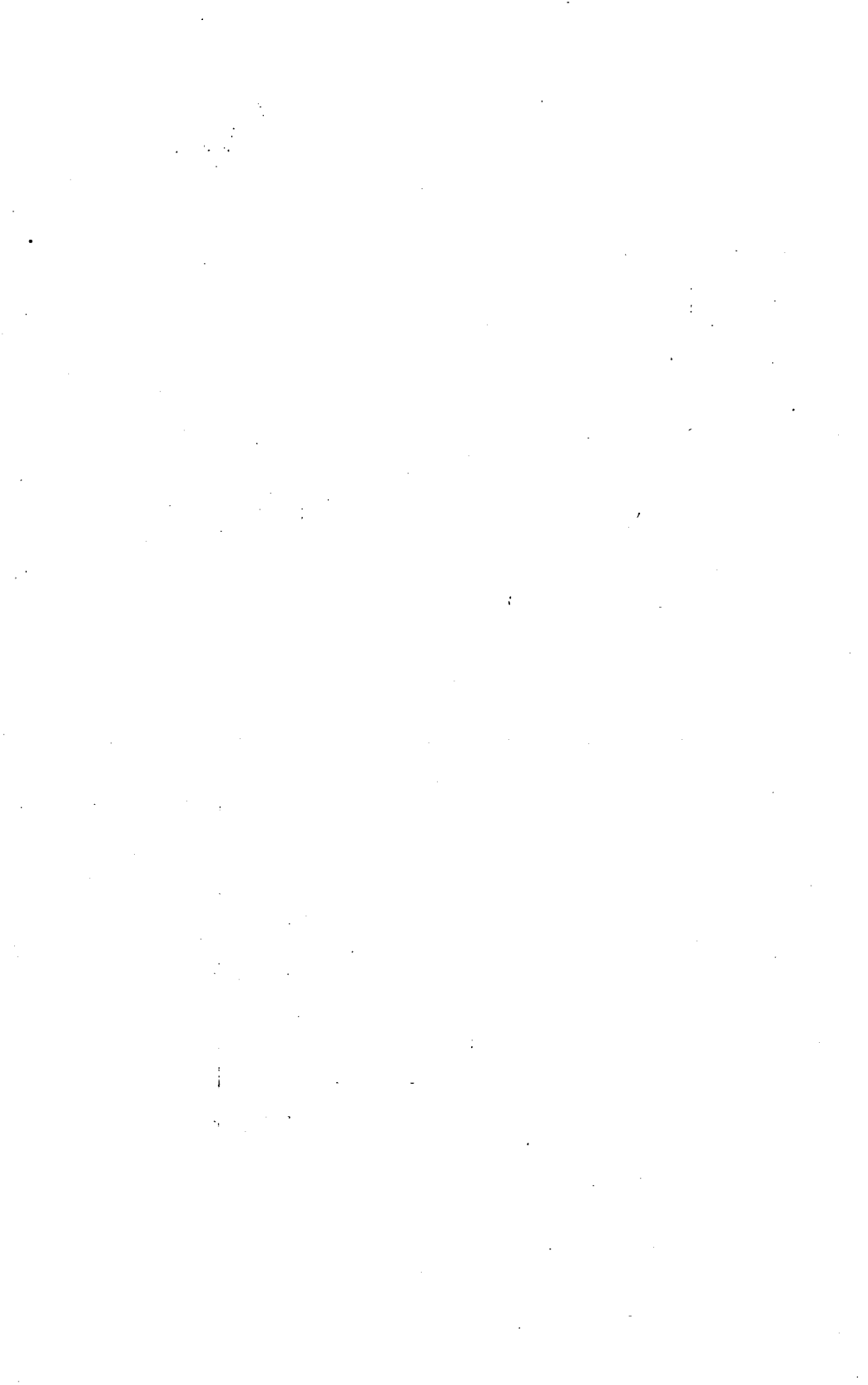




FIG. 1.



FIG. 2.

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FIG. 3.



FIG. 4.

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FIG. 5.



FIG. 6.

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FIG. 7.



FIG. 8.

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FIG. 9.

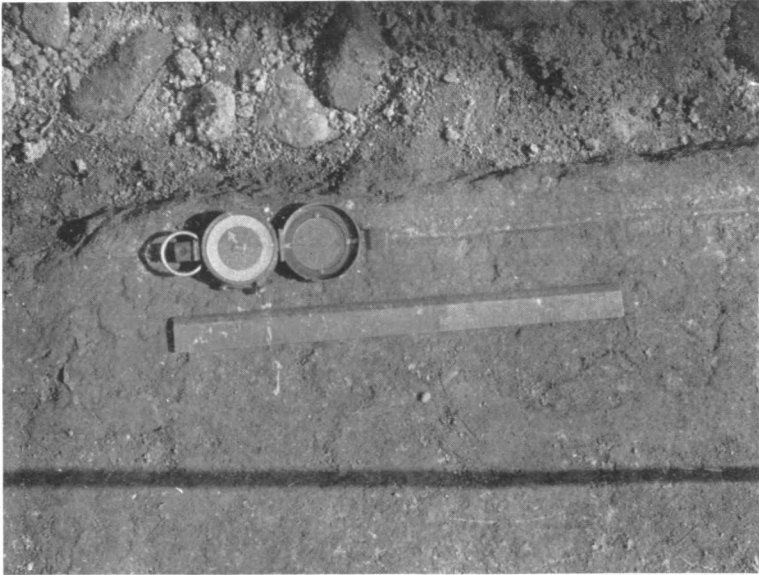


FIG. 10.

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FIG. 11.



FIG. 12.

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FIG. 13.



FIG. 14.

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FIG. 15.



FIG. 16.

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FIG. 17.



FIG. 18.

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FIG. 19.

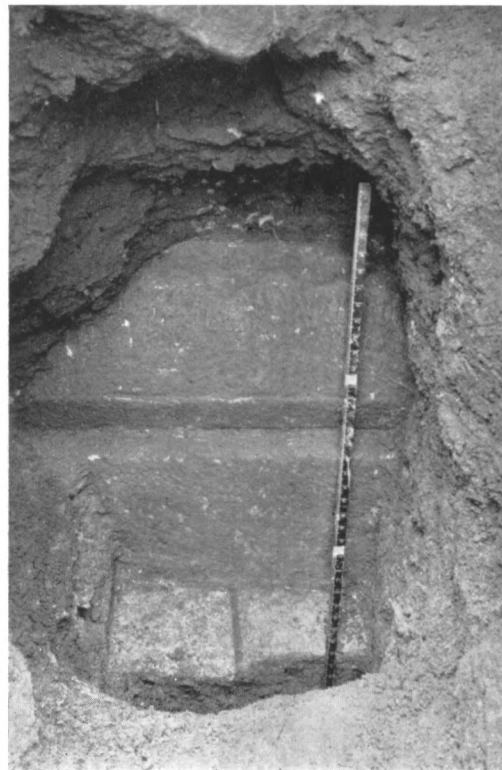


FIG. 20.

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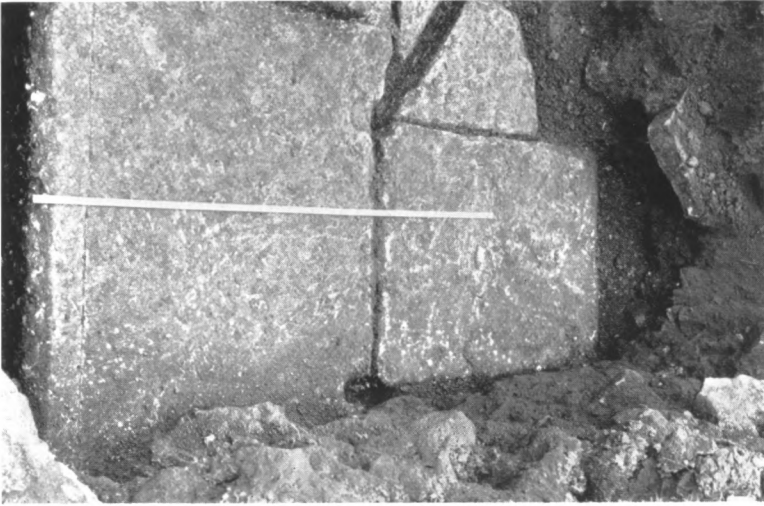


FIG. 21.



FIG. 22.

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FIG. 23.



FIG. 24.

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FIG. 25.

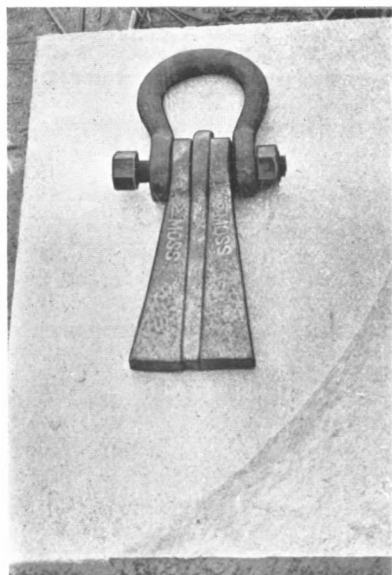


FIG. 26.

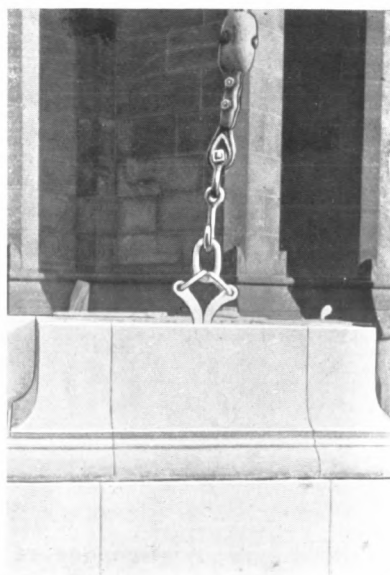


FIG. 27.

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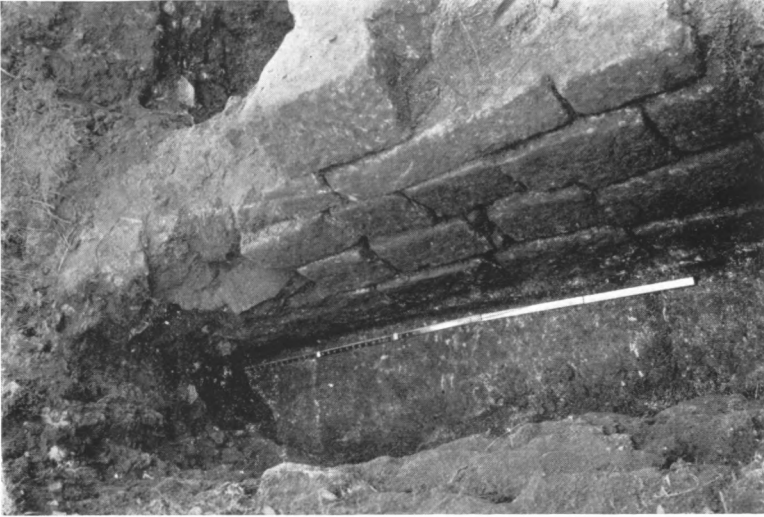


FIG. 28.



FIG. 29.

ROMAN RUDCHESTER.



FIG. 30.

ROMAN RUDCHESTER.

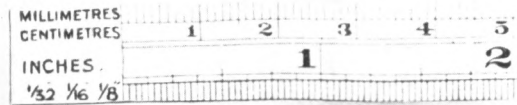
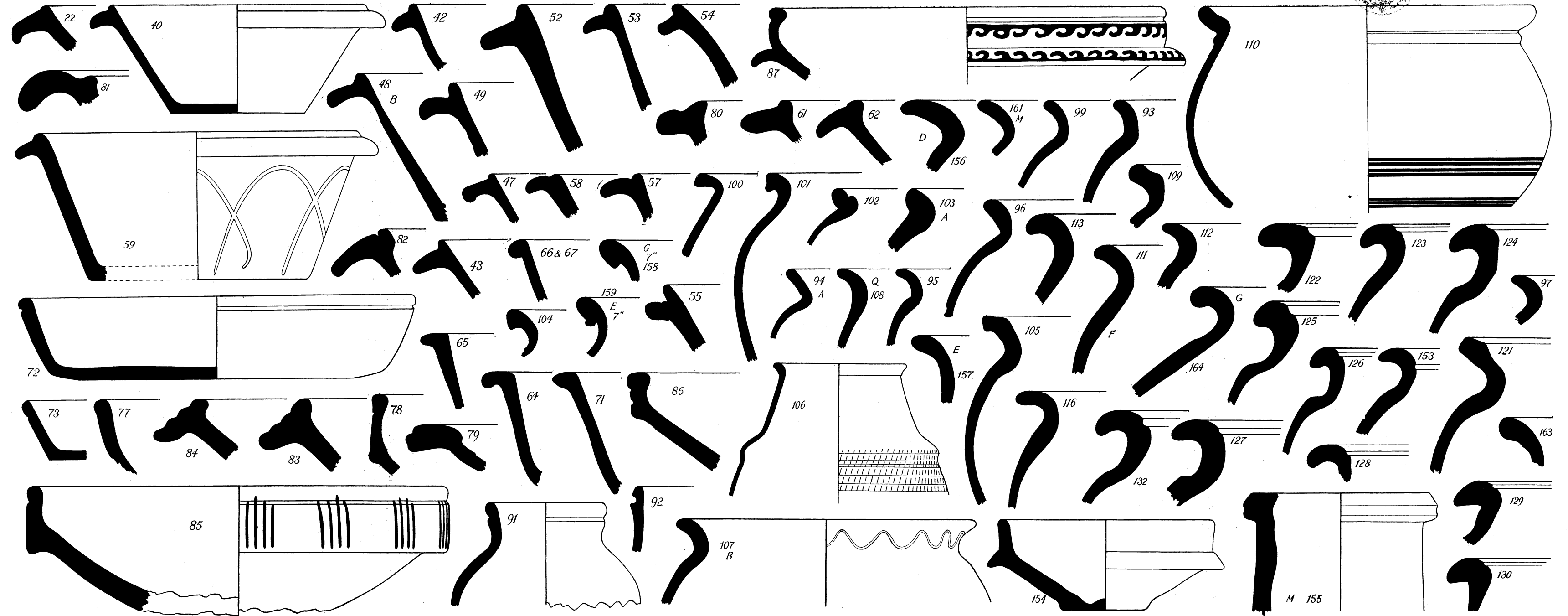
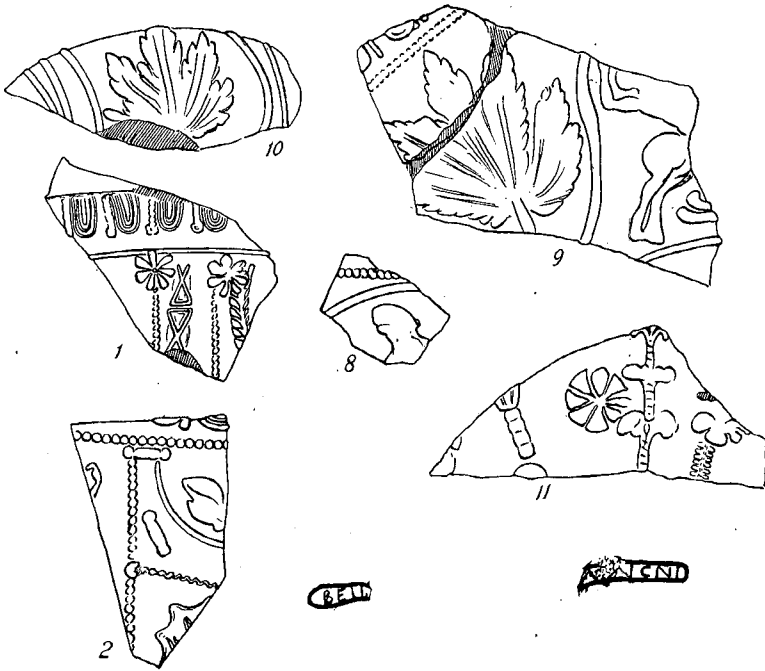


FIG. 31.



POTTERY FROM ROMAN RUDCHESTER.





DECORATED SAMIAN FROM ROMAN RUDCHESTER.

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