





## VII.—EXCAVATIONS AT CORBRIDGE, 1938-9.

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[Read on 27th March 1940.]

The following abbreviations are employed :

- AA<sup>2.4</sup> *Archæologia Aeliana*, second-fourth series.  
PSAL<sup>2</sup> *Proceedings of the Society of Antiquaries of London*, second series.  
PSAN<sup>3</sup> *Proceedings of the Society of Antiquaries of Newcastle*, third series.  
PSAS *Proceedings of the Society of Antiquaries of Scotland*.  
CW<sup>2</sup> *Cumberland and Westmorland Transactions*, new series.  
Rep. *Report of the excavations at Corstopitum*.  
EE *Ephemeris Epigraphica*.  
C *Corpus Inscriptionum Latinarum*, vol. vii.  
JRS *Journal of Roman Studies*.

### I. INTRODUCTION.

The present report is mainly devoted to the work done by the Durham University Excavation Committee since the summer of 1937, on site 40 and the areas to west of it at Corbridge, after the removal of the top soil and before the final laying-out of the site by His Majesty's Office of Works. Owing to the general mobilization for war, Mr. Eric Birley is unable to furnish a report on the pottery. It was felt, however, by both writers that it would not be well to delay the report upon the structural evidence, more particularly because the main periods of the site are now established and, again, because the remains concerned are now open to view and require an authoritative description.

It will be recalled that one of the principal features of the last report<sup>1</sup> upon the Roman site at Corbridge was the definition of two compounds, separate in the third century but amalgamated in the fourth, yet always forming respectively the living and working quarters of a detachment of military technicians. The order in which the site has been uncovered by H.M. Office of Works dictated that the previous report should have dealt with the northern portion of the living quarters. A corresponding area of the working quarters has now been examined (fig. 1), and has been made the subject of the following report.

## II. THE STRUCTURAL REMAINS.

(1) *The enclosure wall.* The east side and north-west re-entrant of this wall were observed<sup>2</sup> in 1912, when it was thought<sup>3</sup> that on the north the east wall terminated, in a curve, at a kind of tank. A complete stripping of the area, however, revealed that small fragments of the footing of a north wall still remained in position, associated with considerably larger portions of the cobbled foundation. Again, the road-metalling, which had been tightly packed against the wall at front and back, remained in position, accurately defining the space from which masonry of the wall had been robbed. The curve of the east wall was thus shown to be continuous. There was no trace of the supposed tank, though it could be seen how a hollow, formed partly by stone-robbing and partly by road-packing, had suggested the idea in 1912.

The interpretation of these walls may thus proceed upon the assumption of unity in plan. Indeed, it may be remarked that their planning displays not only unity but a hint of grace. For while most of the corners in the enclosure walls are angular, rounded corners<sup>4</sup> originally marked the

<sup>1</sup> AA<sup>4</sup> xv, 243-94, and, in particular, 245-54.

<sup>2</sup> AA<sup>3</sup> ix, pl. v, 262=1912 *Rep.* 52.

<sup>3</sup> *Op. cit.*, 261, fig. 13.

<sup>4</sup> For the eastern example, see AA<sup>4</sup> xv, plan, 294.

junction of the main east-to-west road with the street dividing the compounds, as if to emphasize by their sweeping contours the flow of traffic at this point. It was by this route that access was gained to the west compound. There was, so far as is known, no other gate. The heavy foundation-work at the north-west salient angle might at first sight suggest a postern there, but closer examination will show that the treatment is confined to the angle only and marks at most a difference in superstructure. A miniature turret would not be out of keeping with the visible remains. There is no hint of any such structure at the re-entrant angle, which was entirely screened by whatever building the re-entrant contained.

The gateway of the compound lies in its east wall, 125 feet south of the north front. The existing remains at first give the impression, duly recorded<sup>5</sup> in the last report, of wide double portals, the north blocked by a later building with front portico and western apse. And in fact the later building is inserted in a gap, where, at the south end, the impost of the gateway has been deprived of the masonry with which it was bonded on the north side; while at the north end the existing enclosure wall has been rebuilt so as to overlap the corner of the building, whose plastered front lies behind it (plate x, fig. 1). But the question what kind of structure originally stood in the gap remains to be answered. The minimum requirement for a gateway would be a pier like that on the south of the gap, of which the clay-and-cobble foundation might be expected to remain on the north, even if the large masonry had been removed. No trace, however, of such a feature could be found: instead, the front face of the wall-foundation was discovered to run right across the supposed opening until it joined the large masonry on the south. In other words, there is every reason to suspect that the gateway was originally not double but single, like that of the east compound facing it across the street: and that it lay wholly south of the present gap, from

<sup>5</sup> *Op. cit.*, 251, fig. 2, and 252.

which the enclosure wall had been removed to make way for the later building.

No difficulty is presented by the plan of the remainder of the gateway on this assumption. It may now be taken that the north impost, though somewhat disturbed by the insertion just discussed, is substantially in its original condition. Its carefully worked jamb screens a pivot-hole, heavily worn, above which a secondary pivot-block, also much used, was found in position. The threshold has been partly robbed, and its remaining stones are much worn. The masonry of the south impost has been entirely removed, but the clay-and-cobble foundation enables it to be defined as roughly equivalent to its northern companion in size. The result is a single portal, some 13 feet wide, enclosed between piers 10 feet deep. The depth of the portal renders it capable of supporting a tower. The width of some 13 feet, however, seems to have exceeded considerably that normally accorded to gateways thus designed, as, for example, in milecastles or forts of the adjacent Wall, where 10 feet is a usual dimension. There is, too, one feature in particular which is suggestive of a different treatment. The north impost retains the lowest courses of an architectural framing which, however simply developed, would normally imply a pediment and attic, after the manner of a triumphal arch. Such decoration is not, indeed, incompatible with an upper storey, but it then implies a grandiose design out of keeping with the scale of the enclosure wall. It is thus easier to suppose that defensive features were not supplied, and that this gate, the entrance to a precinct not of Mars but of Vulcan, took the ornamental form so common<sup>6</sup> in utilitarian buildings of the Roman age. It may be remarked that a lack of defensive considerations in the original scheme would render it easier to understand why the compounds were originally divided, and why the precaution was later taken of uniting them and supplying a single defensive gate which both might share. Indeed, the planning of the com-

<sup>6</sup> Cf. Robertson, *Greek and Roman Architecture*, 309.

pound as a whole is altogether more comprehensible when it is clearly understood that the military are there concerned not with war but with the sinews thereof.

(2) *The headquarters building.* This part of the site was first excavated in 1912, when two versions<sup>7</sup> of its plan were published, one by this society and one by the London Society of Antiquaries. The fact that they do not agree

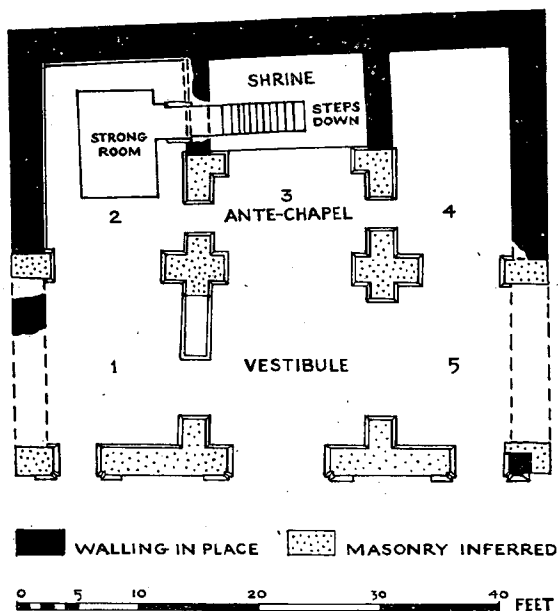


FIG. 2.

Corbridge: third-century headquarters building.

demonstrates that there is room for a third version (PLAN, fig. 1), which may at least be claimed to correspond with the remains as now visible. At the same time a new account of the buildings is offered.

The original building (fig. 2) was a small symmetrical structure, with three large rooms at the back, and a slightly smaller front hall, in which the triple division into bays, or

<sup>7</sup> AA<sup>3</sup> ix, 262, pl. v, by W. H. Knowles=1912 *Rep.* 52 and PSAL<sup>2</sup> xxv, 152, by J. G. N. Clift. The later was copied for NCH, vol. x.

compartments, recurs. Below the southern back room lay a large underground strong-room, once barrel-vaulted,<sup>8</sup> reached by a staircase (fig. 3) from the central back room. From this stairway came a fine altar<sup>9</sup> dedicated by the Second Legion to the Emperors' Discipline. Just within the back wall were also found a small statue<sup>10</sup> of a god, discussed below, and a bold relief<sup>11</sup> of Hercules and the Hydra. All these features point to the use of the building as a headquarters. The cults of Hercules and the Imperial Discipline are as typical of these buildings<sup>12</sup> as is the strong-room in which the savings of the soldiery were kept. In other respects, however, the plan differs from that of the

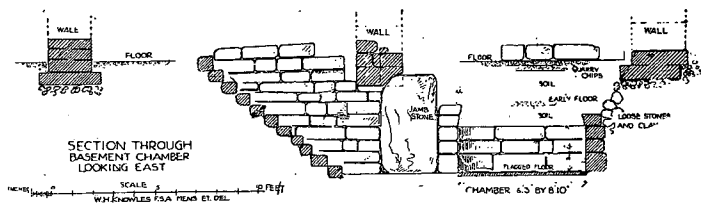


FIG. 3.

Corbridge: section of strong-room, in third-century headquarters building.

regimental headquarters which the excavation of so many auxiliary forts has made familiar. These latter normally contain a shrine and four administrative rooms, all opening on to a large cross-hall, in front of which lies a forecourt. Here the forecourt is absent and the shrine is present, but four rooms are obtained only by reducing the hall to a mere central vestibule. This is not in itself impossible; and, as the altar shows, these headquarters belong not to an

<sup>8</sup> Springers of the vault remain in position.

<sup>9</sup> EE ix, 1380: AA<sup>3</sup> ix, 263-5 (=1912 *Rep.* 35-7), fig. 14. It was found "lying on its side, with the base uppermost, on the steps."

<sup>10</sup> AA<sup>3</sup> ix, 272-3 (=1912 *Rep.* 44-5), fig. 19.

<sup>11</sup> *Op. cit.*, 258 (=1912 *Rep.* 30), fig. 12: the Hydra does not appear on the surviving fragment, but in PSAL<sup>2</sup> xxv, 152 "small detached fragments" of the monster are recorded. The "attendant," so described in both sources, is plainly the helmed Athena, offering advice.

<sup>12</sup> Von Domaszewski, *Die religion des Römischen Heeres*, 44, 49.



auxiliary corps but to a legionary detachment. Manifestly, the administration of a small body of specialists did not require the pomp and circumstance attaching to the management of a regiment and its district. Remove these, and there will remain the shrine and clerks' accommodation, precisely as here.

The plan, however, cannot be considered apart from the superstructure, about which the remains permit some inferences to be drawn. It is evident from the solidity of the wall and the size of the masonry that the building had some pretensions to monumental design. Its ashlar-faced walls are founded upon massive flags, and are interrupted at the angles and elsewhere by solid ashlar quoins and piers, now robbed. This treatment may be compared with the third-century headquarters building<sup>13</sup> at Chesterholm. But while the solid piers were at Chesterholm explicable as a reinforcement of the back of the building, the large ashlar

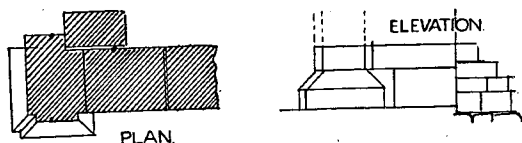


FIG. 4.

Corbridge: north-east corner of third-century headquarters building.

work is here plainly applied to the forepart. It is not found in the back wall, nor in the rear divisions of the *sacellum* and flanking rooms. In the lateral walls it occurs at the front end, and at the point of division between the front and rear portions of the building. It is certain, too, that very large portions, if not all, of the front and of the ante-chapel in the shrine were built in large masonry: for photographs and drawings of the 1912 excavation<sup>14</sup> show the north-east corner of the building as in ashlar (fig. 4), while the

<sup>13</sup> AA<sup>4</sup> xiii, 230-32, fig. 3.

<sup>14</sup> AA<sup>3</sup> ix, 253 (=1912 *Rep.* 25), fig. 9: PSAL<sup>2</sup> xxv, 150, fig. 5. where the point is specifically noted, under C.

grouted walls of the shrine have terminated against large masonry, closely associated with the foundations for massive piers. These points noted, the aspect of the building may be considered.

The front has had the most solid foundations, consisting of large and deep freestone blocks, bedded in mason's chip-pings. Their arrangement connotes a triple division, into a large central doorway, not less than 8 feet wide, and two lateral doorways of half that width. The treatment of the lateral openings is indicated by a chamfered base left in position, on the front of which a shallow pilaster is cut. There was thus a slight architectural framing, but ornamentation must be regarded as reduced to a minimum. A relatively severe treatment must also be extended to the central doorway, whose effect must have been chiefly due to size. An archway twice as wide as the lateral openings demands something like twice the height, and the emphasis thus laid upon height is increased by another consideration. This door, set upon the main axis of the compound, confronted all whose business lay therein. It was the architectural setting for the shrine which expressed the soldiers' loyalty to Army and State. In the vista defined by its frame could be seen either the venerated objects, bright with gilt and colour, or the elaborate doors<sup>15</sup> which, like those of an Orthodox sanctuary, sheltered them from the profane.<sup>16</sup> The head-room required in the central bay is thus much greater than in other parts of the building, for it had to accommodate life-sized statuary, tall standards and other sacred objects, grouped on a bench<sup>17</sup> or dais. Such a requirement compels the division of the building as a whole into central nave and lateral aisles, as suggested upon other grounds in 1912; while the nave must possess a clerestory in order to supply cross-lighting for the holy objects, which

<sup>15</sup> Such doors are shown on an altar from Birrens, PSAS xxx, 131, fig. 9, also PSAS lxiii, 428, fig. 24 (a photograph).

<sup>16</sup> It must not be forgotten that reverence was called for in front of the Emperor's image. Cf. Suetonius, *Vit. Tiberii*, 58.

<sup>17</sup> Cf. Tac. *Hist.* i, 36, in *suggestu* . . . *medium inter signa Othonem vexillis circumdarent.*

would otherwise be invisible from outside the building. The large central archway repeats itself also at the entrance to the shrine, perhaps in even slightly larger proportions, while the bench, or *suggestus*, stood in the elevated<sup>18</sup> sanctuary.

Next may be considered the lateral divisions. It cannot be regarded as certain whether those of the front portion of the building were cut off from the central bay. They were served by their own front doors, and business could therefore be transacted in them independently of the rest of the building. On the other hand, the arrangement of the surviving footings very strongly suggests that large arches carrying the clerestory spanned the division. The easiest assumption would then be that the divisions were partitioned off with screens or grilles, which permitted light to penetrate from the clerestory while ensuring a measure of privacy for the occupants. But the footings of the south room at any rate suggest a partition more solid than a screen, with a central opening between it and the nave, while those of the north division suggest an open arcade. Again, similar evidence suggests that the north-west lateral room opened off its north-eastern neighbour by a narrow doorway, while the south division suggests an arcade. In short, it need not be doubted that arches, whether open or blind, carried all the internal walls of the forepart of the building, or that dividing walls closed or screened the arcades thus formed in accordance with the several uses to which the divisions were put. The presence of arches explains the liberal use of large ashlar, taking their weight.

All the ashlar-work can then be explained as for large arches except in the shrine, which is divided<sup>19</sup> by pilasters,

<sup>18</sup> The elevation is implied by the position of the steps to the strong-room, whose wall still emerges at least one course of stone higher than the floor-level of the sanctuary in front of it. A change in level at this point must therefore be supposed.

<sup>19</sup> The foundations of the pilasters are omitted on both surveys of 1912; they are, however, there and the provision may be compared with that in the headquarters at Chesters, PSAN<sup>3</sup> iv, 134. For the change in level, see previous note.

and probably by a change in level, into sanctuary and ante-chapel. The sanctuary has walls faced in small ashlar. The walls of the ante-chapel, terminating at the front in massive piers which carried an arcade, have been built upon heavy foundations of the kind which elsewhere carry the monumental ashlar-work. It may be supposed, then, that some large-scale decorative effect here took the place of a plain wall, as, for example, decorative doorways<sup>20</sup> leading into the lateral rooms. It will be recalled that the standard-bearer, who took charge<sup>21</sup> of the corporate finance of the detachment, must have required access to the shrine in order to reach the strong-room whose entrance it hallowed. One of the adjacent rooms would house his treasury; and side-doors leading from the shrine to lateral offices are not unknown, as at Risingham,<sup>22</sup> for use when the main doors of the shrine were shut.

As to how the shrine itself was furnished little is known, but caryed stones give a hint. There was the altar to the Emperors' Discipline (fig. 5), which later fell down the staircase of the strong-room. It is so big that it must have occupied a prominent position, probably central<sup>23</sup> below the Emperor's statue. The intimate connexion between the Imperial cult and the conception of Hercules as a servant of humanity in human form, is well known,<sup>24</sup> and explains the association of Hercules with the army and its insignia. The divine hero is represented here by a deep frieze or dado, depicting his labours for the world, the surviving scene being a damaged and boisterous version of the destruction of the Lernaean Hydra (fig. 6). The most likely position for so bold a composition is a panelled frieze, depicting the more famous labours, on the front of the

<sup>20</sup> The alternative would be niches, which hardly commends itself because their contents would be entirely hidden from view.

<sup>21</sup> Vegetius, *de re mil.* iii, 20 and cf. ii, 19.

<sup>22</sup> See the forthcoming volume xvi of the *Northumberland County History*.

<sup>23</sup> As Haverfield notes (AA<sup>3</sup> ix, 263=1912 *Rép.* 35), the sides of the altar are unfinished, thus implying a frontal display of the object.

<sup>24</sup> Cf. Rostovtseff, JRS xiii, 102-5.



FIG. 5.  
Corbridge: altar to the Emperors' Discipline by the  
Second Legion, from the headquarters building.



FIG. 6.

Corbridge: panel of Hercules and the Hydra. The Hydra is now represented by coils entwining the left arm of Hercules. On his right Athena proffers advice. From the headquarters building.

*suggestus*, or bench, which carried the statues and standards. The principal statuary would be of life size<sup>25</sup> at least; but there were smaller votive offerings as well, and one of these is represented by the small neat figure in the round, half-naked and draped to the knees, carrying a sceptre (fig. 7). It is, as Haverfield observed,<sup>26</sup> a *genius* or *Bonus Eventus*. This exhausts the relics associated with



FIG. 7.

Corbridge: torso of a *genius* from  
the headquarters building.

the *sacellum*, but it is a richer iconographic yield than from any British military shrine, and helps us to visualize the bold imagery which filled the garrison-chapel. Apart from the accoutrements of the men themselves, it was one of the rare points where artistic effect was sought amid severely utilitarian surroundings. The furnishings were not

<sup>25</sup> Cf. CW<sup>2</sup> xxxviii, 210, fig. 12, where the base of such a statue is figured.

<sup>26</sup> AA<sup>3</sup> ix, 272 and 273 (=1912 *Rep.* 44-5), fig. 19.

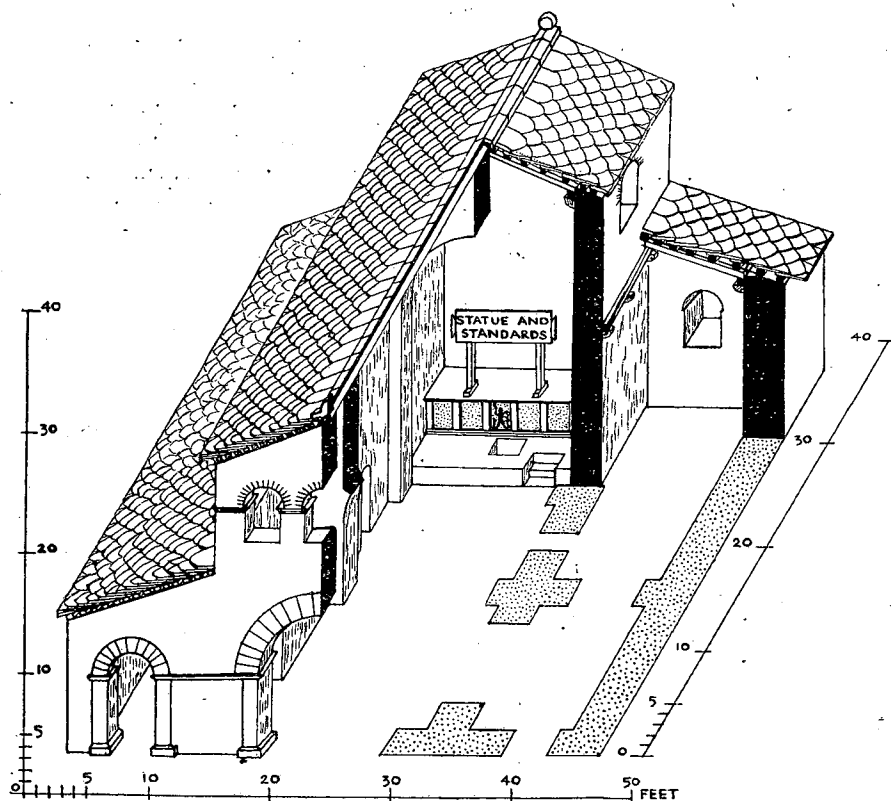


FIG. 8.

The headquarters building, Corbridge, restored.

delicate, their forms were bold and their colouring loud: they expressed the blatant vigour and bold confidence of the Roman military world, in a manner calculated to impress the simplest mind.

This concludes the description of the primary building. Its period is not in doubt. Antonine buildings lie below it, and it goes with the compound, already proved<sup>27</sup> to be Severan. As an architectural composition, it may claim to

<sup>27</sup> See AA<sup>4</sup> xv, 264 and 268-9.



be one of the most interesting in the North (fig. 8). It combines with unity and compact design real feeling for artistic effect. Its central feature, the shrine, is as definite a point of interest as the sanctuary of a Christian church. We cannot tell how much of the strong shell of the building was still standing when Wilfrid made Corbridge the quarry for his *basilica* at Hexham. If he saw it intact, he must have been struck by the likeness between the old and the new. But the ruin supplied him with stone and not with ideas. The inspiration for both came from across the Alps.

Long before Wilfrid's day, the building had, in fact, been considerably altered in the later Roman age. It did not, indeed, lose its essential form: the shell was virtually fireproof, and could be restored again and again, as is true of most headquarters in Britain, which retained their form unaltered when the less solid buildings round them were restored in new guise. But few restorers can resist the temptation to improve upon an original, and new ages, if alive, have new needs. This building, lying immediately below the surface on the crown of this part of the site, has been robbed almost everywhere of the upper layers which indicate restoration, but its walls still tell a complex story (fig. 9).

The first addition was a suite of three rooms on the north side of the block, reached by a dog-leg passage opening into the north end of the forepart of the building. The passage was noted<sup>28</sup> to have had two floors, the upper of flags, the lower of white concrete. Both are now removed, but they were apparently associated<sup>29</sup> with a latrine. The walls of the large room to west of it had been plastered,<sup>30</sup> and traces of this treatment still remain. The eastward room must have been entered from the main building, but

<sup>28</sup> AA<sup>3</sup> ix, 254=1912 *Rep.* 26.

<sup>29</sup> AA<sup>3</sup> ix, 254=1912 *Rep.* 26 describes "a gutter of two stones" associated with the later floor. PSAL<sup>2</sup> xxv, 152, fig. 4, shows a regular drain, apparently provided with an outfall through the north wall.

<sup>30</sup> AA<sup>3</sup> ix, 254=1912 *Rep.* 26.

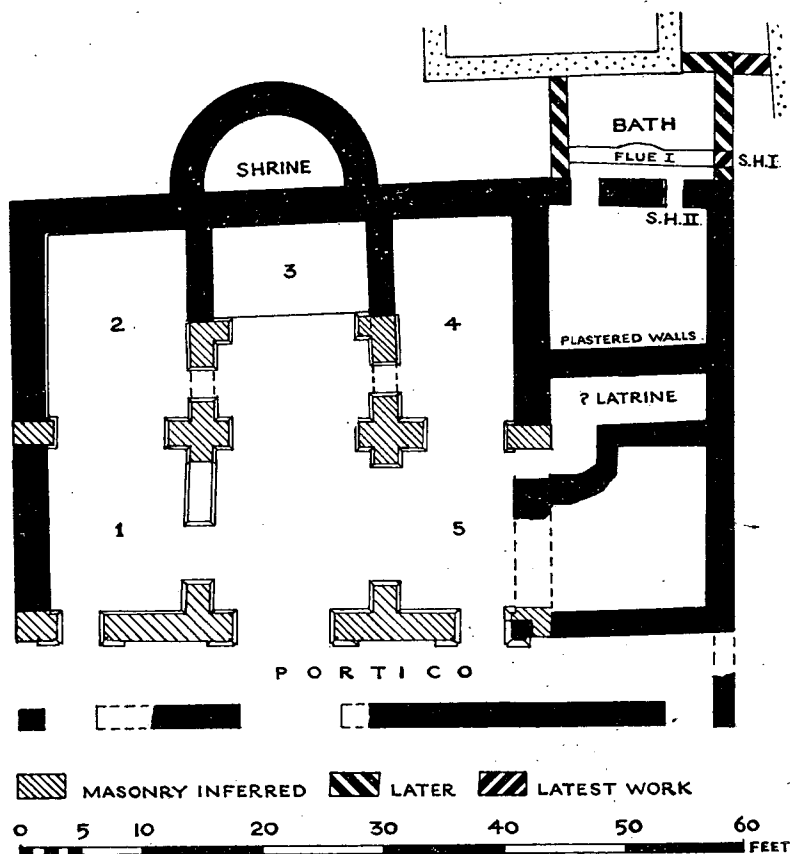


FIG. 9.

Corbridge: fourth-century headquarters building.

whether its whole south side was open, as an extension to the forepart, or whether it was partitioned off as an additional room, remains obscure. There is no doubt that the whole of the suite was an addition. The point was observed at the north-east corner of the original structure in 1912, when the wall of the east room was found<sup>31</sup> butting against the ashlar quoins of the earlier work. The walls of

<sup>31</sup> See fig. 4 above.

the west room may still be seen laid against the original north wall. The purpose of the addition is not immediately plain. But it will be recalled that two rooms, associated with a narrow passage containing washing arrangements, are typical of the quarters for lower-grade officers as inserted in the granaries at South Shields.<sup>32</sup> While the later arrangements of headquarters buildings such as Chesterholm<sup>33</sup> and Housesteads<sup>34</sup> show that in the fourth century a minor administrator customarily lived in the building. The rooms here added would meet that need.

At the same time two further additions seem to have been made. The new north wing must have considerably marred the symmetry of the building. An attempt to remedy this by creating a new unity of design was made by adding a new front portico or verandah, extending<sup>35</sup> the whole width of the building and masking the junction of new and old. Secondly, more room was gained in the *sacellum* by adding a large apse at the back. All these alterations belong to one time, and since they correspond with the new road-level laid down all over the site<sup>36</sup> in the early fourth century, they may be regarded as the work of Constantius I, soon after A.D. 297.

Still later alterations, however, are represented by an addition to the north wing. The space between this and the north-east end of a workshop behind the headquarters was filled by a small bath-room, attesting, it may be remarked, the domestic character of the northern suite in this period at least. The room had plastered walls and a floor of broken-tile concrete laid upon flags. It was warmed by a single flue of irregular shape, and its stoke-hole, arched with tiles, pierced the north wall. The walling was oddly contrived, by linking the west wall of the older north

<sup>32</sup> AA<sup>4</sup> xi, 96.

<sup>33</sup> AA<sup>4</sup> xiii, 227.

<sup>34</sup> AA<sup>2</sup> xxv, 210, pl. xv, wall *p* in room 8.

<sup>35</sup> Between them AA<sup>3</sup> ix, 262=1912 *Rep.* 52, pl. v and PSAL<sup>2</sup> xxv, 152, fig. 4 mark a little more than is now visible of the portico, except at the south-east angle, where a large foundation block may be added.

<sup>36</sup> Cf. AA<sup>4</sup> xv, 261-2.

wing with the east wall and north-east angle of the adjacent workshop, and it is not surprising that so casual a structure should have developed a subsidence at the north-west angle. This was presently corrected by inserting a buttress or tie-wall between the angle and the enclosure wall of the compound.

There was a yet later stage in the history of the room. The floor of the bath was covered<sup>37</sup> by a "rough channelled hypocaust," now removed, which again carried a cement floor laid upon flags. The hypocaust was fired from the adjacent room by a new flue cut in its east wall, which was much used and heavily burnt. Here, too, a dated object was noted. The excavators of 1912 found, between the flags and cement of the floor,<sup>38</sup> a coin of Valentinian I (A.D. 364-375), occurring in their list<sup>39</sup> of coins, published two years later, as the type GLORIA ROMANORUM.

At this point, therefore, the dating of the latest addition may be fitly considered. As already observed, it is an addition to the fourth-century north wing. The latest phase cannot have occurred before A.D. 367-9, as the coin of Valentinian, so happily associated with its building, shows. But it is on the whole easier to assume that the actual building of the bath-room belongs to this date, when reconstruction was taking place all over the site for the first time since A.D. 297. This will give time for the coin of Valentinian to have seen some use before it was lost in repairs. Alternatively, it must be supposed that the bath-room was added casually, as an improvement to the early fourth-century arrangements. It is hardly now possible to decide between the two interpretations.

(3) *The guild-room.* Allusion has already been made to the later building for which a gap has been broken in the enclosure wall just north of the gate of the compound.



<sup>37</sup> AA<sup>3</sup> ix, 255=1912 *Rep.* 27.

<sup>38</sup> *Ibid.*

<sup>39</sup> AA<sup>3</sup> xii, 267=1914 *Rep.* 43. Which it was of the three coins of this type there described is not disclosed: the mint mark therefore remains uncertain.

This is a rectangular room,<sup>40</sup> internally 24 feet long by 16 feet wide, with a western apse and an eastern portico, the latter represented by four chamfered bases projecting into the main street between the compounds. There was a large front doorway, 5 feet wide, much used, and closed by a single door of which the pivot-hole and bolt-hole remain. This doorway was later blocked, as was also a small side-door at the north-east end of the building, where the iron door-pivot<sup>41</sup> was found in position. How the room was used when both doors were blocked remains uncertain: but it will be noted that the walling is missing at the north-west angle, and it is thought that a later doorway may once have filled this gap.

All later floors have now been removed, but the excavators noted<sup>42</sup> that there had been one of beaten clay, and a later one of flags. Associated with the clay floor was a set of covered V-shaped soak-drains,<sup>43</sup> two on the north and one on the south, proceeding from the western angles of the room towards the front door, where they come to an end. The presence of these drains, associated with the central apse, goes far to establish the purpose of the building. The general resemblance of its plan to that of the temple of Antenociticus<sup>44</sup> at Benwell has only to be recalled in order to suggest a religious function. But there is a still closer parallel to be drawn between the arrangement of the buildings. One of the striking features of the Benwell temple was the discovery of two altars placed in the angles flanking the apse where the cult-statue had stood. Place two altars in similar position in the Corbridge building,

<sup>40</sup> The two plans of this room are in AA<sup>3</sup> ix, 262 (=1912 *Rep.* 52) pl. v and PSAL<sup>2</sup> xxv, 150, fig. 1. They do not differ fundamentally. The former shows a little more detail than the latter, which, however, adds the blocked doors, attested by the photograph AA<sup>3</sup> ix, 244 (=1912 *Rep.* 16), fig. 4. Neither plan, however, orientates the building correctly.

<sup>41</sup> AA<sup>3</sup> ix, 245, fig. 5=1912 *Rep.* 17, fig. 5.

<sup>42</sup> AA<sup>3</sup> ix 246=1912 *Rep.* 18; the flagged floor is mentioned in PSAL<sup>2</sup> xxv, 149.

<sup>43</sup> The drains as covered appear in the photograph AA<sup>3</sup> 244, fig. 4=1912 *Rep.* 16: as uncovered in photograph PSAL<sup>2</sup> xxv, 150, fig. 2.

<sup>44</sup> Bruce, *Handbook*<sup>2</sup> (pocket edition), etching facing p. 47.

and the purpose of the soak-drains in the clay floor becomes immediately clear. The drains allowed libations, poured in honour of the god or goddess whose image occupied the apse, to soak away without forming an inconvenient pool.

The building may thus be defined as without doubt a sacred edifice, though neither image nor altars survive to tell what deity was worshipped therein. In this connexion, however, the position of the building in time and space cannot be neglected. It belongs, as the street-level and its relation to the compound wall show, to the time when the two compounds were united by a new north wall. It is so placed that, although it lay within the west compound and could be reached from it by a side door, its main entrance lay upon the principal street, then closed to the public but still serving as the main esplanade, or *platea*, of the military compounds. The shrine was accessible at all times to the soldiery, whether on or off duty, and may therefore be regarded as in the west compound but not wholly of it. It would, however, be most irregular to find within a military enclosure an important temple apart from the central shrine of the headquarters building; for the *aedicula* of the *genii cohortium* or *centuriarum* do not count in such a consideration. Yet this building is sufficiently large and prominent even to rival the headquarters shrine. It can therefore only be considered as in some way connected with official life. That being so, a *schola*, or guild-room, will best fit the case, for such buildings were not only sanctioned but took a prominent place and were large enough to house numerous altars and dedications. If we may now seek a patron deity, Minerva<sup>46</sup> would suit either the clerks of the administrative staff or the metal-workers of the workshops. Vulcan will not do, for temples of the fire-god<sup>47</sup> lay apart from the dwellings of man.

It has already been noted that the building had a later

<sup>46</sup> Cf. the group of altars C 1033-35, dedicated to Minerva in association with a *collegium* from Bremenium.

<sup>47</sup> Vitruvius, *de Architectura*, i, 7, 1.

history. After the threshold of the main entrance had been so much used that the soft stone was worn through, this door and the side door were blocked. The new entrance to the building must, it seems, have been at the point where only the clay-and-cobble foundation is left, since everywhere else the wall remains unbroken. Such a drastic change in the emphasis placed upon the building should connote a fundamental change in function. The alteration seems connected with the rebuilding of the south end of the adjacent workshop 1 (see p. 107), which was opened up as a furnace-yard, extending to the compound wall and bounded on the south by the building under discussion. The disused guild-room, fallen from its glory, may have served as a store or tool-house adjoining the new yard, whence it was entered. It can hardly have served either the public or religion any longer.

(4) *The workshops.* These buildings are the most characteristic feature of the compound. They have been considerably changed from their original form, so that their walls have been in places removed, leaving only the clay-and-cobble foundation which carried them. To alterations of this kind may be added systematic robbing of stone in post-Roman times and a negligent survey when the buildings were first examined in 1912. Only the complete uncovering now to be described has revealed the symmetry of the original plan. Up to date, nine of these buildings may be recorded (see PLAN). Four (nos. I-IV) have been uncovered completely, while the north ends of four more (nos. V-VIII) and the east end of the ninth (no. IX) appear to view. All, except no. IX, lie north and south and are arranged back to back in pairs which share a party-wall. All, no. IX included, were originally built, to judge from nos. I to IV, to a standard plan. This took shape as a long narrow building, about 72 feet long by just over 10 feet wide internally: and the long dimension included projecting wings at each end, which are about 7 feet long, and add about 4 feet to the internal width. Apart from the medial

wall shared by each pair of buildings, the original internal divisions have been of wood. But to judge from the planning of the doors in nos. I and II, where original doors alone survive, the buildings have been further divided across the middle from east to west, adjacent doors serving the north and south halves thus formed. The L-shaped design thus achieved is typical of military work, and reminiscent of barrack-blocks. But each fully excavated building has furnished abundant evidence, that its purpose was not domestic but industrial, in the shape of furnaces and small tempering tanks, both associated with iron slag. Most of the iron was removed in 1906 and 1912, when these workshops were first uncovered. But shop III produced from its lowest level, covered by some later flagging which had not been previously disturbed, a notable deposit of manufactured objects (plate XI), all of military use. These are described in detail below (p. 112). Here it may be noted that they show the shops to have been iron-workers factories, where raw material was worked up into weapons of war. Such an establishment is of exceptional interest, since nothing of the kind is known elsewhere in the Roman military world. In form, as has been previously observed, it is something akin to the tileries<sup>48</sup> of the Twentieth Legion at Holt on Dee. But tileries are relatively common. Each legion and many auxiliary corps in Britain had them.<sup>49</sup> Experience in iron working was rarer. Indeed, it may be thought that it is not mere chance<sup>50</sup> that the legionaries at work here should be drawn from the Second Legion. For while the other legions of Britain lay in stations out of touch with iron ore, Caerleon, the home of the Second, is within twenty miles of the famous iron deposits of the Forest of Dean. This said, the shops may be described in detail.

<sup>48</sup> Grimes, *Holt, Denbighshire: the Works-Depôt of the Twentieth Legion*; *Y Cymmrodor*, xli, London, 1930.

<sup>49</sup> For a map, see Grimes, *op. cit.* 61, fig. 33.

<sup>50</sup> The idea of specialist corps was not foreign to the Roman army, particularly in later times. We may compare the descriptions of Vegetius, ii, 10, 11.



Shops I and II are enclosed by the east wall of the north-east quarter of the compound. The original walls and foundations are everywhere visible, but stone-robbers have fallen particularly heavily on the medial wall, while the south end of shop I was drastically altered at a later period. Original doorways appear on the east side of shop I, preserved from stone-robbers by a subsidence which caused them to sink deep into the Flavian ditch-system. The wall between two similar doorways, not quite opposite the first pair, is preserved by the same subsidence in shop II, where an original furnace also appears in the north half, close against the medial wall. Traces of two later alterations are associated with these shops. In the early fourth century stone subdivisions were introduced in both, while shop II received a southward extension<sup>51</sup> behind the guild-room, entered from the west at its south-west angle corner and containing a furnace. Later still, presumably in the reconstruction of A.D. 369, the east doorways of shop I were blocked<sup>52</sup> and its south end was cut off by a thick wall linking the medial wall with the enclosure-wall to the east, and forming a yard containing a very large furnace, set astride the foundations of the original projecting wing. The alley between the guild-room and the southward extension of shop II was also cut off by two blocking walls.

Shop III, which is back to back with shop IV, faces shop II across a narrow street. The original walls and foundations are everywhere visible, though the medial wall has been much robbed towards the south end of the building, where no masonry survives. Both shops exhibit original furnaces, now reduced to somewhat formless masses of burnt stone, while shop III has four tempering tanks, one cut in the original east wall and another in a fourth-century subdivision, showing that the building was used for the same purpose throughout its existence.

<sup>51</sup> Plans of this occur in AA<sup>3</sup> ix, 262, pl. v=1912 *Rep.* 52, and PSAL<sup>2</sup> xxv, 150, fig. 1. Neither notes the threshold of the door, still visible, and only the former the traces of the furnace. Both give an incorrect orientation.

<sup>52</sup> AA<sup>3</sup> ix, 247=1912 *Rep.* 19.

In the early fourth century both shops were drastically altered. They were now separated by an alley, while their projecting wings were united by new side-walls, much robbed, while the wider shops thus formed were subdivided anew. Some comfort, as if for a clerical staff, was introduced in shop IV, where the new north room<sup>53</sup> has a stoke-hole for a hypocaust. Doorways of this period are seen at the north end of both shops, and one in the east wall of shop III has been blocked. This blocking is here the sole relic of the later changes so much more apparent in shop I. In the pronounced subsidence over the Flavian ditch, shop III exhibited some remains of flagging of this period, which in turn covered the rich deposit of *scoriae*, forge-sweepings and iron objects to which allusion has already been made (p. 106) and which are described below (p. 112). One of the flooring-slabs turned out to be a further portion of the large relief<sup>54</sup> discovered in the roadway in front of the west granary in 1908. It adds to that enigmatic representation the right-hand portion of the colonnaded court, where lounges a large young naked deity. But the newly discovered portion does not solve the meaning of the scene, and it becomes increasingly clear that the surviving stones form part only of a long narrative frieze of which the story so far eludes us. In execution and variety this is perhaps the most notable religious sculpture in the province.

Shops v-viii filled the south-east quarter of the compound, corresponding to shops I-IV. It will be noted that while the former shops line with the south pier of the gate into the compound, and hide from view the south aisle of the headquarters, the latter shops, I-IV, are set back so as to leave the north aisle of the headquarters in full view. The reason for this is not immediately plain, but is probably to allow standing-room for carts and any traffic which might

<sup>53</sup> An excellent view of the room appears in AA<sup>3</sup> iv, 259 (=1907 *Rep.* 55), fig. 7, together with details of a vanished threshold in the corresponding room of shop III.

<sup>54</sup> AA<sup>3</sup> v, 311=1908 *Rep.* 7, fig. 2.

otherwise block the view of the central shrine.

The north end of shops v and vi exhibits no later work. Shop v has a narrow north-to-south partition in its projecting wing, a feature which does not recur in the other shops. Shop vi has an original doorway, just south of the projecting wing. Very little of the medial wall which they shared remains standing.

Shops vii and viii have been reduced to foundation work<sup>55</sup> by stone-robbers, who, while removing the earlier walls, have left some later walls untouched. These reveal two periods of subdivision in the fourth century, apparently involving the introduction of hypocausts in the later stage.

Shop ix lies east and west, in the north-west angle of the compound. It is a little wider than the others, but perhaps a little shorter; for the west wall<sup>56</sup> of the compound, near which this shop will have terminated, lies some 77 feet from the east end of the shop. This will not allow quite the normal length.

(5) *The drainage system.* In the last report<sup>57</sup> attention was drawn to a system of underground channels which supplied with drinking-water two underground cisterns, situated at either side of the street dividing the compounds. The east cistern, in which the water did not rise above the brim, had no overflow. The west cistern, just outside the wall of the west compound, discharged its overflow into a southward drain making for the river. In 1938, it was not clear whether this southward discharge fed further tanks or became a simple overflow. It was suggested, for example, that a branch channel, which enters the west compound some 45 feet north of the gate, may have fed a large cistern within the compound just south of shop iv. Excavation now shows that the direction of flow will not permit this conclusion. The branch channel is not an inlet, but an

<sup>55</sup> They were hence completely missed by previous excavators.

<sup>56</sup> AA<sup>3</sup> iv, 260, pl. v. = 1907 *Rep.* 56.

<sup>57</sup> AA<sup>4</sup> xv, 253-4.

outlet,<sup>58</sup> fed partly from a circuitous surface drain, commencing behind the headquarters building, and partly from the tank at shop IV. This tank had a long life and a not quite simple history. It began at half its present size, with a flagged floor, which was grooved to take the tongued uprights. The discharge drain left at the north-east angle, to form part of the branch channel already described. Later, the original tank was extended towards the east, with slabs resting upon long blocks of stone, grooved as before, and with a floor of pounded tile and lining of similar material united by quarter-round mouldings at the angles. One of the uprights remains in position, giving a height of  $2\frac{1}{2}$  feet. The discharge from the enlarged tank was not carried in the old drain, but left for the south from the centre of the extension by a new drain. This skirted the southward extension of shop II and, passing below the gate of the compound, joined the main outfall at a point surmounted by an open stone trap or drain-head, just outside the gate.

While the discharge from the tank was thus carefully arranged, its source of supply remains ambiguous. It will be noted, however, that the headquarters-building stands considerably higher in ground-level than the tank, and that a late channel heads from it in that direction. The water may therefore have been derived from the roof-drainage of the headquarters, though no clear trace of the connexion now exists.

(6) *Buildings earlier than the compound.* The excellent preservation of the upper remains has in many places prevented an examination of the lower levels. Our knowledge of these is therefore fragmentary in this area. The principal feature below shops I-IV is a heavily laid street, not less than 25 feet wide, bounded by a drain<sup>59</sup> and stone buildings

<sup>58</sup> This is confirmed by Knowles, who observed an open drain-head for surface water above it, just behind the wall of the compound. AA<sup>3</sup> ix, 262, pl. v=1912 *Rep.* 52.

<sup>59</sup> This is the drain, noted in AA<sup>3</sup> ix, 262, pl. v=1912 *Rep.* 52, 7 feet north of the re-entrant angle of the enclosure-wall of the compound.

on the north side and running from east to west. It was detected in a cross-section inside the east wall of shop III, and appears to have run westwards, between the early stone buildings lying north of the re-entrant in the compound wall and those below the headquarters building. The latter group were observed in 1912, when what now appears to be their east wall was placed upon plan.<sup>60</sup> Deep digging below the headquarters revealed (fig. 1) a fragmentary series of rooms (plate x, 2), in which two series of constructions could be observed, as distinguished both by level and type of masonry. They were associated with Antonine pottery, and add a little more to our scanty knowledge of the Antonine buildings. It cannot be said, however, that they provide any clue to the character or disposition of the Antonine occupation, whose most illuminating relics are still epigraphic. The building below the headquarters has been at least 65 feet long, and consists of a series of compartments not unlike the *contubernia* of a barrack-block. But as evidence of function the resemblance is far from conclusive.

The stone buildings were not the first on the site. Hereabouts they covered a widespread layer of red wall-plaster associated with post-holes and Flavian-Trajanic pottery. This was observed below the additional north wing and original north rooms of the headquarters, and also outside the building, to north of the apse. Since the first-century occupation elsewhere<sup>61</sup> below the compounds is represented by pits and squatters' shacks of the most primitive kind, this evidence for comfortable wooden buildings with some pretensions to amenity is a welcome addition to our knowledge of the area south of the first-century fort.

<sup>60</sup> In both AA<sup>3</sup> ix and 1912 *Rep.*, *loc. cit.* and PSAL<sup>2</sup> xxv, 152, fig. 4; and the latter with the legend "earliest wall."

<sup>61</sup> AA<sup>4</sup> xv, 258: very similar remains were observed in 1938 in trial-pits within and south of the guild-room.

## III. IRON OBJECTS FROM THE WEST COMPOUND (SHOP III).

The position of this group has already been described (p. 106). It lay on the original floor of the building, sealed by fourth-century flagging. The seventy-eight objects (plate XI) consist of the following :

(a) 23 heads of javelins or darts,<sup>62</sup> tapered and square in section, and provided with a tang, often perished, below the base of the head. The heads are made in three lengths (excluding tangs), namely, 4 inches,  $2\frac{1}{4}$  inches and  $1\frac{1}{2}$  inches. In this group there are 5 of the first size, 8 of the second size and 10 of the third size.

(b) A spear-head, now in two fragments. The head has been originally some  $4\frac{1}{2}$  inches long, with double blade, and has been fastened to its shaft by a hollow shank,  $2\frac{1}{4}$  inches long. Only one of these is now represented in the group.

(c) 17 arrow heads. Three of these have quadruple barbs, drawn out of heads  $1\frac{1}{4}$  inches long, and fitted to the shaft by tangs, presumably held in a split end, tightly bound when the head was in position. Five have similarly barbed heads, now averaging just under an inch long, attached to hollow shanks 2 inches long. Nine have large double-edged flat heads,  $1\frac{1}{4}$  inches long, attached to hollow shanks, now mostly damaged but originally about  $1\frac{3}{4}$  inches long.

(d) 4 hold-fasts. One of these is a true hold-fast, T-shaped: two are rivets, and the fourth is a ring on a shank.

(e) 24 tapered nails, square in section, with flat round heads. The largest is 3 inches long, the smallest about 2 inches in length.

(f) 7 tapered shanks or spikes, also square in section, the longest  $4\frac{1}{2}$  inches long. It is not clear whether these are finished or not. They might, for example, be nails of which the heads had not yet been prepared.

(g) A scrap of iron plating, showing part of an angle.

(h) A knife, which had been shaped, but not yet tempered or sharpened.

It will be noted that among the seventy-eight objects thus enumerated, only the seven shanks and the knife seem to be unfinished. When these buildings were uncovered in 1912, the contemporary report<sup>63</sup> mentions "a very large

<sup>62</sup> In section these heads are very like those of the iron *pilum*, but have not the long shaft which was attached to them.

<sup>63</sup> AA<sup>3</sup> ix, 250=1912 *Rep.* 22.

number of arrow heads in every stage of manufacture, from the short length, just nipped from the heated bar, to the finished implement." It may be suspected that the "short lengths" were the objects here classified as heads of javelins or darts, and that the material then recovered was virtually the same as the deposit now described. If these apparently shapeless masses of iron had not been skilfully cleaned by this society's curator, Mr. William Bulmer, none of the small differences noted above would have been observed.

The group of objects as a whole is of the highest interest. It is the produce of an armourers' workshop, where raw material was worked up into small weapons or implements. The great variety of the weapons, of which each class is clearly standardized within itself, is almost unexpected. It would seem that arrows and darts were classified not only by size or weight, but differently barbed according to the work that they had to do. The precision and method of the Roman Imperial army has often been illustrated by other features. These objects attest a delicacy in selection of the offensive weapon which is the reaction of trained minds finely attuned to the task before them.

It is not likely, however, that the whole of this armourers' depôt was devoted to the manufacture of arrow heads. Each shop may well have produced a different class of object. When shops v-viii, hitherto unexcavated, are uncovered in detail, it will be interesting to see what they have to tell as to the type of work done within them.

A word may be added as to the source of the iron ore. As noted<sup>64</sup> in 1911, the three-hundredweight bloom of iron, found at the north end of the site in 1909, was built up from smaller blooms, "doubtless procured by smelting with charcoal at various points in south Northumberland where the 'black-band ironstone' crops out." The best known of these localities is the Broomhope valley, below Ridsdale, and it may be added that in the native settlements of this

<sup>64</sup> AA<sup>3</sup> viii, 207 = 1911 *Rep.* 71.

district, as at Gunnar Peak<sup>65</sup> and Carry House,<sup>66</sup> iron-working is associated with Roman pottery. There is thus no doubt that this source of supply was then worked; and an attractive explanation of the small blooms would be that they were worked by the natives themselves and brought into Corbridge as tribute in kind.

#### IV. SUMMARY OF CONCLUSIONS.

At the end of a somewhat complicated report, it will not be amiss to summarize the conclusions which have been reached. The examination of the east compound in 1936 and 1937 compelled a preliminary assessment, based upon the reports of 1907 and 1912, of what the west compound contained. It was suggested that it enclosed the workshops and administrative building of the military artificers whose living quarters were in the east compound. The uncovering of a large portion of the area has now confirmed the suggestion and greatly amplified our knowledge of the details. The workshops, imperfectly represented upon the survey of 1912, turn out to be standardized buildings of which nine can be identified, four having been excavated and five remaining virtually intact. All four excavated examples have yielded evidence of iron-working, while one has produced a notable group of the objects there manufactured, namely, heads for arrows or darts, and nails. The headquarters building is of exceptionally interesting design. It was built by legionaries for the use of the legionary detachment which manned the workshops and which did not require large administrative offices. Nevertheless, as the sole edifice in which ceremonial accompanied work and splendour overshadowed utilitarian considerations, it was accorded monumental treatment. The associated sculpture shows that the soldier-artists put expression and feeling into its decoration: and at this time

<sup>65</sup> AA<sup>2</sup> x, 27 (pottery), 26 (slag).

<sup>66</sup> *Archæologia*, lxxv, 361 (pottery), 363 (iron).





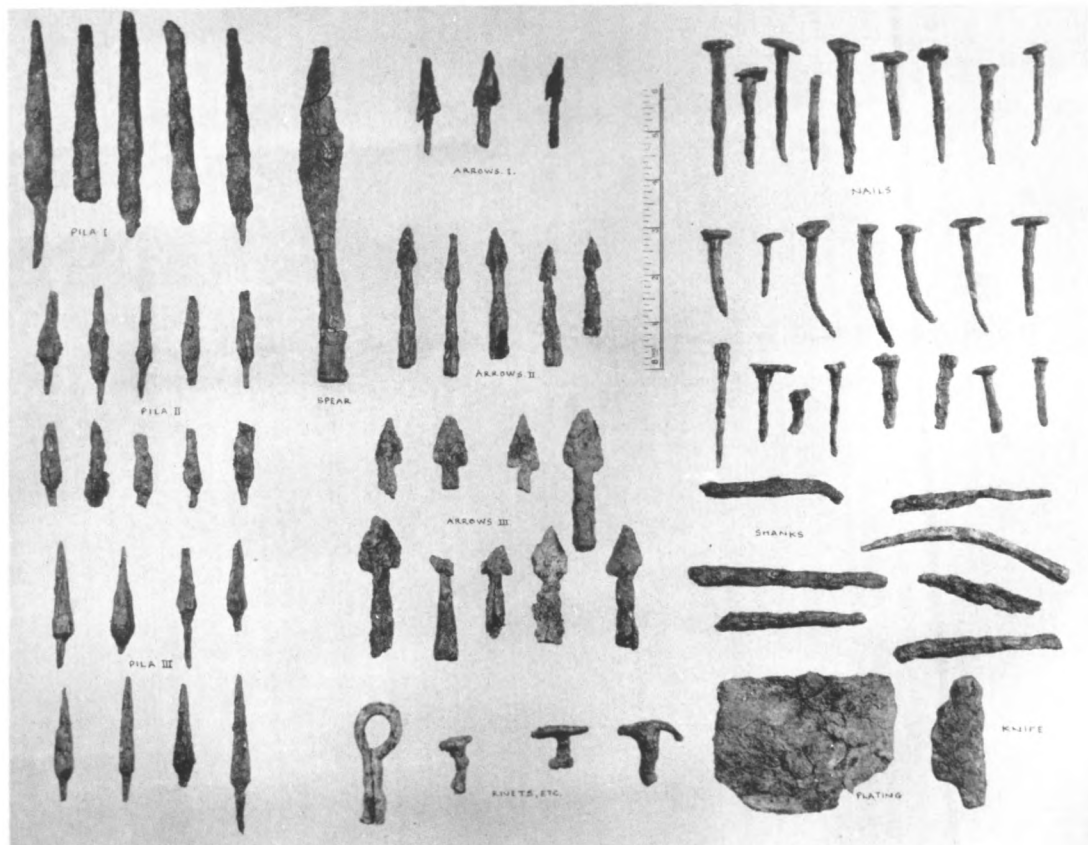


FIG. 1. EAST WALL OF WEST COMPOUND REBUILT AGAINST PLASTERED FRONT WALL OF GUILD ROOM.



FIG. 2. ANTONINE FOUNDATIONS BELOW WEST ROOM OF CONSTANTIAN NORTH WING OF HEADQUARTERS. LOOKING SOUTH.





CORBRIDGE: IRON OBJECTS FROM WORKSHOP III. (SEVERAN LEVEL) WEST COMPOUND.

no other building in the compound rivalled it. In the fourth century, when both it and the workshops were remodelled, a guild-room or *schola* was inserted at the gate of the enclosure.

The enclosure itself is not a defensive work. Its gateway appears to have been of non-defensive type, and its wall, undefended by a ditch-system, winds among the other buildings of the site in a manner which much puzzled its original excavators. It is explicable as a boundary wall. Some of the most important buildings on the site, like the granaries, the fountain and the great unfinished storehouse, lay altogether outside the enclosure. It is possible, indeed most likely, that they belong to a slightly earlier phase of third-century history, when a settled policy of development had not yet been adopted and the need for storehouses connected with the great Severan campaigns was urgent. But the use of these buildings was in any case intermittent, in the sense that the reception and distribution of their contents was a seasonal, rather than a daily, affair. The compounds, on the other hand, were the scene of intensive daily activity on the part of a body of technicians, and could be thus walled off from the rest of the site, in a manner that betokened their special character.