

III

EXCAVATIONS AT EBCHESTER ROMAN FORT 1972-3

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SUMMARY

LIMITED EXCAVATION in advance of development in the south-east corner of Ebchester fort (NZ 104554) produced evidence for seven periods of building, four in timber, three in stone. Insufficient was obtained of the plan of any of the buildings to determine their function but surviving remains were not inconsistent with their being barracks, stores or workshops. The final building produced evidence for bronze-working. Two structural periods were noted in the rampart and intervallum road, the road of the second period projecting further into the fort interior. The pottery from the site pointed to two distinct phases of occupation, Flavian to early Hadrianic, followed by a period of abandonment and reoccupation in the mid-Antonine period. When the fort was reoccupied the first stone buildings appeared and the defences were remodelled. Pottery from the excavation goes up to the late fourth century.

INTRODUCTION

THE CIRCUMSTANCES OF THE EXCAVATION

Rescue excavation at Ebchester was begun in March 1972 in advance of housing development in the south-east corner of the Roman fort. The excavation was directed by the two writers on behalf of the Department of the Environment and Durham University Department of Archaeology. Much of the area of Ebchester fort is already built over but in 1967, following the discovery of substantial and well-preserved Roman masonry in the Commanding officer's bath-house (*A.A.*⁴ 42 (1964) 173 f.), the undeveloped area was scheduled by the (then) Ministry of Public Building and Works. However prior to the completion of the scheduling

process planning permission had been granted for the erection of a bungalow on the piece of ground which lies (in modern terms) between the property "Belmora" and Mains Farm, that is in the south-east corner of the *retentura* of the fort.¹ Construction of the bungalow was originally planned for the Spring of 1972 and so a rescue excavation of two weeks duration was mounted in early March. In effect the building did not commence until the June and advantage was taken of this delay by one of us (A.R.) who was able to work on the site, though with a much reduced labour force, at weekends.

The area available for excavation was strictly circumscribed: to the east it was delimited by the boundary of "Belmora", to the north by the boundary of Mains Farm, to the south by Shaw Lane and to the west by the building lines of the proposed bungalow, no excavation being permitted where development was planned. This left a narrow strip about 100' in length and 6' wide (30.40 m × 1.82 m), though it was possible to extend the area widthways towards the southern end of the trench where the building lines veered away to the west. Working space was thus severely constricted and the interpretation of results made all the more difficult by the presence of two masonry walls running at a slight angle down the southern part of the trench. It was decided at the time not to remove these walls as they were in a very fair state of preservation and would not be damaged in the building works. In retrospect this decision is seen to be a wrong one: the stratification in this part of the site was considerably deeper than anticipated, attaining a maximum of about 7' (2.13 m) and as a result of this excavation of the deeper levels in so restricted an area was all the more difficult, particularly where identification of the post-holes and trenches of the timber phases was in question. Moreover from the conservation point of view it became apparent that the westerly extension of the stone building would be demolished in the construction of the bungalow, and, in the event, mechanical stripping of this area showed that the Roman stonework, so well preserved in the area of excavation, soon petered out beyond it, totally destroyed presumably by the farming activities of earlier years.

In addition to the main trench (Area I, fig. 1) two small areas were laid down in available spaces further to the west (Areas II and III) in order to check on the continuation of building lines and the position of the heel of the rampart. The commencement of building operations put a stop to excavation before all the trenches were bottomed and all baulks removed. Following the backfilling of these trenches Mr. L. Bell, the owner of the property to the east, very kindly consented to the extension of the excavation into his back garden. His generosity in so doing allowed us to clear up some of the problems which had arisen, particularly with regard to the timber phases. The excavation here was the work of A.R. conducted at weekends with a small band of helpers.

ACKNOWLEDGEMENTS

We wish to record our thanks to the many people who have helped us in a wide variety of different ways. We are grateful to those who have provided us with specialist reports and services: Mr. J. P. Gillam on the coarse pottery, Mr. B. Hartley with Miss Brenda Dickenson

¹ Strictly speaking the fort is orientated north-west south-east but for convenience and to accord with the practice of previous excavators the site will be treated as though it faced due north.

and Mr. Hedley Pengelly on the samian and Miss L. Thoms on the post-Roman material, Miss D. Charlesworth on the glass, Dr. M. Henig on the intaglio, Mr. P. J. Casey on the coins, Mr. R. F. Miket on the metalwork, Mr. G. Hodgson on the bones, Mr. R. P. Wright on the inscriptions and Mr. W. Seymour of the technical research department, British Steel Corporation (Consett), for his metal analysis. Mr. and Mrs. F. Bettess undertook the surveying. L. Addis and Mr. S. Goddard helped with the drawing for publication. The excavation could never have been undertaken without the many who came to work in the field, particularly Mrs. A. Reed, Misses J. Banks and M. Mitcheson, Messrs G. and D. Reed, J. Gall and the members of the Lanchester Society of Antiquaries. Mr. J. Walton permitted access to his land prior to development and Messrs W. Dodds and L. Bell, owners of the adjoining properties, co-operated in every way throughout the prolonged period of the excavation. Dr. D. J. Breeze read a draft of the report and made a number of useful comments which we have gratefully incorporated in the text.

THE SITE NZ 104554

The fort of Ebchester is sited so as to guard the point where Dere Street crosses the river Derwent. Its position, some 200 yards (183 m) to the east of Dere Street, is as near to the river crossing as local topography will conveniently allow. The fort sits on a fairly level terrace between the 250 and 300 foot (76 m, 91 m) contours on the south side of the Derwent valley, whose steep slope falls away just outside the north rampart. The south and west sides of the fort are protected by the valley of the Ebchester Burn.

A convenient summary of what was known about the site up to 1960 appears in the preamble to Dr. M. G. Jarrett's report on his excavations at Ebchester in 1959.² Since this date further work has been done on the site of the commanding officer's bath-house³ and at the south-east angle tower (a summary of the findings there appears as an appendix to the present report). To date no published plan has attempted to bring together all the isolated pieces of information which we have about the fort's layout. Fig. 1 seeks to remedy this omission. The outline of the ramparts is based on the plan produced by the Ordnance Survey. The positions of the rampart sections on the east and west sides have been superimposed on this: they must not be taken as independent evidence for the exact position of the ramparts, for neither excavator has published plans locating the position of his trenches. The angle tower, barrack and latrine are tied in to one another and to the rampart sections, following Steer's plan (reproduced by Jarrett). The position of the barrack to the east of the *via praetoria* is defined as closely as the report on it allows, being tied in to the adjacent property boundary. All internal buildings in the south-east corner of the fort have been surveyed, while features noted in the south-west quarter are taken from J. W. Taylor's plan which appeared in W. Neasham, *History and Biography of North-West Durham*, V (1883).

² *A.A.*⁴ XXXVIII (1960) 193f.

³ *A.A.*⁴ XLII (1964) 173f. and further work a report on which is forthcoming.

EBCHESTER · 1972

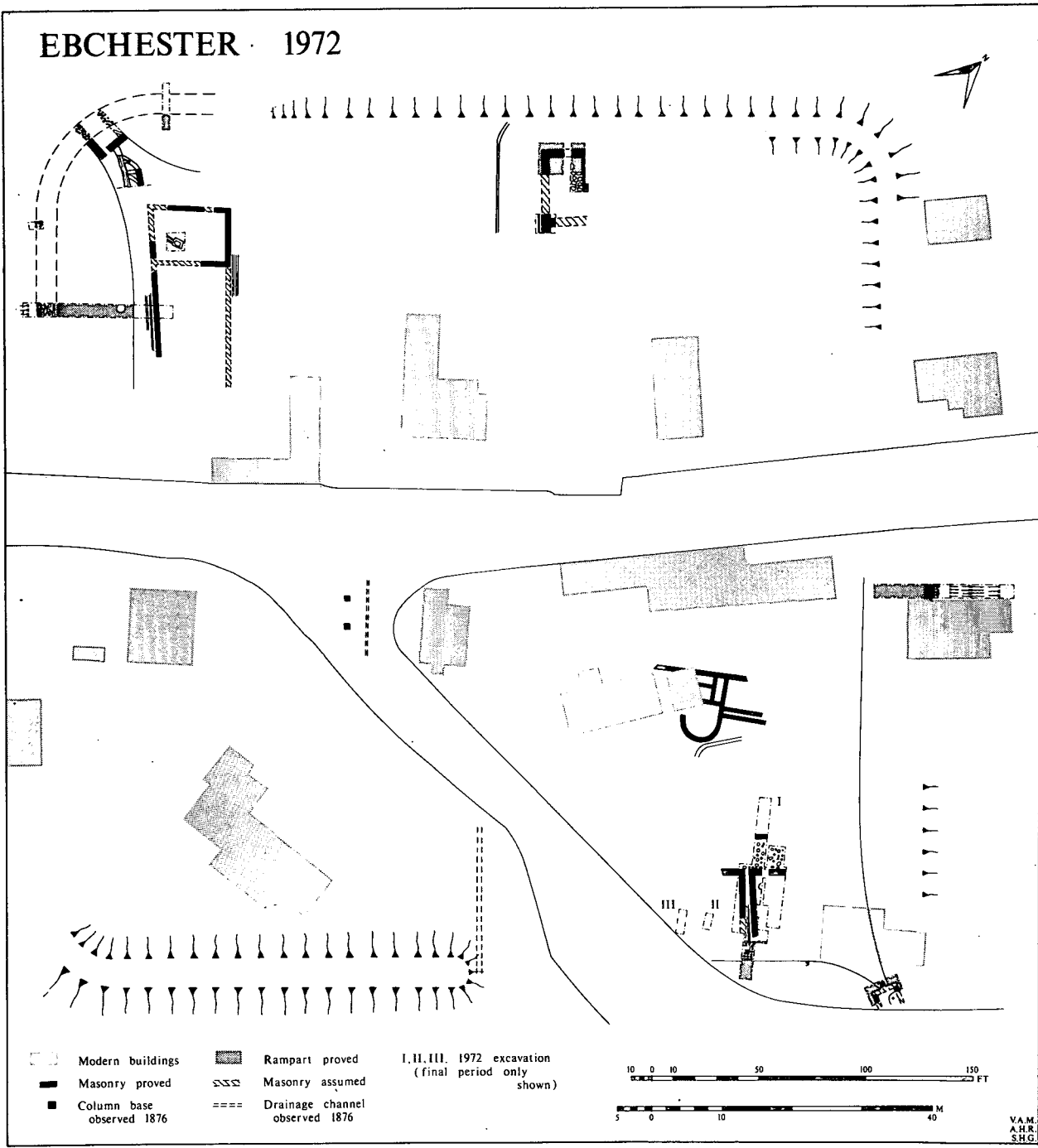


Fig. 1

THE EXCAVATION

PRE-FORT ACTIVITY

The earliest activity on the site is represented by traces of plough-marks in the natural clay. Four of them were noted about the middle of the eastern half of area I. They were 2' (0.61 m) apart, centre to centre, each some 4' (1.22 m) in length, 4" (101 mm) wide and 2" (50 mm) deep. They ran on a north-south alignment. These plough-marks add to the growing body of evidence for pre-Roman ploughing on heavy clay subsoil in the north.⁴

A small hearth 1'3" (0.38 m) in diameter underlay the north-south dividing wall of the northern period I building. It belongs, perhaps, to the initial construction of the fort, being used by the men involved with the building.

RAMPART AND INTERVALLUM ROAD (fig. 7 and pl. VIII, 1)

It was not possible to get a complete section across the fort defences as the southern half of the rampart and the ditches which presumably lay outside it (though none have been proved on this side by excavation) extended beyond the area available for investigation, below Shaw Lane and the wall which bounds it to the north. Although it was not possible to determine the total width of the rampart it was possible to determine its structural history; excavation clearly showed two distinct phases.

RAMPART AND INTERVALLUM I

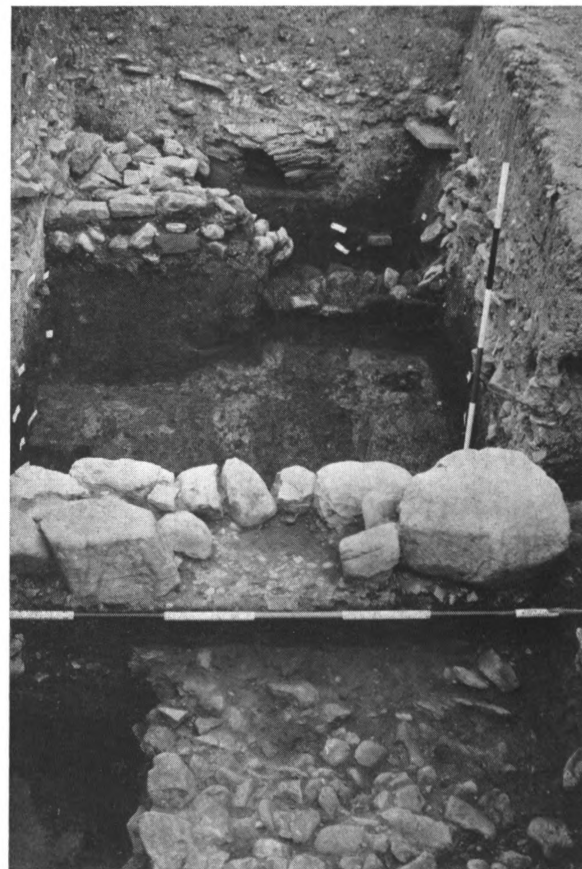
The primary rampart lay directly on the natural clay subsoil except at one point at its northern tip where there intervened a deposit of sticky black organic material which extended under part of the intervallum road. A similar deposit was incorporated in the body of the rampart and it is suggested that this material may have resulted from the clearance of vegetation from the fort site (perhaps partly by burning) prior to the construction of the fort. The rampart was composed of clean grey clay intermixed with a small amount of sandstone which was found in a much decayed condition. It had survived to a maximum height of 1'9" (0.53 m) though doubtless still stood considerably higher beyond the area of excavation as its top was sloping upwards at an angle of some 17 degrees towards the south. The heel of the rampart lay 3'6½" (1.08 m) inside the limit of the trench, its inner face standing at an angle of 76 degrees with no indications of the existence of a revetment at its front. A gully 9" (0.23 m) wide between the heel of the rampart and the edge of the intervallum road served as a drainage channel presumably to prevent water which ran off the back of the rampart from flooding the road surface.

The intervallum road lay directly on the natural clay except as noted above. It was 12'

⁴ Carrawburgh, *A.A.*⁴ L (1972) 85-87; Rudchester, *A.A.*⁵ I (1973) 84; Halton Chesters, *A.A.*⁵ I (1973) 85; Walker, *A.A.*⁴ XLIII (1965) 83.



1. Ebchester: primary and secondary inter-vallum roads, looking north (scale in feet)



2. Ebchester: looking south. In foreground N. wall of eastern period VII building: in background mouth of drain in period V building and part of the E-W internal dividing wall (scale in feet)

(3.65 m) wide and was composed of large flat stones and clay and covered with a layer of pebble and gravel. Its northern and southern edges were defined by kerbstones constructed of well-trimmed ashlar blocks.

RAMPART AND INTERVALLUM II

A clay deposit which overlay the primary intervallum must belong to the period when the defences went out of use and the rampart material slipped forward or was deliberately slighted. Then over the disused primary defences were constructed a second rampart and intervallum. The secondary rampart like its predecessor, was composed of grey clay, though in this case it was underpinned in part by a rather loose layer of river cobbles which intervened between the material of the slighted primary rampart and the fresh clay of the secondary one. The heel of the secondary rampart lay 5'9" (1.75 m) further to the north. The intervallum road was composed of hard packed river cobbles with ashlar kerbs at both inner and outer edges, giving a total width of 10' (3.04 m). It projected 3'9" (1.14 m) further into the fort interior than did its predecessor thus reducing the effective internal area.

DATING OF THE DEFENCES

There was no direct dating evidence for the construction of the primary rampart and intervallum road. No material of any sort was found either in the body of the rampart or below it or in or under the road. However since they are primary they are presumably to be associated with the earliest occupation material from within the fort; that is Flavian (presumably Agricolan).

A mid-Antonine date for the secondary rampart and intervallum road was provided by material sealed below and in the roadway (coarse pottery nos. 63–68). The latest piece which came from under the road was a bowl in Black-burnished category 2 fabric which belongs to the period c. A.D. 160–180 (no. 64*). Thus it is clear that, as might be expected, the refurbishing of the fort defences belongs to the reoccupation of the site after the period of abandonment, and is contemporary with the appearance of the first stone buildings on the site (*infra* p. 56).

DISCUSSION OF THE DEFENCES

In the sections which Drs. Steer and Jarrett cut across the west and east defences of the fort respectively there appeared evidence for two phases of construction though in neither of these two earlier excavations was the second phase attested by a thickening of the rampart on its inner side. In the case of Dr. Jarrett's work this may well be because it was not possible to get a complete section through into the interior of the fort, while the published section of Dr. Steer's work shows an oven tucked into the back of the rampart thus obscuring the vital point. However both Steer and Jarrett were able to get at the outer edge of the defences and

found that there a stone wall had been inserted into the front of the clay rampart. Jarrett also found two phases in the ditch system, with an outer ditch clearly cutting through the fill of an inner one: the outer ditch he assumed to be contemporary with the construction of the fort wall, the line of the wall being too close to the position of the inner ditch for stability. Steer's section was not continued far enough westwards to determine the number and sequence of the ditches here, but the one ditch whose inner lip he located just 4' (1.22 m) from the wall foundation is probably to be equated with the earlier of Jarrett's ditches which lay 4'3" (1.30 m) from the wall foundations. It is very likely that the thickening of the rampart evidenced in the present excavation is contemporary with the construction of the wall and the digging of the secondary ditch. This cannot be proved stratigraphically nor from the dating evidence of associated finds, but the fact that the body of the secondary rampart was of perfectly clean clay containing no finds nor other contaminations suggests that it was from a freshly dug deposit, as for example from a ditch. Dr Steer was able to offer no date for the insertion of the wall, while the Hadrianic date offered by Dr. Jarrett is based on rather insecure indirect evidence. Messrs B. Hartley and J. P. Gillam are agreed from their study of pottery from the site that there was a period of abandonment from early in Hadrian's reign until the mid-Antonine period, and there is nothing in Dr. Jarrett's report which is inconsistent with an Antonine date for the construction of the wall.

The intervallum road which Dr. Jarrett located beneath the north end of a barrack in the *praetentura* is of the same flagstone construction as the primary intervallum exposed in the present excavation.

THE TIMBER BUILDINGS

The first four sets of buildings on the site were constructed of timber. The buildings of periods I and II were on more or less the same lines. Period III represented a major rebuilding to a different plan which was followed exactly in period IV. The plans of the timber buildings as recovered are very fragmentary; this is due in part to the decision not to remove the stone walls and in part to the complete elimination of some of the timber construction trenches by the massive stone foundations of the first masonry buildings which appear to have coincided from time to time with their timber predecessors. This much can be inferred by comparison of the stratigraphy on either side of the stone foundations: occupation or construction layers disappear into one side of the foundations and fail to reappear at the other. Thus the later foundations appear to mark a point of transition and it is on this basis that the positions of some of the timber construction trenches have been restored. Further, pressure from the developer meant that there was insufficient time thoroughly to investigate the lowest levels in all areas and evidence for the timber work may well have gone unobserved and unrecorded. As far as was possible to tell from such a restricted area all the buildings ran on an east-west alignment.

PERIODS I AND II (figs. 2, 6, 7)

The Southern Building: A building of trench construction lay on an east-west alignment with

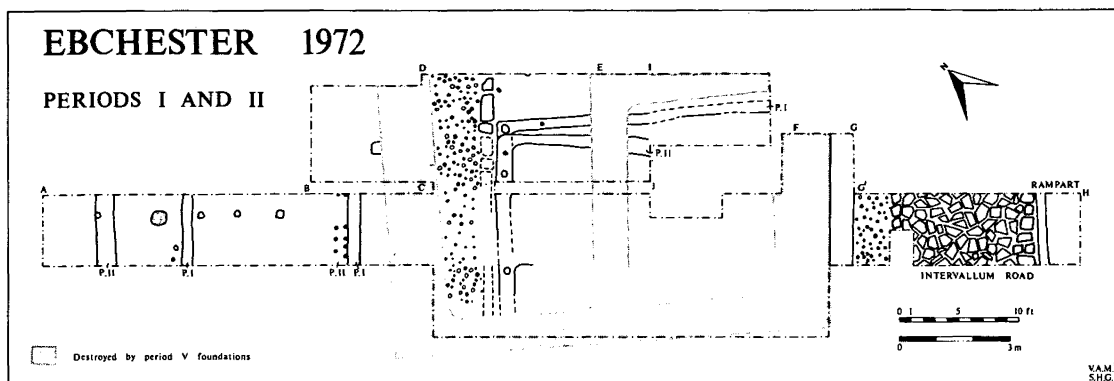


Fig. 2

its southern wall an average of 4' (1.22 m) distant from the inside kerb of the intervallum road. The four foot gap was surfaced with a layer of gravel, ostensibly a road surface but structurally distinct from the make-up of the intervallum. The building was 28' (8.51 m) wide, measured from centre to centre of the construction trench, and its eastern wall lay 16'6" (5.02 m) from the western edge of the excavation, that is an estimated 32'-35' (9.73-10.64 m) from the inside edge of the eastern intervallum road: our lack of knowledge about the width of the eastern rampart and intervallum prevent greater precision. The width of the construction trenches varied between the extremes of 1'3" and 2' (0.38 m and 0.61 m) at the top and 1' at the bottom (0.304 m): they were on average 1'4" (0.41 m) deep and had individual posts set in them with no indications of sleeper or sill beams. The two postholes detected were 3' (0.91 m) apart, a large corner post 8" (203 mm) in diameter, the other 4" (101 mm) in diameter. The fill of the trenches was grey clay slightly darker than that of the surrounding area. There were indications of a north-south subdividing wall giving a room 11' by 28' (3.34 m by 8.51 m) at the east end of the building. The floor appeared to be simply of clay, but this may have been a bedding for timbers of which no trace survived.

This building met its end by fire. It was overlain by a thick deposit of carbon, burnt wattle and fired daub. Traces of unfired clay in the midst of this mass suggested that the daub on the walls had been of yellow clay. The absence of any tile fragments at this level suggests that the roof was made of wood shingles or some other organic material, or alternatively that the tiles had been salvaged for reuse when the building was demolished. The fire could have been caused deliberately to dispose of unwanted materials during a remodelling of the fort or it may have been the result of an accident. There is no evidence that the northern building was burnt at this time, though it was pulled down and rebuilt.

This southern building was replaced by one whose walls coincided almost exactly with those of its predecessor: only the east wall diverged appreciably, lying just to the west of that which it replaced and at a slight angle to it. The floor of the building appears to have been of stone flagging. One or two isolated flat stones were found overlying the destruction deposit of the first timber phase and below a similar deposit which marks the end by fire of this second phase. The fact that there was very little of the flagging *in situ* suggests that it had been

removed prior to the burning down of the building, from which it follows that the fire represents deliberate demolition and the salvaging of materials which might be of subsequent use. Very few nails were found in this deposit and both straight and bent examples were included: the selection is certainly not large enough to use the indication of deliberate withdrawal of the nails as positive evidence for dismantlement of the building. Such evidence as there is, however, is not inconsistent with such an interpretation.

East-west road: to the north of this building lay a gravelled road. It was well constructed of large stone blocks bedded into a deposit of yellow-brown clay and surfaced with a layer of rammed pebbles. A neat stone kerb bordered the road along its southern edge. Three kerbstones were found *in situ* and there was evidence for the positions of three more. These latter three had come loose prior to the destruction of the secondary timber building, for the red fired daub from this destruction filled the depressions left in their clay bedding by the three missing stones. This fact is again suggestive of demolition activity in the area. The road was about 6' (1.82 m) wide. Its northern edge had been largely obliterated by a stone foundation trench, but at its eastern edge there were indications that it had stopped just short of the trench. The road material came to an abrupt end against a carbon deposit and although there was no kerb here this could be due to its having been removed in the same way as appears to have happened to it in part on the southern side.

The road ran straight across the trench though there was a slight indication that a minor branch was sent down to the east of the building. The deposit of yellow-brown clay in which the east-west road stones were bedded continued down the outside of the building though there was a complete absence of the heavy bottoming and good quality surfacing of the main road. A few smallish flat stones were all that remained to suggest the nature of the surface in this area. It had clearly been nothing substantial, would not have stood up to any heavy wear and is consistent with the idea that it was no more than an alley between two buildings and not used for access.

An isolated stake-hole of uncertain significance lay just off the southern edge of the road 2'6" (0.76 m) from the corner of the building. A post-hole 6" (152 mm) in diameter on the very edge of the excavated area may be associated with the next building to the east.

The northern building: to the north of the east-west road there were indications of a further building or buildings. Since this area was investigated with no more than a 6' (1.82 m) trench there was no hope of obtaining much detail of the plan but only of the sequence. The southern wall of one or both of the first timber phases is assumed to lie immediately to the north of the north edge of the roadway and to have been completely destroyed by the stone foundation in this position. 6' (1.82 m) further to the north a narrow trench 10" (254 mm) wide and 12" (304 mm) deep ran on an east-west alignment. It was filled at the bottom with stone, at its upper levels with the same grey clay into which it was cut. This trench disappeared into the east side of the original trench but failed to reappear in the extension to the east where it was observed in neither plan nor section. There are two possible explanations. It may have existed in the east extension but, though sought, was not seen: the cleanness of the fill might explain this failure of observation. Secondly it may have turned northwards under the baulk, which was just wide enough neatly to hide it. However it was not possible for safety reasons to

remove the baulk as the original excavation had had to be backfilled before the extension was begun (for development not archaeological reasons). The present writers tend towards the former explanation, that the trench came through but was not observed. A further 13'6" (4.10 m) to the north of this line ran another east-west trench of similar width and depth: this was clearly an internal dividing and not an external wall. The north end wall was not reached within the limits of the excavation. An alignment of four post-holes, one square and 8" (203 mm) wide, the others 5" to 6" (127–152 mm) in diameter and circular, indicated the position of a further subdividing wall. Unlike the main walls of the building this one was of individual post-hole and not post-trench construction. There was no sign of post-pits into which the posts could have been set. This suggests that the posts must have been driven which would have been practicable only if the uprights were low ones, which is unlikely, or did not need to be set in very deeply which could be the case if the wall in question were only a fairly light partition, given stability by being secured to the main frame-work of the building. The total width of this building was something in excess of 31' (9.42 m), its southernmost room a mere 6' (1.82 m) wide, this was presumably a verandah, the middle one 13'6" (4.10 m) the northern one a minimum of 11'6" (3.50 m). There was no sign of any solid flooring material to the building, only a thin trampled layer overlying the grey natural clay. There was no evidence that this building was burnt down like its companion to the south. Its replacement was presumably due to natural decay or the need to redesign the internal accommodation of the fort.

The southernmost wall of this replacement building is assumed to be represented by the carbon deposit immediately to the north of the east-west road. 7' (2.13 m) to the north of this a double alignment of stake-holes had cut through the carbon flecked clay deposit which sealed the construction trenches of the first timber period. These stakes which were of 2" or 3" (50–76 mm) diameter did not appear to have been set in any construction trench. 19'6" (5.93 m) beyond these a construction trench which cut through the yellow-grey clay deposit had been partly obliterated by later stone building, though its northern edge survived. There were no traces of any north-south partition wall within this building. Its flooring was of medium sized flat stones of which just a few survived in position. It had met its end by fire: the floor was overlain by a thick deposit of burnt wattle and daub.

PERIODS III AND IV (figs. 3, 6, 7)

The plans of the buildings of the third and fourth timber phases present something of a problem: there are no definite corners or ends of buildings and presented with a range of east-west construction trenches there is no way of ascertaining which trenches belong together as the exterior walls of buildings and which are internal walls subdividing the buildings lengthwise. Nor is the presence of flagged or gravelled surfaces conclusive evidence of either internal floors or external roads since the same materials can be used for both, particularly where a pre-existing road is incorporated into the interior of a later building. The plan of the features of this period (fig. 3) illustrates the problem. These will now be described, beginning with the most northerly and working south and then an attempt will be made to interpret them.

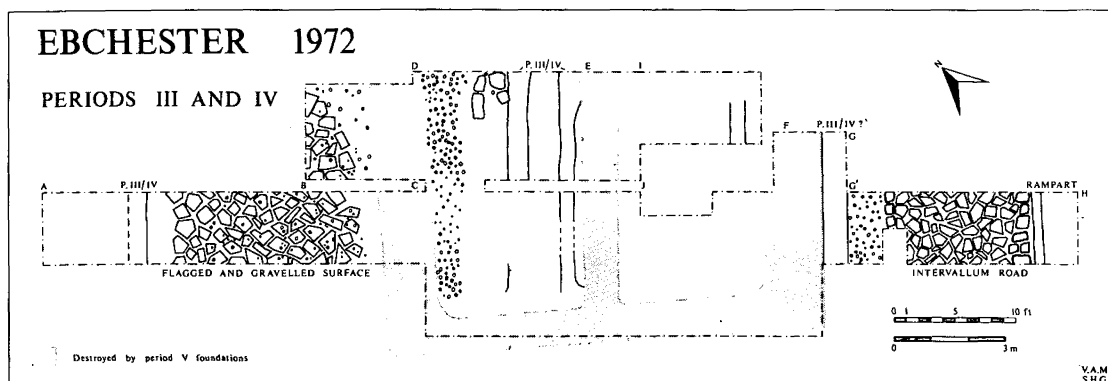


Fig. 3

At the north end of the excavation a thick deposit of greenish silty material overlay the occupation level of the second timber period. It was cut short by a clay and cobble foundation of the first stone period from the southern side of which there emerged what appeared to be the truncated remains of a construction trench which cut through the burnt wattle and daub associated with the destruction of the second timber period (fig. 6 section A-B). To the south of this trench was a well-laid flagged surface which was topped with a layer of gravel and pebble. A later intrusion had disturbed the point of relationship between the presumed construction trench and the flagged surface, but stratigraphically they would seem to be related to one another. This fine flagged surface stretched southwards for a distance of 16' (4.86 m) where it stopped just short of the next clay and cobble foundation. It had not actually been cut off by the foundation, nor did it come to an abrupt end on a definite line: it just petered out, exposing the underlying deposit of wattle and daub. The surface which emerges at the south side is the rammed pebble of the period I and II roadway. 2' (0.61 m) to the south of the kerb was the northern edge of the next east-west construction trench: this trench was 1'6" (0.46 m) wide at the top, narrowed slightly towards the bottom and was 1'7" (0.48 m) deep. The fill was a mixture of dirty grey-brown clay with fragments of fired daub and much carbon. Another trench with an identical fill lay just to the south: the distance, centre to centre, was 4' (1.22 m). This southern trench was slightly narrower, averaging 1'3" (0.38 m) in width, and 1'4" (0.41 m) deep. A north-south trench diverged from this one at its eastern end. As this wall junction coincided with the edge of the excavation trench it was not possible to tell whether it was an internal partition or an end wall. The next east-west trench lay a distance of 14' (4.26 m) to the south (measured centre to centre) and the intervening area was floored with a layer of grey-brown clay, clearly an internal and not an external surface. A short stretch of trench on exactly this same alignment was picked up in area III, 39' to 43' (11.86-13.07 m) further to the west. It is impossible to prove the association on stratigraphic grounds, but on the basis of their alignment there is every reason to believe that they form part of the same wall or a similarly positioned wall in an adjacent building of the same structural period. The trench in area III formed a T-junction giving off a branch to the north. Finally the southernmost external wall would appear to lie immediately inside the kerb of the

southern intervallum road in precisely the same position as that occupied by the southern walls of the earlier buildings, or if not here below the clay and cobble foundation immediately to the north.

The building lines remained exactly the same throughout periods III and IV: indeed period IV is not attested at the northern end of the site. Two distinct structural phases were identified in the central area where the stratification was clearest and were presumably represented also at the south end where the stratification was limited and unhelpful. The building(s) of period III were burnt down. A deposit of carbon overlay this central area, slightly overlapping but not entirely covering the construction trenches: it had evidently been dug away by the recutting of the trenches for the reconstruction of the building on identical lines: this recutting of the trenches was not observed in plan but was clearly apparent in the sections.

It remains to consider the limits of the buildings indicated by these trenches. The three southernmost clearly belong to one building which either ends on a line coinciding with the eastern edge of the excavation or has a subdividing wall in this position. Slight indications of another north-south wall to the west give a room 18' (5.47 m) wide: since the north-south baulk runs centrally down this room it cannot be ruled out that it masks another construction trench, giving two rooms each 9' (2.74 m) wide. It may be no more than coincidence, but the T-junction in area III falls just where a sub-dividing wall in a building with 9' (2.74 m) rooms would fall.

The relationship between this building and the next trench to the north is obscure. There was no evidence for any attempt at metalling the intervening space which must have been about 3'6" (1.06 m) wide, no more than a passage. What is not clear is whether this passage is part of the building to the south or whether it is a gap between this building and one to the north of which the trench in question forms the southern outer wall. The latter would seem the more likely explanation, but there are problems. To the north of the wall the surface is of hard rammed gravel, the reused period I-II road, which gives way to gravel overlying flagstones extending over a distance of 29' (8.82 m). Such a solid surfacing has all the appearances of an external roadway, but the possibility that it is an interior floor cannot be ruled out: 29' is wide for a roadway in such a minor position. There is the further possibility that an east-west wall has been eliminated by the later clay and cobble foundation.

THE NATURE AND FUNCTION OF THE TIMBER BUILDINGS

It is possible to do little more than speculate upon the nature of the timber buildings for so little of the plan of each is forthcoming. On the evidence of analogy the type of building which one would expect in the area under excavation would be barrack-blocks or storehouses or perhaps workshops. Most commonly the arrangement would be a pair of barrack-blocks facing one another though not infrequently there appears either one barrack and one storehouse, or just buildings of the workshop or store-house type.

The more northerly of the two period I buildings is almost certainly a barrack-block. A south facing verandah, 6' (1.82 m) wide, fronts onto a gravelled road. The room behind is 13'6" (4.10 m) wide and the back room something in excess of 11'6" (3.50 m). The width of each *contubernium* is uncertain as only one partition wall was located. The space available

between the *via decumana* and the estimated position of the eastern intervallum would comfortably accommodate a building 150' or so in length.

The building to the south is clearly of a different plan. Its eastern end is known and gives a building which can have been a maximum of 115' (34.96 m) in length, stopping 32'-35' (9.73 m-10.64 m) short of the eastern defences. This is long enough and wide enough (28' or 8.51 m) for the men's quarters in a barrack-block. The one room whose width it was possible to establish was 11' (3.34 m) wide and ten rooms of this size could be accommodated quite easily in the space available. This would be the correct number of rooms for an infantry century. The internal arrangements of the building are imperfectly known. No east-west dividing wall was located. There appears to have been no verandah, though this fact does not invalidate the interpretation as a barrack-block for although barracks commonly have a verandah this is not invariable. The *retentura* of Pen Llystyn, for example, contains barracks both with and without verandahs, while of the two barrack buildings within the fortlet of Barburgh Mill one has a verandah, one has not.⁵ It is not clear what happened in the space between the eastern end of the Ebchester building and the rampart. One possibility is that there was a detached centurion's block. A parallel for such a situation can be provided by the legionary fortress at Chester or, from an auxiliary fort, by the first period at the Valkenburg. Alternatively the space may have been left empty as was the case in a similar position in the *retentura* of the fort at Künzing (Raetia). Pairs of buildings of unequal length are also to be found in the forts of Caernarvon and Gelligaer.⁶

The problems regarding the buildings of period III-IV have been outlined above. As has already been suggested the evidence available about the southern building would fit a structure subdivided into rooms about 9' (2.74 m) wide, though the existence of regular subdivisions is highly conjectural. An east-west partition wall divides the building into a southern room about 7' (2.13 m) from front to back, a northern room of 14' (4.26 m) which (assuming the next construction trench to the north to be part of the same building) is fronted by a narrow corridor or verandah about 4' (1.21 m) wide.

THE DATES OF THE TIMBER BUILDINGS

The occupation material associated with the timber buildings is uniformly pre-Hadrianic in date. The four structural phases span the years from the mid-Flavian to the Trajanic periods though it is not possible from the archaeological evidence available to subdivide this relatively short occupation period and assign precise dates to each structural phase. It would appear though that period I continued in use right to the end of the Flavian period if not into the early years of Trajan, for the occupation material associated with it includes one piece of decorated samian to which a date range c. 90-110 has been assigned (samian no. 4*).

The reason for the need to rebuild the internal buildings of the fort three times in so few years can only be speculated upon. Natural decay is perhaps unlikely to be the reason when so

⁵ Arch. J. CXXV (1969) p. 112 fig. 5 (Pen Llystyn); *Britannia* V (1974) p. 134 fig. 3 (Barburgh Mill).

⁶ V. E. Nash-Williams, *The Roman Frontier in Wales* (2nd ed. revised by M. G. Jarrett, 1969) fig. 15 (Chester), fig. 27

(Caernarvon), fig. 45 (Gelligaer). Glasbergen, W., *De Romeinse Castella te Valkenburg Z.H.* (1972) fig. 46. *J.R.S.* 59 (1969) p. 163 fig. 17 (Künzing).

short a time is in question. Some of the changes are no doubt a response to the changing military situation in the north, for example alterations in garrison resulting from the withdrawal from Scotland. And there is always the possibility of accidental destruction by fire of part of the fort, as may have been the case in period III, for the rebuilding in period IV followed faithfully the layout of its predecessor and was clearly not occasioned by the need to remodel the internal accommodation. It is not necessary to look very far afield for a parallel to the repeated rebuildings at Ebchester. An even more complex situation has been shown at Corbridge where a site occupied from the late Flavian period through to the early years of Hadrian has four structural phases and was itself preceded by an earlier Flavian fort of two periods on a completely different site at Red House.⁷

The abandonment of the timber fort at Ebchester is doubtless to be associated with Hadrianic frontier policy and the changes in military dispositions brought about by the construction of forts on the line of Hadrian's Wall.

STONE/TIMBER PERIOD

Very slight evidence for a further period of occupation intervening between timber IV and the first stone buildings was observed in the form, not of walls but of an unassociated floor which sealed the timberwork discussed above and was cut by the earliest stone foundation. Such evidence as there is appears in the section D-E (fig. 6). The post trenches of period IV are sealed by a layer of grey-brown clay and this in turn is overlain by a layer of very dark soil and carbon and a small but solid stretch of *opus signinum* flooring. This *opus* is cut by the foundation trench for the first stone buildings in this area, and is overlain by the mortar and stone chippings associated with the construction of the masonry buildings. The stretch of *opus* looked laid, and it is difficult to see it as residual, thrown in as levelling up material from some demolished building: the only evidence for the use of *opus signinum* floors comes from a later not an earlier phase of building. Neither are there any walls or other surfaces which can be associated with this stretch of flooring the precise significance of which must remain an enigma.

THE STONE BUILDINGS

PRIMARY STONE PHASE: PERIOD V (figs. 4, 6, 7 and pls. VIII, 2, IX, 1, IX, 2)

Parts of two buildings were excavated. The more northerly of these was attested only by a short stretch of its southern exterior wall which ran roughly at right angles to the line of the trench, just 5'9" (1.75 m) short of its northern end. Only the foundations of the wall remained, but these were of substantial proportions, 3' (0.91 m) wide and 3' deep and constructed of river cobbles bonded together with clean yellow clay. The foundation trench cut through all earlier occupation layers and into the undisturbed subsoil below. Nothing remained of the superstructure of the building. The internal floors had been seated on a layer of silty greenish

⁷ *Current Archaeology* 46 for Sept. 1974 (1975), 325f.



1. Ebchester: looking north. In foreground flagged and gravelled surface of periods III-IV: in background clay and cobble foundation of northernmost period V wall (scale in feet).



2. Ebchester: looking north. W. wall and E-W internal dividing wall of period V. Back-to-back buildings of period VII showing absence of foundations (scale in feet)

clay slightly charcoal flecked. There was no indication as to the nature of the floor itself: there was no flagging nor any trace of the staining which might have been left by the decaying of wooden boarding. Outside the building, to the south, ran a road constructed on a bedding of large cobbles packed with loose gravel and with a good surface dressing of flat stones and pebbles. This road was 19' (5.78 m) wide.

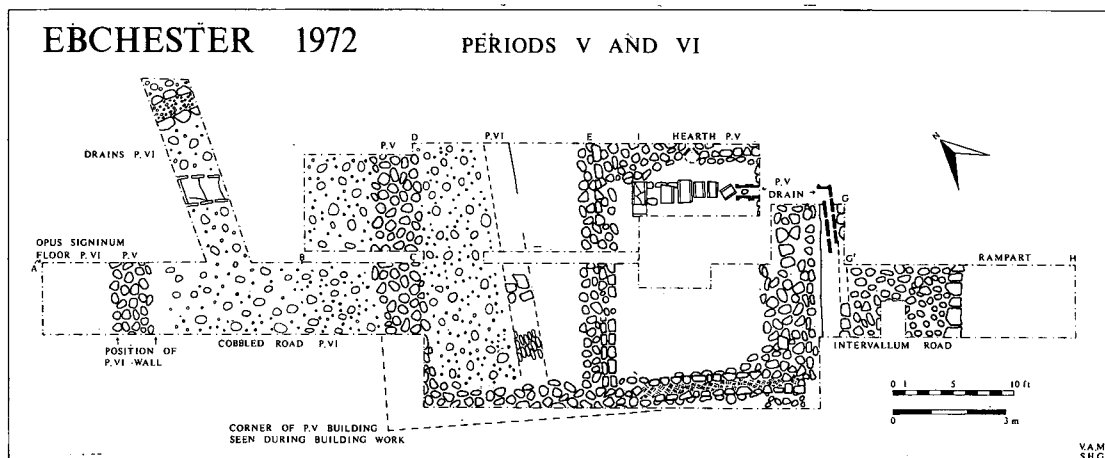


Fig. 4

The second building which lay to the south of this road was rather more extensively investigated. Its foundations, like those of its companion to the north, were constructed of river cobbles set in clean yellow clay and cut right through into the natural. The foundations of both north and south walls were 4' (1.22 m) wide. The building extended to the south to just short of the secondary intervallum road and its west wall coincided roughly with the western extremity of the area available for excavation. This west wall was certainly the outer wall of the building and not an internal partition wall for observation of the area to its west during building operations revealed no signs of the solid and unmistakable clay and cobble foundations of the building. An internal partition wall divided the building lengthwise and the southern division was further subdivided by a north-south partition wall. These internal dividing walls stood on foundations no less solid than those of the outer walls. The east-west partition stood on foundations 3' (0.91 m) wide and 3' deep, though the wall itself occupied less than half this width and was asymmetrically placed on the southern half of the foundation. The wall was 1'4" (0.41 m) wide and built of irregularly sized but neatly finished yellow sandstone blocks with little or no core. The western outer wall was of similar construction though bonded with light brown clay. The dimensions of the building were as follows (the measurements are taken to wall faces where they survive, otherwise to the edges of the foundations in which case a plus or minus sign indicates whether the exact measurement would be greater or lesser than that given):

External width	37'— (11.25 m)
Internal width	29'+ (8.82 m)
Width of northern room	14'+ (4.26 m)
Width of southern room	13'6" (4.10 m)
Length of southern room (E–W)	18' (5.47 m)

Total length of the building indeterminate: if it extended to the eastern intervallum it would be a maximum of about 55' (16.72 m)

A drain was sited to the east side of the more southerly room, running on a north-south alignment, cutting through the foundations of the south wall of the building and then turning through a right angle to run parallel to the south wall between it and the *intervallum*. This drain was constructed of stone and tile. At its northern edge it terminated in an arch built up of flat tiles and bonded externally with yellow clay (fig. 7 I–J, pl. VIII, 2). The floor of the drain was of tile and its edges were composed partly of *tegulae* laid on edge, flange facing either inwards or outwards. The roof, preserved partly *in situ* and partly collapsed into the channel, had been composed of *tegulae*, flanges uppermost. The whole was bonded with yellow clay. The drain channel was 10" (254 mm) wide. The mouth of the drain opened out into a pit filled with a soft black silty deposit. It is clear that the drain had been constructed contemporaneously with the building inside which it lay. The yellow clay used in its superstructure was the same as that which bonded the cobble foundations of the building. The drain cut neatly through the foundations of the south wall, while the foundation of the eastern internal partition widened out at its northern end to embrace the mouth of the drain. A small hearth was built into the foundations of this partition. A header projected from the wall on the southern side of it and it was constructed very simply of two small flat tiles stood on edge at right angles to one another and set into the clay of the foundation. The floor of the building was composed of rammed pebbles and stone chips sitting on a bedding of sandy mortarish soil.

The only evidence as to the function of this building was provided by the drain in its southern half. It was not an open drain such as one might expect inside a building used to house animals, but the closed type which is more likely to be associated with the swilling away of water and waste deposits for example from some type of industrial working. A small piece of sheet bronze was recovered from the deposit at the mouth of the drain (metalwork report no. 8). A later building on this same site certainly was used for bronze working and it may be suggested that this first stone building was associated with similar processes.

When this building had served its useful life it was dismantled down to its foundation level or first course and sealed over with a deposit of yellow-brown clay.

SECOND STONE PERIOD: PERIOD VI (figs. 4, 5, 6)

The second phase of stone building on the site presents something of a problem of interpretation for structurally it was represented by only one certain wall, one whose presence can reasonably be inferred and a very solid road metalling which clearly overlies the levelled primary stone structures and underlies those of period VII.

Northern building: at the extreme northern end of the excavation a floor of decayed *opus signinum* extended 6'2" (1.88 m) southwards and then terminated abruptly at an area of much disturbed stone and cobble which appears to be a robber trench for a wall, for the *opus* floor did not take up again to the south of the disturbance. It is therefore suggested that the (robbed) wall was the south external wall of a building which extended an indeterminate distance to the north, and which may be associated with the area of *opus* which was noted during the excavation of the commanding officer's bath-house, some 35' (10.64 m) to the north of the present excavation. This area of *opus* lay outside and to the east of the apse of the hot bath and clearly belonged to some earlier pre-bath building. This earlier building was not investigated at the time of the bath-house excavation as the state of preservation of the bath building was such as to warrant its consolidation for permanent display and thus to preclude excavation of the earlier levels.

Roadway: outside the presumed line of the southern wall ran a roadway with a rammed pebble surface. This roadway extended southwards for a distance of just over 26' (7.90 m) where it terminated at the line of another east-west wall. Two drains ran across the line of the road: these drains were observed during the digging of a modern drainage trench to the east of the area of excavation, so it was possible to do no more than observe their construction. However their position, immediately outside and apparently heading straight in to the northern building suggests that they may be directly associated with whatever function this building served. The more westerly of the two drains ran at right angles to the road and the south wall of the building. It was constructed of stone slabs 2" (50 mm) thick and set on edge: stone slabs also formed the bottom of the channel which was 1'3" (0.38 m) wide and 1'5" (0.43 m) deep. No cover-stones survived. The second drain was sited about 6'6" (1.98 m) to the east and ran on a NW-SE alignment. Its sides were formed of roughly dressed stones bonded with clay, its bottom of small rammed river pebbles. The channel was 11" (0.28 m) wide and 8" (0.20 m) deep on average. No cap-stones were present.

The southern building: the north wall of the southern building was constructed on shallow foundations of cobble, rough stone and dirty mixed clay. The foundations averaged 2'3" (0.68 m) in width and about 1'6" (0.46 m) in depth. The superstructure, where any of it survived, consisted of narrow ashlar blocks which for a short stretch were underpinned by a layer of stone slabs set on edge and laid close together. No trace was apparent of the south wall of the building and it is conjectured that it ran on top of the foundation of the eliminated primary stone building. The deposit of yellow-brown clay which sealed off the foundations further north was absent here and disturbances caused by modern animal burials meant that there was no surviving stratification to distinguish between the distinct building and occupation phases. The southernmost stretch of east-west walling, while ascribed on the plans to the primary stone phase could equally well belong to the second and/or third. Where it survived the floor of this building was composed of, or at least bedded on, a mixture of stone chippings, pebble and brown soil. There was no evidence to suggest the function of the building.

THIRD STONE PERIOD: PERIOD VII (figs. 5, 6, 7 and pl. IX, 2)

The final phase of occupation on the site was represented by two back-to-back buildings at the southern end of the site and indications of another to the north.

The northern building: no stratification survived at this level at the northern end of the site so the rather ephemeral structural remains noted in this area cannot be proved to be Roman. A short stretch of walling 2'6" (0.76 m) in width ran on a roughly east-west alignment across the trench, 16'6" (5.02 m) from its northern end. This wall lacked any sort of foundations and appeared to have sat directly on top of the rammed gravel road surface associated with the second stone period. Only one course of walling remained and even this was much disarranged with quantities of agricultural soil percolated down through the interstices of the stonework to the gravel bedding below. The eastward continuation of this wall was not picked up in the drainage trench: this is hardly surprising as the remains of the structure were sufficiently insubstantial and superficial as to have been removed completely unnoticed by the workmen concerned.

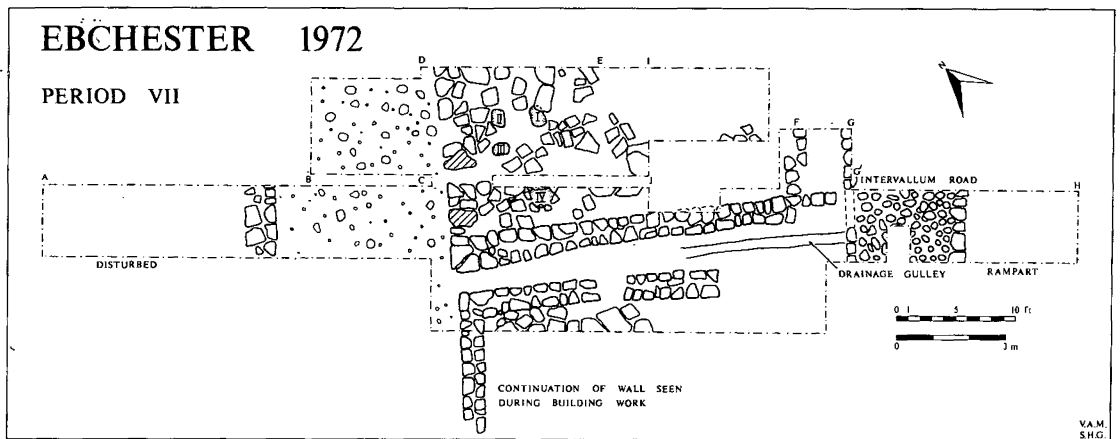


Fig. 5

Roadway: to the south of this wall no stratification survived over the top of the rammed pebble road surface of period VI and it is very probable that this road continued in use during this final phase of occupation. A reasonably prolonged period of use would be consistent with the very considerable thickness of the top dressing, due no doubt to repeated repairs to the surface.

Southern pair of buildings: the northern building line of the southern pair of buildings lay 14' (4.26 m) to the south of the northerly wall. These buildings completely lacked foundations. The northern walls stood directly on the period VI road surface: their side walls lay on the levelled remains of the buildings which had preceded them, partially on and partially off the lines of earlier foundations. The south wall of the eastern building may have made use of the

primary stone clay and cobble foundation, but this problem will be discussed below. The superstructure was built of coursed sandstone facing blocks with a rubble core bonded with brown clay. The walls stood, on average, two courses high. The facing stones were of very irregular shapes and sizes, containing no doubt much reused masonry. The width of the walls also varied considerably, between a maximum of 3' (0.91 m) at the northern end of the west wall of the eastern building and a minimum of 2' (0.61 m) at the south end of the same wall. Between the two buildings there ran a narrow gully or eaves-drip, semi-circular in section, 10" to 12" (254 to 304 mm) wide and about 6" (152 mm) deep.

Western building: very little information was forthcoming about this building due to its siting right on the edge of the excavated area. Its northern wall was observed during building operations and was traced for a distance of 12' (3.65 m) at which point it just petered out: because the wall lacked foundations its superficial traces were completely removed by the machinery if indeed they had survived the agricultural activity of the previous centuries. 21'9" (6.61 m) of the east wall survived before it too just petered out. Its original north-south dimension may be assumed to have been the same as that of its eastern counterpart. No doorways were noted in the extant walling. The flooring was of large flagstones.

Eastern building: this building was a minimum of 14' (4.26 m) wide and had a doorway towards the western end of the north wall, 3'6" (1.06 m) in width. There are two explanations regarding the position of the south wall. Firstly it is possible that the wall originally stood on the primary stone foundation. The facing stones which survive on the foundation here may belong to this third phase, just as they may belong to the first or second stone building; there is no way of deciding between the three periods. If a period VII stone wall did stand here the original north-south dimension of the building will have been 30' (9.12 m) external measurement, 25'6" (7.75 m) internal. The building was then subsequently extended up to and perhaps over the *intervallum* road and just two facing stones extend the line of the wall out beyond the position of the primary stone foundation. Secondly it is possible that the building was not extended, that it originally projected further to the south than had its predecessors and that the facing stones *in situ* on the primary foundation have no part to play in this third stone period.

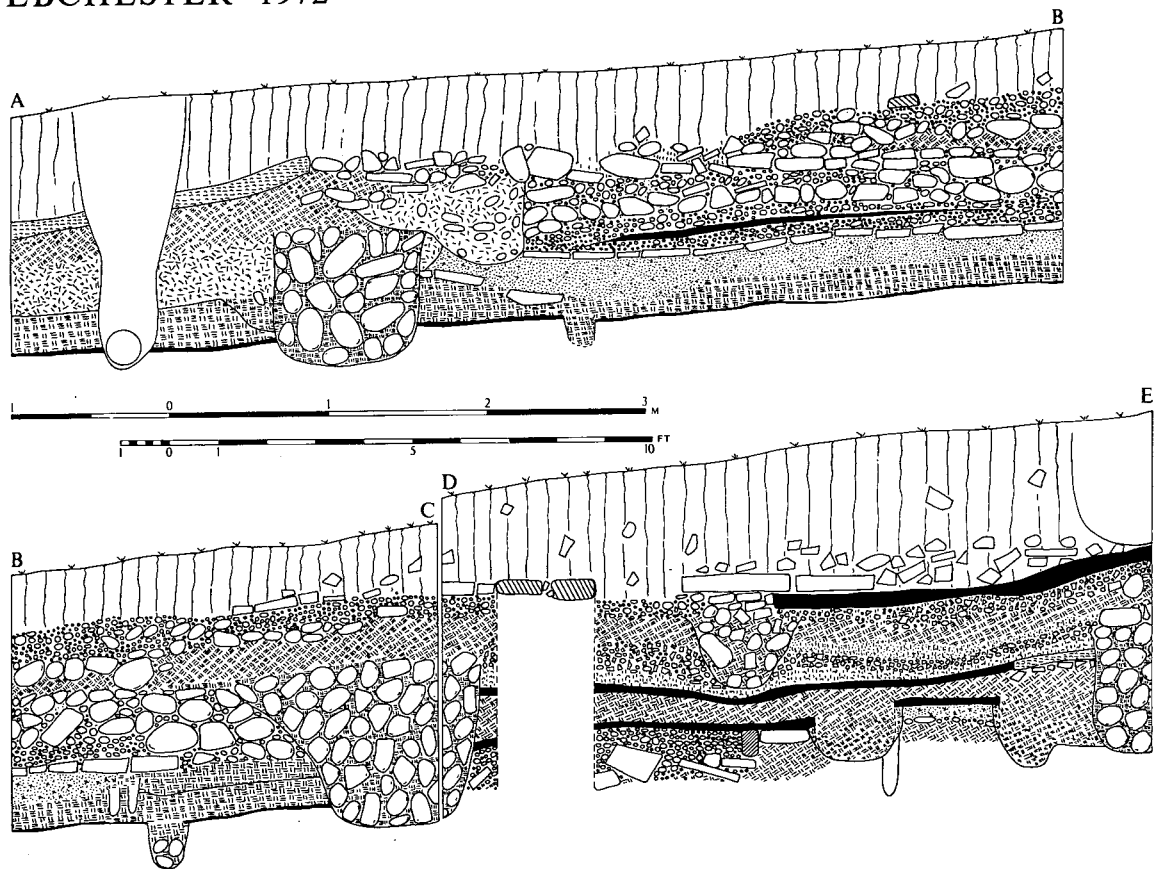
This eastern building had originally been used for metalworking. Three scoop hearths were located in the northern half of the building and all produced evidence of bronze-smelting. Each was sub-rectangular in shape and 6" (152 mm) deep:

Hearth I 22" × 15" (0.56 m × 0.38 m) contained the broken remains of three crucibles and bronze dross: a lid, two pieces of bone and the larger part of a segmental bowl (coarse pottery no. 121*).

Hearth II 18" × 12" (0.46 m × 0.30 m) contained fragments of a large crucible with a spout, sixteen fragments from at least two other smaller crucibles and a number of bronze fragments.

Hearth III 24" × 18" (0.61 m × 0.46 m) contained a crucible lid and body fragments, a stick of bronze, a bronze flat-headed nail and part of a bronze mount (metalwork report nos. 9 and 10), and two fragments of window-glass.

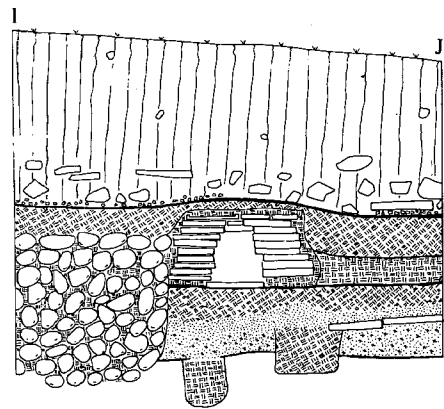
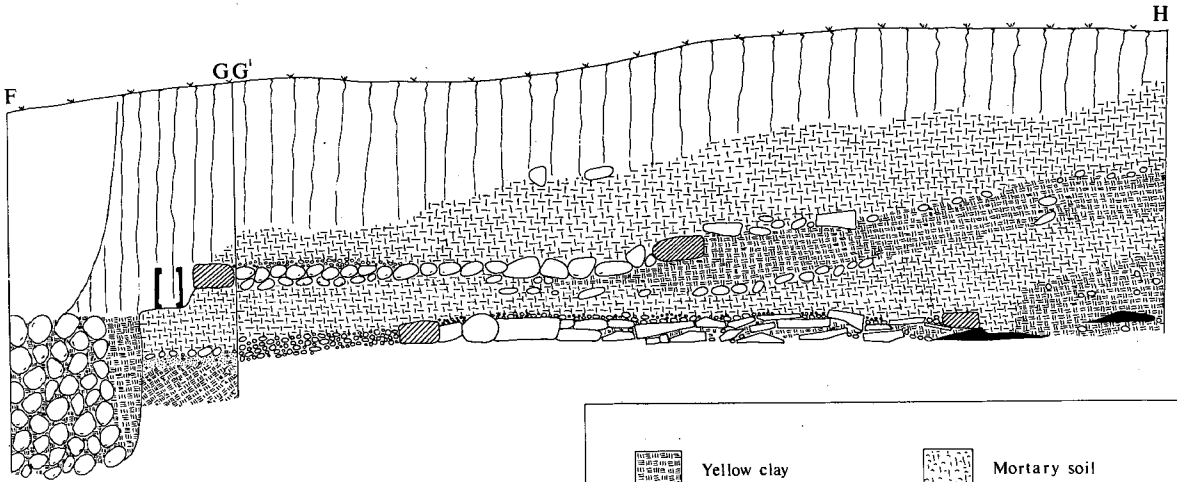
EBCHESTER 1972



VAM
AHR

Fig. 6

EBCHESTER 1972



	Yellow clay		Mortary soil
	Grey clay		Burnt daub
	Yellow-grey clay		Burnt wattle and daub
	Grey-brown clay		Charcoal flecking
	Yellow-brown clay		Stone chippings
	Silty grey clay		Pebble and gravel
	Silty greenish clay		Opus signinum
	Brown soil		Kerb stone
	Sandy soil		Facing stone

VAM
JSR
JB

Fig. 7

A thick layer of carbon associated with this metalworking accumulated on the floor of the building, extending well out from the area of the hearths. Subsequently the building was re-floored with flagstones which overlay the hearths used for industrial purposes. A single oval hearth in the north-west corner of the building (hearth IV) belongs to this final phase of occupation. There was nothing to associate this with metalworking: it was of entirely different construction from the earlier hearths, being formed of a ring of stones. Its internal dimensions were 15" × 21" (0.38 m × 0.53 m). The burnt area in and about this hearth contained nothing but pottery and tile.

The layout of the two southerly buildings of period VII is strongly reminiscent of the chalet-type barracks known at Housesteads and Great Chesters.⁸ The Housesteads "chalets", though not of uniform size, are on average 15' (4.57 m) by 35' (10.66 m), those at Great Chesters 15' (4.57 m) by 37' (11.27 m). The more easterly of the Ebchester pair, which is the better preserved of the two, was a minimum of 14' (4.26 m) wide and, depending on the position of its southern wall, between 30' (9.12 m) and 42' (12.80 m) in length.

One at least of the Ebchester buildings was being used as a workshop rather than for residential purposes, while it is clear that the Housesteads chalets belonged to barrack-blocks. However a small lean-to structure added on to the western end of Housesteads barrack XIV had been used as a work-shop, in this case for iron working. There was also a hearth in the easternmost chalet, a building smaller than the rest and attached to the centurion's quarters, but its purpose would appear to be domestic rather than industrial.

The date of the Ebchester chalets, if this is what they are, would appear to be similar to, or perhaps slightly earlier than that of the Housesteads examples, which were assigned to the early 4th century on the evidence of late 3rd century pottery and coins sealed below their floors. The buildings of Ebchester period VII were probably in use in the latter part of the 3rd century.

THE DATING OF THE STONE BUILDINGS

The first stone buildings on the site were constructed in the mid-Antonine period. The pottery record as a whole from the site suggests a period of abandonment from early in Hadrian's reign through to the third quarter of the 2nd century and it would appear that the earliest stone buildings belong to the period of reoccupation. The carbon flecked silty deposit which overlay the final timber buildings contained much material of Flavian-Trajanic date but also one vessel, a wine-cooler, which should belong to the mid-Antonine period (coarse pottery no. 51). More fragments of this same vessel (no. 60*) came from the grey clay layer associated with the structurally unattested phase which intervened between the latest timber and the earliest stone buildings: this same level produced a piece of decorated samian of the period c. A.D. 160–195 (samian no. 36). The latest material incorporated into the construction layers of period V is of early to mid-2nd century date, while the drain belonging to this period produced pottery of mid- and late-Antonine date. Period V continued to the end of the 2nd century or early into the 3rd: the occupation material associated with it includes nothing later

⁸ *A.A.*⁴ XXXIX (1961) 285f. (Housesteads); *A.A.*² XXIV (1903) plan facing p. 62 (Great Chesters).

than late-Antonine, while the clay layer which seals its reduced remains includes one sherd of a 3rd century jar (coarse pottery no. 89*).

The second stone buildings belong to the earlier part of the 3rd century. The make-up of the floor of the southern building incorporates material of a late 2nd to mid-3rd century date (coarse pottery nos. 103*-106) and the road associated with it, one sherd of early to mid-3rd century (coarse pottery no. 113*). Its terminal date lies within the 3rd century.

The date of the final building period cannot be pinned down with any precision. It was clearly in use in the 3rd century for a segmental bowl of 3rd century type was found in one of the metal-working hearths which belong to the earlier of its two phases of occupation. Its find-spot suggests that it was not residual (coarse pottery no. 121*). The latest piece sealed below the flags of the second phase dates to the early 4th century (coarse pottery no. 135*), while the material lying on the flags and in the rubble above it (unstratified) includes pottery which ranges in date from the late 1st century to the late 4th., the presence of late types of Crambeck suggesting occupation at least to the end of the 4th century.

CONCLUSION

As a result of these latest excavations at Ebchester it is now possible to draw some rather firmer conclusions than was hitherto possible about the structural history of the site. For the first time the timber buildings of the 1st century fort which had long been suspected from the pottery evidence from the site have been identified. A reasonably firm date in the mid-Antonine period can be assigned to the refurbishing of the south rampart and, by extension, to the alterations to the east and west defences identified in earlier excavations. A little more can now be added to the fragmentary plan of the internal buildings and some suggestions made as to the nature of these buildings; but because of the way in which the excavations were carried out these suggestions must remain tentative. All the work which has been done at Ebchester has been on a small scale, piece-meal and in restricted areas. This has been a matter of expediency and not of policy, for most of the excavation has been of a rescue nature in advance of building development, and while it is possible, in such restricted trenches, to sort out sequence it is impossible adequately to plan any complete buildings. Much of the internal area of the fort is now occupied by houses, shops, a church and a graveyard; only the north-east corner remains unencumbered and untouched and it is to be hoped that it will remain that way until such a time as it can be fully investigated preferably under research conditions.

APPENDIX

A. THE SOUTH-EAST ANGLE TOWER

The south-east angle tower was partially excavated under the direction of Mr. Wilfred Dodds in July 1964, after it had been partially exposed during the stripping of topsoil preparatory to laying a concrete parking area outside the bungalow "Belmora". Though much of the

tower walling was robbed out it stood four courses high at its western corner, the ashlar masonry being set on a slab plinth course which projected $6\frac{1}{2}$ " (165 mm) beyond the line of the wall face into the interior of the tower. The side walls were faced on the interior only, their backs which were set into the clay of the rampart being composed only of lime building rubble. The masonry was mortared together, and amongst the rubble and debris from around the tower was found a roughly circular object which appeared to be the solidified contents of a mortar basket. The front wall of the tower was 9' (2.74 m) long internally, the side walls an estimated 7' (2.13 m). It was not possible to clear the full length of the side walls: 5' (1.52 m) of walling on the south-west side was exposed and it had been noted that coursed masonry was found when the modern boundary wall, some 2' (0.61 m) to the south, had been constructed. A similar estimate for the length of the north-east wall could be arrived at by adding to the 3' (0.91 m) of walling actually exposed, the additional 4' (1.22 m) needed to accommodate the circular oven of 4' (1.22 m) diameter which was built in the corner. A tower 9' (2.74 m) by 7' (2.13 m) accords reasonably well with that in the north-west corner of the fort, excavated by Dr. Steer, which measured 7' by 10' (2.13 × 3.04 m) internally. This north-west tower had been robbed to its foundations of clay and cobble, so it was not possible to see whether a similar method of construction had been used in the side walls. A cobbled path 2'6" (0.76 m) wide led to the centre of the tower's outer wall where presumably the doorway had been sited. This outer wall had been completely robbed and only a line of mortar remained to indicate where the building stones had been. The clay of the rampart backing curved away from either side of the path indicating that the lower levels of the tower had been almost completely embedded in the body of the rampart which was here of a light grey clay.

Much of the interior was occupied by the oven. This had a circular paved base which stood 9" (0.23 m) above the beaten clay floor of the tower. The oven wall had survived to a height of about 12" (0.30 m) at the back: it was constructed of uncoursed rubble masonry liberally coated with clay. The whole of the area occupied by the oven was covered in a bright red fired clay deposit which presumably originated from the collapsed oven superstructure. This clay did not extend much beyond the immediate area of the oven, but beyond it the floor was covered with a thick black deposit which contained much stick charcoal of small diameter, indicating the use of brushwood for firing.

Time available for the excavation did not allow a thorough investigation of the stratigraphy. The latest Roman levels lay immediately below the topsoil and it is to this phase which the oven apparently belonged. A test-pit 1'6" (0.46 m) deep sunk below the oven floor encountered only the undisturbed clay of the tower floor. It is very probable that had fuller investigation been possible earlier levels would have been identified, occupation associated with the timber tower which presumably preceded the stone structure.

B. DRAIN BY SIDE OF VIA PRAETORIA

In April 1968 a modern drain was laid in the garden on the north side of the Sub-Post Office at Ebchester. The Post-Office and gardens overlie the central area of the *praetentura* of the fort, and during the drainage operations a number of Roman features were exposed. Due to the urgency of the operation no time was allowed to examine the area thoroughly or in depth.

The excavated area was on average 4' (1.22 m) wide and 3'6" (1.06 m) deep and extended the complete length of the garden, passing below the boundary wall at its northern end. During the excavation the western edge of the *via praetoria* and a drain running down its western side were exposed. The drain was slightly cranked about 10' (3.04 m) from the boundary wall to allow it to pass through the northern gateway. It had been constructed of semi-dressed stone blocks and had been covered for its entire length by stone slabs; some of these slabs were still *in situ*. The drain was, on average, 14" (0.35 m) wide and 18" (0.46 m) deep. The bottom was lined with hard-packed yellow clay.

The section of the road which was uncovered consisted of a fine top dressing of rammed medium-sized river pebbles which overlay a larger cobble under-pinning. The top layers of the road had been badly disturbed by modern rotavating of the garden.

At the northern end of the garden by the boundary wall there was evidence of severe disturbance of the ground, presumably due to the excavations of the west guard-chamber of the Rev. Linthwaite in 1876. By his excavation the Rev. Linthwaite proved the position of the north gate, but unfortunately no record of his work survives. On the north side of the garden wall the sill stones of the *porta praetoria* were uncovered. They consisted of two large dressed stone blocks, on an east-west alignment; further stones were evident in the section. Outside the line of these stones the road metalling was still visible. Below the foundations for the garden wall were a number of well-dressed ashlar blocks, probably belonging to the outer wall of the west guard-chamber of the north gate. It is interesting to note the continuation of the road outside the fort but difficult to envisage it carrying on down the very steep slope outside the north rampart unless some sort of ramp were provided. Only further excavation will prove or disprove this point.

THE FINDS

* All material illustrated has been marked with an asterisk.

COINS

P. J. Casey

On flagged and gravelled surface belonging to timber periods III-IV

VESPASIAN	<i>Denarius</i>	<i>Obv. CAESAR VESPASIANUS AUG</i> <i>Rev. ANNONA AUG</i> <i>RIC 131 A.D. 75-9 W/W</i>
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Below flagging of latest floor in period VII stone building

HADRIAN	<i>Sestertius</i>	<i>Obv. Illegible</i> <i>Rev. Illegible</i>
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A.D. 117-138 VW/VW

Dark soil deposit in alley between back-to-back buildings of period VII

NERVA	<i>Sestertius</i>	<i>Obv.</i> Illegible <i>Rev.</i> Illegible	A.D. 96–98 VW/VW
RADIATE COPY		<i>Obv.</i> <i>Rev.</i> Lactitia	A.D. 270+

Unstratified

VESPASIAN or TITUS	<i>As</i>	<i>Obv.</i> Illegible <i>Rev.</i> Illegible	A.D. 69–81
Probably VESPASIAN or TITUS	<i>Dupondius</i>	<i>Obv.</i> Illegible <i>Rev.</i> Illegible	? A.D. 69–81
VESPASIAN	<i>Denarius</i>	<i>Obv.</i> IMP CAESAR VESPASIANUS AUG <i>Rev.</i> COS VI—eagle on cippus RIC 89 A.D. 75 VW/VW	
DOMITIAN	<i>Quadrans</i>	<i>Obv.</i> winged petasus <i>Rev.</i> winged caduceus—S.C. RIC (Anon. Quad.) 32 A.D. 81+	
ELAGABALUS	<i>Denarius</i>	<i>Obv.</i> IMP ANTONINUS PIUS AUG <i>Rev.</i> SACERD DEI SOLIS ELAGAB RIC 131 A.D. 218–22 UW/UW	
TETRICUS	<i>“Antoninianus”</i>	<i>Obv.</i> <i>Rev.</i> [PAX AUG] as RIC 100 A.D. 270–73	

References:

- RIC Mattingly, H. and Sydenham, E. A. *The Roman Imperial Coinage* (1925–69)
 UW Unworn
 W Worn (main legends and detail legible)
 VW Very worn (legends erased and main detail existing only in outline)

METALWORK

R. F. Miket

BRONZE (figs. 8 and 9)

Destruction deposit overlying period II timber building

1. *Bronze tube. Length 22 mm. Max. width 13 mm. Thickness 2-4 mm.
Tubular terminal open at both ends and covering an iron rod attested by rust stains within the bore. It is pierced again at right angles to its length. Purpose uncertain.
2. *Bronze sphere. Diameter 9 mm.
Spherical head, slightly flattened, with the shank broken. These occur as buttons (Branigan, *K. Latimer* 154 fig. 44, no. 624), as pin-heads (Neal, D. S., *The Excavation of the Roman Villa in Gadebridge Park, Hemel Hempstead 1963-68*, 145 fig. 64), or as nail-heads (*ibid.* fig. 65 nos. 268 and 269). The missing shank will not permit close identification.

Destruction deposit overlying period III timber building

3. Bronze pin. Length 25 mm.
The pin is broken at one end and pointed at the other. Possibly from a brooch.

In period IV construction trench

4. Bronze ring. Projected diameter 23 mm. Thickness 3 mm.
Plain bronze ring fragment, elliptical in section.
5. Bronze wire. Diameter 2 mm.
Bronze wire fragment with one terminal wound around a rod. ? spring.

Construction layer for period V stone building

6. Bronze tweezers. Length 68 mm. Width 6 mm. Thickness 1 mm.
Undecorated bronze tweezers fashioned from bronze strip. Now badly broken and corroded. Traces of a corroded iron rod in the U-shaped terminal suggest that the tweezers were suspended from an iron ring.
7. *Bronze dome. Max. diameter 40 mm. Thickness 1 mm.
Plain hemispherical dome, now misshapen. The hollow interior is packed with traces of charcoal and rust impregnated ? wood fibre. There is no indication of rivet or any other sort of attachment. A 4th century parallel comes from Shakenoak (Brodribb, A. C., Hands, A. R. and Walker, D. R. *Excavations at Shakenoak I*, (1968) 90 fig. 31 no. 38).

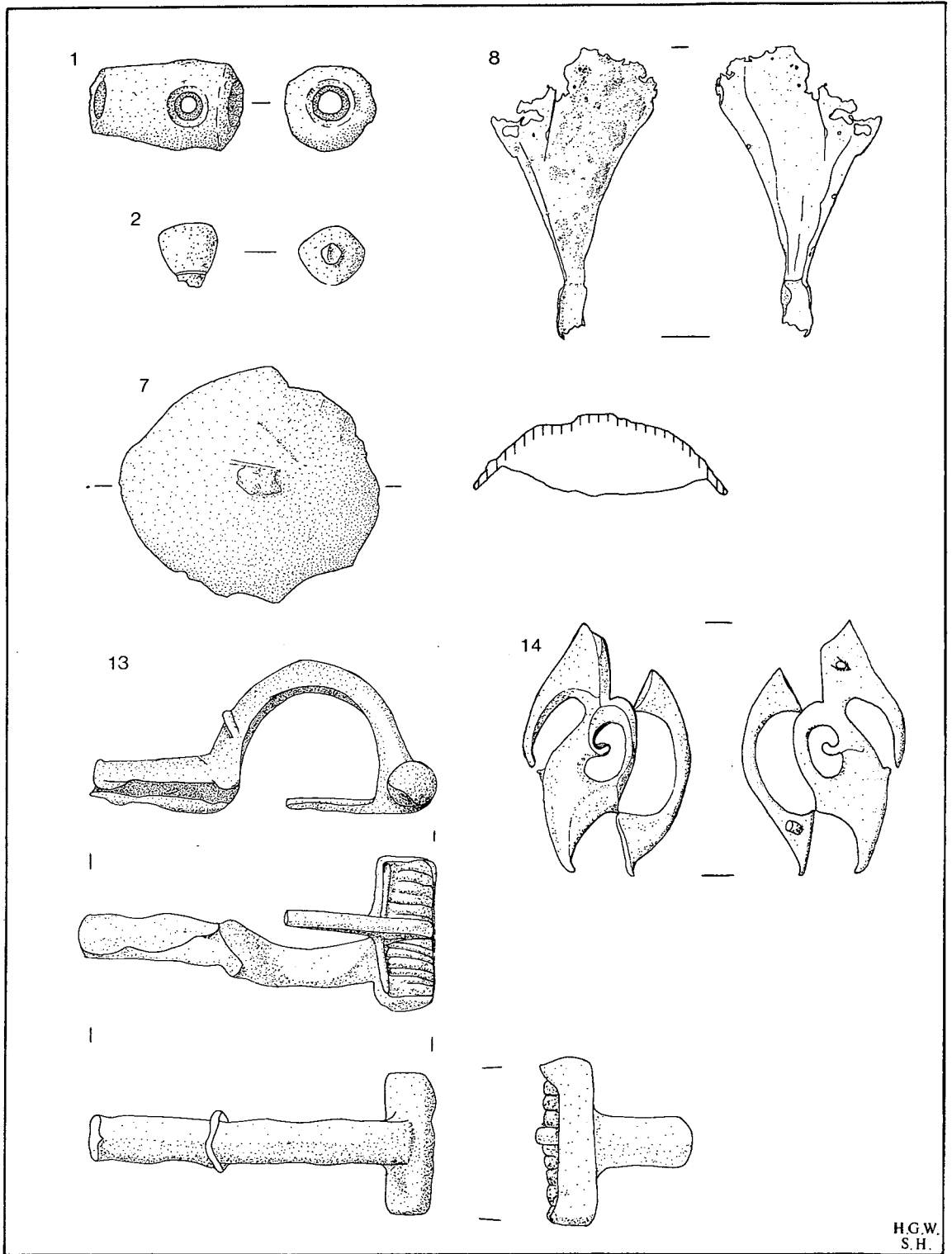


Fig. 8. Metalwork (1:1, except No. 8, 1:2)

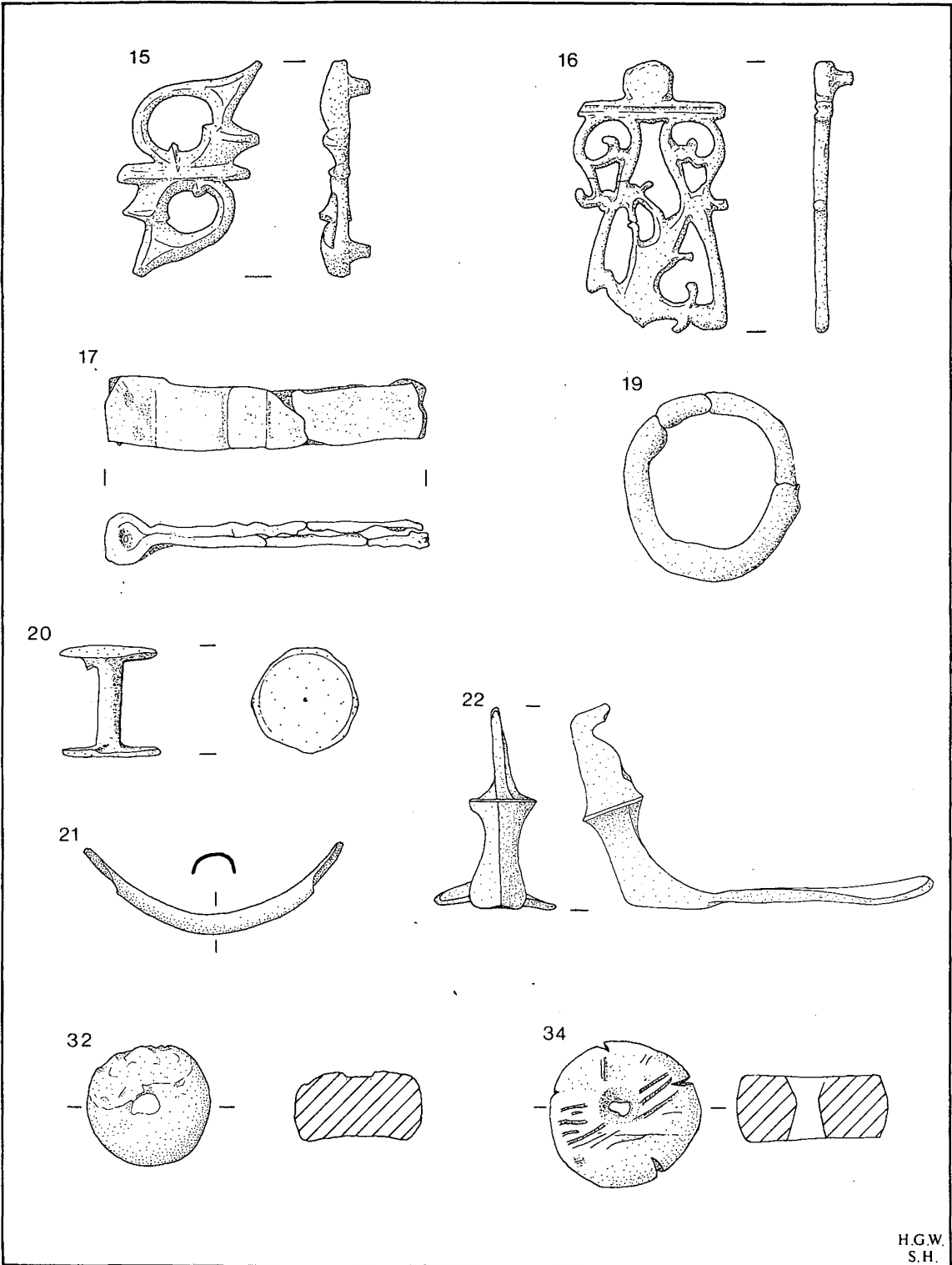


Fig. 9. Metalwork (1:1, except No. 34, 1:2)

H.G.W.
S.H.

Black silty deposit at mouth of drain in period V stone building

8. *Bronze fragment. Max. length 93 mm (incomplete). Max. width 50 mm (incomplete). Thickness 0.5 mm.

Fashioned from sheet bronze: above a U-shaped socket at the base the sheet flares upwards and outwards with concave sides. A single irregular scored line borders each edge on both sides, indicating that each side would be visible. Too fragmentary to allow identification.

In hearth III in period VII stone building

9. Bronze rod. Length 39 mm (incomplete). Width 4 mm.
Bronze rod rectangular in section.
10. Bronze fragments.
Two small bronze fragments, heavily corroded, although a shank projecting from the rear of one fragment betrays its function as a mount. cf. Waugh, H. and Goodburn, R., "The Non-Ferrous Objects" in Frere, S., *Verulamium Excavations* Vol. I, 120 no. 40 and fig. 32 no. 40.

On latest floor of period VII stone building

11. Bronze fragment. Thickness 1.5 mm.
Fragment from curved sheet. Unidentifiable.

Slipped material from secondary rampart

12. Bronze loop. Max. diameter 21 mm. Width 7 mm. Thickness 3 mm.
Loop of strip bronze; the terminals, which come away at a tangent, are pinched together with their extremities missing.

Unstratified

13. *Bronze brooch. Length 54 mm.
Corroded P-shaped brooch with the catch-plate and part of the pin missing. In tinned bronze. 3rd or 4th century.
14. *Bronze mount. Max. length 37 mm.
Bronze mount in the form of spiral trumpets with three shanks on the back for attachment.
15. *Bronze mount. Max. length 38 mm.
Bronze mount decorated in the form of opposed trumpet patterns separated by a medial horizontal bar. Two shanks on the back for attachment.
16. *Bronze mount. Max. length 42 mm (incomplete). Thickness 1.5 mm.
Openwork mount. Opposed rising spirals beneath a horizontal bar surmounted by a centrally placed stud, enclose a firebrand motif. Fragments from identical mounts have been found at Barburgh Mill, Dumfriesshire (*Britannia* V (1974) 162, no. 39 and fig. 8.39) and South Shields (Unpublished, Museum of Antiquities, Newcastle upon Tyne. Reg. 1929.25 and 1929.119).
17. *Bronze tweezers. Length 49 mm. Width 8 mm. Thickness 2 mm.

Fragmentary and corroded. Two spaced horizontal grooves on the outer faces produce a central undecorated panel.

18. Bronze ring. Diameter 20 mm. Thickness 2.5 mm.
Plain annular bronze ring.
19. *Bronze ring. Diameter 28 mm. Thickness 3 mm.
Badly corroded and fragmentary annular bronze ring, circular in section.
20. *Bronze stud. Diameter 15 mm. Thickness 1.5 mm. Length of shank 10 mm. Thickness of shank 4 mm.
Small bronze stud in the form of two parallel flat discs linked by a shank circular in section. The outer face of each disc is bordered with a single scored line.
21. *Bronze edging strip. Projected diameter 48 mm. Width 7 mm. Thickness 0.2 mm.
Inner edging strip which, if circular would give an aperture of 48 mm.
22. *Bronze fragment. One arm of this L-shaped fragment is a flattened spatula shape with an uneven irregular edge. The other arm projects upwards to a small shelf from which rises a pierced flange. Its function is uncertain but it may have acted as a foot.

IRON

In make-up of floor of period VI stone building

23. Iron collar. Diameter 20 mm. Width 15 mm. Thickness 3 mm.
Small corroded iron collar.

Below flagging of latest floor in period VII building (east)

24. Iron clench nail. Length 51 mm (incomplete). Max. head width 35 mm.
Clench nail with pyramidal rectangular head.
25. Iron blade. Length 61 mm (incomplete). Width 21 mm. Thickness 5 mm.
Corroded knife-blade fragment.

Rubble from collapse of latest buildings (period VII)

26. Iron studs. Average head diameter 11 mm.
Twenty dome-headed shoe studs heavily corroded with traces of leather.

Dark soil deposit in alley between back-to-back buildings of period VII

27. Iron studs.
Group of shoe studs corroded together.
28. Nails.
Two broken nail fragments: one bent.

Slipped material from secondary rampart

29. Iron object. Length 120 mm.
Large iron fragment, too badly corroded to allow identification.

Unstratified

30. Iron fragment. Length 47 mm (incomplete). Diameter 5mm.
? nail fragment.

LEAD (fig. 9)

In period II construction trench

31. Lead cramp.
Small lead cramp retaining impressions of tie-bar.

In clay flooring of southern building of period II

32. *Lead weight. Diameter 18 mm. Width 10 mm. Weight 22 gms.
Cylindrical weight with bronze ring for suspension now missing but attested by corrosion deposit.

Destruction deposit overlying period II building

33. Lead clip. Length 15 mm. Width 11 mm. Thickness 1.5 mm.
Small lead clip fashioned from lead strip with its outer edges inturned.

In cobbling of road associated with primary stone building (period V)

34. *Lead weight. Diameter 43 mm. Width 20 mm. Diameter of bore 10 mm. Weight 305 gms.
Lead weight with four deep vertical cuts at each quadrant.

THE GLASS

Dorothy Charlesworth

Most of the pieces of glass found are natural green in colour and can be identified as fragments of bottles c. A.D. 60–130 in date. In some cases the shape of the bottle cannot be determined but one is hexagonal (no. 37), six are cylindrical (nos. 36, 47, 63, 73) and seven are square (nos. 38, 52, 72) and the total number represented by fragments is about thirty-two.⁹

⁹For shapes of vessels *A.A.*⁴ XXXVII (1959), "Roman Glass in Northern Britain".

There is one piece of deep blue glass (no. 46), a small convex ribbed fragment which could be from a flagon or globular jar and is probably to be dated to the last quarter of the first century A.D. Three other pieces, all green glass, are probably also from flagons (nos. 48, 70, 71) dating c. A.D. 70-130.

Two pieces of thin greenish glass may be from the same vessel, one part of the base (no. 42) and the other part of the neck (no. 75) of a flask. A complete flask neck lacking rim or any trace of the shoulder of the vessel was also found (no. 56). These pieces are c. 1st to 2nd century in date.

Only three pieces of better quality glass, thin colourless metal decorated in two cases with cutting (nos. 51, 60) and one with a polished surface and two horizontal ribs left in relief (no. 59) were found. It is impossible to date them closer than 2nd to 3rd century.

One green base with a ring round the edge and pontil mark in the centre had been cut down for re-use, as a counter possibly (no. 69). One fragment of hollow tubular rimmed bowl was found (no. 68). These were in use for a long period and a fragment is impossible to date.

Four pieces are of window glass of the 1st to 2nd century type, smooth on one side and rough on the other. Three are of natural green (nos. 55, 67), one colourless which is unusual for early Roman window glass.¹⁰

PROVENANCE OF THE GLASS

In period I construction trench

35. Small fragment of green glass vessel.

Period I occupation level

36. Three fragments from a cylindrical green glass bottle.

Layer of burnt wattle and daub overlying southern building period I

37. Body fragments of hexagonal green glass bottle.

38. Body fragment from square green glass bottle.

Period II occupation level

39. Two small fragments of green glass vessels.

Layer of burnt wattle and daub overlying southern building period II

40. Handle and body fragment of green glass bottle.

¹⁰ The technique is discussed by D. B. Harden in E. M. Jope (ed.) *Studies in Building History* and by G. C. Boon in *Journal of Glass Studies* VIII (1966) 41-7.

Road associated with periods I and II

41. Fragment of a green glass vessel.

In period III/IV construction trench

42. Fragment of base of vessel in thin greenish glass.
43. Part of handle from a green glass bottle.

Carbon deposit overlying period III buildings

44. Fragment of body of green glass bottle.

On flagged and gravelled surface associated with periods III–IV

45. Part of handle of green glass bottle.

Carbon flecked greenish silty deposit overlying levelled remains of period IV

46. Fragment of fine deep blue glass.

Grey clay deposit associated with structurally unattested occupation between periods IV and V

47. Rim and body fragments of cylindrical green glass bottle.

Construction layer for period V, primary stone building

48. Body fragment from green glass flagon.
49. Part of rim and body fragment from green glass bottle.

In floor of southern period V building

50. Two body fragments from a rounded vessel in green glass.

In heavy cobbling of road between period V buildings

51. Fragment of thin colourless glass decorated with cutting.
52. Fragment of a square green glass bottle.
53. Two small fragments of thin greenish glass.

Clay layer sealing remains of period V building

54. Small fragment of thin green glass.

In floor of southernmost period VI building

55. Fragment of green window glass, pitted on one side, smooth the other.

56. Neck of flask in green glass, rim lacking.

57. Fragment of thin green glass vessel.

In rammed pebble and cobble roadway constructed in period VI

58. Fragment of green glass vessel.

Robber trench of northernmost period VI wall

59. Fragment of thin colourless glass decorated with two horizontal ribs in relief.

Below flagged floor of easternmost period VII building

60. Fragment of thin colourless glass decorated with cutting.

61. Four fragments from green glass vessels.

On top of secondary intervallum road

62. Body fragment of a green glass bottle.

Among debris overlying period VII buildings

63. Fragment from body of cylindrical bottle.

Dark soil deposit in alley between period VII back-to-back buildings

64. Small fragment of green glass.

Slipped material from secondary rampart

65. Body fragment from a green glass bottle.

Unstratified

66. Fragment of colourless window glass.
67. Two fragments of green window glass.
68. Fragment of rim of a hollow tubular rimmed bowl.
69. Green base with a ring around the edge and pontil mark in the centre.
70. Body fragment from green glass flagon.
71. Part of handle of a green glass flagon.
72. Fragments from five square green glass bottles.
73. Fragments from three cylindrical green glass bottles.
74. Rim and body fragments from green glass bottles.
75. Part of the neck of a thin green glass flask: possibly the same vessel as no. 42.

MISCELLANEOUS SMALL FINDS

On road associated with buildings of periods I-II

76. Gaming counter.
Small black glass counter, much worn on the back.

Destruction deposit overlying period II buildings

77. Melon bead.
Half of a melon bead of deep blue glass.

Carbon flecked greenish silty deposit overlying levelled remains of period IV

78. Melon bead.
Small fragment of a melon bead in turquoise blue paste. Another fragment of this same bead came from the topsoil.
79. Melon bead.
Made from turquoise blue paste.

Sealed below the flagged floor of easternmost period VII building

80. Gaming counter.
Counter made from samian, much abraded.
81. Spindle whorl.
Made from fragment of coarse grey pottery, probably the body of a jar.

On latest floor of easternmost period VII building

82. Spindle whorl.

Two fragments from a spindle whorl made of samian. The spindle whorl was never completed; the central hole does not pierce right through the thickness of the sherd and the shape of the piece is irregular. It was perhaps broken in the process of being made.

On road to north of the period VII back-to-back buildings

83. Glass bracelet.

Fragment of a bracelet made from opaque white glass; plain, undecorated and D-shaped in section. Another piece of this same bracelet came from on top of the secondary intervallum road.

On top of the secondary intervallum road

84. Glass bracelet.

Fragment of the same bracelet as no. 83.

*Unstratified*85. Intaglio, *Martin Henig* (pl. X).

The stone is a cornelian, orange in colour, with a flat upper surface (dimensions 14.5 mm × 11 mm); its sides are bevelled (lower surface 11 mm × 8 mm) and it is c. 3 mm thick. Apart from a couple of small chips the condition is good but it should be noted that whereas the back and sides of the gem retain their high finish, the upper face is somewhat scratched, demonstrating that the object was in use as a signet for some time before it fell out of the owner's ring and was lost. The device cut upon the gem is a *calathus*, in which there are two ears of corn and a poppy-head flanked by *cornucopiae*. These are all symbolic of fertility and prosperity and are commonly found on gems. Daremberg and Saglio describe the wicker basket (*calathus*) as an attribute of "toutes les divinités entre les mains desquelles il est un symbole d'abondance".¹¹ It may be noted on intagli from Corbridge, Chester, Leicester and Richborough.¹² Corn ears and poppies are the traditional cereal crops of Rome, mentioned by Virgil in the *Georgics* and depicted on the Ara Pacis.¹³ They are found in association on numerous gems.¹⁴ Axel Seeberg points out that the poppy as a crop was "a cultural relic, comparable to the ritual use of barley in sacrifices probably already in Vergil's day his mention of the poppy had a touch of the unreal, of a return to the Golden Age, the same idea that is expressed in the Tellus relief of the Ara Pacis".¹⁵ Horns of plenty, either singly or in pairs, are ubiquitous in Roman art and are probably the commonest symbol on gems.¹⁶ The

¹¹ C. Daremberg and E. Saglio, *Dictionnaire des Antiquités Grecques et Romaines* I (Paris 1877) 812-4.

¹² *A.A.* XXXIX (1961) 34 no. 43, pl. ix.16 (Corbridge); C. Roach Smith, *Antiquities of Richborough, Reculver and Lympne* (London 1850) 89 fig. 1 (Richborough). The other two gems (Chester and Leicester) are in their respective local museums and are not published.

¹³ Virgil, *Georgics* I, 212; E. Simon, *Ara Pacis Augustae* (Tübingen 1967) 25f. pl. xxvi, xxvii.

¹⁴ eg. G. C. Boon, *Roman Silchester* (London 1957) 126, fig. 16.5; B. Cunliffe, *Roman Bath* (Oxford 1969) 80 no. 5, 87 nos. 31 and 33.

¹⁵ *Acta ad Archaeologiam et Artium Historiam Pertinentia* IV (1969) 7-11, pls. i-v.

¹⁶ eg. B. Cunliffe, *Richborough V* (Oxford 1968) 100 no. 164; *Trans. South Staffs Arch. and Hist. Soc.* xi (1969-70) 25 and fig. 5 (Wall); *North Staffs Journal of Field Studies* VII (1967) 30 fig. 3 (Holditch).



Intaglio from Ebchester, Co. Durham

Ebchester gem is matched by a cornelian in Munich, the authenticity of which is in doubt.¹⁷ An intaglio in Berlin only differs from it in that a cock stands on each *cornucopia*. On a stone from Aquileia a cock stands on the *calathus*.¹⁸ Variants in which the *calathus* is replaced by a *modius* are recorded from Vindonissa and Charterhouse on Mendip, by a drinking-cup at Aquileia and Cirene and by a *cantharus* at Skelton Green, Puckeridge, Hertfordshire.¹⁹ On stylistic grounds this gem should belong to the late 1st century A.D.

SAMIAN WARE

Brian Hartley, Brenda Dickinson and Hedley Pengelly

Period I occupation level

1. A tiny fragment of form 29 with a trilobed leaf in the upper zone. South Gaulish, c. A.D. 70–80.
2. Slightly burnt. A tiny fragment of form 67 with a straight wreath of trilobed leaves. South Gaulish, Flavian.
3. Form 29 rim. South Gaulish, Flavian, but not later than c. A.D. 85.
- 4.*Form 37, South Gaulish. The general style of decoration, in complex panels with blurred wavy-line borders, is common to many late potters of La Graufesenque (cf. *Jacobs 1913*, Taf. 1–3). Figures preserved include a stag (*Hermet 1934*, pl. 27, 16); a satyr (*ibid.* pl. 19, 80) and a Diana and hind (probably the variant used by Mercato on no. 34 (below) and a hare (cf. *Hermet 1934*, pl. 26, 56) also used by Mercato. c. A.D. 90–110.
5. Form 18, stamped PER[EGRII] by Peregrinus of La Graufesenque. The latest contexts in which the stamp occurs are: Corbridge, Ilkley, Camelon and Loudoun Hill, the earliest is Burghöfe (before c. A.D. 75 ?). A range 70–90 is therefore certain.
6. Form 27. South Gaulish, Flavian.

In period II construction trench

7. Form 18, two fragments of the same dish. South Gaulish, Flavian or Flavian-Trajanic.

Destruction deposit overlying southern building period II

8. Form 29, lower zone, showing part of a compound scroll. South Gaulish, c. A.D. 70–80. Same as nos. 28 and 41.

¹⁷ *Antike Gemmen in Deutschen Sammlungen I, Staatliche Münzsammlung München*, Pt. III (Munich 1972) no. 2990; also note sealing in poor style from Cirene (no poppy); G. Maddoli, "Le cretule del Nomophylakion di Cirene", *Annuario Scuola Archaeologica di Atene XLI/XLII* (1963–4) 40–145 no. 998.

¹⁸ A. Fürtwangler, *Königliche Museen zu Berlin. Beschreibung der Geschnittenen Steine* (Berlin 1896) no. 8360; G. Sena Chiesa, *Gemme del Museo Nazionale di Aquileia* (Aquileia 1966) no. 1434 (stone broken but design evident as stated here).

¹⁹ V. von Gonzenbach, "Römische Gemmen aus Vindonissa", *Zeitschrift für Schweiz-Archäologie und Kunstgeschichte* XIII (1952) 65–82 no. 40.; *Comm. Cambridge Antiq. Soc. IV* (1876/80) 278–9 fig. 3 (Charterhouse); G. Sena Chiesa *op. cit.* nos. 1431, 1433; Maddoli, *op. cit.* nos. 992, 1000; the Puckeridge gem is not yet published (information from C. Partridge) but note similar pieces from Aquileia (Sena Chiesa *op. cit.* no. 1432) and in an American private collection (B. Y. Berry, *Ancient Gems from the collection of Burton Y. Berry* (Indiana 1969, no. 90).

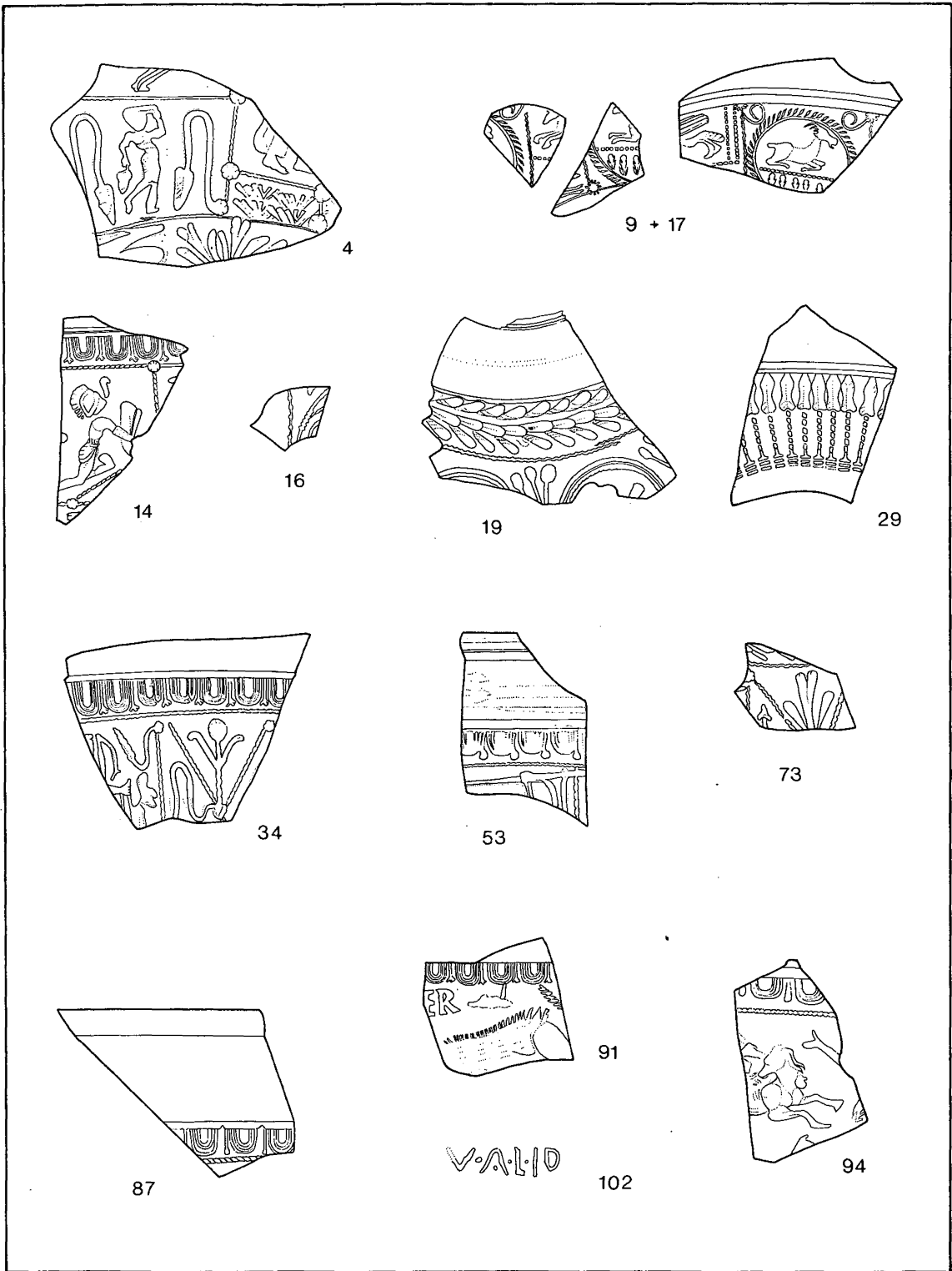


Fig. 10. Samian pottery (1:1, except No. 102, 1:1)

9. *Two burnt fragments of a form 67 with panels (two further fragments from this same vessel were found, one in the fill of a period III/IV construction trench, no. 17, another from the topsoil, no. 95). The surviving figures are: griffin (close to *Hermet 1934*, pl. 25, 5); kneeling goat (*ibid.* pl. 27, 29); satyr playing on double pipes (not in *Hermet*); crouching hare (cf. *ibid.* pl. 26, 68). Arrangements of medallions with animals are common enough at La Graufesenque (cf. *ibid.* pl. 32, 51–58). South Gaulish, Flavian.
10. Fragments of a dish or open bowl with curving wall, form 36 or more probably Curle 11. South Gaulish, Flavian.
11. Form 18. South Gaulish, Flavian.

On road associated with periods I and II

12. A burnt fragment from the base of a jar of form 67. Possibly from the same vessel as no. 9 etc. South Gaulish, Flavian.
13. Form 27 footring, South Gaulish, Flavian.

In period III construction trench

14. *Form 30 with an ovolo with trident tongue. The fallen gladiator is of the general type (*Hermet 1934*, pl. 21, 173). South Gaulish, c. A.D. 75–90.

In period III/IV construction trench

15. A fragment from the base of a form 30, with traces of an unidentified figure and small grass-blades in the field. South Gaulish, c. A.D. 75–90.
16. *A small fragment of form 67 with part of a scroll. South Gaulish, Flavian.
17. *A fragment of a form 67. Same vessel as no. 9.
18. Form Curle 11, flange. South Gaulish, Flavian.

In make-up of period III clay floor

19. *Form 37. A continuous leafy festoon with traces of birds and with pendants of sprays of poppy-heads over a triple basal wreath of common type. Nothing indicates the potter. South Gaulish, c. A.D. 90–105.
20. Form 37, base. Glaze partly crackled. South Gaulish, Flavian or Flavian-Trajanic. Joins no. 26.

Destruction deposit over southernmost period III building

21. Form 37 footring. South Gaulish, Flavian or Trajanic.
22. Form 18 to 18/31. South Gaulish, Flavian-Trajanic.
23. Form 18 (burnt). South Gaulish, Flavian.

In flagged and gravelled surface associated with periods III-IV

24. Form 37. Two joining fragments of rim with part of the ovolo. South Gaulish, Flavian or Flavian-Trajanic.

Slighted primary rampart, underlying secondary intervallum

25. Form 37 rim. South Gaulish, Flavian.
 26. Form 37 base. Joins no. 20.
 27. Form 18, three joining fragments and one other piece of the same dish. South Gaulish, probably Flavian-Trajanic.

Carbon flecked greenish silty deposit overlying levelled remains of period IV

28. Form 29, lower zone, showing part of a compound scroll. South Gaulish, c. A.D. 70-80. Same as nos. 8 and 41.
 29. *Three joining fragments of form 67 with a conventional palisade. For generally similar arrangements, see *Hermet 1934*, pl. 90. South Gaulish, Flavian.
 30. Form 27. South Gaulish, Flavian.
 31. Form 27. South Gaulish, Flavian or Flavian-Trajanic.
 32. Form 27. South Gaulish, Flavian-Trajanic.
 33. Fragment of a dish or open bowl with curving wall. Probably Curle 11. South Gaulish, Flavian or Trajanic.

Grey clay deposit associated with structurally unattested occupation between periods IV and V

34. *Form 37. South Gaulish. The saltire and corner tassels of this bowl are matched precisely on a bowl from London (Guildhall R.XI. 424) stamped MERCATO retr., and the identical Diana and hind (cf. *Hermet 1934*, pl. 18, 5) occurs on his work at Poitiers. This bowl may be assigned firmly to him. c. A.D. 90-110.
 35. Form 37, a fragment of base and footring. South Gaulish, Flavian or Flavian-Trajanic.
 36. Form 37 with festoons. The zig-zag borders and the festoons suggest the work of Servus II of Lezoux or an associate (cf. *S. and S. 1958*, pl. 131). Central Gaulish, probably c. A.D. 160-195.
 37. Form 18. South Gaulish, Flavian.
 38. Form 18 rim. South Gaulish, probably Flavian.
 39. Form Curle 11. Five pieces. The bowl is partly unglazed inside the footring. South Gaulish, Flavian. Same vessel as no. 47.
 40. Form 15/17. South Gaulish, Flavian, but not later than A.D. 90.

In clay and cobble foundation of earliest stone building, period V

41. Form 29. South Gaulish, c. A.D. 70-80. Same vessel as nos. 8 and 28.
 42. Form 37, with a basal wreath of overlapping trilobed leaves of the kind used by Mercato and his circle. South Gaulish, c. A.D. 85-110.

43. Form 15/17R, two fragments of the same dish. South Gaulish, probably Flavian-Trajanic. Joins no. 48.

Below remains of flagged floor of period V southern building

44. A tiny fragment of form 67 with a six-lobed bud used by many potters at La Graufesenque. South Gaulish, Flavian.

Black silty deposit at mouth of drain in southern period V building

45. Form 33, stamped AT.T[ILLIM] by Attilus of Lezoux. This particular stamp has not been found in closely dated contexts, but the general record for Attilus suggests the mid-Antonine period, c. A.D. 150–180.

In heavy cobbling of road between period V buildings

46. Form 27. Two joining fragments. South Gaulish, probably Flavian.
47. Form Curle 11, flange. South Gaulish, Flavian. Same vessel as no. 39.

Clay layer sealing remains of period V building

48. Form 15/17R. South Gaulish, probably Flavian-Trajanic. Joins no. 43.
49. A fragment of a dish with external fluting at the junction of the base and wall, and a slight moulding at the commencement of the footring. An unusual vessel of uncertain form. South Gaulish, Flavian or early-Trajanic.
50. Form 31R. Central Gaulish, late-Antonine.

In floor material of secondary stone building, period VI

51. Form 31. Central Gaulish, Antonine.
52. Form 38 (burnt). Central Gaulish, Antonine.

In rammed pebble and cobble road constructed in period VI

53. *Form 37. South Gaulish, with a blurred ovolo of a type used by Mercato and his associates. The decoration with festoons is typical of their work. c. A.D. 90–110.
54. A small scrap of form 37. South Gaulish, c. A.D. 90–110.
55. Form 31. Central Gaulish, Antonine.

Robber trench of northernmost period VI wall

56. Form 18. South Gaulish, probably Flavian.

Stratified below the flagstones of the latest floor of period VII

57. A small fragment of form 37 with a trident tongue to the ovolo and part of a tendril in the corner of a panel. South Gaulish, c. A.D. 85-110.
 58. Form 31. Central Gaulish, late-Antonine, with the same proportions as vessels in the Pudding Pan rock group.
 59. Form 31 or 31R. Central Gaulish, Antonine.
 60. Form 31R, four fragments from three different vessels, one pierced for a rivet. Central Gaulish, mid- or late-Antonine.
 61. Form 33. Central Gaulish. Antonine, probably late-Antonine.
 62. Slightly burnt form 38. Central Gaulish, Antonine.
 63. Form 38 or 44 rim. Central Gaulish, Antonine.
 64. A fragment of a dish or bowl with curving wall. Central Gaulish, Antonine.
 65. A fragment of a very large dish or bowl with curving wall (perhaps Curle 21). Central Gaulish, late-Antonine.
- This is clearly a mid- to late-Antonine group.

Between the flagstones of the latest floor of period VII eastern building

66. Form 37. East Gaulish, Rheinzabern ware. Not assignable to a particular potter. Probably third-century.
67. Form 36, two fragments from different dishes. Central Gaulish, Antonine.
68. Form 38 rim. Central Gaulish, Antonine.

Occupation material overlying flagstones inside period VII eastern building

69. A small fragment of form 37 with an unassignable ovolo. Central Gaulish, Antonine.
70. Form 33. Central Gaulish, Antonine and probably late-Antonine.
71. Form Curle 11 base. South Gaulish, Flavian-Trajanic.

In hearth belonging to latest phase of occupation of eastern period VII building

72. Form 45 with a smooth glaze. East Gaulish, late-second or third-century.

Among debris overlying period VII buildings

- 73.*A fragment of form 37 with a saltire and a basal wreath. The plant in the saltire is *Hermet 1934*, pl. 14, 50, the same as that used thrice to form the bush on no. 4. South Gaulish, c. A.D. 85-110.
74. A small mid- to late-Antonine group of Central Gaulish ware, including forms 31, 31 or 31R, 31R (three, one heavily burnt), 38 and a small fragment.
75. Form 32 with blotchy glaze. East Gaulish, late-Antonine.

Dark soil deposit in alley between back-to-back buildings of period VII

76. Two small fragments of form 37. The fabric suggests manufacture at Les Martres-de-Veyre

where the ovolo with single border was used frequently by X-2 and Drusus I (X-3). Central Gaulish, c. A.D. 100–120.

77. A small fragment of form 37 with what appears to be Cinnamus ovolo 1. cf. *S. and S. 1958*, fig. 47, 1. Central Gaulish, c. A.D. 150–180.
78. Form 27? footring with external groove. South Gaulish, Flavian.
79. Form 18/31R in the fabric of Les Martres-de-Veyre. Trajanic.
80. A gritted mortarium, presumably form 43 or 45. Central Gaulish, c. A.D. 170–200.
81. Form 31 rim. Central Gaulish, Antonine.
82. Form 31R. Central Gaulish, late-Antonine.
83. Form 31R. Central Gaulish, late-Antonine. Same vessel as no. 90.

Slipped material from secondary rampart

84. An abraded fragment of form 37 with panels. Part of a figure on the right appears to be a gladiator (cf. D. 589), though there is not enough for certainty. South Gaulish, c. A.D. 85–110.
85. A small fragment of form 37 with part of a figure. The fabric suggests Les Martres-de-Veyre as the source and the same figure and serpentine frond occur there (cf. *Terrisse 1968*, pl. 27, 374 etc.). c. A.D. 100–120.
86. Form 37. Central Gaulish, with part of an ovolo (perhaps Ovolo 2 of Cinnamus, cf. *S. and S. 1958*, fig 47). Antonine.
87. *Form 37. East Gaulish. The ovolo seems to be *Ricken 1963*, E. 19, used by Ianus at Rheinzaubern, c. A.D. 160–180.
88. Form 18R with grooving instead of a rouletted ring on the floor. South Gaulish, Flavian or Trajanic.
89. Form 31. Central Gaulish, Antonine.
90. Form 31R. Two joining fragments and one other piece of the same dish. Central Gaulish, late-Antonine. Same vessel as no. 83.

Unstratified

A. Decorated Ware:

91. *Form 37 in the style of Germanus of La Graufesenque with a boar (*Knorr 1919*, Taf. 35.32). The stamp SER always occurs with a stamp GERMANIF, which could stand for Germani f(ilius). The SER part may give the name of Germanus' son in abbreviated form, or it could, of course, be *servus* (slave). However the GERMANIF stamp occurs in early-Flavian contexts (e.g. at the Baginton fort) and there is no need for this piece to be seriously later than Germanus' own products. A date c. A.D. 70–90 seems appropriate.
92. Form 37, with an ovolo with trident tongue partly erased when the rim was added. South Gaulish, c. A.D. 85–110.
93. Form 37, with a trident tongued ovolo bent to left. The decoration is in zones. An almost identical arrangement occurs on a bowl recently found at Carlisle. Cf. also *Terrisse 1968*, pl. XLIX, 1206, and *Jacobs 1913*, Taf. 1, 4, where the lower zone is basically similar. The surviving figures are: birds (*Hermet 1934*, pl. 28, 58 and 59) and the rear of a large dog (cf. *ibid.* 26, 18). South Gaulish, c. A.D. 90–110.
94. *Form 37 with freestyle decoration. The ovolo, horseman (D. 157=O. 246) and dog (O. 1915A) were all used by Bannus of Lezoux, to whom this piece may be assigned. c. A.D. 155–185.

95. Form 67 rim. South Gaulish, Flavian. Same vessel as nos. 9 and 17.

The majority of the pieces from the topsoil are Central Gaulish, of mid- or late-Antonine date. The potters represented include: Laxtucissa or Censorinus, Cinnamus, Advocisus or Paternus, Doeccus and Casurius, amongst the more recognizable pieces. There are several East Gaulish pieces, mainly Rheinzabern ware of late-Antonine or early third-century date.

B. Plain Ware:

96. Form 27g stamped with a die which originally gave OFMOD but was later broken and gave OFMO. The original, which is presumably a stamp of Modestus of La Graufesenque, occurs on Ritterling 8 and in Periods I at Zwammerdum (before A.D. 70) and Fishbourne (before A.D. 75). The broken version appears at Flavian foundations (e.g. Caerleon, Chester, Rottweil, and surprisingly and presumably as a survival at Broomholm), though it was also being used on pre-Flavian forms. Its range of use may be assessed as A.D. 60-75, with the Ebchester pieces also a survival. Whether the stamp was used by Modestus in its final version is highly doubtful.
97. Form 18 stamped [OFC]AI by a potter whose name could be either Caius or Gaius, who worked, on the evidence of fabrics and distribution, at La Graufesenque. This stamp has already been noted from Flavian foundations at Caerleon and Malton. The record for the potter suggests the period A.D. 65-85, with this as the later of the two dies used. *c.* A.D. 70-85.
98. Form 15/17 or 18 stamped OF VI[TAL] by Vitalis ii of La Graufesenque, whose general record suggests a date *c.* A.D. 65-100. This stamp is frequent at Flavian foundations and may be dated *c.* A.D. 75-100.
99. Form 38? stamped [.I]ANVARI[MAN] by Ianuarius ii of Lezoux. There are no dated contexts for this stamp, but others suggest the period *c.* A.D. 150-180.
100. Form 31R, stamped IVL·NV[MIDI] by Iulius Numidus of Lezoux. The stamp appears on F. 79 and in the Brougham cemetery (after *c.* A.D. 160). Other stamps are frequent in period Ib of Hadrian's Wall and in reoccupied Pennine forts, so a date *c.* A.D. 160-200 is certain.
101. Form 31, stamped MACCALIM by Maccalus of Lezoux. Dishes and bowls with this stamp are recorded from the Pudding Pan Rock collection and also at Housesteads (period Ib, presumably). A.D. 165-200.
102. *Form 33 stamped IV·A·L·ID, presumably a stamp of an otherwise unknown Validus. The fabric is Central Gaulish (probably from Lezoux) and the form is certainly Antonine.
103. Form 31, basal cone only, stamped] . . V·SAK·. This stamp, otherwise unknown to us, is likely to be one of Belsa of Lezoux, a mid- to late-Antonine potter. Such dating would be appropriate for this fragment.

Other plain wares from the topsoil include:

South Gaulish: Form 27; 18 (two); Curle 11 (two). Flavian or Flavian-Trajanic.

Central Gaulish: Form 18/31, Les Martres-de-Veyre, Trajanic or Hadrianic; 35, Hadrianic or Antonine and forms (approximate numbers) 18/31 (three or four); 18/31 or 31 rim (four or five); 31 (nine); 18/31R; 18/31R or 31R (two or three); 31R (fourteen); 33 (four); 79, 79R (two); 38 (six); 38 or 44; 23 (two); 45 (four); fragment of an enclosed jar, without decoration.

East Gaulish: Forms 31R (two or three); 46 variant with plain rim.

Leaving aside the few earlier pieces, a mid- to late-Antonine date seems likely for the bulk of the Central and East Gaulish pieces.

SUMMARY

The general conclusions from the pottery as a whole are quite clear, namely that there is a Flavian-Trajanic occupation falling within the limits A.D. 80–125. The samian belonging to this is almost all from South Gaul, but there is a little from Les Martres-de-Veyre. This is a standard situation for forts abandoned at the time of the building of Hadrian's Wall. The later material is virtually all Antonine and third-century and it now seems beyond doubt that Ebchester was re-occupied in the mid-Antonine period, since the mixture of potters involved matches very closely such sites as Ilkley, Bainbridge or Chester-le-Street.

References

- D. Déchelette, Joseph, *Les Vases ornés de la Gaule romaine*, Paris 1904.
 O. Oswald, Felix, *Index of Figure-types on Terra Sigillata* ("samian ware"). Supplement to Annals of Archaeology and Anthropology Vol. XXIV, Liverpool 1937.
Hermet 1934 Hermet, Frederic, *La Graufesenque (Condatomago)*, Paris 1934.
Ricken 1963 Ricken, Heinrich, *Die Bilderschüsseln der römischen Töpfer von Rheinzabern*, Bonn 1963.
S. and S. 1958 Stanfield, J. A. and Simpson, Grace, *Central Gaulish Potters* (O.U.P.), London 1958.
Jacobs 1913 Jacobs, Johannes, *Sigillatafunde aus einen römischen Keller zu Bregenz*. Jahrbuch für Altertumskunde 6, Wien 1913.
Terrisse 1968 Terrisse, J. R. *Les Céramiques sigillées gallo-romaines des Martres-de-Veyre (Puy de Dôme)* XIXe Supplément à Gallia, Paris 1968.
Knorr, 1919 Knorr, R. *Töpfer und Fabriken verzierter Terra-Sigillata des ersten Jahrhunderts*, Stuttgart 1919.

THE COARSE POTTERY

John Gillam

On top of the primary intervallum road

1. *Rim of jar in pale pinky orange fabric. Possibly pre-Hadrianic. Late 1st to early 2nd century.

Period I occupation level

2. *Flagon neck with equal spaced rings; pinky beige fabric burnt on the exterior. Agricolan. Same vessel as no. 48.
3. *Rim of grey jar. Pre-Hadrianic.
4. *Jar in fine orange fabric with shoulder groove and burnished zone round belly of the pot with stabbed decoration. Pre-Hadrianic.

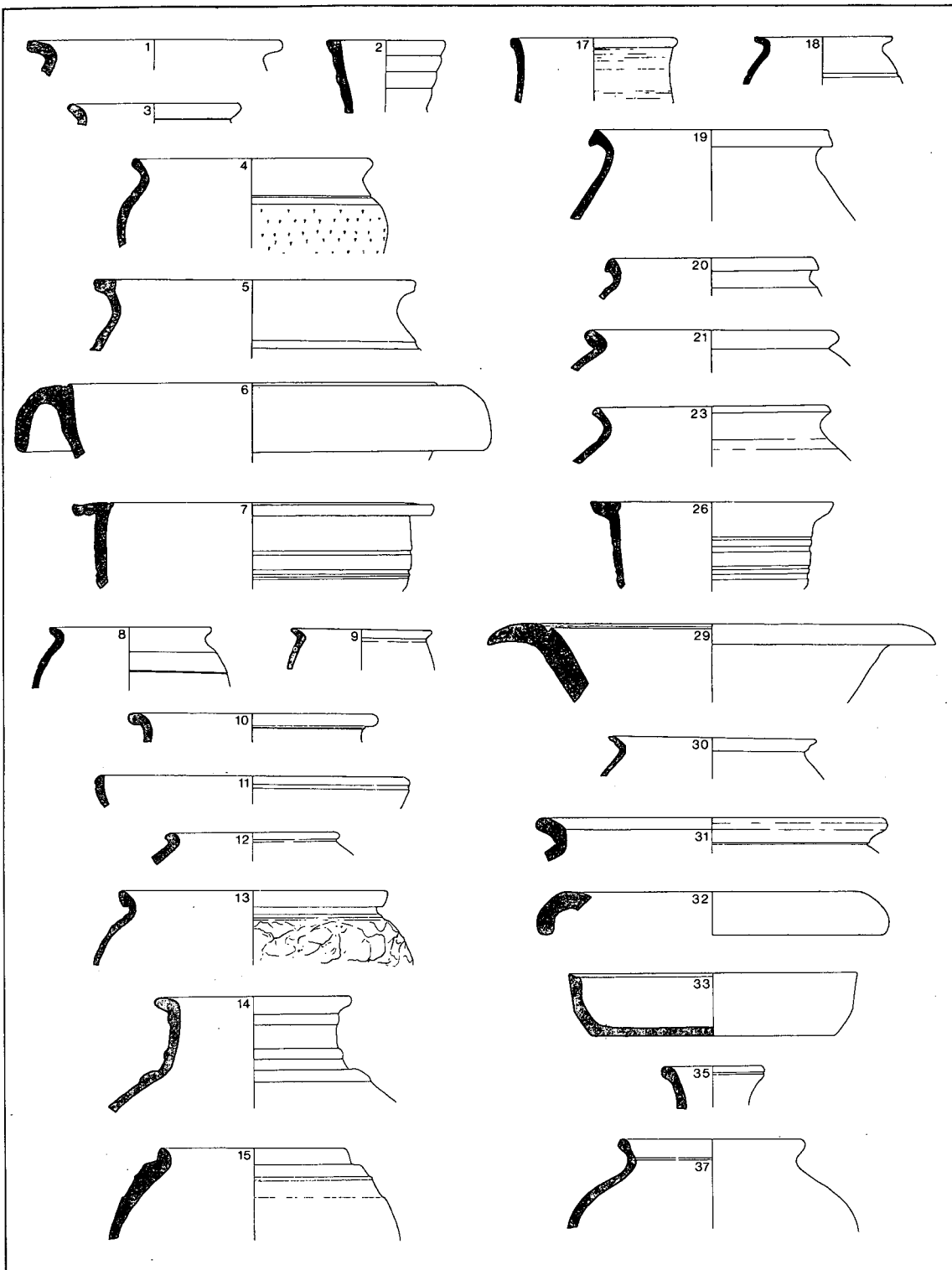


Fig. 11 (1/4)

Destruction deposit overlying period I building

5. Grey bowl with flat topped rim and shoulder groove. Pre-Hadrianic. Same vessel as no. 55.
6. *Mortarium with deeply hooked rim in yellow-buff fabric. No grits on extant portion. Late 1st to early 2nd century.

In single post-hole immediately to north of east-west road—period I/II

7. *Carinated bowl in pale orange fabric, with reeded rim and girth grooves. Late 1st to early 2nd century. Same vessel as no. 28.

Period II occupation level

8. *Grey jar; certainly pre-Hadrianic. Late 1st to early 2nd century. Same vessel as nos. 25, 47 and 83.
9. *Jar in fine pale grey fabric with burnished exterior. Certainly pre-Hadrianic. Late 1st to early 2nd century. Same vessel as no. 74.
10. *Jar in smooth pale grey fabric. Pre-Hadrianic. Late 1st to early 2nd century.
11. *Rim of grey bowl. Certainly pre-Hadrianic. Late 1st to early 2nd century.

Burnt deposit overlying period II building

12. *Jar with short rim in smooth pinky beige fabric. Pre-Hadrianic.
13. *Jar in rustic ware. Hard pale grey fabric. Certainly pre-Hadrianic probably Flavian.
14. *Cordoned narrow mouthed jar. Burnt. Pre-Hadrianic.
15. *Jar with applied cordon decoration. Heavily burnt. Pre-Hadrianic. Same vessel as 27 and 79.
16. Base of jar. Probably pre-Hadrianic.

Greenish grey silty deposit at north end of area I, overlying period II occupation

17. *Narrow mouthed jar in coarse dark grey fabric.
18. *Small grey jar with short rim and shoulder groove. Pre-Hadrianic.
19. *Large narrow mouthed jar with undercut rim in pale grey fabric. Probably pre-Hadrianic.
20. *Medium sized jar in pale grey fabric with slightly thickened rim. Pre-Hadrianic.
21. *Buff coloured jar with short fat rim. Pre-Hadrianic.
22. Small fragment of mortarium in smooth white fabric, cf. Bushe-Fox 14/18.²⁰ Flavian.
23. *Grey jar. Trajanic.

In period III construction trench

24. Fragment of flagon neck in orange fabric. Probably late 1st to early 2nd century.

²⁰ J. P. Bushe-Fox, *Excavations on the Site of the Roman Town at Wroxeter* 1912 (1913).

25. Grey jar with shoulder grooves. Certainly pre-Hadrianic. Late 1st to early 2nd century. Same vessel as nos. 8,* 47 and 83.
- 26.*Flat rimmed carinated bowl with girth grooves. Early 2nd century. Same vessel as no. 40.

In period III/IV construction trench

27. Jar with applied cordon decoration. Flavian. Same vessel as nos. 15* and 79.
28. Carinated bowl in pale orange fabric with reeded rim and girth grooves. Late 1st to early 2nd century. Same vessel as no. 7.*
- 29.*Mortarium rim heavily burnt. Same vessel as no. 65.

Construction trench to north of intervallum road

- 30.*Jar with short rim in fine dark grey fabric burnished. Pre-Hadrianic.
- 31.*Jar with chunky rim in pinkish red fabric. Probably pre-Hadrianic.
- 32.*Rim of mortarium in sandy orange fabric. 2nd century. Probably the same vessel as no. 73.
- 33.*Plain rimmed dish in grey fabric. Pre-Hadrianic.
34. Lid. Pre-Hadrianic.

Carbon deposit overlying southern building period III

- 35.*Rim of narrow mouthed vessel in grey fabric.
36. Incomplete rim fragment of flagon in pale self-coloured fabric. Burnt. Probably pre-Hadrianic.
- 37.*Grey jar. Probably pre-Hadrianic.
- 38.*Jar in grey fabric with small sharply everted rim. Pre-Hadrianic.
39. Rim of Gallo-Belgic bowl in *terra nigra*. Mid- to late 1st century. Note that in the north it has previously been found only at Corbridge and Low Borrow Bridge.
40. Flat rimmed carinated bowl with girth grooves. Early 2nd century. Same vessel as no. 26.*
- 41.*Grey dish. Pre-Hadrianic.
- 42.*Deeply hooked mortarium rim in buff fabric. Perhaps imported or a product of the north London kilns. Pre-Hadrianic.

Occupation material associated with periods III/IV

- 43.*Jar in fine beige fabric with tall rim. Pre-Hadrianic.
- 44.*Jar in pale grey fabric with short rim and shoulder groove. Pre-Hadrianic.

On east-west roadway associated with the timber buildings

- 45.*Jar in smooth dark fabric. Mid-2nd century.
- 46.*Rim of mortarium in coarse reddish fabric, rather overfired. White grits. Mid-2nd century.

Flagged and gravelled surface associated with periods III/IV

47. Grey jar with shoulder grooves. Small everted rim. Pre-Hadrianic. Same vessel as nos. 8,* 25, 83.

Carbon flecked greenish silty deposit overlying levelled remains of period IV

48. Flagon in pinky beige fabric with evenly spaced neck rings. Agricolan. Same vessel as no. 2.*
 49.*Rim of jar in pale grey fabric.
 50.*Fragment of vessel in fine pale orange fabric. Probably pre-Hadrianic.
 51. Body sherd from "wine cooler". Mid-Antonine. Same vessel as no. 60.*

Grey clay deposit associated with structurally unattested occupation between periods IV and V

- 52.*Rough-cast beaker in pale yellow fabric with brown coating. Late Flavian to Trajanic.
 53.*Rough-cast beaker in off-white fabric with orangy brown coating. Late Flavian to Trajanic.
 54.*Jar in pale grey slightly gritty fabric. Slightly undercut dished rim.
 55. Grey bowl with flat topped rim and shoulder groove. Pre-Hadrianic. Same vessel as no. 5.*
 56.*Bowl, flat rimmed, in Black-burnished ware category 1 (BB1). A Dorset product. Early Hadrianic.
 A pair of parallel lines has been scored on the top of the rim at right angles to it.
 57.*Carinated reeded rim bowl with girth grooves. Burnt. Pre-Hadrianic. Same vessel as no. 84.
 58.*Pale grey carinated bowl with girth grooves. Flavian.
 59.*Imitation samian bowl. Probably pre-Hadrianic.
 60.*Wine Cooler in smooth pale grey fabric. Same vessel as no. 51.
 61.*Rim of mortarium in pinky beige fabric. North London product. Flavian to early Trajanic.
 62. Fragments of two lids.

Slighted primary rampart material underlying secondary intervallum

- 63.*Jar in buff fabric. Early to mid-2nd century.
 64.*Bowl with down-turned rim in BB2. A.D. 160–180.
 65. Wall fragment and base of rim of mortarium. Same vessel as no. 29.*
 66. Knob of lid in pinkish grey fabric. Pre-Hadrianic.

In and among cobbling of secondary intervallum road

- 67.*Rough-cast beaker in pinkish buff fabric with dark brown coating. Early to mid-2nd century.
 68. Grey lid. Early to mid-2nd century.

Construction layer for period V, primary stone buildings

- 69.*Rim of cooking-pot in BB1. Second quarter of 2nd century.
 70.*Rim of jar in pale pinkish buff fabric. Late 1st to early 2nd century.

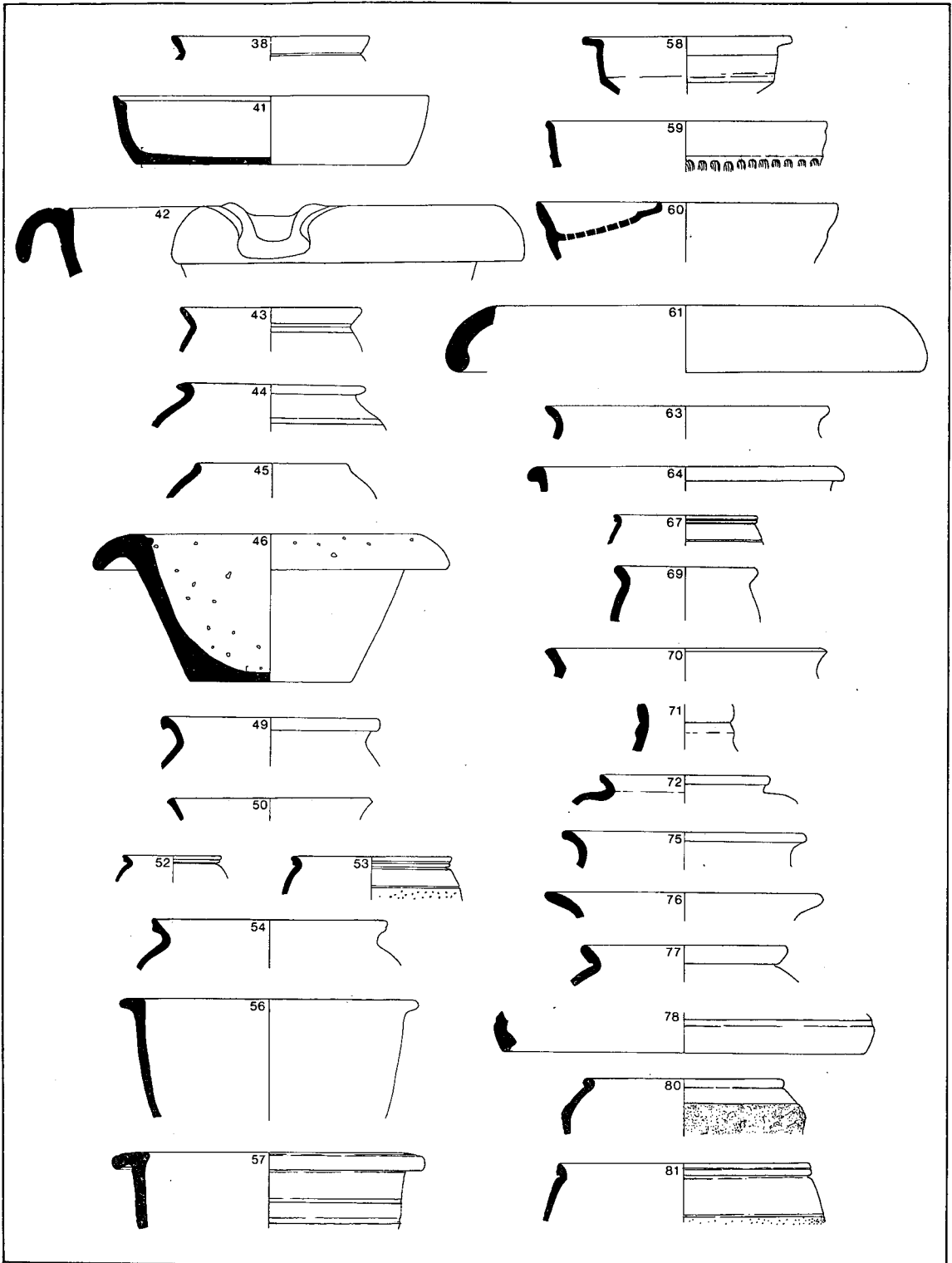


Fig. 12 (1/4)

In clay and cobble foundations of period V buildings

71. *Neck of flagon broken at the top. Hard orange fabric. Late 1st century.
 72. *Jar in smooth fine off-white fabric. Early to mid-2nd century.
 73. Junction of rim and body of mortarium in sandy orange fabric. White grits. Early to mid-2nd century. Probably the same vessel as no. 32.*

In make-up of floor of period V building

74. Jar in fine pale grey fabric. Pre-Hadrianic. Same vessel as no. 9.*

In drain in southern period V building

75. *Rim of cooking-pot. Mid- to late 2nd century.
 76. *Rim of cooking-pot in BB2. Late 2nd century.

In black silty deposit at mouth of drain in period V building

77. *Jar with sharply everted rim in hard grey fabric. Pre-Hadrianic. Same vessel as no. 101.
 78. *Rim fragment probably from a mortarium. Overfired. Mid- to late 2nd century.

In heavy cobbled road between period V buildings

79. Jar with applied cordon decoration. Flavian. Same vessel as nos. 15* and 27.
 80. *Jar in rustic ware. Late 1st to early 2nd century.
 81. *Rough-cast beaker. Reddish fabric with brown coating. Late 1st to early 2nd century.
 82. *Jar in fine hard orange fabric with stabbed decoration on burnished zone. Late 1st to early 2nd century.
 83. Grey jar with shoulder grooves. Pre-Hadrianic. Late 1st to early 2nd century. Same vessel as nos. 8,* 25, 47.
 84. Carinated reeded rim bowl with girth grooves. Burnt. Late 1st to early 2nd century. Same vessel as no. 57.*
 85. *Grey dish. Early Hadrianic.
 86. *Grey dish. Indeterminate.
 87. *Mortarium in buff fabric with multi-coloured grits. Stamped SVLLON for Sulloniaca. Trajanic early Hadrianic. There is a graffito on the side of the vessel. cf. Inscriptions no. 1. Same vessel as no. 97.
 88. Lid fragments.

Clay layer sealing remains of period V buildings

89. *Rim of jar in hard gritty grey fabric. Third century. Same vessel as no. 126.
 90. *Rim of jar. Pre-Hadrianic.

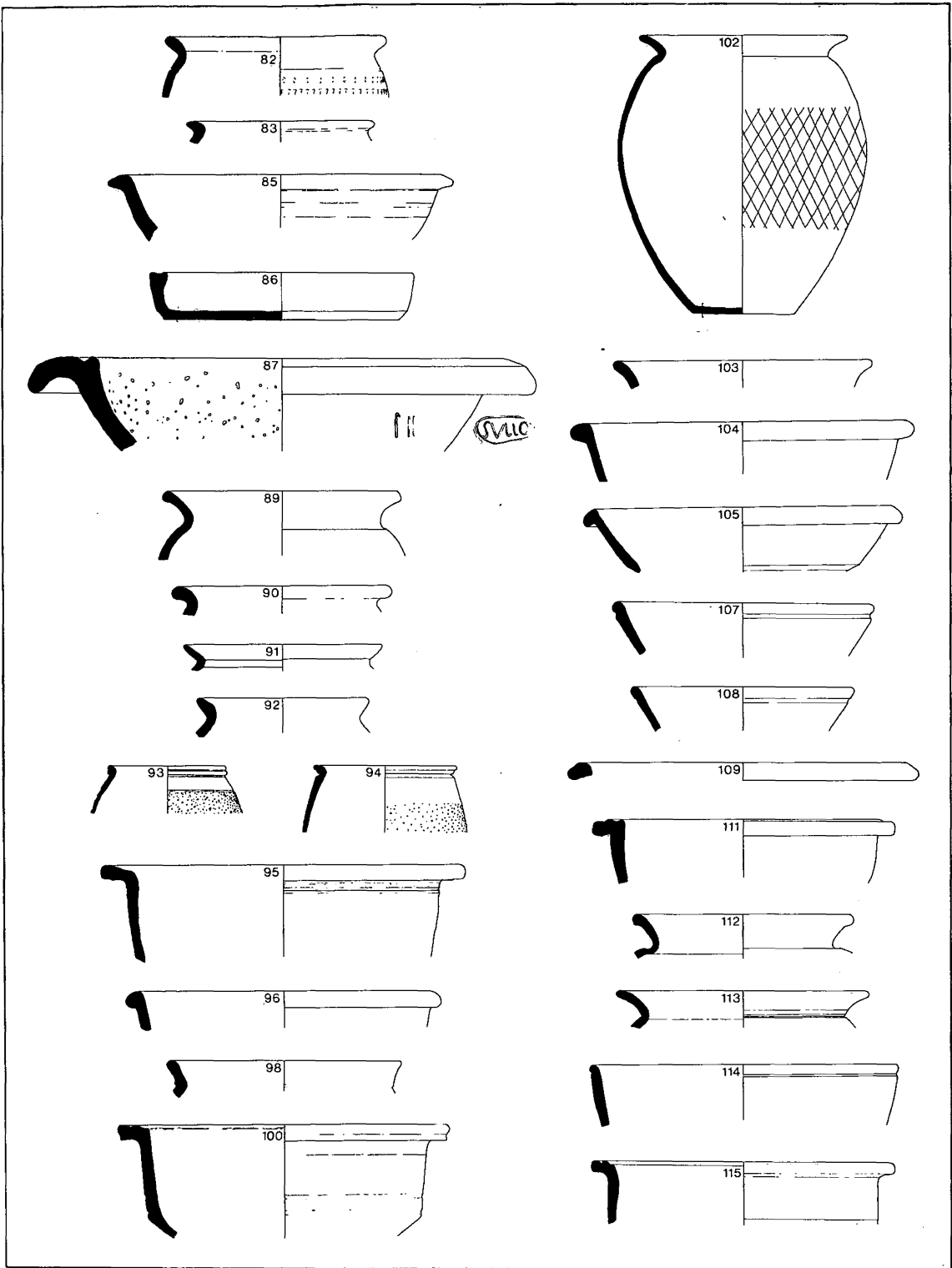


Fig. 13 (1/4)

91. *Smooth pale grey jar with sharply everted rim. Burnished on the exterior. Flavian-Trajanic.
 92. *Jar in hard grey fabric. Could be Hadrianic or earlier.
 93. *Rough-cast beaker with double grooved rim. Pinky beige fabric with brown coating. A.D. 90–120.
 94. *Rough-cast beaker in off-white fabric with light brown coating. Early Hadrianic. Same vessel as no. 122.
 95. *Grey carinated bowl.
 96. *Rounded rim bowl in BB2. Burnt. Late 2nd century.
 97. Mortarium in buff fabric with multi-coloured grits. Trajanic early Hadrianic. Same vessel as no. 87* (stamped).

In foundations of period VI building

98. *Jar in smooth orange fabric. Pre-Hadrianic.
 99. Imitation samian bowl. Probably pre-Hadrianic. Same vessel as no. 59.*
 100. *Carinated reeded rim bowl in grey fabric. Trajanic-Hadrianic.

In floor material of period VI building

101. Jar in hard grey fabric with sharply everted rim. Pre-Hadrianic. Same vessel as no. 77.*
 102. *Cooking-pot in BB1 with cross-hatched decoration. Mid- to late 2nd century. Same vessel as no. 175.
 103. *Cooking-pot in BB2. Late 2nd to 3rd century.
 104. *Bowl in BB2. Late 2nd to mid-3rd century.
 105. *Carinated bowl in BB2. Late 2nd to early 3rd century.
 106. Carinated bowl in BB2. Late 2nd to early 3rd century. Same type vessel but not the same vessel as no. 105.*
 107. *Bead rim bowl in grey fabric. Probably late 2nd century.
 108. *Bead rim bowl in grey fabric. Mid- to late 2nd century.
 109. *Bowl or dish in dark grey fabric. Probably mid-2nd century.
 110. Fragment of lid. Late 1st to early 2nd century.

Sealed below the rammed pebble and cobble roadway associated with period VI

111. *Reeded rim bowl in buff fabric. Slightly burnt. Late 1st to early 2nd century.

In rammed pebble and cobble roadway associated with period VI

112. *Jar with tall rim in good quality hard grey fabric. Early Hadrianic.
 113. *Cooking-pot in BB2 or close imitation. Well-splayed rim. Early to mid-3rd century.
 114. *Bead rim bowl in coarse mid-grey fabric. 2nd or 3rd century.

Robber trench of northernmost period VI wall

115. *Reeded rim bowl. Mid- to late 2nd century.

116. *Mortarium rim. Mid- to late 2nd century.
 117. *Part of rim of bowl in orange fabric with off-white slip. Mid-2nd century.
 118. Fragment of lid. Agricolan to early Hadrianic.

North-south gully between back-to-back buildings period VII

119. *Cooking-pot in BB1. A.D. 120-180.
 120. *Rim of bowl in BB2. The type has a date range 120-180 and is current in the north-east from 160.

Eastern building period VII: hearth I

121. *Segmental bowl in pale off-white fabric with orange-brown paint on the flange. Heavily burnt. 3rd century.

Sealed below flags of latest floor in eastern building period VII

122. Rough-cast beaker in off-white fabric with light brown coating. Early Hadrianic. Same vessel as no. 94.*
 123. *Cooking-pot in BB2. Late 2nd century.
 124. *Cooking-pot in BB2. Mid- to late 2nd century.
 125. *Jar in hard dark grey fabric.
 126. Rim of jar in hard gritty grey fabric. Third century. Same vessel as no. 89.*
 127. *Jar in dark grey fabric.
 128. *Jar with short rim. Hadrianic survival.
 129. *Cooking-pot in BB1. A.D. 160+.
 130. *Jar in coarse grey fabric.
 131. *Cooking-pot in hard grey fabric. Imitation of BB2 type. Late 2nd possibly early 3rd century.
 132. *Cooking-pot in BB1. Late 2nd century.
 133. *Cooking-pot in hard mid-grey fabric, with cavetto rim. Imitation of BB2 type. A.D. 180+ possibly 3rd century.
 134. *Cooking-pot in BB1. Mid-3rd century.
 135. *Cooking-pot in BB1. Early 4th century.
 136. *Wide mouthed jar in coarse orange fabric.
 137. *Flanged bowl in BB1. High flange. 3rd century.
 138. *Flat rimmed bowl in grey fabric. Imitation of BB1 type. Early Hadrianic.
 139. *Carinated bowl with wavy line decoration. BB1. c. A.D. 180 (though it appears earlier in the south and in Scotland).
 140. *Bowl in reddish fabric.
 141. *Grooved rim bowl in coarse grey fabric. Imitation of BB2 type. Late 2nd century.
 142. *Bowl in BB2. Late 2nd century.
 143. *Plain rimmed dish in BB1. Intersecting arc decoration. 180 to early 3rd century.
 144. Plain rimmed dish in BB1. Similar type vessel as no. 143.*
 145. Lid fragment.

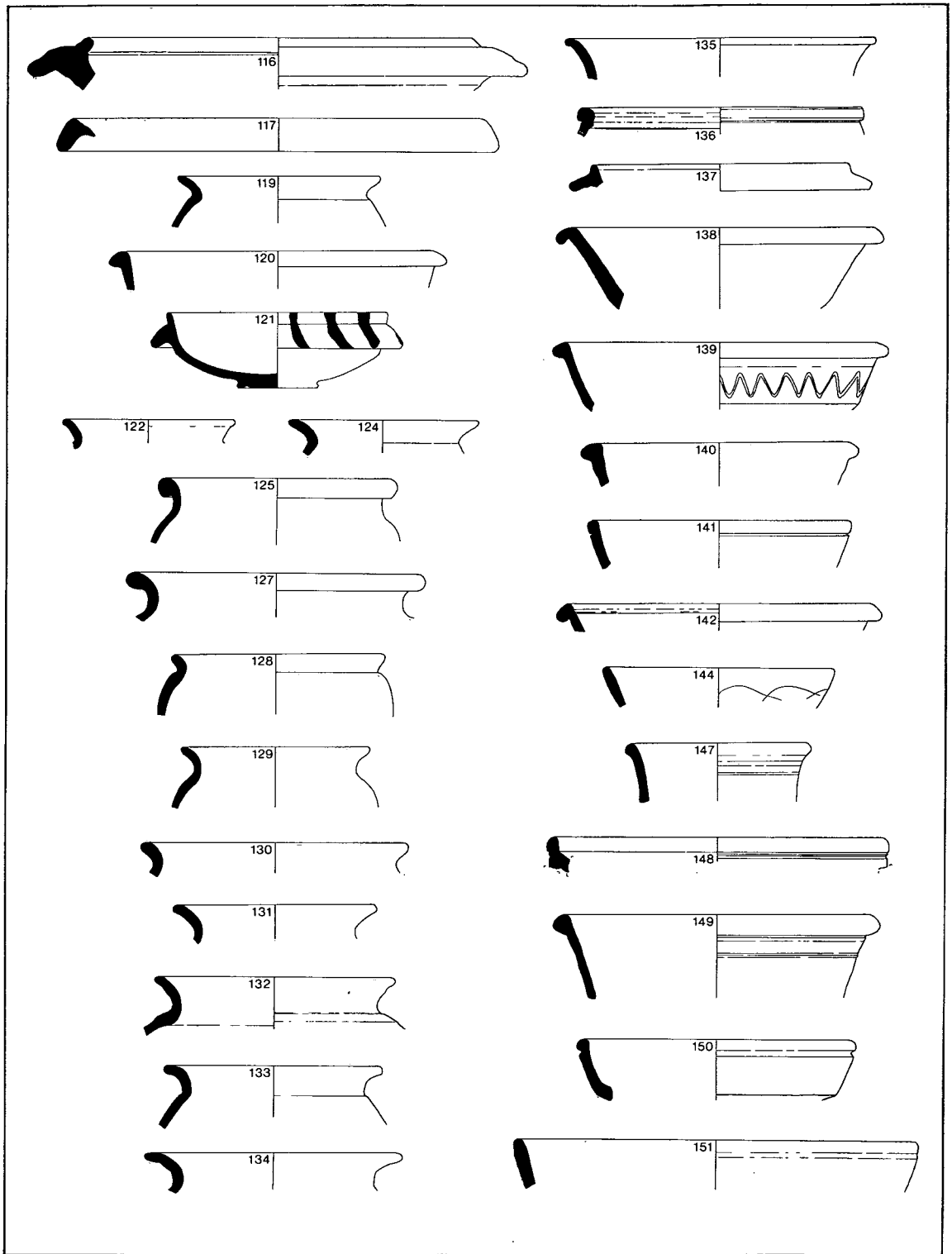


Fig. 14 ($\frac{1}{4}$)

Among flagged flooring of eastern building period VII

146. Plain rimmed dish in BB1. Same type vessel as nos. 143,* 144. Late 2nd to early 3rd century.

On top of flagged floor of eastern period VII building

147.*Narrow mouthed jar in dark grey fabric.

148.*Rim of bowl in dull orange fabric. Imitation samian. Probably 2nd century.

149.*Bowl in dark grey fabric. c. 180-200.

150.*Chamfered dish with beaded rim in pale grey fabric with darker grey exterior. Possibly Crambeck. Late 4th century.

151.*Plain rimmed dish or bowl in BB1. 3rd century.

152. Plain rimmed dish or bowl in BB1. Same type vessel, perhaps same vessel as 151.* 3rd century.

153.*Rim of mortarium in smooth off-white fabric. Early to mid-3rd century.

Eastern period VII building: hearth IV

154.*Cooking-pot in BB1. Later 3rd century.

Dark soil deposit in alley between back-to-back buildings period VII

155.*Rim of small jar in hard well-fired grey fabric. Short rim. Not pre-Hadrianic but could be Hadrianic.

156.*Cooking-pot in BB1 with outsplayed rim. 3rd century.

157. Shoulder of cooking-pot in BB1. Body decorated with obtuse angled cross-hatching with no scored line at the top of the unburnished zone. Probably from the same vessel as no. 156.* 3rd century.

158. Jar in coarse gritty dark grey fabric. Same type vessel as no. 89.* 3rd century.

159.*Rim of cooking-pot in BB1. 3rd century.

160.*Rim of cooking-pot in BB2. Early to mid-3rd century.

161.*Cooking-pot in BB2 or close imitation. Could be 3rd century, not pre-Antonine.

162.*Rim of pale smooth grey jar. Late 1st to early 2nd century.

163.*Bead rimmed bowl in pale orange fabric.

164.*Flanged bowl in BB1 with intersecting arc decoration. Flange low in relation to the bead. Probably not earlier than 3rd century.

165.*Plain rimmed bowl with chamfer in BB1. Nearer A.D. 160 than 180.

166.*Flat rimmed bowl in BB1. Early Hadrianic to late-Antonine.

167.*Plain rimmed dish in BB1 with intersecting arc decoration. 3rd century.

168.*Plain rimmed dish in pale orange fabric.

169.*Rounded rim dish with chamfer, in BB2 or close imitation. A.D. 180+, possibly 3rd century.

170.*Straight sided dish in BB1. Intersecting arc decoration, plain rim, no chamfer. 3rd century.

171. Straight sided dish in BB1. Same type vessel as no. 170.* 3rd century.

172.*Small flanged mortarium with multi-coloured grits. Off-white fabric. Probably 3rd century.

173.*Reeded hammer-head mortarium in white fabric with red and black grits. Slightly burnt. A.D. 280-300.

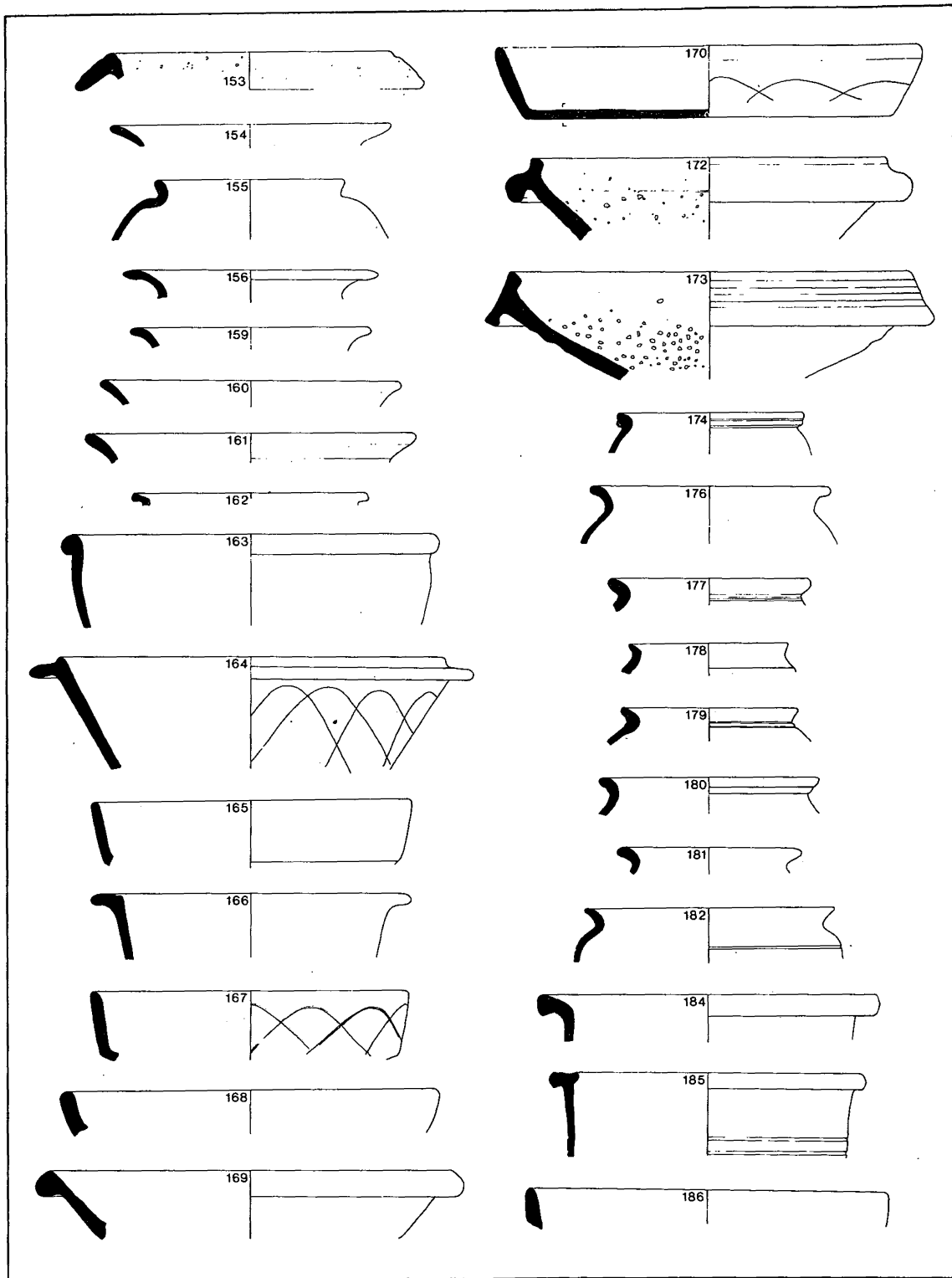


Fig. 15 (1)

Rubble overlying buildings of period VII

174. *Rim of jar in pale grey fabric with darker exterior. Late 1st to early 2nd century.
 175. Cooking-pot in BB1. Very soot blackened. Mid- to late 2nd century. Same vessel as no. 102.*
 176. *Jar in medium grey fabric. Probably early 2nd century.

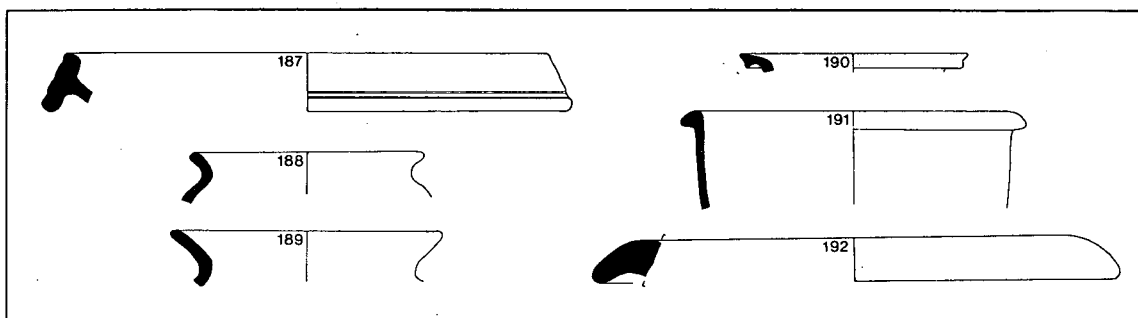


Fig. 16 (1/4)

177. *Jar in beige fabric. Slightly burnt. Late 1st to early 2nd century.
 178. *Small jar in pale grey fabric. Late 1st to early 2nd century.
 179. *Rustic ware jar with sharply everted rim and cord on shoulder. Agricola +.
 180. *Grey jar blackened on exterior. Possibly Crambeck. Late 4th century.
 181. *Rim of rough grey jar. Early 2nd century.
 182. *Pale grey jar, almost white in fracture. Late 1st to early 2nd century.
 183. Pale grey jar. Same type vessel as 182.* Late 1st to early 2nd century.
 184. *Rim of wide mouthed jar in pale grey fabric darker on exterior. Slightly soot blackened. Early 2nd century.
 185. *Reeded rim bowl. Late 1st to early 2nd century.
 186. *Plain rimmed dish in BB1. Early to mid-4th century.
 187. *Hammer-head mortarium in smooth beige fabric. Slightly burnt. Early to mid-3rd century.

Material slipped from secondary rampart

188. *Rim of jar in buff fabric. Pre-Hadrianic.
 189. *Cooking-pot in BB1. Tall rim without bead. Early 3rd century.
 190. *Jar in pale pinky beige fabric. Late 1st to early 2nd century.
 191. *Rounded rim bowl in BB2. Late 2nd to mid-3rd century.
 192. *Fragment of mortarium in sandy yellow fabric. Early to mid-2nd century.
 193. Lid. Pre-Hadrianic.

Note

Very little of the unstratified pottery has been published: there is as much material again from the topsoil and underlying rubble layers. However this omission does not alter in any way the conclusions regarding the dating of the site. The stratified material is representative of the date range of the whole collection though there is a larger proportion of later material from the topsoil. All the pottery is available for inspection at the site museum.

POST-ROMAN POTTERY

Lisbeth Thoms

A small quantity of post-Roman pottery came from the topsoil:

1. One small fragment of a grey vessel with apple-green glaze on the exterior. Probably slightly earlier than 1400.
2. Three body sherds of a grey jar with green glaze on the exterior. 15th century.
3. Base of a jar in coarse grey fabric, blackened on the bottom, with traces of green glaze on the wall exterior. Basal diameter 152 mm. 15th century.
4. One body sherd of a vessel in orange fabric, glazed on both inside and out with a thick dark orange glaze. 17th century.

THE INSCRIPTIONS

*R. P. Wright*²¹

In heavy cobbling of road between period V buildings

1. Graffito on the wall of a *mortarium* (coarse pottery no. 87*):
...]MI[... or, less likely, ...]ML[...

Sealed below flags of latest floor in eastern period VII building

2. Buff sandstone inscription 0.20 m × 0.20 m × 0.07 m: all the edges are broken and there is an uneven surface at the back. The letters, which are carefully cut, are 0.07 m high:
...]NDE[.../...PE]R (leaf stop) AS[...]
3. Part of a *tegula*:
LEG V[I]
The stamp matches that on an *imbrex* reported in *JRS* 57 (1967) 208, no. 30a.

Unstratified

4. Part of a *tegula*:
[LE]G VI V[... (most of the last letter is broken off)
The stamp matches that on *imbrex* fragments found in 1966 cf. *JRS* 58 (1968) 211 no. 45(b).

²¹ Nos. 2, 3 and 4 have been previously reported in *Britannia* 4 (1973), 329 no. 7: 330 no. 18(a): 330 no. 18(b).

REPORT ON THE ANIMAL REMAINS FROM EBCHESTER

G. W. I. Hodgson, M.Sc.

SUMMARY

The animal remains consisted of fragmented bones from the skeletons of land animals and a few fragments of shell fish. Seldom were the animal bones entire and they were, for the most part, butcher's chippings. Some of the bones were burnt and of these several had been heated to such an extent that they were *calcined*. Identification was made by direct comparison with modern museum specimens and with ancient material retrieved from excavations on *Roman* sites around *Hadrian's Wall* and now stored in the *Hancock Museum*, Newcastle upon Tyne.

The animals represented by this material were all possible sources of food. The species found were: Cattle (3); Sheep* (2); Pig (1); Roe Deer (1); Horse (1) and Bird (species unknown) [1]. The *minimum number* of each species present being indicated in brackets.

The cattle, sheep and pig remains compare in size and form with those retrieved from other *Romano-British* sites and are all thought to be from domesticated animals.

Cattle—Celtic Shorthorn (*Bos brachyceros*).

Sheep—Small "Soay" type (*Ovis aries*).

Pig—Domesticated rather than wild type (*Sus domestica*).

The bones and teeth from these animals were from young animals therefore it may be assumed that calf, lamb and piglet were being slaughtered. Most of the identified bones came from the hoof and fetlock parts of the body. There is a striking absence of horn cores, vertebrae and skull fragments (apart from single teeth and fragments of *lower* jaws). This seems to suggest that the bones are, for the most part, the debris after an *initial* dressing of carcasses rather than the debris after the actual cooking of meat.

Horse is represented by a *fetlock* (metapodial) bone, 2 teeth and toe bones (phalanges). On the evidence of the length of one of the toe bones (1st phalange) the animal was big enough to be called a *horse* rather than a *pony*. Bird is represented only by two fragments of long bone shaft. It is not possible to state which species they come from or to offer an opinion as to whether they are from wild or domesticated stock. Suffice to say the bones are from an animal larger than a grouse but smaller than a goose, i.e. something approaching the adult domestic hen in size.

The fragments of shell fish probably come from *Common Mussel* (*Mytilus edulis*) an inhabitant of both estuaries and rocky shores. One fragment of shell bears the skeleton of a marine *Bryozoan* colony on the inside of the shell. It would appear that this particular mussel must have been dead when the shell (empty) was gathered thus suggesting that it was collected in error along with full shells or was taken for a purpose other than food, e.g. to make lime or out of curiosity or keepsake value.

* Boessneck's (J.) 1964 criteria were applied to distinguish between sheep and goat remains—goat was found to be absent.

*SUMMARY OF MEASUREMENTS**Cattle—Bos brachyceros*

left metacarpal dist. width=4.6 cm.
 right metacarpal dist. width=4.6 cm.
 right tibia dist. width=6.0 cm.
 left metatarsal dist. width=4.9 cm.
 left metapodial dist. width=4.6 cm.
 left astragalus l=6.3 cm, b=3.9 cm, h=3.3 cm.
 right astragalus l=6.1 cm, b=4.0 cm, h=3.1 cm.
 1st phalange l=5.9 cm, b=2.9 cm, h=3.4 cm.
 l=6.1 cm, b=2.9 cm, h=3.4 cm.
 l=6.7 cm, - -
 2nd phalange l=4.1 cm, b=2.7 cm, h=3.3 cm.

Sheep—Ovis aries

left metacarpal Proximal width=2.8 cm.
 right metacarpal Proximal width=2.0 cm.
 right tibia distal width=2.6 cm.

Horse—Equus caballus

Metapodial distal width=4.9 cm.
 1st phalange length=9.9 cm.

Roe Deer—Capreolus capreolus

left metacarpal Proximal width=2.1 cm.

The detailed report and the material on which the report was based is lodged in the Hancock Museum, Newcastle upon Tyne.

Bibliography

Boessneck, J. (1964), "Osteologische Unterschiedungsmerkmale Zwischen Schaf und Ziege", Kuhn Archiv, 78 1/2, pp. 1-129.