

EXCAVATIONS AT CARSINGTON, 1983-84

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INTRODUCTION

The excavation of a Roman building at Carsington Site B (SK 24925165) described in an earlier issue of this journal (Ling and Courtney, 1981) was resumed by RL in June 1983 and continued under the direction of Mr Simon Probert, of the Department of Archaeology and Prehistory, University of Sheffield, with a team of assistants funded by the Manpower Services Commission, from October to December 1983. This work was complemented by that of the Hunter Archaeological Society of Sheffield, which carried out preliminary trial trenching in the spring of 1983 and continued investigations of the site, under Simon Probert's supervision, from February to August 1984. The following report summarises the results of the whole of this second phase of work on the site.

THE EXCAVATIONS (Fig. 1)

For the position of the 1983-84 trenches in relation to those of 1979 and 1980 Fig. 1 should be compared with Ling and Courtney, 1981: fig. 4. The main intention of the excavations was to test the areas round the building excavated in 1979-80 for evidence of further structures. In addition to the trial trenches sunk by the Hunter Society, further cuttings were opened by a mechanical excavator immediately prior to the June excavations. All trenches to the west and north-west were sterile, but archaeological deposits were found directly to the south-east and to the north. These were examined by opening up enlarged areas (Trenches XI and XII). In both cases excavation revealed compacted stone platforms, presumably for small stone or timber out-buildings. The south-eastern platform was overlaid by a thick deposit containing broken pottery and other domestic refuse, suggesting that this particular out-building had ultimately been demolished and its site used as a rubbish dump.

Further trenches were designed to locate the two previously unexposed corners of the main building. Trench XIII produced the south-west corner as expected (Plate 1); but Trench XIV, at the south-east, revealed abutting foundations. Subsequent enlargement showed that these belonged to a small projecting wing which had been missed by all the trial trenches.

As will be established below, the bulk of the material from the excavations confirms the picture established in 1980 of occupation from the second half of the second to the late-fourth

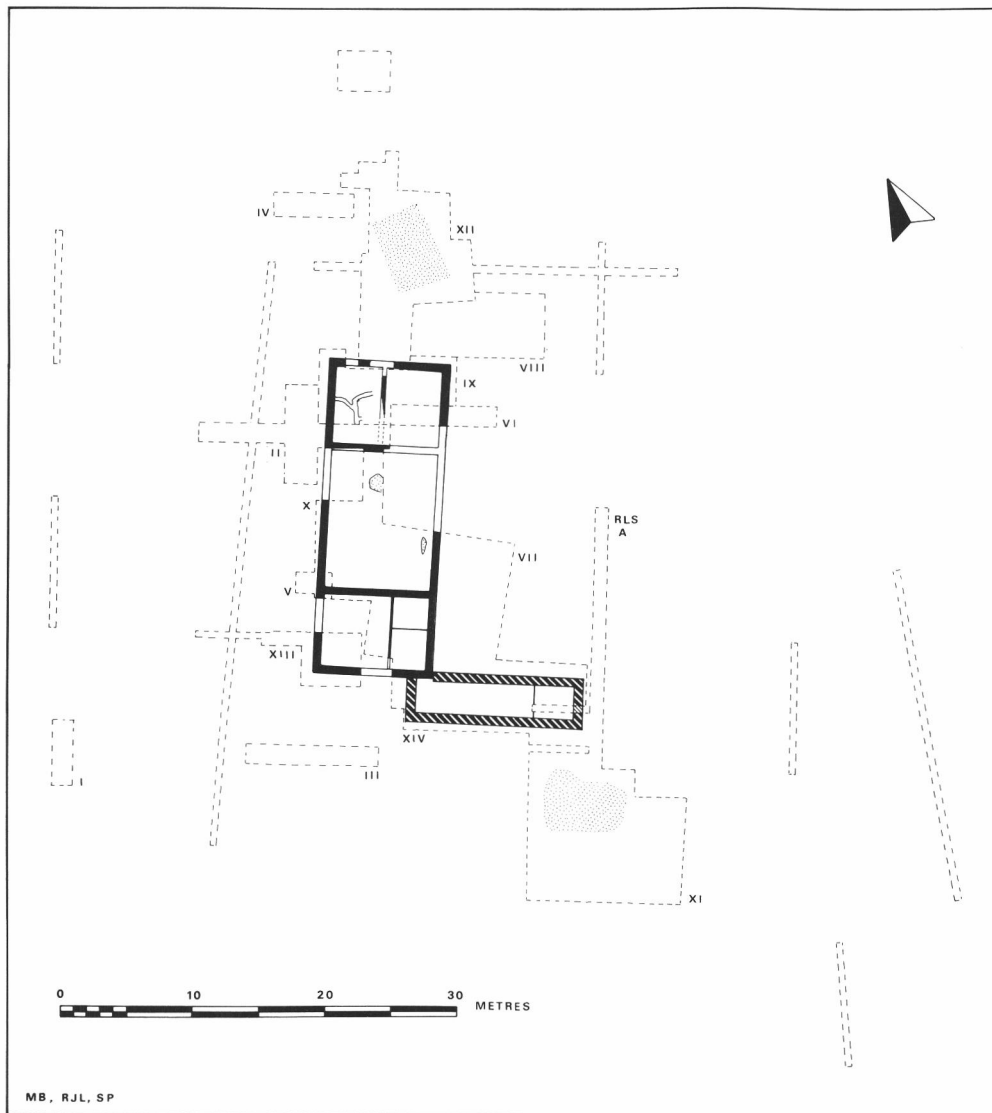


Fig. 1 Carsington 1983-84: overall plan of excavations.

century. There are some indications that the out-buildings belong to an earlier period than the main building, which is provisionally dated to the late-third and fourth centuries; but, since these indications are slight, it will be convenient to consider the main building first and the out-buildings afterwards.

1. The main building (Fig. 2)

The building consists of a rectangular main block orientated roughly north-south and measuring about 23.80 x 9.20 metres, with a narrow wing 13.40 x 4.00 metres added at the south-east corner. Both elements were constructed of roughly coursed sandstone and gritstone blocks, apparently

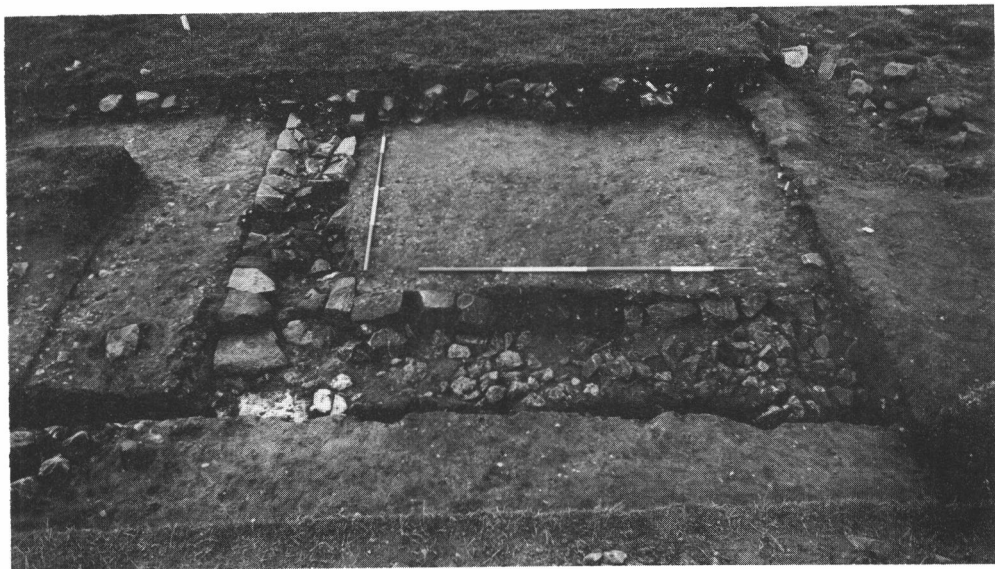


Plate 1 Carsington 1983-84: south-west corner of main building, viewed from the south, with a modern field-drain running in front of it. (Photograph J. M. Eaton)

unmortared (unless the mortar had disintegrated); but the walls of the wing were rather thicker (up to 75 cms as opposed to 58 or 59 cms) and their foundations less regular than those of the main block. There were also no clear floor-surfaces in the wing, whereas the main block had pavements of hard-packed clay and pebbles. That the wing belongs to a secondary phase is suggested by the clear abutment of its north wall against the east wall of the main block (the relationship of its west wall to the south wall of the main block was obscured by a modern field-drain).

The plan of the main block has been described in the earlier report (Ling and Courtney, 1981: 64-8) and need only be summarised. It consisted of a central living area containing two hearths, and groups of smaller rooms at either end. Of the two rooms at the north the more interesting was that at the north-west corner, which contained a rudimentary underfloor heating system. The three at the south (sleeping accommodation?) were separated by timber-framed partitions, probably of wattle and daub.

The wing, which was completely excavated, can be described in more detail. It was clearly designed to overlap and exploit the south-east corner of the main block; thus its north wall prolonged the line of the main block's south wall, while its west wall abutted against the main block about 1.20 metres from the south-eastern corner. The reason for this relationship, other than to economise on time and materials, is unclear: there would have been no space for a connecting doorway. In constructing the wing the builders dug a fairly regular foundation trench up to 1.10 metres broad and 50 to 60 cms deep, in the bottom of which they placed small sandstone and a few limestone boulders. Above this came a footing of shaped sandstone facing-blocks, 20 to 30 cms long and about 15 cms high, enclosing a core of sandstone and limestone cobbles set in a red sandy matrix. The wall proper, preserved one or two courses high at the west end but largely destroyed at the east, was carried up in the same technique, but was noticeably

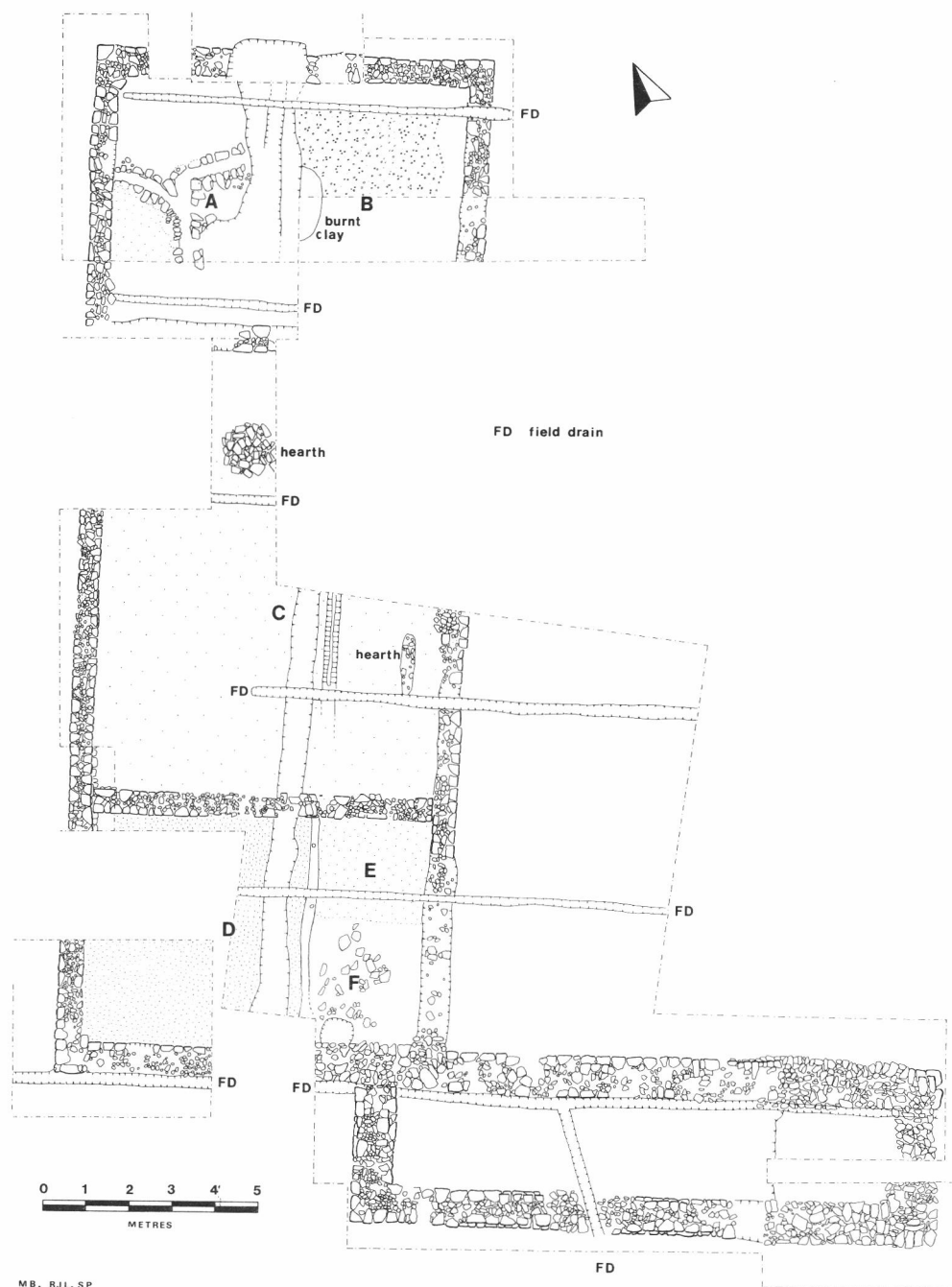


Fig. 2 Carsington 1983-84: detailed plan of main building. (FD = field drains)

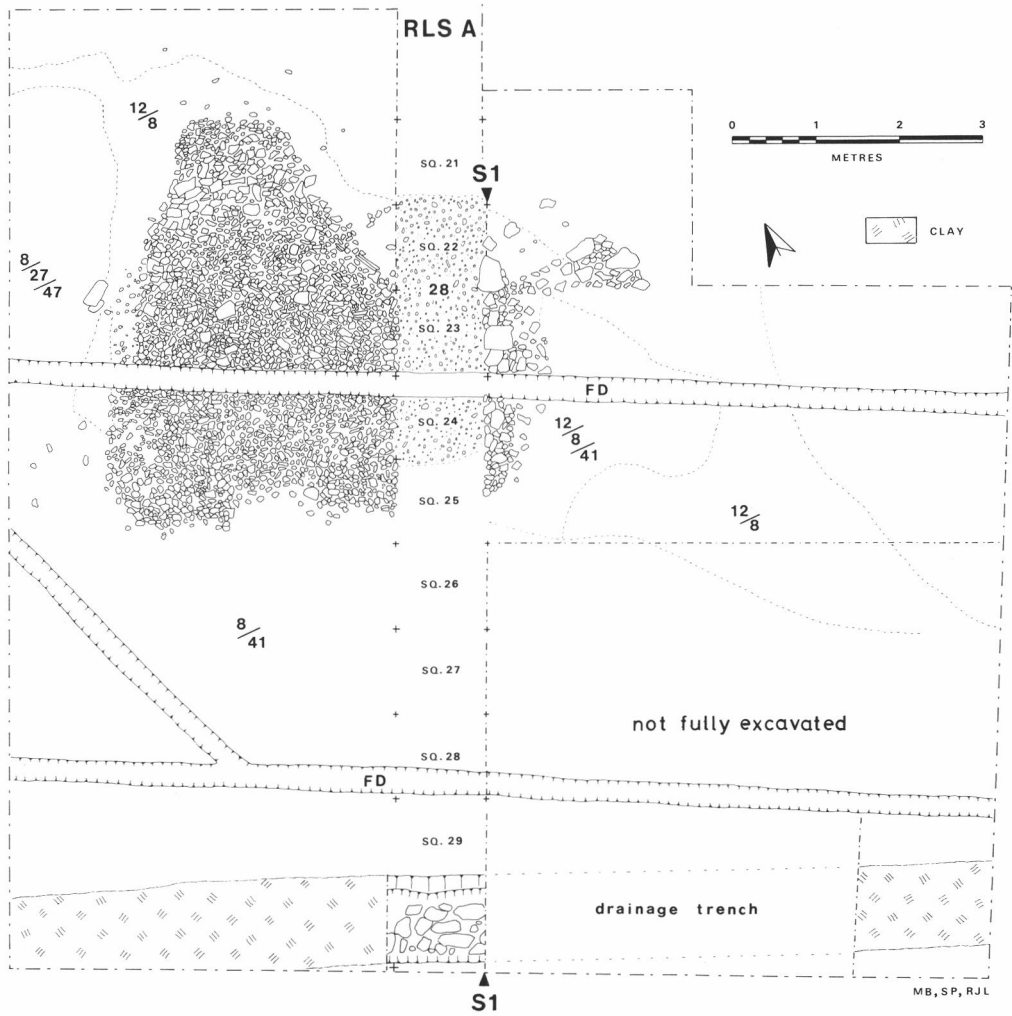


Fig. 3 Carsington 1983-84: plan of area to south-east of main building (Trench XI). (FD = field drains)

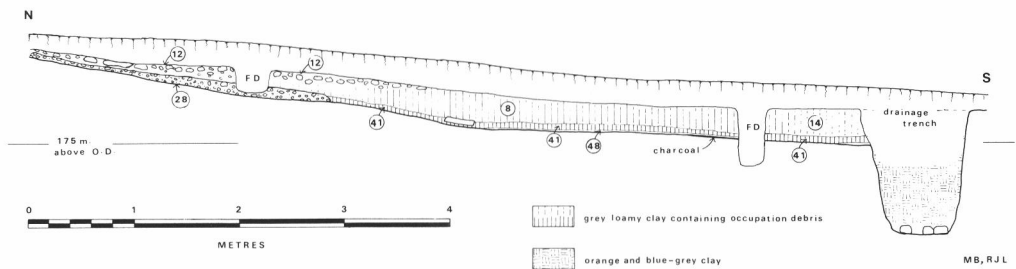


Fig. 4 Carsington 1983-84: Trench XI, section S 1.

narrower (70 to 75 cms). It is interesting that the footing varied in width from 85 cms (along the south side) to 1.00 metre (near the east end), and that the wall seems in some places to have been centrally placed upon it, in others to have been closer to one of the edges. There is little doubt, however, that the wall was generally straight, and that the irregularities were confined to the foundations.

Internally, though the evidence is inconclusive, the wing was perhaps divided into three separate chambers. This interpretation is based on differences in floor-level: the central area appeared to be cut out to a depth of 35 to 45 cms below the western and eastern ends. While the western edge of the cutting was less clearly defined, the eastern edge ran straight across the building and was almost vertical. The three subdivisions so created would have measured, from west to east, approximately 2.50 x 2.50 metres, 6.30 x 2.50 metres, and 3.10 x 2.50 metres. No trace of partition walls was discovered, but a spread of large sandstone blocks towards the west end of the central depression could possibly have been the remains of a rough and ready foundation.

For the function of the wing see Discussion (pp. 51-55), where it is suggested that it may have formed a small bath-suite.

2. The southern out-building: Trench XI (Figs 3, 4)

The evidence for this building was a platform of rammed sandstone fragments lying immediately to the south of the wing of the main building. The platform, which measured about 5.00 metres from east to west and 3.20 metres from north to south, had a hard-packed core, 10 cms or more

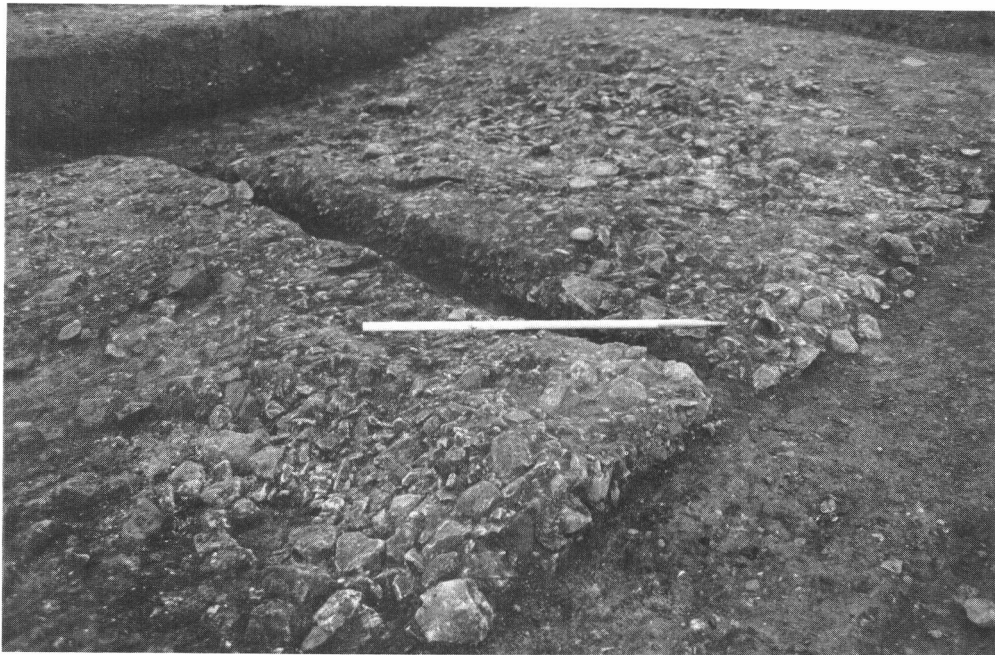


Plate 2 Carsington 1983-84: detail of stone platform for southern out-building, looking north-west, with the Hunter Society trench RLS A in the right foreground (ranging-rod 1 metre long). (Photograph S. Probert)

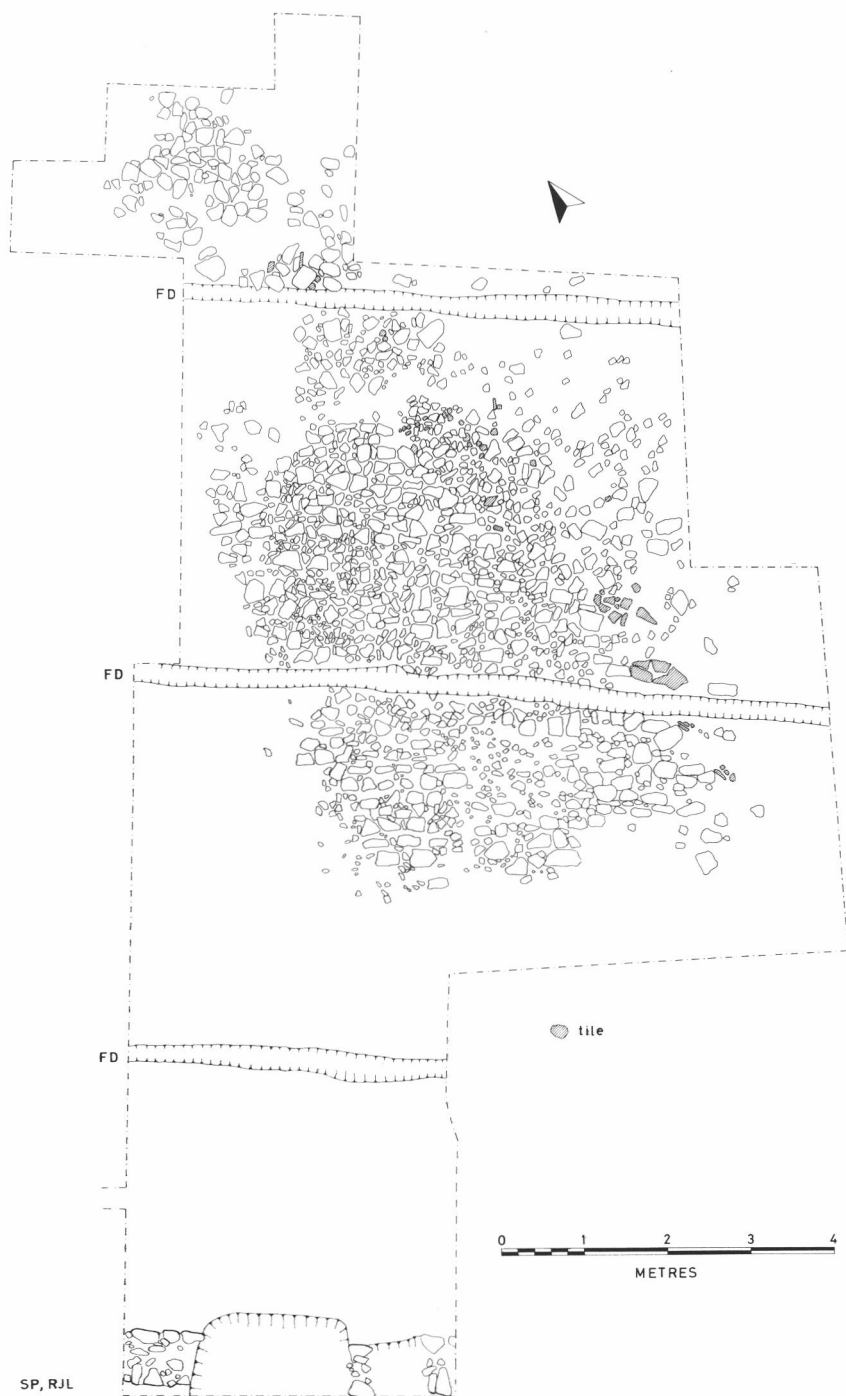


Fig. 5 Carsington 1983-84: plan of area to north of main building (Trench XII). (FD = field drains)



Plate 3 Carsington 1983-84: stone platform for northern out-building, looking west (ranging-rods 1 metre and 2 metres long). (Photograph S. Probert)

thick, which was mortary in appearance, though apparently containing no mortar. Overlying this was a more irregular spread of stone, which extended further south (Plate 2). In Fig. 3 the core (Layer 28) is indicated in the Hunter Society trench RLS A (squares 22-24), while the overlying spread of stone is shown on either side of it. No footings, wall-trenches or post-holes were visible; but it would be difficult to think of any more plausible function for a platform so well prepared and clearly defined than that of supporting a building. There is no clear evidence for the mode of construction of this proposed building; it could have been of timber or timber-framed, with sill-beams resting directly on the surface, but stone construction is not excluded.

Beneath the platform was a layer of charcoal apparently trodden into the surface of the natural clay (Layers 11 and 10: see soil samples 9 and 8); this is best interpreted as the product of bonfires associated with clearance of the site before construction. Over the charcoal layer lay a thick deposit of grey loamy clay containing much charcoal, organic matter and occupation debris, which spilled down the slope to the south (Layers 41 and 8). It is difficult to believe that all this material derived from the small outbuilding; the deposit probably incorporated rubbish dumped on the site after its destruction, perhaps as a deliberate attempt to build up the level (note the waterlogging implied by the soil samples). An apparently cobbled surface at a higher level (Layer 12) may have represented a later yard or hard-standing, but it could equally be stonework spread from the main building by modern ploughing.

3. The northern out-building: Trench XII (Fig. 5, Plate 3)

The evidence for an out-building to the north of the main block was again a stone platform. This time the stonework of the platform consisted of pieces of sandstone set in pitched rows (aligned east-west); a level surface was obtained by packing the interstices with smaller stones and gravel. Once more there was no sign of foundation-trenches, footings or post-holes; but that a building had stood here, and that it was constructed in durable materials, was confirmed by the presence of numerous roof-tiles and building-blocks in the vicinity. The former lay mainly along the eastern edge of the platform, the latter were spread to the north-west (displaced by modern ploughing?). This northern out-building appeared to have been aligned obliquely to the main

block, from which it was only 5.00 metres distant. It measured approximately 4.00 x 6.00 metres.

There was some slight indication that the platform ante-dated the main block. The layers to the south-west of it, largely sterile deposits of sandy clay or loam with a cobbled surface, gave the appearance of being make-up for a yard or the like which abutted against the out-building; yet they were cut by the foundation trench of the north wall of the main building. It is possible therefore that the out-building was associated with an earlier residence, all trace of which was destroyed when the existing one was constructed.

THE FINDS

1. Miscellaneous small finds

Illustrated (Fig. 6)

1. Lead phallus; no hole for attachment. Length 5 cms; width (testes) 1.9 cms; diameter of shaft 1.5 cms. XI extension (trial trench excavated west of Trench XI in August 1984, not shown on plans), 302: resting on top of a cobbled surface perhaps equivalent to XI, 12.
2. Half of jet ring, D-sectioned. Thickness 3 mm; diameter 2.4 cms. XIII, 15: debris above west wall of building.
3. Jet bead, square-sectioned. Length 1.7 cms; thickness 7 mm; diameter of central perforation 1 to 2 mm. XI, RLS A square 24.
4. Fragment of bracelet of (?)cannel coal, D-sectioned (probably split as a result of lamination). Thickness 7.5 mm; diameter approx. 8 cms. XI, topsoil.
5. Pottery spindle-whorl in coarse grey fabric (Fabric 8 of the previous report: Ling and Courtney, 1981: 79). Diameter 3.25 cms; thickness 6 mm. XI, 8: occupation debris over building-platform.
6. Pottery disc in coarse grey fabric (Fabric 8); probably a roughed out spindle-whorl. Diameter 3.4 cms; thickness 8 mm. XI, 8: occupation debris over building-platform.

Not illustrated

- i. Fragment of tiny globular bead in natural greenish translucent glass. Diameter 4.5 mm; perforation 1.5 mm. Cf. Guido, 1978: 69, 166-7. XI, 8: occupation debris over building-platform.
- ii. Small piece of folded lead. 2.2 x 1.9 cms; thickness 4.5 mm. XI, 8: occupation debris over building platform.
- iii. Sandstone or limestone tessera, oblong in form (slightly tapering), with mortar adhering to one side. Length 4.8 cms; cross-section 1.8 x 1.6 cms. XI, topsoil.
- iv. Sandstone disc, perhaps a jar-lid. Diameter 9.2 to 9.7 cms; thickness 1 cm. XI, 8: occupation debris over building-platform.

2. Ironwork (WHM)

Illustrated (Fig. 6)

7. Knife. Length 11.5 cms. The blade continues the line of the tang in a flattened S-curve. The heel of the blade is straight with the edge curving up from it to the tip. Both the tip of the blade and end of the tang are broken. This is a simple form of Manning Type 24 (1985: 118). Originally a common Iron Age type, with many examples coming from Hod Hill and other later Iron Age sites, it continued into the Roman period with examples from London (Wheeler, 1930: 79, pl. XXXVI,2), Newstead (Curle, 1911: 282, pl. LX, 13, with a socket), and the German *limes*. For a discussion and references to other examples cf. Manning, 1985: 118. XI, RLS A square 21.
8. Barb-spring padlock bolt. Length 20.5 cms. It consists of two elements, a head and a T-

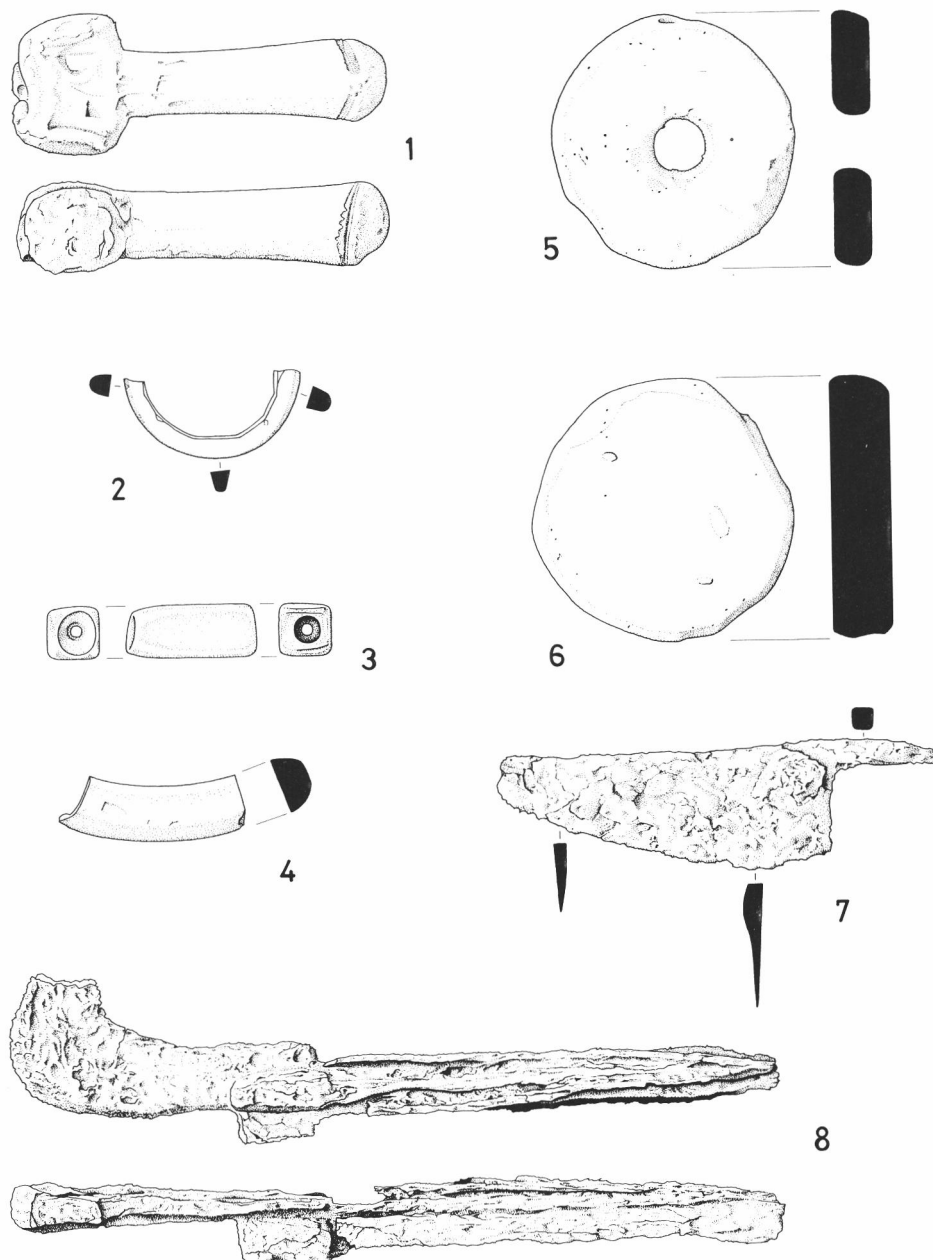


Fig. 6 Carsington 1983-84: miscellaneous finds. Nos 1-6 at 1:1; 7, 8 (iron) at 1:2.

sectioned spine. Three springs are welded to the tips of the spine, one on the outer face of the top bar of the T, and one on each face of the stem. Where the plates of the spine run into the handle they are widened to form short rectangular plates which will have acted as

stops when the bolt was pushed into the padlock case. The head, which continues the line of the top bar of the T-sectioned spine, is a plate which curves through a right angle at its top and thickens slightly on its outer edge to form a slight rim. The end of the head is broken, but it must have terminated in a loop set at right-angles to the line of the bolt, through which the hasp of the padlock would have run when the bolt was inserted into it. This is an example of a Manning Type 1 padlock bolt, made slightly unusual by the form of the head. For a discussion of the type cf. Manning, 1985: 95. XI, 8: occupation debris over platform for southern out-building.

3. Samian ware (FW)

As in 1980, only a few abraded fragments were found, listed below. Most came from the occupation debris over the building- platform in Trench XI and are too indeterminate to be dated with any degree of precision. They include a pair of joining sherds (No. i) of South Gaulish origin, and so of late-first or early-second century date: the first clearly pre-Antonine pottery from the site. The other pieces are all Central or possibly East Gaulish and of second-century date.

Not illustrated

- i. Dr. 36, South Gaulish. Two joining sherds. Flavian or Trajanic. XI, 41: occupation debris over platform for southern out-building.
- ii. Dr. 18/31 or 31, Central Gaulish. Four sherds, probably from the same vessel. Hadrianic or Antonine. XI, 41.
- iii. Dr. 18/31 or 31, Central or East Gaulish? May be a copy, but if so a very close one. Probably Antonine. XI, 41.
- iv. Dr. 31, Central Gaulish. Burnt. Antonine, after c. 150. XI, 41.
- v. Uncertain form (bowl), East Gaulish? Antonine. XI, 41.
- vi. Dr. 18/31R, Central Gaulish. Probably in the fabric of Les-Martres-de-Veyre, c. 135-160. XI, topsoil.
- vii. Dr. 18/31 or 31, Central Gaulish or East Gaulish? Glaze missing. Probably Antonine. XI, topsoil.
- viii. Uncertain (?Dr. 37 with lower edge of decoration), Central Gaulish. Hadrianic or early Antonine. XIV, 106: debris above wing-building.
- ix. Dr. 18/31 or 31, Central or East Gaulish? Rim fragment in similar fabric to No. iii, so same form and date assuming that it is samian. Probably Antonine. XIV, 106.
- x. Dr. 18/31 or 31, Central Gaulish. Hadrianic or Antonine. XI, RLS A square 22.
- xi. Dr. 18/31 or 31, Central Gaulish. Hadrianic or Antonine. XI, RLS A square 24.

4. Other pottery

The main fabrics found on the site were described in the report on the 1979-80 excavations (Ling and Courtney, 1981: 79f.). A count of the sherds found during 1983 and 1984 produced a total of 3074, over seven times as many as in 1980. Of these by far the greatest number (1762 = 57.31%) derived from vessels in Derbyshire ware and other locally produced quartz-gritted fabrics. Black-burnished ware was very infrequent (only 38 sherds = 1.24%), and the vessels discovered were almost exclusively bowls or dishes; there were no pieces certainly from cooking-pots or jars. The reason for this was doubtless the ready availability of Derbyshire ware, which supplied the local market's needs in pots and jars but did not offer dishes and bowls.

Calcite-gritted ware was relatively uncommon in all parts of the excavation except Trench XIV. Here there were 132 sherds out of 530, that is 24.91% of the total pottery finds from this area, as opposed to only 70 sherds out of 2271 (3.08%) in Trench XI. It is possible that this type

of pottery was brought to Carsington to make up for the shortage of Derbyshire ware at a late period (cf. Branigan *et al.*, 1986: 10), in which case the statistics might tally with the other indications that the wing-building is later than the main block. But it is perhaps dangerous to place too much emphasis on these statistics, for 132 sherds (including only one rim-sherd) do not necessarily add up to more than one or two vessels. And, even if the wing-building was added later, this would not necessarily affect the range of pottery found there, since all the pottery comes from occupation or destruction deposits, and there is no reason to believe that the wing-building remained in use after the main block was abandoned.

As in 1982, the overwhelming mass of the pottery dates to the late-third and fourth centuries; only a few items (e.g. Fig. 8:44) may possibly be earlier. Thus the Derbyshire ware is almost exclusively of Hazelwood rather than Holbrook types (Kay, 1962; Brassington and Webster, 1988); the Nene Valley wares, the *mortaria* and the black burnished wares, too, are predominantly late forms. All the evidence points to the fourth century as the period of most intensive occupation.

Illustrated (Figs 7-9)

Key to layers. XI, 1 and XIV, 1 = topsoil; XI, 8, 12, 14, and 41 = layers of occupation debris and cobbles post-dating stone platform 28 (see Fig. 4); XI, 27 = occupation deposit in north-west corner of Trench XI, probably continuation of Layer 41; XI, 28 = stone platform of southern out-building; XI, 47 = clay layer in north-west corner of Trench XI, below Layer 27; XI, RLS A squares 24 and 27 (see Fig. 3); XI extension, 302 and 304 = dark soil resting upon, and layer of degraded sandstone lying beneath, cobble layer (perhaps equivalent to XI, 12) in trial trench west of XI, not shown on plans; XII, 64 = filling of foundation trench for north wall of main building; XIV, 106 = debris above wing-building; XIV, 116 = destruction deposit filling sunken area in central part of wing-building.

- 1-25. Derbyshire ware. Lid-seated jars. Mid-third to fourth century. 1-2 from XI, 47; 3-4 from XI, 27; 5-11 from XI, 41; 12-20 from XI, 8; 21 from XI, 14; 22-3 from XI, 12; 24 from XIV, 116; 25 from XIV, 106.
26. Derbyshire type ware, quartz-gritted. Small lid-seated jar. XI, 12.
- 27-31. Derbyshire ware. Jars with roll rims. 27 from XI, 28; 28-9 from XI, 8; 30 from XIV, 106; 31 from XI, 12.
32. Derbyshire-type ware. Everted rim jar. XIV, 106.
33. Orange ware, quartz-gritted. Small jar. XI, 28.
34. Orange ware. Small jar with rebated rim. XII, 64.
35. Orange ware, quartz-gritted. Jar with everted rim. XIV, 106.
- 36-8. Calcite-gritted ware. Jars with roll rims. 36 and 38 from XIV, 106; 37 from RLS A square 5.
39. Common grey ware. Heavy jar with roll rim. XI, 41.
40. Common grey ware. Jar with everted rim. XIV, 106.
41. Common grey ware. Narrow-necked jar or jug. XI, 28.
42. Common grey ware with black slip. Flagon. XI, 12.
43. Common grey ware. Narrow jar or jug with frilled rim. Joining pieces from XI, 28, and XI, RLS A square 27. A small body-sherd with combed decoration, also from XI, RLS A square 27, probably belonged to the same vessel.
44. Common grey ware, burnished on the exterior. Bowl with incipient flange. Late-second century? Unstratified.
45. Hard pale grey ware, burnished on the exterior: same type as 'East Midlands burnished ware' (see Todd, 1968). Wide-mouthed jar or bowl. XI, 12.
46. Sandy grey ware, burnished on interior. Flanged bowl. XI, RLS A square 27.
47. Sandy brownish-grey ware. Flanged bowl. XIV, 106.

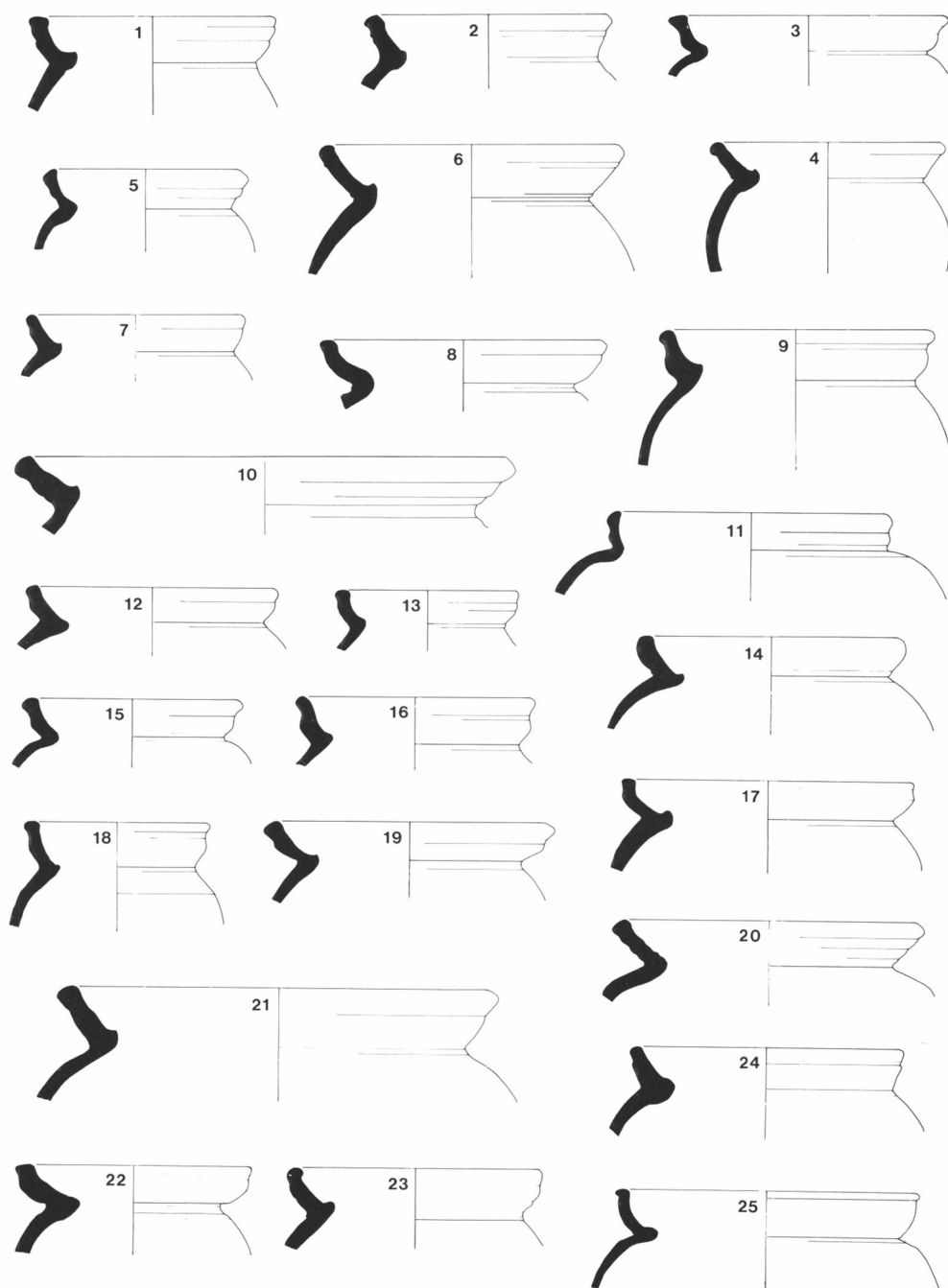


Fig. 7 Carsington 1983-84: pottery rims, Nos 1-25 (scale 1:4).

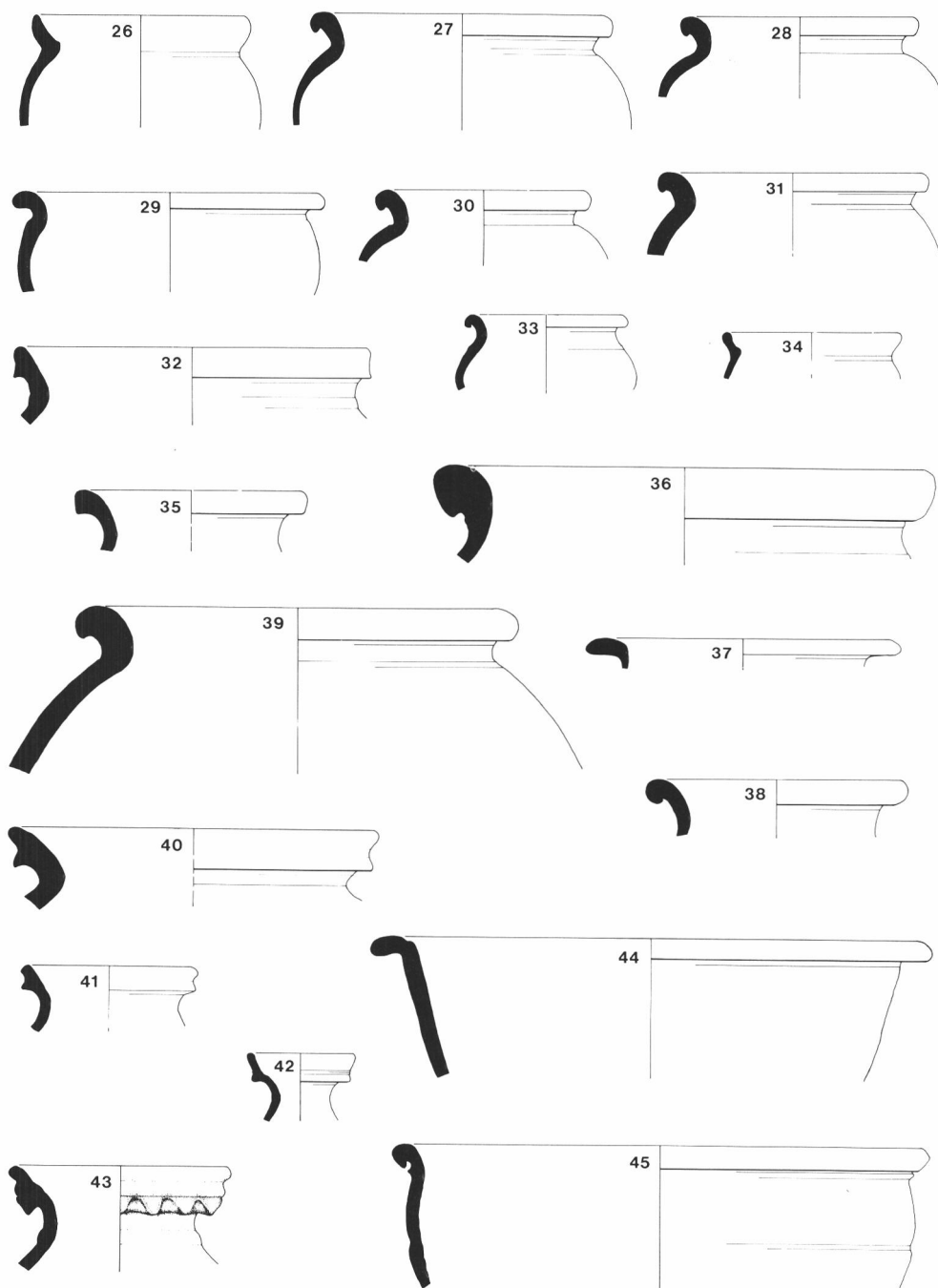


Fig. 8 Carsington 1983-84: pottery rims, Nos 26-45 (scale 1:4).

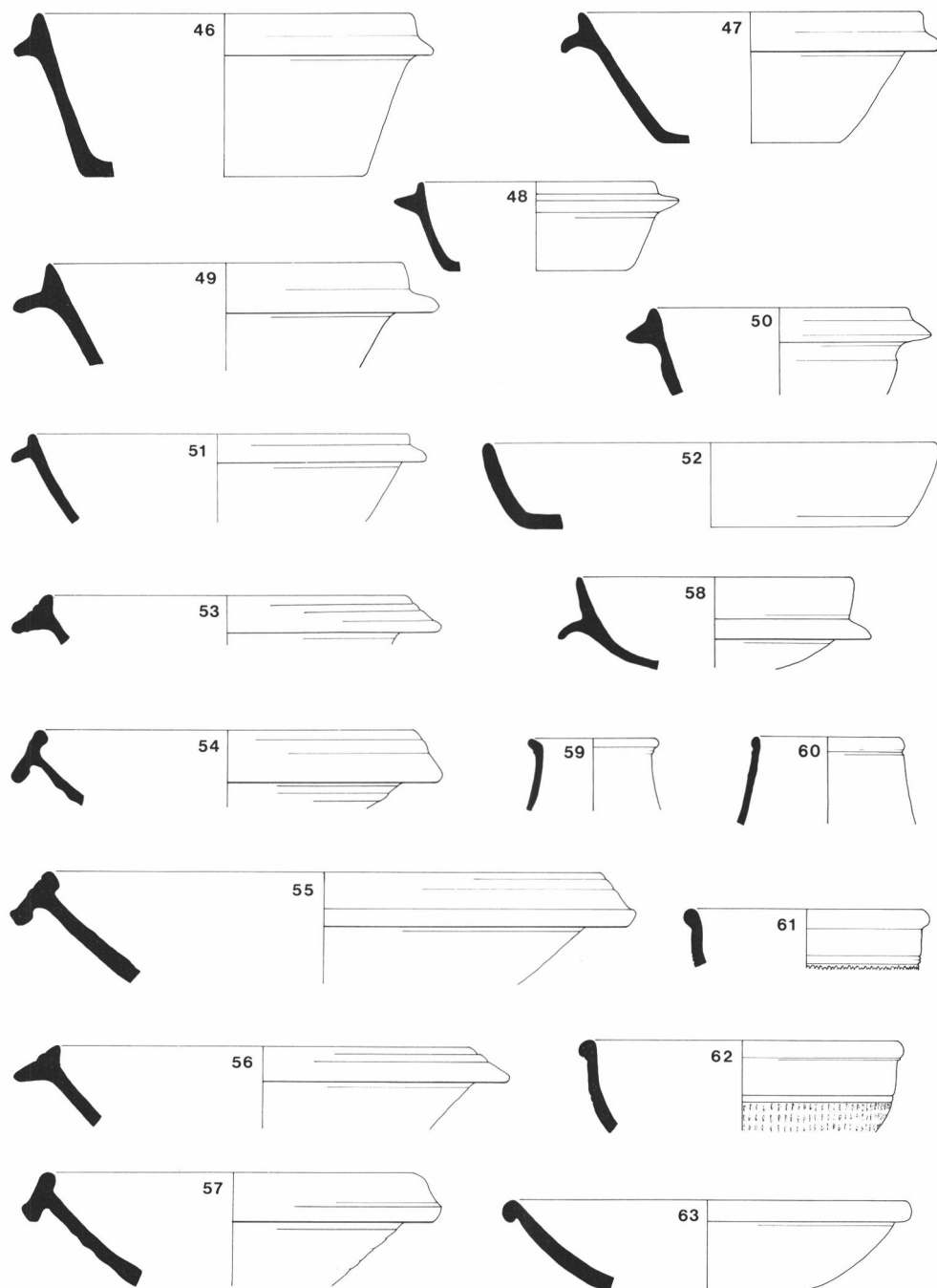


Fig. 9 Carsington 1983-84: pottery rims, Nos 46-63 (scale 1:4).

48. Common grey ware. Flanged bowl or dish. XIV, 106.
49. Grey ware with dark core and brownish surface, finely sanded. Flanged bowl. XI, 8.
50. Black-burnished ware 1. Flanged bowl or dish. XI extension, 304.
51. Black-burnished ware 1. Bowl or dish. XIV, 1.
52. Grey ware, internally burnished. 'Dog-dish'. XIV, 106.
53. *Mortarium* in hard whitish-brown fabric. XI, 41.
54. Hammerhead *mortarium* in cream fabric, with black trituration grits. XI, 41.
55. Hammerhead *mortarium* in white fabric with black trituration grits, Mancetter/Hartshill type. Late-third or fourth century. XI, RLS A square 24.
56. *Mortarium* in hard whitish-orange fabric (as No. 53). XI, 1.
57. Hammerhead *mortarium* in off-white fabric with black trituration grits, probably Mancetter/Hartshill type. Unstratified.
58. Whitish-cream fabric, much abraded. Flanged bowl imitating samian form Dr. 38. Cf. Howe *et al.*, 1980: type 83 (late-third or fourth century). XI, RLS A square 27.
59. Lower Nene Valley colour-coated ware. Beaker with everted rim. Howe *et al.*, 1980: types 54-56 (fourth century). XI, 27.
60. Lower Nene Valley colour-coated ware. Beaker with bead rim. Third-century? XI, 41.
- 61-2. Colour-coated bowls imitating samian form Dr. 37. Cf. Howe *et al.*, 1980: type 82. Late-third or first half of fourth century. XI extension, 302, and XI, RLS A square 27.
63. Lower Nene Valley colour-coated ware. Bowl with bead rim. Fourth-century. XIV, 1.

5. Tiles

The fabrics of tiles were those present in 1979 and 1980 (see Ling and Courtney, 1981: 80-2). No attempt has been made to quantify them; the impression was that Fabric I was more commonly used for box-tiles and Fabric 2 for *tegulae*; but the dividing line between the two fabrics is hazy, owing to variations in colour and texture. Fabric 1, in particular, is much less homogeneous than suggested in the earlier report; it can be predominantly buff- or cream-coloured, or predominantly pink with only the surface (and often only one surface) buff-coloured, or orange to brown throughout; and, though usually hard, in certain soil-conditions it can be quite soft. Furthermore, the same 'signatures' and comb-patterns are found on both fabrics (see below). It is quite possible that the different fabrics come from the same kilns, and that the apparent differences are due to the use of different clays (obtained perhaps from the same clay-pit) and to different conditions of firing or burial.

The distribution of the different types has been expressed in tabular form (Tables 1-4), and the statistics may be compared with those in the earlier report. This time, however, no attempt has been made to count the unidentified pieces; most are very small, and numerical totals would give a false impression of their importance. They have thus been quantified by weight alone (Table 2). In the tables the figures in brackets next to those from Trench XIV represent a number of unlabelled sherds which are thought to (but do not certainly) come from this trench. The column headed 'Miscellaneous' comprises unstratified material and pieces found in the trial trenches outside the main excavation-areas.

As in 1980, box-tiles were very numerous. In terms of numbers of sherds they are the predominant type in the two most productive areas, Trenches XI and XIV. In Trench XIV (containing the wing-building) they both outnumber and outweigh the *tegulae* and *imbrices* combined; and this preponderance becomes even greater if the unlabelled sherds are added into the totals. It is difficult to avoid the conclusion that there was a heating-system with wall-flues in the wing. In Trench XII *tegulae* are predominant, but the figures are distorted by a number of near-complete specimens.

| | Trench XI | Trench XII | Trench XIII | Trench XIV | Miscellaneous |
|-----------|-----------|------------|-------------|------------|---------------|
| Box-tiles | 254 | 49 | 2 | 434 (154) | 36 |
| Tegulae | 95 | 57 | 1 | 153 (21) | 23 |
| Imbrices | 217 | 27 | 4 | 62 (5) | 26 |
| Bricks | 3 | 0 | 0 | 5 (1) | 0 |
| Totals | 569 | 133 | 7 | 654 (181) | 85 |

Table 1 Carsington 1983-84: Tile-types by number of identifiable sherds

| | Trench XI | Trench XII | Trench XIII | Trench XIV | Miscellaneous |
|-----------|-----------|------------|-------------|---------------|---------------|
| Box-tiles | 15830 | 2950 | 150 | 29290 (11260) | 2100 |
| Tegulae | 13360 | 16980 | 170 | 22450 (2610) | 4500 |
| Imbrices | 18110 | 2880 | 220 | 5030 (290) | 1890 |
| Bricks | 1080 | 0 | 0 | 1700 (900) | 0 |
| Uncertain | 16580 | 5360 | 220 | 31780 (9750) | 2230 |
| Totals | 64960 | 28170 | 760 | 90250 (24810) | 10720 |

Table 2 Carsington 1983-84: Tile-types by weight (gms)

| | Trench XI | Trench XII | Trench XIII | Trench XIV | Miscellaneous |
|-----------|-----------|------------|-------------|---------------|---------------|
| Box-tiles | 44.64 | 36.84 | 28.57 | 66.36 (85.08) | 42.35 |
| Tegulae | 16.70 | 42.86 | 14.29 | 23.39 (11.60) | 27.06 |
| Imbrices | 38.14 | 20.30 | 57.14 | 9.48 (2.76) | 30.59 |
| Bricks | 0.53 | — | — | 0.76 (0.55) | — |

Table 3 Carsington 1983-84: Tile-types by % of identifiable sherds

| | Trench XI | Trench XII | Trench XIII | Trench XIV | Miscellaneous |
|-----------|-----------|------------|-------------|---------------|---------------|
| Box-tiles | 24.37 | 10.47 | 19.74 | 32.46 (45.38) | 19.59 |
| Tegulae | 20.57 | 60.28 | 22.37 | 24.88 (10.52) | 41.98 |
| Imbrices | 27.88 | 10.22 | 28.95 | 5.57 (1.17) | 17.63 |
| Bricks | 1.66 | — | — | 1.88 (3.63) | — |
| Uncertain | 25.52 | 19.03 | 28.95 | 35.21 (39.30) | 20.80 |

Table 4 Carsington 1983-84: Tile-types by % of weight

Markings (Plates 4, 5)

On box-tiles the comb-patterns (not 'roller-stamped patterns', as stated in Ling and Courtney, 1981: 83) are mostly variations upon the wavy and criss-cross arrangements illustrated in the earlier report (Ling and Courtney, 1981: fig. 11). One interesting fragment from XIV, 106 (debris above wing) shows comb-impressions stabbed in a cross within an 'island' formed by curving patterns (Plate 4; cf. Green, 1979: 364, pl. 20.I; Brodrigg, 1979: 217). The comb used for this ornament seems to have had at least fourteen teeth.

On *tegulae* a distinctive feature found in both Fabrics 1 and 2 is an S-shaped 'signature' on the lower half of the upper face (Plate 5); this seems to have been produced by the tiler's drawing the tips of his three middle fingers across the surface of the soft clay (for such 'signatures' in

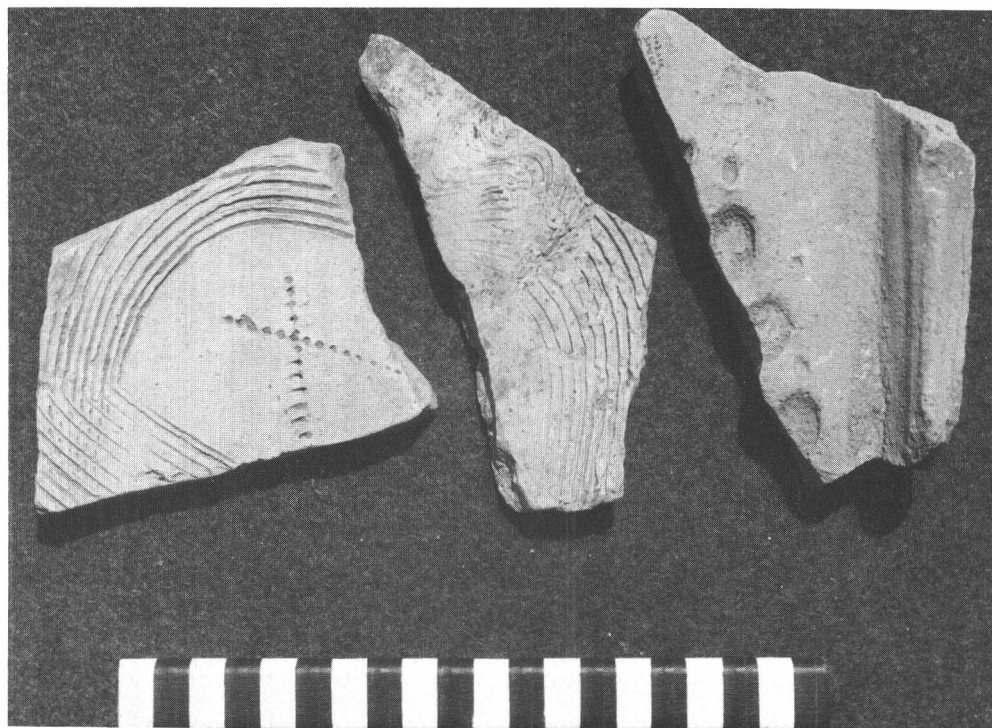


Plate 4 Carsington 1983-84: tile-fragments with comb-impressions (from XIV, 106, and XI, 12) and with an animal's paw-print (from XIV, topsoil). Scale in centimetres. (Photograph R. J. Ling)



Plate 5 Carsington 1983-84: tegula (from XII, 26) with an S-curved 'signature'. Scale in centimetres. (Photograph R. J. Ling)

general see Brodribb, 1979: 215-19; 1987: 99-105).

There were fragments of at least four near complete *tegulae* in XII, 26 (stone platform for northern out-building). All were in Fabric 1 and carried S-signatures. The length of three could be measured: 36.5, 37.00 and 37.00 cms respectively.

Tile-fragment with a textile impression (JPW)

A fragment of a box-tile carrying the impression of a textile was submitted for examination. The source is XIV, 106 (debris above wing-building).

1. Details (for terminology, see Wild, 1988: 62)

System (1), singles, Z-spun, 8-10 threads per cm, maximum length 4.5 cms.

System (2), doubles, medium-strong Z-spun, 9-10 pairs per cm, maximum length c. 6 cms. System (2), presumably the weft, is not hard beaten up, but effectively covers system (1), presumed to be warp, and the latter is only visible at one point. The character of the spin and fibre alignment in the yarns looks like wool. The weave is half-basket ('extended tabby'). The shallow impression varies in clarity across its surface, but there is no distortion of the weave. The fabric seems to have been impressed fair and square on the surface of the tile.

2. Discussion

Textile impressions on tiles from Roman Britain (from thirteen sites to date) are probably much commoner than recorded instances suggest (see J. P. Wild in Brodribb and Cleere, 1988: 269f.). In the majority of cases the cloth is in half-basket weave (an extended version of 1/1 tabby, speedier to produce) of medium quality. As at Carsington, the best explanation of how they came about is that a piece of rag (torn from a worn-out shirt or similar-weight garment) was used by the tilemaker to hold a freshly made tile as he stacked it to dry.

6. Environmental Samples (COH)

Four samples from Trench XI (Figs 3, 4), all collected in June 1983, were submitted for analysis. They were numbered 9 (from Layer 31: upper layer of natural with charcoal trampled into it; not shown in Figs 3, 4), 8 (Layer 48: orange clay spread over 31 in central and western part of trench), 7 (Layer 9: grey clay containing much charcoal, probably corresponding to occupation deposit 41; not shown in Figs 3, 4), and 3 (Layer 8: occupation deposit overlying building platform). Standard palynological techniques were used: the samples were boiled in 5% KOH, sieved through 100 µm and on 10 µm nylon mesh, and swirled on a clock-glass. 300 pollen grains and 100 phytoclasts were counted in each sample and the results of the counts were rounded up or down to the nearest 1%; they are presented in Tables 5 and 6. Rare occurrences are indicated by 'X'.

| | Sample 9 | Sample 8 | Sample 7 | Sample 3 |
|--|----------|----------|----------|----------|
| POLLEN & SPORES | 10 | 16 | 5 | 3 |
| DARK WOOD | | 10 | 28 | 7 |
| CLEAR STRUCTURED (MOSTLY PLANT CELL WALLS) | 41 | 11 | 37 | 4 |
| DEGRADED STRUCTURED | 17 | 4 | 4 | 27 |
| ALGAL | 3 | 6 | 1 | 2 |
| FUNGAL | 19 | 5 | 16 | 46 |
| DARK RECYCLED (CARBONIFEROUS) | | 45 | 8 | 10 |
| RECYCLED SPORES (CARBONIFEROUS) | 13 | 2 | 1 | 1 |

Table 5 Carsington 1983-84: Phytoclast analysis

Pollen analysis

The pollen assemblages show several unusual features, but can be related generally to the standard British pollen sequences (Godwin, 1975). All of the samples show features, such as low tree pollen incidences and abundant herb pollen, together with the presence of cereal pollen, which are consistent with deposition during the last part of the Post-Glacial, probably in pollen zones VIIB or VIII.

| | Sample 9 | Sample 8 | Sample 7 | Sample 3 |
|---|----------|----------|----------|----------|
| PINUS | 1 | X | | |
| QUERCUS | 3 | | 1 | X |
| ULMUS | 1 | | | 1 |
| ALNUS | X | 1 | | 1 |
| TILIA | X | X | | |
| CORYLOID | X | 1 | 1 | X |
| CRETAEGUS | | X | 1 | |
| ERICACEAE | 10 | 2 | 4 | 1 |
| ANTHEMIS TYPE | 5 | 1 | 2 | |
| COMPOSITEAE (LIGULIFLORAE) | 12 | 21 | 15 | 15 |
| CARYOPHYLLACEAE | 3 | 2 | 3 | |
| ARTEMESIA | X | | X | |
| LINUM CATHARTICUM | X | | | |
| CENTAUREA | | X | 6 | 2 |
| CHENOPODIACEAE | | X | 1 | |
| SERRATULA | 5 | | | |
| CARDUUS | X | 2 | 4 | |
| LAMIUM TYPE | 1 | 1 | 2 | |
| SUCCISA PRATENSIS | 2 | 1 | 2 | 4 |
| EPILOBIUM | X | | X | |
| CEREAL | X | 2 | 1 | 3 |
| GRAMINEAE | 16 | 17 | 21 | 20 |
| CYPERACEAE | 6 | 18 | 17 | 20 |
| TYPHA | | 1 | | |
| RANUNCULACEAE | 1 | 1 | X | |
| CHRYOSPLENIUM | | 1 | | |
| PTERIDIUM | 25 | 18 | 17 | 26 |
| POLYPODIUM | 3 | 6 | 1 | 2 |
| FILICALES (UNDIFFERENTIATED) | 7 | 2 | 1 | 3 |
| BOTRYCHIUM | 1 | | | |
| SPHAGNUM | X | 3 | | 1 |
| RECYCLED CARBONIFEROUS SPORES | 15 | 5 | 8 | 19 |
| SPHAGNUM FRUITING BODIES (?) | 102 | 7 | 4 | 8 |
| PSILATE ALGAE | 7 | 6 | 4 | 1 |
| FUNGAL ZOOSPORES | 11 | X | 2 | 16 |
| TYPE 119 (VAN GEEL) | | 1 | 15 | 18 |
| ZYGNEMATAACEAE | | 1 | 2 | |
| CONCENTRICYSTITES CIRCULUS (ROSSIGNOL) | | | | 1 |

Table 6 Carsington 1983-84: Pollen and organic-walled microfossils

The assemblages are dominated by pollen of open-ground herbs, with little tree pollen but some pollen of wetland species. This suggests an open, virtually treeless landscape with some areas of marsh. The high incidences of fern and bracken spores may reflect the importance of these species in the landscape. On the other hand, the high incidence of these and other corrosion-resistant grains, such as Compositae (Liguliflorae), may suggest that the soils had been subtly weathered, leading to a relative concentration of these more resistant taxa.

Sample 9 has 5% tree pollen, 10% Ericaceae, 44% herbs, 7% wetland species and 36% cryptogams. Cereal and 'weed' pollen, notably *Artemisia*, are present. Pollen of grasses, grassland species, including *Linum catharticum*, *Botrychium*, and wet grassland taxa like *Succisa pratensis* and *Serratula* type, are common. There are therefore clear signs of pastoral activity and some cereal cultivation in a largely cleared landscape. The importance of *Pteridium* and Ericaceae may reflect over-grazing, since these taxa tend to replace grasses and herbs in over-grazed areas. Wetland herbs are fairly well represented and *Sphagnum* is present, suggesting some marshy areas.

Sample 8 has 2% tree pollen, 2% Ericaceae, 47% herbs, 21% wetland species and 29% cryptogams. Cereal pollen is more important and arable weeds (Chenopodiaceae) are present. Grass pollen is still important, though grassland herb pollen is rarer, while lower incidences of Ericaceae and *Pteridium* are perhaps consistent with some form of pasture improvement. The increased incidence of wetland herbs is perhaps suggestive of increasing areas of wet ground or marsh.

Sample 7 has 3% tree pollen, 4% Ericaceae, 57% herbs, 17% wetland species and 19% cryptogams. Cereal cultivation and pastoral agriculture are both represented at much the same levels as in the previous sample. The slight decrease in pollen of wetland species is probably not significant.

Sample 3 has 2% tree pollen, 1% Ericaceae, 44% herbs, 20% wetland species and 32% cryptogams. Cereal cultivation and pastoral agriculture again seem to have continued much as before, but higher incidences of *Pteridium* may suggest increasing pasture degradation. The continuing high incidence of wetland species points to the continuation of areas of marsh.

Microfossil analysis

The incidence of microfossils in the samples (Table 6) gives some indication of the nature of the local environment of deposition. The basal sample (9) is heavily dominated by the fruiting bodies of *Sphagnum*, suggesting the presence of bog moss and thus a very wet local environment. The high incidence of fungal zoospores (previously identified by C. Hunt in Branigan *et al.*, 1986 as "Echinate algal bodies") is consistent with this horizon having been a long established soil profile. The psilate algal microfossils are a form known from shallow water, puddles and damp soil, and are of uncertain affinities.

Sample 8 has fewer *Sphagnum* fruiting bodies, suggesting that this species had locally become less important. The presence of the shallow aquatic Type 119 and zygnemataceous spores suggests the local presence of at least seasonal pools or puddles, or that the site was now within reach of floodwaters. The low incidence of fungal zoospores suggests relatively rapid accretion of the layer.

Sample 7 shows an increase in the incidence of the aquatic Type 119 and Zygnemataceae, suggesting, perhaps, deeper or more permanent pools or puddles or more regular flooding. The low incidence of fungal zoospores again suggests rapid deposition of the layer.

Sample 3 shows a further increase in Type 119 and the presence of *Concentricystites circulus*,

which is known from wet ground, or, more usually, base-rich shallow freshwater. The layer was again probably deposited in very wet conditions, but the high incidence of fungal zoospores suggests either slow deposition or a stillstand after deposition during which the layer was colonised by soil fungi.

Phytoclast analysis

The evidence from phytoclast (palynofacies) analysis offers another perspective on the local depositional environment (Table 5). The basal sample (9) is dominated by clear structured and degraded plant tissue, probably mostly produced by the local semi-aquatic flora. The fungal bodies most probably reflect a fairly long period of pedogenesis, indicating that this layer was a relatively long-established land-surface. An abundance of recycled spores, but an absence of the more readily weathered dark unstructured kerogen is consistent, perhaps, with low local rates of bedrock erosion. This might imply that local human activity did not include practices such as deep-tilling arable agriculture or mining which would have involved the exposure of subsoil or bedrock.

Sample 8 is dominated by dark recycled matter, and dark wood appears in moderate quantities. This change is probably the result of intense local human activity. The dark recycled matter was probably liberated into the local environment as the result of the exposure of subsoil or bedrock upslope, either by deep cultivation or mining. The dark wood is mostly ash particles and microscopic charcoal fragments and is consistent with the lighting of fires nearby (though it should be pointed out that not all fires are caused by human agency).

Sample 7 is dominated by structured material (clear and degraded) and dark wood. The structured material is probably derived from a local flora or dumped vegetable matter, while the dark wood is most probably the result of some form of human activity that involved a great deal of burning. The decrease in the recycled constituents is consistent with a lessening of human activity involving disturbance of the subsoil or bedrock. The increase in fungal bodies seems to reflect increased activity by soil fungi, maybe as the result of people introducing organic matter, for instance from middens, into the environment.

Sample 3 is dominated by fungal bodies and considerable amounts of degraded matter, which suggests either that increasing amounts of organic matter were being added to the environment, or that active soil formation took place at or closely above this horizon for an extended period.

Conclusion

All of the samples post-date clearance, but are most probably pre-medieval (after this time *Ericaceae* pollen becomes very common throughout northern England). The landscape was very largely cleared, with pastoral agriculture dominant over arable locally, though arable agriculture seems to have become more important as time went on. These results are very similar to the results of the pollen analysis from the base of the later fourth-century pit documented by Branigan *et al.* (1988).

The lowest sample appears to reflect a soil profile that had become very marshy, while the overlying layers were probably deposited in shallow standing water or by floodwaters. Human activity changed as time went on. Sample 8 seems to reflect some major subsoil disturbance, Sample 7 a major episode of burning and maybe some dumping of organic matter, and Sample 3 a perhaps major dumping of organic matter.

DISCUSSION

The material from the excavations is consonant with occupation of the site from the mid-second to the late-fourth century. The main house is dated provisionally to the fourth century (Ling and Courtney, 1981: 71), but the two out-buildings may belong to an earlier phase. This is suggested for that to the north by stratigraphical relationships. The south-east building incorporated in its platform fragments of an orange coarseware jar (Fig. 8:33, cf. 27) which looks earlier than the main series of Derbyshire ware vessels from the site and is perhaps dateable to the second century; while the occupation debris above it contained fragments (p. 40; Nos i-v), admittedly abraded and perhaps residual, of late-first or second-century samian ware. The bulk of the pottery from this occupation debris (Derbyshire ware, Lower Nene Valley colour-coated ware, black-burnished vessels of third- or fourth-century type, hammerhead *mortaria*, calcite-gritted ware) is later; and it is possible that, in addition to material from the life of the building, the deposit incorporated rubbish deliberately dumped on the site after its destruction. This would explain the exceptional density of pottery in the deposit, as well as the presence of kitchen refuse (fragments of burnt bone); moreover, if the rubbish derived from the main house, it might help to account for the relative cleanness of the latter. Another possibility is that the debris belongs to a predecessor of the main house. Already in 1980 discoveries of window-glass, burnt daub and mosaic tesserae sealed in the floors of the house had pointed to the existence of an earlier building. Further pieces of daub and window-glass turned up in the present debris (and a mosaic tessera in the overlying topsoil); so it is possible that this deposit derived from a demolition and clearing operation prior to the construction of the final house.

The newly excavated wing at the south-east corner of the house is of exceptional interest. The fact that it was a later addition can be argued on structural grounds: not only do its foundations abut against those of the main block, but they are markedly wider and more irregular in construction. The relatively high incidence of calcite-gritted ware, too, would seem to support a later date, though the uncertainty attaching to the significance of this form of evidence has been noted above.

That the wing served as a bath-suite seems an inevitable inference from its position, form, and associated finds. The position, close to but separate from the main living quarters, is a fairly common one for domestic baths, which invariably posed a certain fire-risk (for a similar lay-out, with the baths forming a wing at right angles to the dwelling, cf. the second-century villa at Holme House near Piercebridge: Wilson, 1971: 251f., fig. 5). The thickness of the foundations would have allowed for an internal offset to carry suspended floors; and it is also possible that the walls remained relatively thick to their full height in order to withstand the thrust of the vaulted ceilings normal in bath-chambers. More cogently, the sharp drop in ground-level between the eastern end and the central part of the wing could represent the transition from an unheated room to one with a hypocaust. The presence of a hypocaust is supported by the abundant fragments of flue-tiles found in the central depression (157 out of 188 identifiable tile-fragments). Presumably there was a sequence of *apodyterium*, *tepidarium* and *caldarium* running from east to west; in which case a possible gap in the foundations near the west end of the south wall (see Fig. 2) may mark the position of the heating duct from the *praefurnium*, which must have been situated to the south. Though the level seemed to rise in the western part of the wing, it is possible that the excavations here failed to reach the original surface.

One last point of interest concerns the roofing of the wing. To judge from the abundant remains found in Trench XIV, this was formed of terracotta tiles. We can now explain the simultaneous occurrence of tiles and stone slates which proved puzzling in 1980 (Ling and Courtney, 1981:

64). Evidently the main block was roofed with slates, and the bath-block with tiles. A similar pattern appears in other rural residences in Roman Britain, such as the villa at Brading, Isle of Wight (Tomalin, 1987: 25).

The discovery of a private bath-suite adds yet another remarkable feature to our house. Together with the heated room in the main block and the evidence for window-glass and tessellated paving in an earlier phase it makes the site unique in the Peak District and virtually unique in the whole Pennine region. Of upland sites only the Kirk Sink villa, near Gargrave in the West Riding of Yorkshire, is known to have possessed similar amenities (Wilson, 1970: 280f.; 1974: 416f.; Hartley and Fitts, 1988: 75-85).

The 1983-84 excavations offered no cause to doubt the earlier interpretation of the site as a farmhouse (Ling and Courtney, 1981: 71). The discovery of a spindle-whorl identical to the one found in 1980 (Fig. 6:5), along with rough-outs for one if not two more (Fig. 6:6), confirms that the owners were engaged in some wool-production; while pollen analysis points not only to pastoral activity in the area but also to a certain amount of cereal cultivation. The unusually high standard of living compared with other farms in the Peak District must be explained partly by our site's location in a comparatively fertile valley and partly, in some way not altogether clear, by its proximity to the Carsington Roman settlement (*Lutudarum?*). Perhaps our farmer benefited from easy access to a remunerative market; perhaps his wealth was derived from activities elsewhere (in the lead-trade?) and farming was a side-line.

Why the site was eventually abandoned remains unclear, but the evidence from the environmental samples of possible flooding may provide one explanation. The elaborate drainage measures undertaken in modern times, including the installation of a regular series of pipes across the whole site (Figs 2-5) and the digging of a deep drainage trench along its southern edge (Figs 3, 4), testify to a serious problem of waterlogging in the area. Possibly this problem had already begun to develop by the fourth century and the ancient farmer eventually decided that the cost of maintaining the land, or at least of continuing to occupy a house in this part of it, was no longer economical.

APPENDIX

In July 1989 a contour survey of the site was carried out by the Trent & Peak Archaeological Trust. The findings of this survey are shown in Fig. 10, which is reproduced here by kind permission of the Director of the Trust, Mr Graeme Guilbert.

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Fig. 10 Carsington villa-site: plan of the site at 1:1500, with surface-contours at 0.25 metre vertical intervals, numbered in metres above Ordnance Datum. 1979-84 excavations are outlined; spoil-heaps from these excavations are stippled.

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