

6. The West Granary

INTRODUCTION

(FIGS. 1.3, 2.2, 2.4, 6.1–6.5 AND 7.3)

The excavations of 1976–92 revealed parts of two small granaries, aligned east/west. They lay on either side of the *via praetoria* at its southern end, the south wall of each granary lying along the edge of the '*via principalis*' (fig. 1.3). Although the remains were heavily disturbed by later intrusions and divided between different excavation trenches, there is enough evidence to reconstruct the plans of both buildings with a reasonable degree of certainty (fig. 7.3 and Part 7, p. 73). They were presumably laid out in a 'mirror image' arrangement, in which the loading bay of each granary was at the end of the building furthest away from the *via praetoria*.

At first sight the surviving remains seem to indicate two buildings of different type. The south and east walls of the west granary were provided with offsets and rested on very wide and deep foundations (figs. 6.1, 6.2, 6.3 and 6.4). Also, in the west granary the raised floor had rested on rows of continuous sleeper walls, while the sleeper walls in the east granary were in short lengths, and of a lighter build. However, these differences can be explained merely as the need to compensate for differences in the underlying ground surfaces in order to prevent subsidence. The west granary overlay the fill of the ditches which immediately pre-dated the fort (fig. 2.4), but there is no evidence of similar features below the east granary. When this is taken into account, the plans of both buildings are seen to be the same in principle (as discussed in Part 7, p. 73), and there is no reason to suppose that they were not contemporary and both part of the primary fort.

As on other parts of the promontory, the area of the west granary was levelled with a deposit of clay prior to construction. Although the builders had compensated for the presence of the pre-fort ditches, they must have been

unaware of the existence of the north/south scarp or terrace related to the earlier agricultural activity (fig. 2.2). Consequently a striking feature of the archaeology of the west granary area is the considerable subsidence into this scarp which took place throughout the Roman period (fig. 6.5) and after.

In the second half of the fourth century there was a change of use of the granary. The raised floor was removed and the spaces between the sleeper walls filled in. The building may have been used for some industrial purpose, as shown by the insertion of a possible hearth. This resembles one of a variety of features noted at South Shields Roman fort, and termed 'trench hearths'. These features consist of short lengths of stone-lined flue or channel, often sunk so that the top of the channel is level with the contemporary ground surface (N. Hodgson, pers. comm.).

The best-preserved example of a trench hearth at Newcastle was found to the north of the west granary; it was undated but may belong to the pre-construction phase of the fort.

The subsidence mentioned above probably caused the eventual collapse of the eastern end of the building. Sometime during the earliest Anglo-Saxon occupation the resulting rubble was cleared for the construction of the large drain and water tank described in Part 12. Subsidence into the scarp continued throughout the Anglo-Saxon period. The resulting large hollow was finally levelled up with clay and stone, either during the construction of the Norman earthwork castle in 1080 or possibly the stone castle of 1168.

PRE-CONSTRUCTION FEATURES

(FIG. 6.1)

Levelling

At the eastern end of the area the pre-fort agricultural soil (273*) was covered by levelling

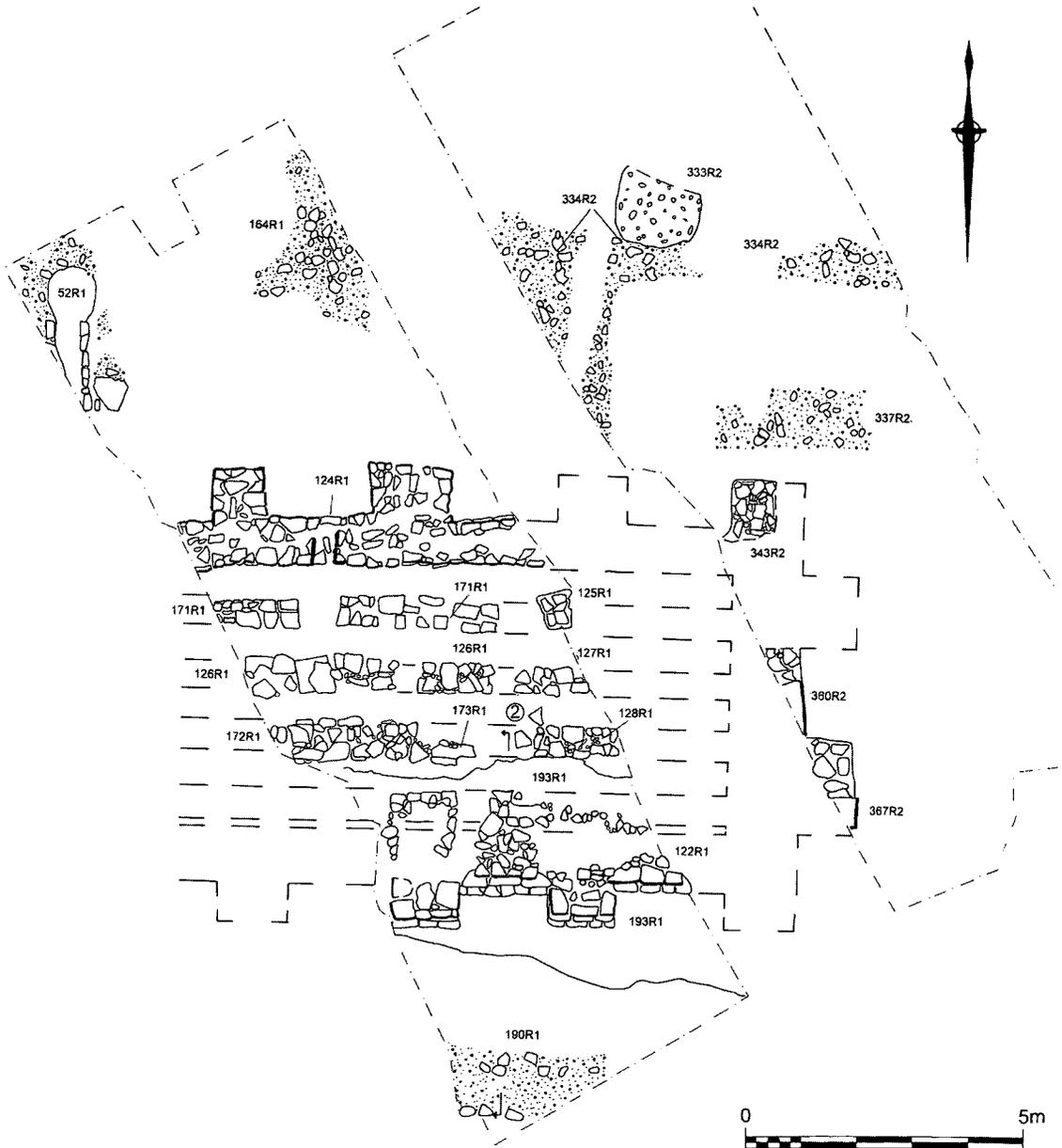


Fig. 6.1 The remains of the primary west granary, with wide foundations for the south and east walls. Also shown is part of the primary 'via principalis' (190R1) and a broad street to the north of the granary. For the position of the primary drains, see fig. 6.6. Section 2 is shown on fig. 6.2. The trench hearth to the north of the granary may belong to pre-construction phases. Scale 1:125.

material (329R2*). To the west all weathered subsoil or cultivated soil had been terraced down.

Cutting subsoil below the granary were stake holes (182R1*, 183R1*), mostly arranged in pairs and aligned roughly east/west. These are paralleled beneath the east granary by a scatter of many stake holes, not forming any pattern.

Trench hearth

To the north of the west granary, on an upstand left by later intrusions, was a feature (52R1) (fig. 6.1), with a stone-lined flue and a bowl-shaped pit, *c.* 0.90m in diameter, constructed of grey clay (51R1*), topped by pebbles (53R1*). The base of the bowl was a thin compact layer of green clay and there was a fill of coal and ash (50R1*).

This feature closely resembles the most common type of trench hearth found at South Shields; the size and shape of the stoke pit is similar, and also the channel was lined with sandstone blocks or facing stones. However, since the southern end was truncated, there is no indication of how the through-draught was achieved, and unlike some of the examples at South Shields, there was no record of slag or metalworking debris.

The example outside the west granary at Newcastle was surrounded on its north-east side by a mass of cobbles and mortar; it was not possible to determine relationships in the confined space, nor was there any dating evidence. Although the hearth is undated, it is placed here because all but one of the other hearths of this general type at Newcastle belonged to the pre-construction phase of the fort (see Part 8).

CONSTRUCTION OF THE WEST GRANARY

(FIGS. 6.1-6.5 AND 6.8)

The construction trench for the south wall (192R1*) was *c.* 3m wide and filled with a heavy foundation of rubble, mortar, clay and boulders, topped with a layer of flags in mortar

(193R1) (figs 6.1, 6.3 and 6.4). The depth of the foundation is shown in section (fig. 6.2). The wall (122R1) was of mortared yellow sandstone with a rubble core, and the external face had two offset courses. At first sight, the south wall appears to have been exceptionally wide, but this was probably not the case. It is more likely that the remains as found represent an amalgamation of several features, as described below. The two surviving buttresses of the south wall were also strongly constructed with two offsets.

Only a small part of the east wall and one of its buttresses remained, also with heavy foundations. The lowest foundations consisted of large boulders (372R2*) beneath the end wall and boulders (373R2*) beneath the south-east buttress; above these were cobbles (371R2* and 368R2*). Also packing the construction trench was clay (358R2* and 359R2*). A small part of the outer face of the end wall (360R2) survived to a height of three courses of mortared stones. There was also a fragment of the buttress (367R2).

Part of the north wall (124R1) and three of its buttresses were also found. The construction trench was filled with mixed clays (140R1*), in contrast to the heavy stone foundations of the south and east walls. The wall was constructed in the same mortared yellow sandstone as the other walls, but neither it nor the buttresses had prominent offsets. It stood to a maximum of seven courses, the width at the base being 1m, tapering slightly to 0.90m in the upper four surviving courses. Part of a ventilation slot was found mid-way between the western and central of the surviving buttresses. All that remained of the buttress at the east end of the north wall was part of the cobble foundations (343R2).

A levelling layer of mortar, stone chips and clay (170R1) had been laid over the whole interior of the excavated building, overlying the stakeholes mentioned above, and just overlapping the wide foundations of the 'south' wall (193R1). The sleeper walls were then built on top of this levelling layer (fig. 6.3).

The northern sleeper wall (171/125R1) lay at a distance of *c.* 0.60m from the north external wall (124R1). Opposite the ventilation slot in

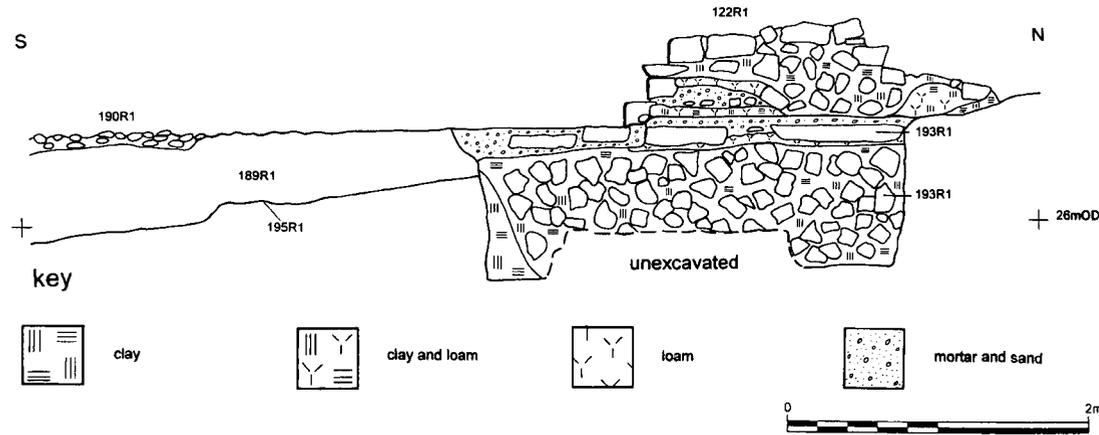


Fig. 6.2 Section 2, through the south wall and southernmost sleeper wall of the west granary, also showing some of the primary 'via principalis' pressed into the fill of a pre-fort ditch. Position of section shown on fig. 6.1. Scale 1:50.

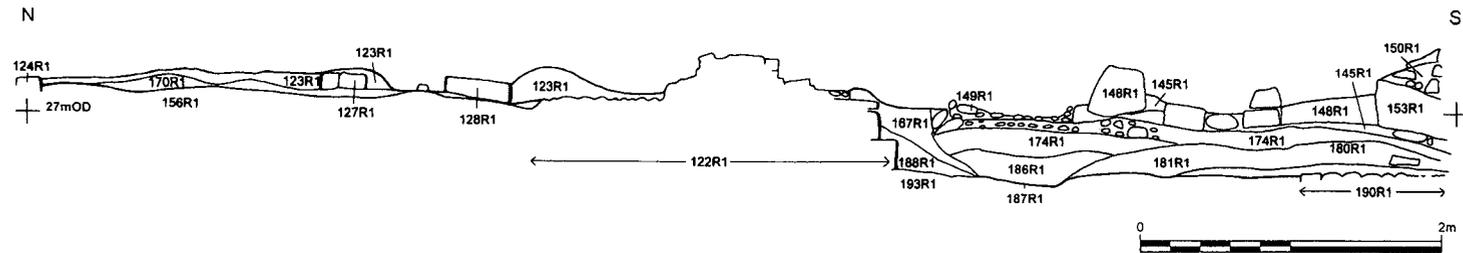


Fig. 6.3 Section 3, through the west granary and part of the 'via principalis'. Position of section shown on fig. 12.1. Scale 1:50.



Fig. 6.4 Broad foundations of the south wall of the west granary viewed from the south.

the external wall there was a gap in the sleeper wall. Both plans (fig. 6.1) and photographs (fig. 6.8) show two distinct butt ends of walling, the space between being *c.* 0.60m. The two dressed blocks partially filling this space, and the row of stones abutting the south side of the sleeper wall represent a later feature (see below).

Two further evenly-spaced sleeper walls (126/127R1 and 172/173/128R1) lay to the south. These two sleeper walls in the west granary were originally continuous (*cf.* granaries at Wallsend (Hodgson forthcoming)), the breaks in the lines here being the result of later disturbances and subsidence into the north/south scarp (fig. 6.5).

It is possible that there was a fourth sleeper wall, the remains of which became amalgamated with the remains of the south external wall, giving a false impression that the latter had the exceptional width of 1.50m above the offsets. A section through the south wall (fig. 6.2) suggests an external wall 1.10m wide at the base and *c.* 0.80m wide above the offsets, with a core consisting of regularly banded clay and mortar.

Abutting the northern edge is a more irregular construction of rubble and clay, 0.74m wide, presumably a sleeper wall. An explanation for this may be that it was only after the building had already been marked out, with sufficient spacing for external walls 0.90m wide and four equidistant sleeper walls, that the decision was taken to strengthen the south wall with offsets. This would have had the effect of moving the position of the upstanding wall a little further north, encroaching on the space intended between it and the fourth sleeper wall.

The picture would have been further confused by disturbance in the post-Roman period when a drain was cut through the remains of the collapsed or demolished south wall. As can be seen on figs. 6.1 and 12.1, large stones from the wall core were realigned to form the edge of the drain, and debris consisting of a mass of small stones was heaped over the remains of the wall. This can be seen on photographs (fig. 6.4) to be quite different from the core of the surviving walls, and its deposition would have obscured the relationship between the



Fig. 6.5 West granary seen from the north-west, showing subsidence into the pre-fort scarp.

south wall and the suggested fourth sleeper wall.

Fig. 6.1 shows the suggested layout of the east end wall of the granary, assuming the buttresses were all of approximately the same size and spacing, *cf.* Type 1 granaries at South Shields (Bidwell and Speak 1994, 23, fig. 2.6). It seems impossible to reconstruct this as South Shields Type 2 (*ibid.*, 23–4, fig. 2.7) without either shortening the space between the first two buttresses of the long walls, or projecting the east end wall and its buttresses beyond the known extent of the foundations. The surviving buttresses of the north wall would be the third and fourth from the *via praetoria*, and those on the south wall would be the second and third. It is unlikely that the loading bays of either granary would have been situated on the *via praetoria* immediately in front of the *principia*. There is some evidence to support this assumption. There are no remains of a loading bay at the east (*via praetoria*) end of the west granary, and the spacing between the two buttresses there is the same as that for the buttresses on the long walls. This contrasts with the east

granary, where it appears the buttresses were more widely spaced at the end furthest away from the *via praetoria*, and there is evidence of a loading bay (see Part 7).

Finds

Dating evidence – pottery

In the granary foundations (193R1 (78FX)) there was a single, small sherd of BB2.

Other finds

Granary foundations:

Copper alloy: Not illustrated, no. 37, stud, 193R1

CHANGE OF USE OF GRANARY – SECOND HALF OF FOURTH CENTURY (FIGS. 6.3, 6.5 AND 6.7)

The granary lost its original raised floor and the sleeper walls were reduced in height. Photographs (fig. 6.5) show some standing to a maximum of four courses (*c.* 0.50m), and

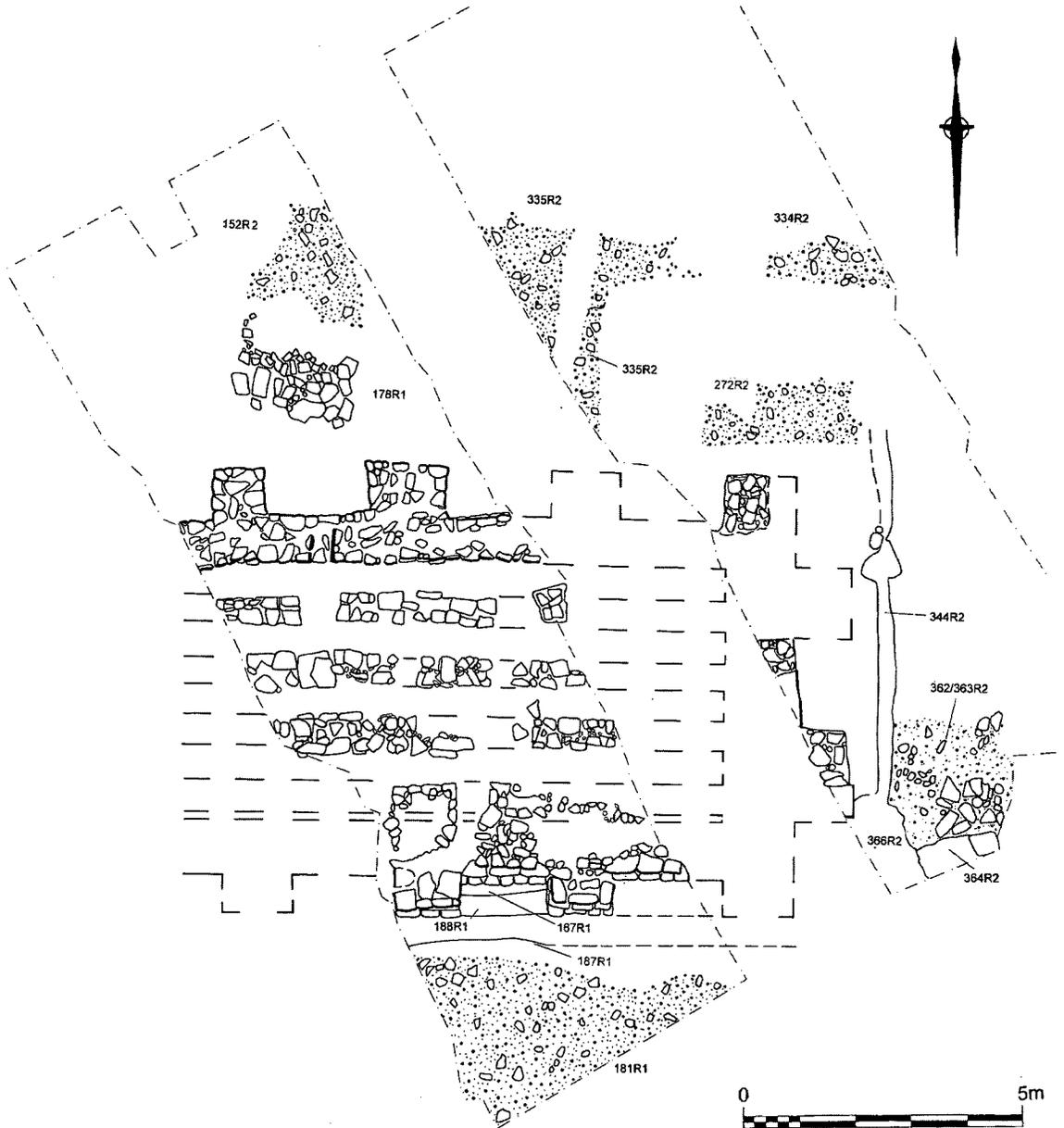


Fig. 6.6 The west granary and remains of later street surfaces, also showing robber trenches for the primary drains. Scale 1:125.



Fig. 6.7 The west granary in the second half of the fourth century. The stone feature at A, B, C and D may be the remains of a trench hearth inserted after the spaces between the sleeper walls had been filled in and the granary had undergone a change of use. The latest metalling of the 'via principalis' and via praetoria includes large re-used blocks, some of which are architectural fragments, suggesting the robbing of buildings. Scale 1:125.

others only surviving to one or two courses. The space between the sleeper walls was filled. Between the granary north wall (124R1) and the third sleeper wall (172R1), *i.e.* the part of the building which had subsided into the fill of the pre-fort north/south scarp (179/194R1), was a ginger mortary soil with coal and tile chippings (175R1*). A similar soil (176R1*) was found between the third sleeper wall and the masonry which represents a combination of

the south wall and adjoining fourth sleeper wall (122R1).

On the matrix drawing the fills between the sleeper walls (175R1*, 176R1*) and the layer of dark soil above (123R1) are annotated 'Signs of dereliction?'. The context book also states that the spaces were filled after some dereliction of the walls had taken place, although whether this means the main walls or merely the sleeper walls is not specified. A likely explanation of



Fig. 6.8 Stone alignment, possibly a trench hearth, abutting the south face of the northern sleeper wall of the west granary. At upper centre, there is a large upright slab, heavily worn on top; the stone alignment can be seen to the left, and to the right there are two courses of dressed stones blocking the gap in the sleeper wall. Viewed from the south-east.

this is that during the robbing of the raised floor, stones were disturbed from the sleeper walls. Tumbled stones found in the fill between sleeper walls may therefore be the result of an orderly change of use of the building, rather than dereliction. There is some evidence that the building was then put to a different use, possibly industrial.

At the western edge of the excavated area the remains of a stone feature were found abutting the south side of the northern sleeper wall (171R1). This consisted of an alignment of four small dressed blocks (A on fig. 6.7), set on a layer of soil rather than on the subfloor of the building, and terminating in a large, carefully-dressed slab (B on fig. 6.7), set on edge (fig. 6.8). The postulated gap in the primary sleeper wall was partially blocked by two dressed blocks (D on fig. 6.7), which also appear to be standing on a layer of soil, and some smaller stones. To the east of the alignment was a long, flat stone (C on fig. 6.7). It is

likely that this represents the remains of a trench hearth inserted into the space between sleeper walls.

Further evidence of industrial use in the west granary at Newcastle is seen in the composition of the layer overlying the filling between the sleeper walls, and the sleeper walls themselves. This was a dark soil (123R1), with clay and mortar patches, containing some burnt material in places, charcoal, reddened clay and lumps of coal (fig. 6.2).

Finds

Dating evidence – pottery

The group from the layer above the filling between the sleeper walls (123R1) contained residual Antonine samian, BB1 and SENK and a single sherd of a Crambeck painted bowl dated 370 or later (fig. 15.7, no. 67).

Other finds

Layer overlying filling between sleeper walls:

Lead: Not illustrated, no. 68, tube, 123R1

Bone: Not illustrated, no. 79, comb plate, 123R1

DECAY AND COLLAPSE OF THE WEST GRANARY

It is possible that subsidence into the pre-fort scarp eventually caused the collapse of the

eastern end of the west granary. At some point in the post-Roman period when this end of the building was so ruinous that the Roman alignments were no longer discernible, the area was cleared, and a drain or aqueduct was cut through the remaining stumps of walls. This is described in Part 12.