HADRIAN’S FRONTIERS IN NORTHERN BRITAIN:

THE SUPPLEMENTARY MATERIAL

Paul Bidwell

1. INTRODUCTION

The Supplementary Material lists the forts and fortlets (excluding those on the Antonine Wall) discussed in the main text together with information, published or in the grey literature, which amplifies their relevant structural histories and dating, in some instances with further discussion. Their general bibliographies can be found in the standard works, and references here are mainly to later publications.[[1]](#footnote-1)

For the dating of these sites, building inscriptions are first in order of importance, but from a few forts there are finds assemblages large enough to suggest their dates of construction or abandonment. Coins are numerous only at forts with long periods of occupation, but first- and second-century examples circulated for many decades and might have reached the sites where they were lost long after they were issued. Pottery had a shorter life, and there were changes in the sources of supply in the Trajanic and Hadrianic periods which help to establish sequences of occupation. The samian ware is particularly useful, and in the last of these supplementary sections the relevant finds are listed together with an introductory summary of the changes in supply. There are some additional comments on the samian ware in the listing of forts and fortresses that follows immediately below.

The most important development in the supply of coarse wares was the importation in quantity of BB1 (Black-Burnished Ware Category 1), mostly from south-east Dorset, which seems to have resulted from the arrival of legions to work on the building of Hadrian’s Wall.[[2]](#footnote-2) BB1 played an important part in supply of pottery to the army in south-west Britain from the mid-first century A.D. Vessels might occasionally have arrived in northern Britain before the Hadrianic period, but will have been extremely rare occurrences. Indeed, BB1 is unknown on northern British sites which were vacated by the end of the Flavian period, and the very few examples from Trajanic levels are from sites with later occupation, which might mean that at least some are the result of contamination. The presence of BB1 on a site in northern Britain is an almost sure indication of Hadrianic or later occupation.

2. THE FORTS AND FORTLETS[[3]](#footnote-3)

**Beckfoot.** Dimensions: 86 m by 123 m (1.06 ha). Little is known about the history of the fort.

**Benwell.** Dimensions:121 m by 171 m, an area of 2.07 ha. It has recently been suggested that because the *via principalis* of the fort and the lengths of the Wall to its east and west ‘describe a slight but noticeable zigzag’, the fort might have been laid out, if not built, before the Wall; the curtain would then have been brought up to the south towers of the east and west gates on different alignments.[[4]](#footnote-4) This argument fails, because it is by no means certain that the course of the Wall was staggered where it met the sides of the fort. There was certainly a change in its alignment on the site or nearby, perhaps coinciding with the estimated position of a turret (T 6a?), but the exact course of the Wall has only been established at a point *c*. 700m to the west.[[5]](#footnote-5) Moreover, the line of the Wall to the east as it approached the fort, though yet to be fixed exactly, seems originally to have been further to the south than once thought.[[6]](#footnote-6) The conventional view is that the fort was built across the line of the Wall and its ditch. They have not been seen in its interior, but it is far safer to assume that Benwell had the same relationship to the Wall that has been proved at the other projecting forts, except at Rudchester, where the priority of the Wall has yet to be established for certain, and at Wallsend where the curtain and the fort were both part of the Stage 2 extension. See Section 3 for the samian ware.

The Vallum passed around the south side of the fort by means of an asymmetrical diversion.

**Bewcastle.** Six-sided enclosure of 2.4 ha. From a histogram showing all samian vessels by decade, it can be seen that Hadrianic examples were scarcer than those of later date, but still present in reasonable numbers.[[7]](#footnote-7) The overall quantity published from the site is modest (see Section 3).

**Birdoswald.** Dimensions: 122 m by 177 m (2.16 ha). These figures refer to the stone fort, which projects beyond the Wall. In 1928 its fort ditches were seen to have cut the Vallum ditch which was thus thought to have been diverted around an earlier fort.[[8]](#footnote-8) Excavations in the following years uncovered a clay rampart on a pitched rubble foundation behind the south wall of the stone fort and east of its south gate.[[9]](#footnote-9) In the early 1930s the idea that the Vallum had been a frontier work preceding the Stone and Turf walls was still current. The clay rampart and its foundations, it seemed, represented an early turf and timber fort planted beyond the Vallum. When, not long after, the Turf Wall was built, this fort was apparently retained. The concept of a Vallum frontier was discarded later in the 1930s, and at Birdoswald the existence of a fort incorporated in the Turf Wall was disproved by the discovery in 1945 of T 49a on the site of this supposed early fort.[[10]](#footnote-10) The Vallum was nevertheless still thought to have preceded the stone fort, having been diverted around a predecessor which had been added to the Turf Wall, superseding T 49a. Yet there are no reasons why the Vallum should not have been constructed at the same time as the stone fort, or indeed after it.

The Vallum causeway and its arch were aligned on the south gate of the stone fort, and recent research has demonstrated that fort and Vallum had co-existed, though the latter of course could have been constructed earlier; the defensive ditches which cut the Vallum were supplied later in the history of the fort.[[11]](#footnote-11) If there had been an earlier fort, the position of the Vallum causeway means that its north-south axis would have been on the same line as that of its successor, and the south gates of both forts would have shared the same axis. The pitched rubble foundation of the rampart seems to have extended as far as the south-east corner of the stone fort, suggesting that the width of its supposed predecessor could not have been much less than of the later fort. Wilmott proposed, because of early occupation north of the Turf Wall, that the early fort had projected, but this has been doubted by Austen and Hodgson.[[12]](#footnote-12) Hodgson also questioned the existence of the early fort in any form, and in particular the argument that the Vallum ditch was too close to the corners of the stone fort for both to have been laid out at the same time, or the Vallum subsequent to that fort. It can be added that if there had been an earlier fort, according to the indication of its likely width referred to above, its corners would probably still have been too close to allow space for the north mound which usually flanked the Vallum ditch. That leaves only the pitched stone foundation and clay rampart to be assessed as possible evidence for an early fort. These features might have been the base of a bank behind the fort wall, a standard feature of stone forts in the second century. It would have been 6.8m in width, somewhat wider than at other forts;[[13]](#footnote-13) at South Shields, for example, the bank was 5.3m in width.[[14]](#footnote-14) Birdoswald had an unusually wide *intervallum* area on its south side, with an overall width of *c*. 15m between the back of the fort wall and the southernmost internal building; at the south-east corner, there was a bank 8m in width at a later stage in the history of the fort.[[15]](#footnote-15) If Richmond’s early bank goes with the fort wall, no evidence remains to support the existence of a turf and timber fort at Birdoswald.

The two publications of quantified samian, the first from the fort and the second from the area immediately to the south, both show that, decade by decade, as much samian was reaching Birdoswald in the Hadrianic period as in the mid- and late Antonine periods (for further discussion, see Section 3).[[16]](#footnote-16)

**Birrens.** Dimensions: the Hadrianic fort measured 119 m by 141 m, an area of 1.68 ha.[[17]](#footnote-17) Overlying a small Flavian fort or fortlet, it had turf ramparts and buildings probably of stone in its central range. See Section 3 for the samian ware.

**Blakehope**. Dimensions: 119m by 128m (1.52 ha), with an annexe to its south. From the fort, which was on Dere Street 4 km south of High Rochester, there is a small amount of pottery, all pre-Hadrianic. The most recent work has been in the annexe where there was possibly a pottery kiln, again pre-Hadrianic.[[18]](#footnote-18)

**Blennerhasset.** Discussed with Caermote (see below).

**Bowness-on-Solway.** Dimensions: 128 m by 187 m (2.39 ha).[[19]](#footnote-19) Occupying the estimated site of MC 80, the fort was originally built in turf and timber and was apparently the same size as its stone successor. Its relationship to the Vallum is uncertain.[[20]](#footnote-20) Austen noted that the dimensions of the fort were similar to those of Housesteads.[[21]](#footnote-21) Although both forts were of the same length, Bowness-on-Solway was 128 m in width, 16 m wider than Housesteads; this allowed the barracks to be built across the width of the fort rather than running down its length as at Housesteads.

A *terminus post quem* for the building of the fort is provided by the contents of a large quarry pit which underlay the north end of one of the original buildings in the *praetentura*, almost certainly a barrack*.*[[22]](#footnote-22) The pottery include a complete samian Dr. 33 with a stamp of Servilio (die 1a, Lezoux, *c*. A.D. 120–60), a Dr. 37, also complete, stamped by Avitus iv (die 10a, Lezoux, *c*. A.D. 120–50), fragments of two further Dr. 37s, dating to A.D. 125–50, and another bowl of this form, for which ‘the coarseness of the piece suggests an Antonine date, [although] a Hadrianic origin cannot altogether be ruled out’.[[23]](#footnote-23) There were also eleven coarse-ware vessels from the pit which were ‘near-complete’.[[24]](#footnote-24) Eight were in BB1 fabric and included two flat-rimmed bowls which were identified as Gillam Type 221, dated to A.D. 140–80.[[25]](#footnote-25) The two bowls have more upright walls than this type, resembling more closely Type 220, dated A.D. 125–60. In view of the overlap in the dating of the two types, the profiles of the bowls from the pit should be regarded as transitional, unlikely to be as early as A.D. 125 but not necessarily as late as A.D. 140–80.[[26]](#footnote-26) The other BB1 types from the pit would fit a general Hadrianic date comfortably, but they would not be expected in such quantity at the beginning of this period: the sequence at Carlisle suggests that the dominant position of BB1 in supply of pottery to the western part of the frontier was achieved only gradually after the first importations of the ware when work on Hadrian’s Wall began.[[27]](#footnote-27)

In terms of absolute dating, the samian provides a *terminus post quem* of A.D. 125 for the filling of the pit. A somewhat later date is suggested by the coarseness of one of the samian bowls which, if not Antonine, was presumably more likely to have been later than earlier Hadrianic. The character of the BB1 is also consistent with a later Hadrianic date. The pit itself, sealed by one of the original buildings, can be associated with the construction of the fort. Worth noting is the exceptional composition of the pottery assemblage, with two complete samian vessels and many other near-complete vessels, together with the large number of decorated samian bowls relative to the single plain form. Perhaps the pottery was a foundation deposit, part of the ceremonies with which the building of the fort began. See Section 3 for further details of the samian ware.

**Brampton Old Church.** Situated on the Stanegate, the fort measured 121 m by 125 m giving it an area of 1.51 ha. The defences were of turf and timber, with internal buildings of clay-bonded stone. The ‘handful of pottery’ from the excavations was not published in detail. It was described as ‘strikingly like that obtained at Haltwhistle Burn and Throp, in both fabric and type’, but it is not known whether it included BB1.[[28]](#footnote-28)

**Burgh-by-Sands I.** The fort, facing north-east and sited 900m south of MC 72, measured 132 m by 151 m, an area of 1.99 ha, measured from the centre line of its single ditch.[[29]](#footnote-29) The *principia* and a smaller rectangular structure, built in stone, are visible on aerial photographs. Excavation has been confined to the area around the south-east gate where the turf rampart sealed the ditch of a circular enclosure. The upper filling of the enclosure ditch contained a sherd of BB1 which provided an early Hadrianic *terminus post quem* for the construction of the fort. The slender evidence of this single sherd is corroborated by sherds from three samian vessels from other contexts on the site which were Central Gaulish and no earlier than the Hadrianic period; they included 14 sherds from a Dr. 37 signed by Drusus ii and dating to *c*. A.D. 125–45.[[30]](#footnote-30) Most of the coarse wares were no earlier than the Hadrianic period, and a sherd of BB2 cannot be earlier than the mid-2nd century.[[31]](#footnote-31) The earlier circular enclosure might have been associated with a tower, and aerial photographs suggest that there was an annexe or less probably an earlier fort to the south-east of the Hadrianic fort. These earlier remains, if they are of Roman date, might have formed part of the Western Stanegate system of towers and *clausurae*, but doubts have been expressed about its existence.[[32]](#footnote-32)

There is another possible fort at Burgh-by-Sands III, 0.65 km north-west of Burgh-by-Sands I.[[33]](#footnote-33) The only finds from the site are two sherds of pottery, both of which are Hadrianic or later. Their contexts are uncertain, and their presence on the site cannot rule out earlier occupation, but whether the incomplete outline of the enclosure visible on aerial photographs is that of a fort preceding Burgh-by-Sands I or a temporary camp, perhaps of Hadrianic or later date, is far from certain.

**Burgh-by-Sands II**

*Evolution of the fort*

Following his excavations in 1922, R.G. Collingwood concluded that the fort at Burgh-by-Sands II projected beyond the Wall.[[34]](#footnote-34) The most comprehensive modern account concurred, although objections by others to this interpretation and the sketchy knowledge of the site were duly acknowledged.[[35]](#footnote-35) One important advance was a geophysics survey carried out in 1992 which strongly suggested that Hadrian’s Wall had been realigned some time after the fort was built.[[36]](#footnote-36) Birdoswald provided an obvious parallel, and it was assumed that the realignment at Burgh-by-Sands II was likewise of late Hadrianic date.[[37]](#footnote-37) It is clear, however, that the sequence of construction at Burgh-by-Sands was different.

The general line of the Wall as it approached the site of the fort from the east was obvious, but at some point it would have had to turn towards the north in order to meet the line of the Wall west of the fort site. MacLauchlan placed the turn at the Powerburgh Beck, *c*. 450 m

Diagram, engineering drawing

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SUPPLEMENTARY MATERIAL FIG. 1. A. Excavations to date and main features of the geophysical survey plotted as on the 1922 plan, redrawn and published in 2009. B. The same observations in the northern (probably extended) part of the fort plotted against boundaries shown in recent Ordnance Survey maps. Source: author, based on maps and plans referred to in text.

east of the fort site (Fig. 1A),[[38]](#footnote-38) but two later sightings of the Wall fabric make it certain that the turn occurred further to the west. In 1950 the Wall was found on the site of a thirteenth- century manor house 180 m east of the fort.[[39]](#footnote-39) The southern edge of its foundations was exposed over a distance of *c*. 2.5 m; that was enough to show that the fragment seemed to be following the same direction as the geophysical anomaly apparently representing the realignment of the Wall to run up to the north-east corner of the fort. Immediately to the south-east of the fragment seen in 1950, the original Wall must have continued its long-distance alignment from the east. The turn towards the north sems to have occurred *c*. 100 m east of the fort site.[[40]](#footnote-40) A sketch made in 1877 and noted by Collingwood recorded ‘what appeared to be a portion of the north face of Hadrian’s Wall as discovered by drainage operations ... under the main road a few feet in advance of the cottages on its south side immediately east of the churchyard.’[[41]](#footnote-41) It later emerged that David Mossman, an artist responsible for many accurate illustrations of the Wall, had drawn the sketch.[[42]](#footnote-42) The geophysical survey in 1992 encountered an anomaly a little north of and parallel to the road which was thought to be ‘associated with Hadrian’s Wall, possibly a road way packed with magnetic rubble’.[[43]](#footnote-43) Alternatively, it might represent the dumping of soil from the cutting of the modern road which was identified in 1976.[[44]](#footnote-44)

According to Collingwood’s reconstruction, the Wall would have run up to the south tower of the main east gate, a standard arrangement at the projecting forts. At Birdoswald the fort was built across the line of the Turf Wall which was then retained to its east and west; its rebuilding in stone, of late Hadrianic date, followed a more northerly line, abutting the northern corners of the fort. At Burgh-by-Sands II, the replacement in stone would have been on the same line as the Turf Wall, part of a general substitution of a stone curtain and milecastles that, according to current thinking, was mid-Antonine rather than late Hadrianic; the earlier rebuilding was confined to the first few miles at the eastern end of the Turf Wall where Birdoswald was situated. The realignment of the Wall probably took place in the late second or early third century, perhaps during the Severan renovation of the frontier works.

When reasons are sought for the different histories of these two parts of the Wall, grave doubts are introduced about the existence of a projecting fort at Burgh-by-Sands II. At Birdoswald, the realignment of the Wall when it was rebuilt in stone was an opportunity to do away with the projection of the fort, which had become an anomaly by the late Hadrianic period. The six projecting forts of Stage 2 were an innovation not repeated in the later stages of fort-building on Hadrian’s Wall or on the Antonine Wall. Despite the obvious failure of this innovation, acceptance that Burgh-by-Sands II was a projecting fort would mean that this anomaly was preserved when the Turf Wall was replaced in stone after the abandonment of the Antonine Wall, even though it was eventually rectified. Apart from at Birdoswald, the relationship of the other projecting forts with the Wall was never altered; the adjacent lengths of curtain having always been of stone, there were never complete rebuildings that provided opportunities for their realignment.

There is an alternative to the sequence of construction that is currently, though cautiously, accepted for Burgh-by-Sands II. This new view depends partly on excavations in the 1990s which have not been fully published and on a reconsideration of Collingwood’s work in 1922. In 1993, a ditch 6 m wide by 2.2 m deep was seen in the centre of the fort, north of the assumed site of the *principia*.[[45]](#footnote-45) It was thought to have been the Turf Wall ditch, which would help to fix the line of the Wall to the east (Fig. 1A). The ditch had been filled, then ‘after an interval re-cut, leaving a causeway 4 m across’, and finally filled and sealed by buildings. Causeways across the Wall ditch are found only at milecastles (where they usually had been removed later in the Roman period), at forts and, though none has yet been seen, presumably at gates through the Wall as at Portgate. The possibility that a gate had preceded the fort as part of the original plan for the Wall can be excluded because the causeway was clearly secondary. There was no milecastle on the site, but a secondary causeway would be exactly what might be expected in front of the north gate if a fort had been added to the south side of the Wall, the standard position for forts of Stage 3. In 1998 a road running south-south-east towards the fort was seen to have been aligned on this causeway at Milton House, *c*. 180 m beyond the Wall.[[46]](#footnote-46) It perhaps shared the orientation of features 500–600 m north-west of the fort tentatively identified as parts of Iron Age or Roman field systems on the 2010 *Map of Hadrian’s Wall*.[[47]](#footnote-47)

Collingwood’s fort would therefore represent an enlargement of a predecessor attached to the rear of the Wall (cf. Main Text Fig. 5). Before setting out what can be deduced about the extents of these forts, a problem with the plan of the 1922 excavations has to be acknowledged.[[48]](#footnote-48) Collingwood had redrawn the 1900 Ordnance Survey map, adding the new cemetery.[[49]](#footnote-49) His version does not correspond to modern maps of the village, at least partly because the boundaries of the cemetery were either shown incorrectly or perhaps altered after 1922. The overall plan in the 2009 publication was a redrawing of Collingwood’s version with the addition of later discoveries.[[50]](#footnote-50) The difficulties this causes are demonstrated by an important discovery made in 2016 when two large east–west ditches parallel to a fragment of a wide wall to their south were found at Orchard House.[[51]](#footnote-51) They can only represent the northern defences of the fort, but when plotted on the later version of Collingwood’s plan, the line of what must be the fort wall intersects with the north wall of the cemetery, a point where buildings inside the fort were found in 1922 (Fig. 1A).[[52]](#footnote-52) Many of the modern property boundaries are the same now as in 1900, and when they are used to fix the position of the fort wall as determined in 2016,[[53]](#footnote-53) the fragment can be seen to lie *c*. 10 m further north relative to the cemetery than would have been indicated by plotting it on the 1922 plan and its later version (Fig. 1B).

Another problem is the relationship of the two ditches beyond the north fort wall with a wide feature, described as a ‘double linear ditch anomaly’, recorded in the geophysical survey to the east; the survey was plotted on the modern Ordnance Survey map rather than a version of Collingwood’s plan.[[54]](#footnote-54) The orientation of the main features immediately to the north and east of the fort differs from that of Collingwood’s east fort wall by 5–10 degrees as shown on his original plan and on modern Ordnance Survey maps. The trench across the northern defences was only a metre wide, insufficient to fix the precise orientation of the features it encountered. On Figure 1B the line for the north defences projected from the 2016 excavations is shown parallel to the anomalies on the geophysical survey rather on the fort alignment on the 1922 plan. It looks as if there was an error in Collingwood’s surveying, perhaps compounded by his redrawing of the 1900 Ordnance Survey plan.

The northern defences seen in the 2016 trench consisted of inner and outer ditches 8.2 m and 6 m wide which were separated from the fort wall by a berm 3 m across; their edges were defined, but their fillings were not excavated.[[55]](#footnote-55) The north face of the fort wall was represented by three facing stones retaining a core of heavy rubble (10), with an overall surviving width of 1.9 m; the south face seemed to be represented by a wall 1m in width faced on both sides (2). The overall width of the whole feature was 3.2m. It is likely to have been a wall of more than one period which would require work on a large scale to elucidate. To the south there was another narrower wall (9) that had probably preceded the defences. Together with wells and gullies found to the north at Milton House, it suggests that Burgh-by-Sands II was another fort where there was extensive occupation north of the Wall.[[56]](#footnote-56)

In 2018 a probable continuation of the outer ditch was seen in Trench 2 at The Pack, 23 m west of the trench just discussed.[[57]](#footnote-57) It had a maximum depth of 1.7 m and was at least 6 m in width. Its southern edge was exposed in a trench 3.5 m in width, allowing its orientation to be determined more accurately than in the much narrower trench dug in 2016. The line it took was trending further to the south than the two alignments for the northern defences shown on Figures 1A and B: the ditch was presumably turning around the north-west corner of the fort. Although the western fort defences have yet to be seen, they must lie close to Collingwood’s line. There were no traces of the inner ditch and fort wall at the Pack in Trenches 1 and 2 which extended south of the outer ditch for a distance of 9 m. The overall arrangement of the fort ditches and wall and their relationship to Hadrian’s Wall west of the fort is puzzling.

If the original fort shared the dimensions of the part of Collingwood’s reconstruction which lay south of the Wall, its area measured across the ramparts would have been 1.1 ha.[[58]](#footnote-58) The fort would have been only slightly smaller than Great Chesters, which has an area of 1.2 ha, and could have accommodated a quingenary unit. Alternatively, it might have been built for part of a larger unit, the remainder being stationed at the smaller fort at Drumburgh, 5.3 km to the west across Burgh Marsh; division of units is common on the Antonine Wall. Although there is nothing from the fort at Burgh-by-Sands II to indicate when it was built, the date range of samian and coarse pottery from the extra-mural site at Amberfield would be consistent with occupation beginning in the Hadrianic period, though perhaps in Stage 3.[[59]](#footnote-59) There is nothing to show whether the fort was rebuilt in stone when the Turf Wall was replaced in the mid-Antonine period, though that seems likely. The final stage was the enlargement of the fort to the north, giving it estimated dimensions of *c*. 125 m by 156 m and an area of 1.95 ha according to Collingwood’s reconstruction. Its area was perhaps a little smaller according to the findings in 2016, but it must be remembered that the exact lines of its western and southern defences are not known. At the same time that the fort was extended, the Wall was realigned and brought up to its northern corners.

It scarcely needs stating that this narrative needs further support, which is likely to come from the monitoring of construction work in the modern village and the full publication of some of the excavations in the 1990s. Nevertheless, it accommodates almost all the observations made since 1877 and, equally importantly, explains the differences from the structural sequence at Birdoswald. Only one topic needs further discussion: the position of the Vallum and its relationship to the fort, about which there is currently no agreement.

See Section 3 for the samian ware.

*The Vallum*

There is currently no agreement about the relationship between the fort and the Vallum, and what is known of the course of the latter must be explained in some detail. A particular problem is its behaviour east of the fort. MacLauchlan stated that the Vallum entered Burgh-by-Sands from the east ‘about 50 yards [45 m] south of the church’, that is, just within what is now the assumed southern line of the fort defences (Fig. 2).[[60]](#footnote-60) To the east it continued directly for 2.8 km to Kirkandrews, being ‘visible on the south of the road at Monkhill [*c*. 1.5 km east of the fort]; [and] on the north of it, at the water-mill, where the south agger remains in part, and its ditch occupies the road at Wormanby [*c*. 1 km east of the fort] ’.[[61]](#footnote-61) The course of the Vallum as it approached the fort from the east was confirmed by Swinbank: ‘At Wormanby the railway crosses over the line of the Vallum which then is visible as a shallow depression in the field to the north [at a point *c*. 150 m east of the fort], before it fades away just short of the site of the fort’.[[62]](#footnote-62) Richmond noted in the tenth edition of the *Handbook* that: ‘[the] Vallum is plainly seen in the field between the railway-bridge and Powerburgh Beck [400-500 m east of the fort]‘.[[63]](#footnote-63) In the annotations to maps at a scale of 1:1250 and 1:2500 made by Ordnance Survey staff preparatory to the *Map of Hadrian’s Wall* (1964 and 1972 editions), on copies formerly in the possession of Grace Simpson,[[64]](#footnote-64) the following

Diagram

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SUPPLEMENTARY MATERIAL FIG. 2. MacLauchlan’s survey of Burgh-by-Sands II. The course of the Vallum is shown in yellow; the length west of the fort is a projection of its line further to the west. The outline of the fort is conjectural. Source: MacLauchlan 1858, sheet V.

observations were made a short distance to the west of MacLauchlan’s observation ‘at the water-mill’: ‘From the base of the Vallum ditch the south lip is 2.5 m and the north lip 1.0m high. In the adjacent field to the east there has been some slight mutilation (F3). Course of Vallum visible as slight depression. No definite traces to the east (F20)’.[[65]](#footnote-65) In July 2021 the north side of the Vallum ditch was seen by the writer on the north side of the roadside hedge of the field immediately east of Wormanby Farm.

Somewhere at or in the near vicinity of the fort site, on a low hill which was an obvious survey point, the Vallum turned towards the south-west.[[66]](#footnote-66) Its line to the west is not in question, and in 1978 what is almost certainly its ditch was seen in excavation *c*. 40m west-south-west of the estimated position of the fort at its south-west corner (Fig. 1A). The ditch had an ‘almost sheer north side to an approximate depth of 2.6 m’, but its full profile could not be determined.[[67]](#footnote-67)

A complication was introduced by the publication of excavations in 1980 and 1982 in the vicarage garden east of the fort. Trench 2, only *c*. 1.5 m in width, encountered a feature which was thought to have possibly been the Vallum ditch, ‘1.3 m deep from the subsoil top (2.25 m from the modern surface), steep sided, flat bottomed’. [[68]](#footnote-68) It can be objected that the partial section shows that the feature did not have a steep slope on its north side (the south side was not seen), and that it was much shallower than the length of Vallum ditch excavated south-west of the fort which had the more usual depth of 2.6m. Equally awkward in maintaining that the feature was the Vallum ditch is its relationship with deposits to its south. It cuts a layer (11) which seals a series of thin layers, 2.6 m south of the edge of the feature.[[69]](#footnote-69) These thin layers consisted of stone dumps and areas of clay *c*. 3.9 m in width, thought to have perhaps represented a rampart or bank which the section drawing shows had actually preceded the supposed ditch. But the interpretation advanced for the sequence was tentative, and it was acknowledged that the possible ditch ‘may have been a non-linear feature, such as a pit’.

The wider discussion was also circumspect about the possible identification of the Vallum ditch, but regarded the previously accepted line for the Vallum passing south of the fort as improbable.[[70]](#footnote-70) Graafstal has recently gone much further, stating without qualification that the fort was built over the Vallum and drawing a straight line between the dubious feature in the vicarage garden and Austen’s plausible observation south-west of the fort.[[71]](#footnote-71) This effectively disregards the observations by MacLauchlan and Swinbank of the Vallum south-east of the fort. Even if they are unjustifiably set aside, there can be no doubt about the overall course of the Vallum between Burgh-by-Sands and Kirkandrews. There is no obvious reason why its line as it neared the site of the fort should veer to the north and then backtrack to the south which is what would be required by acceptance of the feature in the vicarage garden as the Vallum ditch.

The most reliable indications are that the Vallum passed south of the fort. Whether there was a diversion or the Vallum ditch ran directly south of the fort is uncertain. The same question arises at Chesters.

**Caermote.** Dimensions *c*. 120 m by 130 m (1.56 ha), with a fortlet of *c*. 0.5ha inserted in its north-west corner. A geophysical survey in 2008 plotted buildings inside the fortlet.[[72]](#footnote-72) There are few finds from the site, but they include BB1 pottery which was associated with occupation of the fortlet.[[73]](#footnote-73) There was a much larger fort (*c*. 155 m by 180 m: 2.79 ha) at Blennerhasset, 5 km north-west of Caermote.[[74]](#footnote-74) The small assemblage of pottery from the site includes nothing necessarily later than the Flavian period, and it is likely that Caermote, downgraded to a fortlet in the Hadrianic period, was originally a Trajanic replacement of Blennerhasset.

**Carlisle.** Dimensions: a width of *c*. 178 m seems certain (cf. the width of 135 m at Corbridge), and the total area of the fort is estimated to have been *c*. 3.2 ha.[[75]](#footnote-75) The fort of Period 4A, occupied in *c*. 105–125, was refurbished in the mid-Hadrianic period (Period 4B), when ‘the fort may not have had a “conventional” garrison’.[[76]](#footnote-76) Quantification of the samian ware from the Millennium sites was particularly informative. There was ‘a slight peak in the very early Hadrianic period’, after which supply of the ware levelled off; histograms of loss in five-year periods show peaks in A.D. 125–30 (all vessels) and 120–25 (decorated and stamped vessels only).[[77]](#footnote-77) These figures would certainly be consistent with the replacement of Carlisle as a fort with a full-size unit in occupation by a new fort of similar size at Stanwix in A.D. 128 or a little later (Stage 3), at the same time that the forts at Housesteads and Great Chesters were built.

**Carrawburgh.** Dimensions: 112 m by 140 m, an area of 1.57 ha. For its construction date, see the main text. What needs considering further is the temporary termination of the Vallum to the east of the quarry. Welfare thought that at Carrawburgh the Vallum had again stopped short at another quarry partly beneath the eastern wall of the later fort.[[78]](#footnote-78) This feature, excavated by Haverfield in 1896 and originally regarded as a natural hollow, seemed to Eric Birley to have been part of the Vallum ditch, which he had traced to the west under the fort.[[79]](#footnote-79) Moreover, Birley’s length of the ditch was cut through ‘the soft shale that in this district underlies the brown boulder-clay’. There was, it seems, no building stone to be quarried at Carrawburgh. However, Haverfield’s excavations seemed to demonstrate how the Vallum was adapted when the fort was built across its line. The outer of the two fort ditches ran into the Vallum ditch on its south side, so that in effect the line of the latter was carried around the southern part of the fort. It has been suggested that Haverfield missed a continuation of the outer ditch running across the Vallum,[[80]](#footnote-80) an observation that takes no account of his trenches north of the Vallum which found no traces of this ditch.

**Carvoran.** Dimensions: 123 m by 129 m, an area of 1.59 ha. It has always been assumed that there was an earlier fort on the site because the Vallum was diverted northwards from its general course at this point, and in 1985 ‘military ditches’ containing pottery of late first- to early second-century date were found immediately to the east of the known fort.[[81]](#footnote-81) There is also a legionary tombstone from the site which is Flavian in style (RIB 1826 + add.). However, geophysical survey found no evidence of an earlier fort that seemed to appear on aerial photographs.[[82]](#footnote-82)

The late Hadrianic rebuilding of the fort in stone is amply attested by inscriptions. RIB 1778, an altar dedicated by T. Flavius Secundus, prefect of *cohors I Hamiorum Sagittariorum*, can be dated to A.D. 136–8. His name appears on two (RIB 1818 and 1820) of a series of inscribed stones specifying lengths for which the centuries of his cohort were responsible (the others are RIB 1813–14, 1816 and 1822) when the fort defences were rebuilt in stone, or the fort that formed part of the original scheme for the Wall was entirely replaced. There is also a

fragment of a larger Hadrianic building inscription from the site (RIB 1808).

**Castlesteads (Fig. 3).** The stone fort was 120 m in width, and though its length is uncertain, its area was estimated to have been roughly 1.5ha.[[83]](#footnote-83) Its date is probably indicated by a fragment of a Hadrianic inscription preserving a governor’s name, perhaps that of Ti. Claudius Quartinus who might have been in office in *c*. 136–8 (RIB 1997–8 + add.).[[84]](#footnote-84) The

Diagram

Description automatically generated

SUPPLEMENTARY FIG. 3. The later fort at Castlesteads showing its relationship to the Vallum and roads (shown in grey) in the military *vicus*. Source: author, based on plans and maps referred to in text.

fort had a predecessor with a turf rampart, seen just inside the eastern corner of the stone defences. The Vallum lies to the south of the two successive forts. Nothing is visible above ground, but in 1901–2 Haverfield plotted the course of its ditch in a series of 31 trenches beginning 850 m east of the later fort site and ending 130 m to its west.[[85]](#footnote-85) The results of geophysical surveys in 1999 – 2001 conformed to Haverfield’s line in two separate areas, except at the eastern end of the length south of the fort sites (6) where the turn towards the north was sharper.[[86]](#footnote-86) Another ditch (8) lay parallel and immediately to the east of the turn in the Vallum ditch; it was thought perhaps to have been ‘an earlier cut of the [Vallum] ditch that was later abandoned’, even though it cut features associated with field boundaries.[[87]](#footnote-87) In this part of the survey area, a great deal of activity was traced, and it is possible that the turn in the Vallum has been obscured by later ditches. It seems safest to accept Haverfield’s line, which is followed by the 2010 *Map of Hadrian’s Wall*.[[88]](#footnote-88) The diversion around the fort sites was therefore asymmetrical, and there is nothing to support the different course for the Vallum suggested by Biggins and Taylor.[[89]](#footnote-89)

The relationships between the forts and the Vallum are of particular interest. In the main text it is argued that the first fort was of Stage 1, before the projecting forts were placed on the line of the Wall. At the same time that the fort was built, a new road was laid out north of the Irthing, serving the installations on the Wall as far east as Willowford. At Castlesteads the road (4) passed south of the fort and curved across the eastern survey area (mostly omitted from Fig. 3), apparently to follow a line parallel to and *c*. 500 m south of the Wall. Although the areas to the east and west of the fort sites have not been explored, it seems likely that the main focus of the extra-mural settlement was along the main road to the south, where building plots have been traced over a distance of *c*. 400 m. A spur presumably connected the south-east gate of the fort to the main road; the plan of the extra-mural settlement would thus have been an example of Sommer’s tangent type.[[90]](#footnote-90) When the Vallum was constructed in the late A.D. 120s or early 130s, it would have cut across the spur road and any buildings lining it, though the main part of the settlement was left intact. The line of the Vallum in the main area of the geophysical survey was at an angle to the orientation of the later fort, but was presumably parallel to the south-east defences of the earlier fort, which was ‘orientated still further east of north’ than its successor.[[91]](#footnote-91) Standard practice was to place the Vallum crossing directly opposite one of the fort gates and on the axis of one of its main streets. It is therefore likely that the original crossing was in a different position than of that associated with the later fort, presumably a short distance to the west, though there is no indication of its position in the survey of the extra-mural settlement.

The later arrangement is clearly visible in the geophysical survey, which shows a spur (5) running off the main road (4) and meeting the repositioned Vallum causeway diagonally; the latter is directly opposite the south-east gate and is aligned with the central axis of the fort. On the site of the causeway there are indications of masonry foundations, perhaps representing another example of the monumental arches known in the same relative positions at Benwell and Birdoswald. At Castlesteads, therefore, the Vallum was maintained towards the end of the Hadrianic period, and as late as *c*. A.D. 136–8 if the governor on RIB 1997–8 (+ add.) has been correctly identified. The position of the causeway with respect to the central axis of the fort demonstrates that ceremonial access to the fort from the south remained an important consideration, as would also the presence of an arch.

**Castle Hill Boothby.** Probably a fortlet;[[92]](#footnote-92) the only datable pottery from the site was a samian Dr. 37, South Gaulish, said to be late, so probably late Flavian–Trajanic.

**Chesters.** Dimensions: 131 m by 177 m, with an area of 2.32 ha. The fort was later than T 27a and the Broad Wall foundation; the adjacent lengths of Narrow Wall were built no earlier than the fort.[[93]](#footnote-93)

The line of the Vallum south of the fort remains uncertain, although it seemed clear enough to MacLauchlan (Fig. 4).[[94]](#footnote-94) He described the very gradual divergence in the courses of the

Diagram

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SUPPLEMENTARY FIG. 4. The fort at Chesters showing the line of the Vallum as plotted by MacLauchlan. Source: MacLauchlan 1858, sheet II.

Wall and Vallum as they approach the river from the east; they then ‘converge slightly as they proceed from the river to the westward, the former making its angle at the river and the latter at the station’. His plan shows the Vallum running up almost as far as the south-east corner of the fort at a slight angle and then resuming its course westwards from the corresponding point south-west of the fort. The plan shows four trees on the line marked between the river and the south-east corner of the fort. The line is still visible and seems at some stage to have formed an old field boundary which marks the limit of the ridge and furrow extending over the area south of the fort.[[95]](#footnote-95)

MacLauchlan’s plan suggested that the Vallum had continued along the south side of the fort, which Haverfield was able to prove, at least to his own satisfaction, when in 1903 he excavated ten trenches to investigate the question (Fig. 5).[[96]](#footnote-96) Trench 2, on the line MacLauchlan had identified as that of the Vallum, encountered ‘unquestionable traces of a flat-bottomed ditch’ containing organic material near its base at a point 35.0 m east of the fort. The edges of the ditch were not found, but the base was contacted at a depth of 2.9 m at points 2.3 m and 4.9 m from the north end of the trench. Trench 3, *c*. 12.0 m

Diagram

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SUPPLEMENTARY MATERIAL FIG. 5. Trenches dug at Chesters in 1903 to explore the relationship between the fort and Vallum ditches. Source: Haverfield 1904, fig. on p, 238.

nearer the fort, yielded no clear results. Trench 4, dug parallel to the south wall of the fort, contacted an east–west ditch on the same line as that found in Trench 2, which was thus thought to be the Vallum ditch, together with what was surely the fort ditch curving in from the north-east and joing the former 3.0 m from the east end of the trench; ‘the undisturbed soil between the mixed soils of the two converging ditches was very plain’. Trench 10, 18.0 m west of the fort, located the ‘north slope’ of an east–west ditch, taken to be the continuation of the Vallum ditch beyond its assumed junction with the southern fort ditch.

The only diversion around the southern side of a Wall-fort known at the time of the Chesters excavation was at Birdoswald, excavated by Haverfield some six years earlier. Other examples having been found at Halton Chesters in 1909–10 and at Benwell in 1928, diversions of the Vallum around forts were later seen as a common arrangement, which was presumably why in the ninth edition of the *Handbook* Collingwood called for ‘further excavation ... to check the results obtained in 1903’ at Chesters.[[97]](#footnote-97) Some twenty years later, Swinbank considered it unlikely that the Vallum ditch had run into the southern ditch of the fort and saw indications on aerial photographs that there had been a diversion. MacLauchlan’s line east of the fort was noted and described as a slight depression ending just short of the fort.[[98]](#footnote-98) Later transcriptions of the photographs mentioned by Swinbank, apparently taken in 1948, and others taken subsequently show a road running east from that leading directly to the south gate of the fort and turning to the north-east.[[99]](#footnote-99) The western end of this road might have been ‘the exact point suggested by air photographs [where] large blocks of masonry (probably fringing the [Vallum] causeway) may be seen on the ground south of the south gate of the fort.’

The possible traces of a Vallum causeway need to be checked, but the road running to the east and then the north-east seems to be another feature possibly confirming the existence of a Vallum diversion. Salway, quoting Richmond, referred to the ‘odd’ pattern of roads in the *vicus* which might have been dictated by a Vallum diversion,[[100]](#footnote-100) but the road in question also makes sense as a means of by-passing the fort to reach the Antonine road bridge. More recently, Hodgson identified an ‘ENE–WSW trending wide linear band, visible on both resistance and magnetic surveys’ as perhaps the beginning of a Vallum diversion.[[101]](#footnote-101) This feature lies well to the south-east of the road discussed above.

In the twelfth edition of the *Handbook*, Richmond ignored Haverfield’s excavation, stating that ‘there are good reasons for thinking that it avoided the fort by the usual symmetrical diversion’.[[102]](#footnote-102) This goes too far. The records of Haverfield’s excavations and of the equally important work of F.G. Simpson that followed twenty years later are short on detail but cannot be ignored. Reinterpretation of the results of Simpson’s work has proved possible by demonstrating how he probably misunderstood the relationship between Hadrian’s Wall and the fort ditches.[[103]](#footnote-103) The existence of Haverfield’s ditches cannot be disputed, and it must be noted that he was not working alone: he acknowledges the assistance of Elizabeth and Thomas Hesketh Hodgson, who had much experience of excavations on the Wall, in ‘laying down the trenches and preparing plans’.[[104]](#footnote-104) Open to doubt, however, is the function of the ditch running from near the south-east corner of the fort: rather than being part of the Vallum, it could perhaps have been associated with an annexe isolating and controlling access to the baths and the road bridge. Against this is the fact that the ditch had a flat bottom, typical of the Vallum but unusual in other defensive contexts, and the apparent continuation of the ditch to the west of the fort, as observed in Trench 10.

The question of the Vallum at Chesters needs further investigation, but it is still possible that the Vallum ditch joined the south fort ditch rather than following a diversion further to the south.

See Section 3 for the samian ware.

**Corbridge.** The early Hadrianic (Phase III) fort, which faced south towards the river crossing, was 135 m in width, and although its exact length is uncertain, its area is estimated to have been at least 2.35 ha.[[105]](#footnote-105) It was of timber construction and retained the defences and *principia* of its predecessor; the barracks were rebuilt, presumably to accommodate a new unit.

**Drumburgh.** Dimensions: turf and timber fort 82 m by 96 m, with an area of 0.79 ha. The fort was added to the Turf Wall, probably in Stage 3 (cf. Burgh-by-Sands II) and was later rebuilt in stone.

**Ebchester.** Dimensions: the early fort was apparently of the same extent as the later stone fort which was of Antonine date and measured *c*. 124 m by 133 m (1.64 ha). There were small amounts of samian from Les Martres-de-Veyre (including work of the potters X-2 and Drusus I (X-3), *c*. 100–120), but the scarcity of Hadrianic and early Antonine material makes it clear that the site was abandoned between the early Hadrianic and mid-Antonine periods.[[106]](#footnote-106)

**Gateshead.** The ancient crossing of the Tyne at Newcastle was probably controlled by a pre-Hadrianic fort, yet to be discovered, at Gateshead.[[107]](#footnote-107) Perhaps it survived until the late second or early third century, the fort at Newcastle representing its replacement.

**Gloster Hill.** An altar dedicated to the goddesses of the parade ground by an unknown cohort was found near the mouth of the River Coquet at Amble (RIB 1206). It perhaps points to a fort in the vicinity which might have supervised a landing place.

**Great Chesters.** Dimensions: 108 m by 128 m, with an area of 1.2 ha. For its relationship to the Narrow and Broad Walls, see the main text. See Section 3 for the samian ware.

**Haltonchesters.** Dimensions: 125 m by 140 m (1.74 ha). The Vallum was diverted around the south-east corner of the fort.[[108]](#footnote-108) Its course is then uncertain for *c*. 400m to the west.

See Section 3 for discussion of the samian ware.

**Haltwhistle Burn.** Dimensions: 51 m by 63 m (0.32 ha). There was BB1 from the site (4 out of 22 illustrated vessels) but only 2 sherds of samian, their date and source not identified.[[109]](#footnote-109)

**High and Low Crosby.** From ditches associated with the Stanegate, excavated in 1935, there came a large rim sherd of a Hadrianic mortarium and a fragment of samian Dr 18/31 ‘typical of the early second century’. They were seen as evidence for occupation nearby, perhaps ‘a small intermediate fort of the kind exemplified by Haltwhistle Burn, Throp and [Castle Hill] Boothby’.[[110]](#footnote-110) In 2011–12 a scatter of Roman pottery was found in medieval and later features at Low Crosby, *c*. 50–100 m south of the line of the Stanegate and 0.7 km west of the earlier finds. The Low Crosby pottery included Central Gaulish samian, BB1, Severn Valley ware, and a flagon and a Mancetter-Hartshill mortarium, both of second-century date.[[111]](#footnote-111) Roman pottery occurring in this sort of quantity, especially in an area apparently peripheral to the main occupation, is entirely untypical of native sites in the region. If anything, it suggests the possibility of some sort of military site at Low Crosby rather than High Crosby. The pottery demonstrated that the site was occupied after the Trajanic period.

**High Rochester.** The existence of a pre-Hadrianic fort is certain, but its extent is unknown.

**Housesteads.** Dimensions: 112 m by 186 m (2.08 ha).

*Relationship to Hadrian’s Wall.* The fort overlies the Broad Wall foundation and T 36b which contained a hearth. In 1850 a cremation, apparently an amphora burial containing ashes and a silver coin of Hadrian, was found somewhere in the north-west part of the fort.[[112]](#footnote-112) It can be assumed that the turret, which contained a hearth, had been completed, or was at least habitable, and that its occupation was well-enough established for a burial to have been made near by. The Broad Wall foundation has been examined at various points under the fort.[[113]](#footnote-113) Excavations just outside the north-west corner of the fort found that, as elsewhere along its line, the Narrow Wall foundation was cut into this earlier foundation,[[114]](#footnote-114) but it was not seen inside the fort. The junction of the fort with the Wall has been investigated at the north-west and north-east corners, and although the structural relationships are complicated, there has never been any question of the Narrow Wall preceding the fort.[[115]](#footnote-115)

*The construction date of the fort.* There seems to have been settled occupation at T 36b, which raises the question of when it was replaced by the fort. From the excavations reported on by Rushworth there were a maximum of 2,964 samian vessels. Hadrianic samian, at no more than 2%, was remarkably scarce, as were the South Gaulish wares, at 0.2% including a Montans bowl of *c.* 110–45, and Les Martres de Veyre vessels at 0.3% (the early stamps and decorated wares are listed in the Section 3 below, where the samian assemblage is compared to those from other forts in more detail, cf. Table 1).[[116]](#footnote-116) These figures are exceptionally small in comparison with those from Wallsend, Haltonchesters and Birdoswald, all projecting forts, and from Bewcastle, which is probably contemporary with them. Coarse pottery from earlier excavations published by Grace Simpson can only be dated broadly to the Hadrianic period, rather than the early part of that period as claimed, and at least one vessel could be later.[[117]](#footnote-117) A fragment of samian, from a South Gaulish Dr. 15/17, could have reached the site during the occupation of T 36b. A different picture seems to have emerged from the investigation of the extra-mural settlement south of the Vallum where Hadrianic to early Antonine samian was well-represented: from the 1960 excavations, 3 or 4 decorated bowls out of 11, the remainder being later except for a Flavian Dr. 37; and from the 1961 excavations, 7 such bowls, 4 dating to *c*. 130 or later, out of 12, the remainder all later.[[118]](#footnote-118) However, the main occupation of the site is said to have ended in the late second or early third century, though few of the coarse wares could be that late. It is likely that the proportion of earlier samian is high because the intensity of occupation slackened in the mid- to late-Antonine period, when the Vallum was levelled and the focus of extra-mural settlement moved nearer to the fort.

According to Rushworth, the scarcity of pre-Antonine samian in the fort could be explained by the limited investigation of the early levels, which when encountered were largely devoid of finds.[[119]](#footnote-119) But those factors also apply to the other forts cited here for the purposes of comparison, and the character of the large samian assemblage at Housesteads means that occupation of the fort was limited to the later Hadrianic period.

Several sections through the fort ramparts contained Antonine samian; its occurrences were considered carefully by Rushworth (2009, 41–2) who, while not excluding the possibility that some contexts were contaminated, thought it equally likely the ramparts had not been completed by the end of the Hadrianic period.[[120]](#footnote-120)

**Kirkbride.** The fort, facing either east or west, seems to have measured *c*. 150–155 m between its north and south ditches and possibly had a length of as much as 190m which would give it an area of about 2.9 ha, but this is by no means certain.[[121]](#footnote-121) Little is known of its interior, but at least one of its buildings had clay and cobble foundations.[[122]](#footnote-122) The Norman church which sits over the west side of the fort is supposed to have reused Roman facing stones in its fabric, though none with diagnostic features such as diamond broaching is visible on the exterior.[[123]](#footnote-123) The excavations in and around the fort recovered no evidence of stone buildings, but the overall spread of occupation is very extensive, covering an area of at least 10 ha.[[124]](#footnote-124)

All the samian from the modern excavations appears to have been South Gaulish.[[125]](#footnote-125) The absence of wares from Les Martres-de-Veyre and of Hadrianic vessels from Central Gaul is puzzling, because there is a scatter of second-century BB1 across the site: for example, eight sherds of the ware were ‘found in the cooking areas behind the ramparts’.[[126]](#footnote-126) The explanation is perhaps that the test pits and trenches had mainly contacted areas where the earliest occupation deposits were preserved, and that these small-scale investigations of a very large site were not comprehensive enough to determine its full history. Nevertheless, there is enough BB1 to indicate that occupation continued into the Hadrianic period.

The only late find from the modern excavations was a coin of Tetricus, but older finds included a small altar to Belatucadrus (RIB 2056), considered by E. Birley to have probably been of earlier third-century date, and two graffiti on the bases of samian vessels which according to Birley (1963, 127) were apparently of form Dr. 31 and therefore no earlier than the mid-2nd century (RIB 2501.328, on an ‘unrecorded form’, and 2501. 413, lost), though the reasons for his identification are uncertain.[[127]](#footnote-127) Another of these older finds was a Dr. 33, with a stamp of Macrinus iii, die 6a, *c*. A.D. 150–85.[[128]](#footnote-128) The BB1 types from the site could be early Hadrianic; none of the other pottery from the modern excavations was necessarily any later.

**Longshaws.** Fortlet, 65 m square, so with an area of 0.42 ha, two opposed gates. Unexcavated, and no indications of its date.[[129]](#footnote-129) The site is unexcavated, but Welfare thought that the fortlet was likely to have been Flavian and built in the aftermath of the conquest. Symonds accepts a Flavian date, stating that ‘the distinctive morphology of its defences slots most comfortably into the last four decades of the first century’, while allowing the possibility that it survived into early second century, and adding that the separate enclosure to the west might be a successor to the original fortlet.[[130]](#footnote-130)

**Low Learchild.** The only excavation of which there is a plan was confined to the east side and north-east corner of two successive forts, the larger and later of which measured at least 232m from north to south; its north side was traced for 76 m from the north-east corner.[[131]](#footnote-131) This later fort probably had an area of at least 2.5 ha. There was first- and second-century pottery from the site, but no details of it have been published.

**Maryport.** Dimensions 135 m by 139 m (1.87 ha). This fort is thought to have been Hadrianic, but there appears to have been an earlier fort to its south-west possibly dating from shortly after A.D. 103.[[132]](#footnote-132) There is Flavian pottery from Maryport. A samian stampfrom the 1966 excavations in the fort has now been identified as an example of Crispus iii, die 1a, on a La Graufesenque Dr. 18/31 dish dated to *c.* A.D. 65–95.[[133]](#footnote-133) Other South Gaulish ware from the site is less closely dated. Samian ware had a long life, but two Flavian mortaria from recent excavations are unlikely, as utilitarian vessels, to have been survivals into the Hadrianic or even the later Trajanic periods. They are apparently products of a kiln at the Flavian fort at Elginhaugh.[[134]](#footnote-134)

**Netherby.** Its size is unknown, but it was occupied by *cohors I Aelia Hispanorum milliaria equitata* by A.D. 213 (RIB 976–7) and perhaps a unit of scouts which suggests that it was comparable in extent to Bewcastle, which accommodated a unit of the same type and had an area of 2.4 ha. Recent surveys suggest that in the late Roman period the site was occupied by a fortlet with an area of 0.3 ha; the extent and exact locations of the earlier and larger fort or forts remain uncertain.[[135]](#footnote-135)

**Nether Denton.** Dimensions:150 m by 190 m (2.85 ha), reduced to 110 m by 190 m (1.65 ha).[[136]](#footnote-136) The latest coins amongst the 79 recorded from the site in the nineteenth century were of Trajan, and there is also Trajanic and Hadrianic samian.[[137]](#footnote-137) E. Birley noted the presence of pottery of the second half of second century along the Stanegate, perhaps associated with occupation of the extra-mural settlement continuing after the fort had been abandoned.[[138]](#footnote-138)

**Newbrough.** Apparently the site of a small late-Roman fort, but the stonework in its defensive wall was reused. Earlier military occupation is likely, but its extent and date are uncertain.

**Old Carlisle.** The fort which shows up so well in aerial photographs perhaps had a larger predecessor, but little is known about the structural history of the site. The fort was 17 km from Carlisle by road and 14 km due south of the Wall.

**Risingham.** There is only the slightest evidence of pre-Antonine occupation, but the earlier levels on the site are almost entirely unexplored.[[139]](#footnote-139)

**Rudchester.** Dimensions: 117 m by 157 m, with an area of 1.84 ha. A trench dug in 1900 revealed possible traces of the Wall ditch under the fort, though Haverfield was not entirely convinced of its identification.[[140]](#footnote-140) Bowden and Blood claimed that the Vallum was already under construction to the west when work on the fort began, but Poulter considered that the alignment of the earthworks suggested that they were surveyed from the fort or its outskirts.[[141]](#footnote-141) It is doubtful whether the course of the Vallum signifies whether it came before or after the fort or whether both were built at the same time.

**South Shields.** The known fort is of mid-Antonine date, but further evidence of earlier occupation has been recovered in the last twenty years.[[142]](#footnote-142)

**Stanwix.** The stone fort, with an area of *c*. 4 ha, was of Antonine date, but was preceded by a turf and timber fort with a different plan which was perhaps smaller in size.[[143]](#footnote-143) From the 1984 excavations in the fort there were three sherds of South Gaulish samian and a higher than normal quantity of samian from Les Martres-de-Veyre, generally Trajanic but with one definitely Hadrianic dish; half the Lezoux ware was Hadrianic.[[144]](#footnote-144) About a quarter (36 sherds) of the samian from the *vicus* was pre-Antonine, including 3 sherds of Les Martres-de-Veyre and a second-century dish in Montans ware, but no other South Gaulish ware.[[145]](#footnote-145) This pottery is not necessarily evidence for the existence of an early Hadrianic fort: immediately to the west of the fort site, the main route into western lowland Scotland passed through the Wall, and this point might have been a focus for various commercial activities. This route long preceded Hadrian’s Wall, and must have been established under Agricola at the latest; the fort at Carlisle lay on the other side of the River Eden, roughly 500 m from the likely site of the northern bridgehead.

The 2010 *Map of Hadrian’s Wall* shows the Vallum passing immediately to the south-east of the fort without any deviation.[[146]](#footnote-146) It does not take account of previous discoveries. In the 1930s the ditch was found to have made a sharp turn south of the fort site, apparently respecting not the corner of the stone fort but rather that of its predecessor which was thought to have lain a little further to the north-east.[[147]](#footnote-147) According to the published plan, the line of the ditch at the old College of Art site, beyond the opposite side of the fort, was traced to within *c*. 80 m of the north-east wall and would thus have had to turn towards the east to skirt the original fort. There are complications, not least the discovery in another part of this site of ‘the northern edge of a large, steep-sided ditch at least 5 m wide’, which was taken by its excavators to show that the Vallum ran some 75 m south-east of its previously-accepted line.[[148]](#footnote-148) That line would not have required a diversion around the fort as the Vallum approached from the north-east. Two factors which would have complicated the planning of the Vallum are the major road which must have passed through it immediately south-west of the fort and the need for the earthworks to run along the edge of the higher ground above the river valley. In short, not much is known for certain about the line of the Vallum at Stanwix and its relationship to the successive forts.

**Throp.** Fortlet *c*. 60 m square, with an area of 0.36 ha.[[149]](#footnote-149) The pottery included BB1 jars with wavy lines on their rims[[150]](#footnote-150) and three tiny sherds of samian from Les Martres-de-Veyre, dating to *c*. A.D. 100–20.[[151]](#footnote-151)

**Vindolanda.** The identification of the early Hadrianic fort is not straightforward and requires some discussion.

*The Hadrianic building inscription (RIB 1702).* Not long before 1840, a ‘very important fragment of an inscription [was] discovered in Vindolan[d]a’.[[152]](#footnote-152) It preserved parts of three lines reading: ‘*[Imp(eratori) Ca]es(ari) Traia[no / Had]riano A[ug(usto) / le]gio II Au[g(usta) / …*’*.* The editors of RIB restored a fourth line: ‘*A(ulo) Platorio Nepote leg(ato) pr(o) pr(aetore)*’. Their reason for doing so was that in almost all respects the Vindolanda fragment matches two complete inscriptions assigned to MC 38 which both have this fourth line: the sizes and styles of the lettering are so similar that they could have been cut by the same mason, and the text and its arrangement are almost identical, the only difference being that Hadrian’s name on the Vindolanda fragment is in the dative rather the genitive case. The editors added that despite its resemblance to the milecastle inscriptions the fragment might nevertheless have belonged to an early Hadrianic fort at Vindolanda. Eric Birley, however, had cast doubt on its provenance because Anthony Hedley, the antiquarian who owned the fort site, had a collection of finds not only from Vindolanda but also from various places along the Wall.[[153]](#footnote-153) Birley did not cite a second statement by Hodgson, that the fragment was ‘discovered in its ruins by the late Mr Hedley’, a close friend and collaborator of Hodgson.[[154]](#footnote-154) This reference was not a catalogue entry, but part of an argument for the extent of Hadrianic activity on and around the Wall; Hodgson would hardly have used the inscription as a plank in his argument if there was any question about where it had been found. Bidwell saw no reason to doubt that the fragment was from Vindolanda and that it signified a rebuilding of the fort in the governorship of Platorius Nepos.[[155]](#footnote-155)

*The Hadrianic fort.* Vindolanda is a site of great stratigraphical complexity. The most recent account considering the chronology of the successive forts was published 2009 by Robin Birley. The dates proposed for the second-century periods were as follows: timber forts in Period IV, *c*. A.D. 105–120, and Period V, *c.* A.D. 120–130; turf rampart, stone gates and possibly stone *principia*, Period VI, *c*. A.D. 130–165; turf rampart replaced by stone wall at this stage (?), stone *principia* now if not earlier, Period VIA, *c*. A.D. 165–205.[[156]](#footnote-156) A Hadrianic date for the beginning of Period VI was thought probable, but ‘a firm date for the stone construction work’ of Period VIA was still to be determined.[[157]](#footnote-157) Andrew Birley subsequently dated Period VIA to *c*. 180.[[158]](#footnote-158) The Hadrianic building inscription, of A.D. 122–125/7 when Platorius Nepos was governor, would belong to the Period V fort in R. Birley’s scheme.[[159]](#footnote-159) According to Justin Blake, the fort measured *c*. 160 m by at least 165 m, giving it a minimum area of 2.6 ha.[[160]](#footnote-160) If this is correct, Vindolanda would have been the second largest of the early Hadrianic forts supporting the Wall, including the outpost forts. Its size is difficult to explain, for its site is not of the same strategic importance as those occupied by the large forts at Carlisle and Corbridge, which are on the main north–south routes. A lesser problem is that no stone buildings which could supply a context for the inscription are known in the Period V fort, though much of its supposed extent remains unexplored. Little in fact is known for certain about this fort. The position of its western defences was apparently marked by a ditch, ‘one of the largest defensive ditches identified at Vindolanda thus far’.[[161]](#footnote-161) It was parallel to and 12 m west of a stone wall that enclosed an annexe which Blake associated with one or both of the first two phases of the Period VI fort, when it was defended by a turf rampart, a stone wall being added in the third phase (Period VIA). Forts are generally more strongly defended than their annexes, and no parallels can be found for what seems to be indicated at Vindolanda – a turf fort with a stone annexe. There is another possibility. Blake observed that the annexe wall ‘sat centrally on top of the rampart rather than flush with its outer edge. While it is possible that it had been constructed this way as part of its original design, it is more likely that the wall had been built on top of an existing rampart base.’[[162]](#footnote-162) He suggested that the rampart and large ditch together with a smaller ditch to its east were all part of the Period V fort, later incorporated into the defences of the annexe. Yet another interpretation would be that these features were the original defences of the annexe; its wall could therefore have been built when the fort defences were faced in stone.[[163]](#footnote-163)

There are other problems with Blake’s attempt to reconstruct the plan of the Period V fort. The internal buildings include the *fabrica* and fragments of others to the west, but also the large building to the north that A. Birley identified as the *praetorium* of the Period IV fort. The axes of all these buildings are shown running at an angle of about ten degrees to that of the Period VI fort, so that they lay parallel to the west ditch attributed to the Period V fort.[[164]](#footnote-164) This cannot be, for the original excavation reports show the *praetorium* and *fabrica* running parallel to the Period VI fort.[[165]](#footnote-165) The southern defences are represented by a ditch shown running at right angles to those on the west side and on a line which would have extended through the area immediately to the south of the third-century Stone Fort 2. The ditch is said to have been seen to the west in 1993, but there is no mention of it in the report on excavations in that area, and work beyond the south wall of Stone Fort 2 did not encounter it.[[166]](#footnote-166)

Research excavations are continuing at Vindolanda, and there might still be additional information about the earlier campaigns which is still awaiting publication. On the basis of what is in the public domain, however, there are reasons to doubt the existence of the Period V fort. The early Hadrianic building inscription might have been associated with what was once described as Stone Fort 1 and is now the Period VI fort with stone *principia* and gates, but with a turf rampart in its first two phases. Though the northern extent of this fort is yet to be determined, its width was *c*. 95m, and it was likely to have had an area of *c*. 1.6–1.8 ha.

**Wallsend.** Dimensions: 120 m by 138 m (1.66 ha).[[167]](#footnote-167) Some 1045 samian vessels were identified from the excavations in 1975–84, of which 12.6% by EVEs (Estimated Vessel Equivalent) were Hadrianic or earlier, and a further 9.6% were Hadrianic to early Antonine.[[168]](#footnote-168) See Section 3 for further discussion of the samian ware.

**Washingwells.** The fort is situated south of the Tyne and 4.5 km south-east of Gateshead. Its ditches enclose an irregular quadrilateral of about 2.6 ha and perhaps a little more, making it as large as the fort at Corbridge. No signs of internal buildings have been seen in the various surveys of the site, and no finds have been recovered from field walking. It has been suggested that the defences were a practical exercise in military construction, and the fort was never intended to be occupied.[[169]](#footnote-169) There is no other instance of a training exercise on this scale, and it is far more likely that the fort was intended to hold a large unit, and the apparent absence of internal buildings might mean that the site was abandoned at an early stage in its construction. The evidence of aerial photography had suggested that the fort was of two phases, the second of which was considered by Breeze perhaps to have been associated with the original scheme for Hadrian’s Wall.[[170]](#footnote-170) The later geophysical survey by Casey and Howard demonstrated that the fort was almost certainly of a single phase, but that does not make Breeze’s association of Washingwells with the first stage of the Wall any less likely. The fort overlooks the Team valley to the east, and although the line of the Wall 4km immediately to the north would not have been in sight, there would have been a clear view of Gateshead, the crossing of the Tyne and the final Wall mile.

**Wooperton.** From this site on the Devil’s Causeway, there were 614 sherds of Roman pottery, only a single sherd of which was in the local Iron Age tradition. The remainder was of Flavian-Trajanic date and included imported amphorae and mortaria according to the interim summaries, which make no mention of BB1.[[171]](#footnote-171) Much of the pottery came from a row of large pits. There were no traces of buildings within the excavated area, but the size and character of the pottery assemblage suggest that it was associated with intensive military occupation, presumably centred on a fort near by.

**Wreay, Park House.** A hinterland fort 8.5 km south of the Wall at Carlisle and separated from the road south to Old Penrith and the Stainmore Pass by the River Petteril. It measured 113 m square within its ditches (1.28 ha) and contained timber buildings.[[172]](#footnote-172)

3. THE SAMIAN WARE

The building of Hadrian’s Wall provides an essential benchmark for the dating of samian ware in the north-west provinces.[[173]](#footnote-173) Examples from the original installations along the line of the Wall have a firm *terminus post quem* of early Hadrianic date for their loss, which means that for more than a century they have been reported on in detail. Similar attention has been paid to samian ware from the Antonine Wall, which cannot have been used and discarded before the early AD 140s. Another result of the detailed study of samian from Antonine Scotland has been to show that the two Walls in northern Britain were not held in force simultaneously.[[174]](#footnote-174) This demonstration depended mainly on the absence or scarcity of potters’ products on Hadrian’s Wall that were common on the Antonine Wall. Samian has also been used to help establish the date at which the Antonine Wall was abandoned and Hadrian’s Wall fully reoccupied. Another aspect of the study of samian from Hadrian’s Wall is the possibility that differences in their assemblages might support the sequence of four stages of fort construction which is proposed in this paper. As will be seen in the case of Housesteads, such comparisons have occasionally been made before, but because the building of most of the forts was previously thought to have started at the same time, there was no reason to do this as systematically as is attempted below.

The earlier Hadrianic period marked a crucial change in supply to Britain with the importation of large amounts of the ware from Lezoux in Central Gaul. In the Trajanic period, lesser quantities from Les Martres-de-Veyre, another Central Gaulish pottery, had arrived in Britain. Previously, the main supplier had been the South Gaulish kilns at La Graufesenque. Reddé and Mees have now argued that, rather than ending in *c*. A.D. 110, export of these wares continued into the early Hadrianic period.[[175]](#footnote-175) Products of two other less important potteries at Montans in South Gaul and Chémery-Faulquemont in East Gaul also reached the northern British frontier in the Trajanic and Hadrianic periods. It might be expected that vessels from La Graufesenque would have become progressively scarcer throughout the Hadrianic period as they fell out of use. Equally, products of Les Martres-de-Veyre are typically Trajanic in Britain, and though some vessels have dates ranging well into the Hadrianic period (as at Stanwix, see below), their numbers seem to have declined after *c*. A.D. 120. The comparative scarcity of these early wares in assemblages from the forts is one of the lines of enquiry pursued below. Then there is an examination of the Hadrianic decorated wares from Lezoux followed by a comparison of the plain ware forms, though only at Wallsend and Housesteads have large enough quantities of the latter been published in sufficient detail to make the exercise valid.

First, some limitations must be acknowledged. Useful comparisons can be made only between forts that were Hadrianic foundations; at these forts Trajanic and earlier samian will have represented the diminishing stocks of older wares that remained in use, while forts established before Hadrian but continuing in occupation will of course also have examples that reached them as new stock. Unfortunately, this factor excludes from consideration Corbridge, Vindolanda and Carlisle which have the largest samian assemblages in the northern frontier area. That still leaves forts where overall assemblages totalling 435 stamps or signatures and 775 decorated bowls have been published in the necessary detail. Birdoswald and Housesteads, which have large samian assemblages, were preceded by turrets; their occupation would have been small-scale and would have contributed little to the overall assemblage. Where possible, finds from the forts and their surrounding settlements are listed separately. The main source of information about the stamps is the RGZM NoTS Database, but some additional details given in site reports are included. Most of the decorated wares are cited only from assemblages published since the later 1950s; they are regarded as a representative sample of all the samian finds from the Wall forts. Earlier reports are often not sufficiently detailed for close dating of the decorated wares, though there are a few exceptions such as the report on the samian found at Birdoswald in 1929. Where references are made to finds made before the later 1950s, the dates cited are those in *Central Gaulish Potters* and not those in the original reports.[[176]](#footnote-176)

There are two main difficulties in comparing the assemblages from different forts. First, publication of samian has become more detailed over the last 70 years, and some recent reports describe every fragment of the decorated wares, while older reports are often more selective and might list the earlier bowls in greater detail than the later examples, meaning that they are over-represented in the record. Secondly, there are many variables in the excavations: the extent to which the Hadrianic levels have been investigated in comparison to later deposits will vary from site to site. These difficulties would cast doubt on the significance on minor differences in supply to various forts. However, the differences discussed here are often of a large order and surely result from the varying histories of the forts. It is a reasonable assumption that a large assemblage of samian will be represent the overall supply to a fort: later levels will usually have been explored more extensively, but they will usually contain many finds displaced from earlier deposits or material from rubbish dumps used to fill ditches and pits or to level parts of the site.

Listed in the appendix below as entries for the individual forts are vessels of entirely or mainly pre-Hadrianic date together with those extending into the earlier Hadrianic period and a few slightly later vessels of particular interest; the numbers of stamps and decorated wares from all periods and sources are given to demonstrate the sizes of the overall assemblages. A constant feature of the larger assemblages, whether from Stage 2 or later forts, is the presence of as much South Gaulish as Les Martres-de-Veyre ware, if not more, and many of the former examples are Flavian and not the latest products of the industry commonly found in Britain. The explanation is probably that less samian ware reached Britain during the floruit of Les Martres-de-Veyre in the Trajanic period, an earlier influx of South Gaulish products providing plenty of Flavian and Flavian-Trajanic vessels that survived in use during the Hadrianic period. The dip in supply is particularly apparent in London,[[177]](#footnote-177) but is also evident in the northern frontier zone. In the report on samian ware from Ebchester, an Agricolan foundation probably abandoned in Stage 2 of the Wall, there were 5 stamps and 20 decorated bowls in South Gaulish ware but only 2 decorated bowls from Les Martres-de-Veyre (dated to *c*. A.D. 100–20), which was said to be ‘a standard situation for forts abandoned at the time of the building of Hadrian’s Wall’.[[178]](#footnote-178)

Of the Stage 3 forts, Housesteads has the largest assemblage. From the fort and its adjacent *vicus*, there is a single stamp of Flavian date. The 61 decorated bowls included no pre-Hadrianic wares from Les Martres-de-Veyre; the only South Gaulish example was a Montans product which could have been Hadrianic. The absence of early decorated bowls sets Housesteads apart from the large assemblages at Wallsend, Benwell, Halton Chesters and Birdoswald, all regarded as Stage 2 forts. The other Stage 3 forts have smaller assemblages but contain scarcely any pre-Hadrianic material. The *vicus* south of Burgh-by-Sands II has a South Gaulish Flavian-Trajanic decorated bowl. There is another example from Bowness-on-Solway together with a probable Les Martres-de-Veyre product of Trajanic or early Hadrianic date, though it is possible that these early vessels from the fort derived from the previous occupation of MC 80. Finally, Carrawburgh is the only fort of Stage 4 which was a new foundation. Its single Flavian stamp is from Coventina’s Well rather than the fort, and the La Graufesenque potter represented in the fort was working well into the Hadrianic period.

At Housesteads the assemblage is large enough for the scarcity of early stamps and bowls to be cited in support the other factors which point to a later Hadrianic date for the fort. At the other forts of Stages 3 and 4, early material is also scarce, except where there was earlier activity possibly on a substantial scale as at Stanwix, but the overall quantities of samian involved are small, and other types of evidence are more persuasive indicators of the comparatively late date of these forts. Nevertheless, it is worth looking briefly at the Hadrianic decorated bowls to see if there are fewer of them in relation to examples of all periods at Stages 3 and 4 forts than at those of Stage 2 (Table 1, listing bowls and stamps dated within a succession of five-years periods, and excluding those dated more broadly as Hadrianic, Hadrianic to early Antonine or Hadrianic-Antonine). Relying on the dates given in the catalogues referred to below, there are proportionately several times more Hadrianic examples at Wallsend and Birdoswald than at Housesteads and Carrawburgh.

Halton Chesters, a projecting fort of Stage 2 with a gate inscription naming A. Platorius Nepos (RIB 1427), does not conform to this pattern at first sight. The report on the samian from the excavations in 1960–61, written in 1977, noted the ‘markedly low proportion of pre-Hadrianic and Hadrianic to Antonine material’.[[179]](#footnote-179) The authors added that ‘the same is apparently true of those sites connected with Hadrian’s frontiers which have produced similar, or greater, quantities of samian, with the exception of Birdoswald and Mayport’. The Haltonchesters report was written in 1977, 33 years before it was published and when much of the samian from other forts listed below had yet to be recovered by excavation. In Table 1, the percentage of Hadrianic samian from Halton Chesters is as small as from Housesteads and Carrawburgh. This partly results from a technicality: in this early report, many more of the decorated wares were dated broadly as Hadrianic or Antonine rather than within the succession of five-year periods, whereas the dating in later reports tends to be more specific. The catalogue described 135 decorated bowls, 12 (9%) of which were pre-Hadrianic, Hadrianic or early Antonine with a further 16 (12%) which were either Hadrianic or Antonine. Another element in the assemblage closely matches those at Wallsend and Birdoswald, which is the large number of pre-Hadrianic decorated bowls relative to other Wall forts: five from South Gaul and one from Les Martres-de-Veyre. Table 1 is thus not a full representation of the assemblage at Halton Chesters.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date *c*. A.D. | Number of Lezoux decorated bowls (and stamps) | | | | |
| Wallsend | Halton Chesters | Bird-oswald | Housesteads | Carrawburgh |
| 120–45 | 0 | 1 | 0 | 0 | 0 |
| 120–50 | 0 | 0 | 1 | 0 | 0 |
| 125–35 | 0 | 0 | 1 | 0 | 0 |
| 125–40 | 14 (1) | 0 | 3 | 1\* | 0 |
| 125–45 | 12 (1) | 2 (1) | 6 | 2 | 1 |
| 125–50 | 6 (8) | 1 | 6 (1) | 0 (1) | 0 |
| Total: decorated bowls, all periods and sources | 155 (121) | 135 (50) | 137 (27) | 61 (45) | 55 (22) |

Table 1. Hadrianic decorated bowls and stamps from Lezoux at Wallsend and Halton Chesters (Stage 2 forts), Birdoswald (Stage 2, 1987–92 and 1997–8 excavations, fort and ditches only), Housesteads (Stage 3, excluding the southern *vicus*) and Carrawburgh (Stage 4). The bowl from Housesteads marked with an asterisk was judged as probably from Lezoux rather than Les Martres-de-Veyre.

Turning finally to a consideration of the plain wares, the frequency of the commonest Lezoux types at Wallsend and Housesteads differ markedly. Dickinson commented on how few Dr. 27 cups and Dr. 18/31R dishes there were at Housesteads in comparison to Dr. 33 cups and Dr. 31R bowls (4 Dr. 27s and 185 Dr. 33s; 11 Dr. 18/31Rs and 228 Dr. 31Rs); in *c*. A.D. 160, Dr. 27 cups ‘finally gave way’ to Dr. 33s and Dr. 18/31R went out of production in *c* A.D. 160 to 165.[[180]](#footnote-180) The equivalent numbers for Wallsend are 14 Dr. 27s and 108 Dr. 33s, and 25 Dr. 18/31Rs and 85 Dr. 31Rs.[[181]](#footnote-181) The pronounced scarcity of the earlier types at Housesteads would certainly be explained if its Hadrianic occupation was of much shorter duration than at Wallsend as a result of its construction in Stage 3.

This brief study, which has relied entirely on identifications made by others, is far from exhaustive, but has, it is hoped, demonstrated two things. First, that the samian supports the late dating of Housesteads and at least does not contradict the attribution of other forts to Stages 3 and 4. Secondly, that the study of pre-Antonine samian in the Wall zone is now of even more interest because of the part it can play in working out the chronology of the building programme.

APPENDIX: PRE-HADRIANIC SAMIAN FROM SELECTED FORTS IN THE HADRIAN’S WALL ZONE

**Wallsend (references below are to Dickinson 2016 unless otherwise stated)**

*121 legible stamps.*

Tabus-Virtus i, die 1a, La Graufesenque, *c*. A.D. 75–100 (S 103, die worn, so towards the end of this period)

Marcellus ii, die 3a, Les Martres-de-Veyre, *c*. A.D. 100–120 ((S62)

Roppus ii, die 1a, Les Martres-de-Veyre, *c*. A.D. 110–140 (S87)

Saturninus i, die 1a, Chémery-Faulquemont, Trajanic or Hadrianic (S 94)

C. Cincius Senovirus, signature, La Graufesenque (S 145, *c*. A.D. 85–110, but RGZM NoTS Database dates the signature more broadly to *c*. A.D. 90–130)

*Decorated ware (see Table 1): total catalogued, 155 (including Dickinson 2003)*

South Gaulish: D64 (*c*. A.D. 70–85); D91 (*c*. A.D. 70–90); D31 (Flavian–Trajanic); D98 and D134 (*c*. A.D. 90–110); D132 (Montans?, *c*. A.D. 115–45?)

Les Martres-de-Veyre: Dickinson 2003, D1 (Trajanic-Hadrianic); Dickinson 2016, D135 (*c*. A.D 100–120)

Chémery-Faulquemont: D8 (Hadrianic?); D82, with stamp of Saturninus i, as above (Trajanic or Hadrianic)

**Benwell**

*59 legible stamps*

Caicus, die 1a, La Graufesenque, *c*. A.D 80–110

*Decorated ware: total catalogued mainly from the filling of the Vallum ditch and levels above, 110*

Birley 1947, 55–6: the pottery, which seems to have accumulated elsewhere on the site before being redeposited in the ditch, included two bowls from La Graufesenque (and there was another from earlier excavations in the fort). There was a ‘complete absence of the typically Trajanic class of Central Gaulish wares’ (now identified as products of Les Martres-de-Veyre), but 28 examples of Hadrianic Lezoux ware were recorded.

**Rudchester**

*3 legible stamps, all Central Gaulish*

**Halton Chesters**

*50 legible stamps, all Central Gaulish or East Gaulish*

*Decorated ware (see Table 1): total catalogued, 135*

South Gaulish: Hartley and Dickinson2010 (report written in 1977), no. 5 (*c*. A.D 75–95); no. 2 (Flavian), nos 3–4 (*c*. A.D 90–110); no. 1 (Flavian-Trajanic)

Les Martres-de-Veyre: Hartley and Dickinson 2010, no. 6 (*c*. A.D. 100–120)

**Chesters**

*62 legible stamps, but it is not entirely certain that all the stamps attributed to Chesters in the RGZM NoTS Database and in the Chesters Museum collection were from the site rather than from other areas of the Clayton estates; for example, there is a question mark after ‘Chesters’ on Hartley’s record card for L. Cosius Virilis (see below)*

Mercator i, die 1a, La Graufesenque, *c*. A.D.70–100

L. Cosius Virilis, die 27a, La Graufesenque. *c*. A.D.75–100

Genialis iii, die 3a, Les Martres-de-Veyre and Lezoux, *c*. A.D.100–130

*Decorated ware: see 24 examples in Central Gaulish Potters index, all Hadrianic or later, but the provenance of some sherds is perhaps uncertain, as explained above*

**Carrawburgh**

*22 legible stamps.*

Patricius i, die 5b, La Graufesenque, *c*. A.D.65–90 (but from Coventina’s Well, regarded by Allason-Jones and McKay 1985, 11–12, as contemporary with the fort, though an earlier origin cannot be excluded)

Signature of C. Cincius Senovirus, *c*. A.D.90-130 (and at Wallsend)

*Decorated ware (see Table 1): from the fort, 14 (Hartley 1972b), and from buildings east of the fort, 41 (Hartley 1967), all Lezoux or East Gaulish and all Antonine or later*

**Housesteads**

*45 legible stamps*

Verecundus ii 3 – a, La Graufesenque, *c*. A.D.60-85

*Decorated ware from fort and adjacent* vicus *(see Table 1*)*: total catalogued, 61 (Leach and Wilkes 1962; Dickinson 2009)*

Montans: Dickinson 2009, no. 1 (*c*. A.D.110–45)

*Decorated ware from the settlement south of the Vallum: total catalogued, 22 (R. Birley 1961, 312–6; A(ngela) Birley 1962)*

South Gaulish: ‘can hardly have been later than A.D. 90, if so late’ (R. Birley 1961, 312–4, fig. 3)

**Great Chesters**

*10 legible stamps, all Central Gaulish or East Gaulish*

**Birdoswald**

*58 legible stamps*

Coelus ii, die 1a, La Graufesenque, *c*. A.D.65–85

Dagomarus, dies 4c and 13a, Les Martres-de-Veyre, *c*. A.D.100–140 (die 4c dated *c*. A.D.110–25 in Dickinson and Mills 1997, 265)

*Decorated ware from the fort and area to south:*

*i. Birdoswald 1929 (E. Birley 1930), mostly from the Hadrianic alley deposit: total catalogued or noted, 20 (dating as revised in CGP)*

Les Martres-de-Veyre: Stanfield and Simpson 1958, pl. 10, no, 127 (*c*. A.D.100–120) and two fragments not published in E. Birley 1930, for which see E. Birley 1947, 56, n. 8

*ii. Birdoswald 1987–92 (Dickinson 1997), from the fort and its ditches: total catalogued, 59*

South Gaulish: Dickinson and Mills 1997, nos 45, 49 and 55 (all *c*. A.D.85–110)

Les Martres-de-Veyre: Dickinson and Mills 1997, no. 18 (*c*. A.D.100–20)

*iii. Birdoswald 1997–8 (Willis 2009, 425–9), from the fort (Study Centre, Site 585): total catalogued, 78*

Les Martres-de-Veyre: 6 examples (*c*. A.D.100–25 (1); *c*. A.D.100–20/30 (2); *c*. A.D.100–30 (3))

*iv. Birdoswald 1996 and 2000 (Willis 2009, 429–3), area south of fort and filling of Vallum ditch (Spur Project, Site 590): total catalogued, 51*

South Gaulish: 2 examples (*c*. A.D.70–110)

*v. Birdoswald 1999 (Willis 2009, 432–3), western extra-mural settlement and cemetery: total catalogued, 15 (all Central Gaulish)*

**Stanwix**

*21 legible stamps*

South Gaulish (Banassac and La Graufesenque): L. Flavius Germanus, die 4a (*c*. A.D.85–120)

Les Martres-de-Veyre: Cettus, die 2a, (*c*. A.D.130–60); Albus iii, die 3b (*c*. A.D.145–80, though it is described as ‘clearly Hadrianic’ in Dickinson 1985, 64)

*Decorated ware from the* vicus *west of the fort, 1986: total listed in summary, 52 (Dickinson 2000)*

Les Martres-de-Veyre (1); Chémery-Faulquemont (1). ‘... both of them could belong equally well to either the Hadrianic occupation or to the early 160s...’ (Dickinson 2000, 63).

*Samian from excavations in the fort, 1984 (Dickinson 1985).* The full report was relegated to microfiche, not accessible at present. A summary mentions three South Gaulish sherds, and a higher proportion of vessels from Les Martres-de-Veyre than is usual for Hadrian’s Wall sites. Most of the latter seemed to be Trajanic, though the dish stamped by Albus iii (see above) was certainly later.

**Burgh-by-Sands II**

*1 legible stamp and 1 signature, Central Gaulish*

*Decorated ware from the* vicus *at Amberfield south of the fort (Evans 2005, including summary of earlier finds at Amberfield): total catalogued, 15*

South Gaulish: Dr. 37? (*c*. A.D.70–110)

*Decorated ware from the* vicus *east of the fort (Evans 2009): total catalogued, 13*

Les Martres-de-Veyre: 1 example (probably Hadrianic)

**Bowness-on-Solway**

*18 legible stamps, all probably Central or East Gaulish*

*Decorated ware from the fort, 1976 (Wild 1979): total catalogued, 13.*

South Gaulish: 1 example (*c*. A.D. 90–110)

Les Martres-de-Veyre (probably): 1 example (*c*. A.D. 100–25)

**Bewcastle**

*13 legible stamps, all Central and East Gaulish*

*Decorated ware from the fort in 1949, 1954 and 1956 (Dore 1993) and 1977–8 (Dickinson 1991): total catalogued 32, all Central or East Gaulish*

**Birrens**

*36 legible stamps*

Viducus, die 5a, Les Martres-de-Veyre (*c*. A.D.100–30)

*Decorated ware from the fort (Wild 1975): total catalogued, 124*

South Gaulish: ‘not later than 85’ (Wild 1975, no. 1, but definitely associated with the Flavian occupation)

Les Martres-de-Veyre: nos 2 (probably) and 25–6 (27 is Les Martres-de-Veyre or Lezoux), all c. A.D.110–30

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2. Swan *et al.* 2009, 601–3. [↑](#footnote-ref-2)
3. Unless otherwise stated, dimensions are as measured across the ramparts or walls of the forts and fortlets. [↑](#footnote-ref-3)
4. Graafstal 2021, 120. [↑](#footnote-ref-4)
5. Burnham 2003, 310. [↑](#footnote-ref-5)
6. Hodgson 2019, 134. [↑](#footnote-ref-6)
7. Dickinson 1991, fig. 10, based on a total of 347 sherds in addition to the decorated wares. [↑](#footnote-ref-7)
8. Richmond 1929, 311. [↑](#footnote-ref-8)
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10. Anon. 1946, 134. [↑](#footnote-ref-10)
11. Wilmott *et al.* 2009, 254, 388–92. [↑](#footnote-ref-11)
12. Wilmott 1999, 147; Wilmott *et al.* 2009, 211–14. *Contra*: Austen 2008, 155; Hodgson 2010. [↑](#footnote-ref-12)
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14. Snape 1994, 177. [↑](#footnote-ref-14)
15. Simpson and Richmond 1933, figs 12 and 16. [↑](#footnote-ref-15)
16. Dickinson and Mills 1997, fig. 177; Willis 2009, fig. 399 and table 32. [↑](#footnote-ref-16)
17. Robertson 1975, 77–8. [↑](#footnote-ref-17)
18. Williams 2004; Croom and Bidwell 2004. [↑](#footnote-ref-18)
19. Austen 2009, 397, 407. [↑](#footnote-ref-19)
20. Bellhouse 1988, 42–7. [↑](#footnote-ref-20)
21. Austen 2009, 398. [↑](#footnote-ref-21)
22. Turner and Witherington 1979, 326, figs 129–30, pl. XXIIIa: the pit (feature 18) was 1m deep with an area of 4m by 3.6m. [↑](#footnote-ref-22)
23. Wild 1979; dates and identifications of stamps revised according to the RGZM NoTS Database. [↑](#footnote-ref-23)
24. Turner and Witherington 1979, 337–9, fig. 137 [↑](#footnote-ref-24)
25. Gillam 1968. [↑](#footnote-ref-25)
26. For the morphological development of these bowls, see Gillam 1976, 67–70. [↑](#footnote-ref-26)
27. Swan *et al.* 2009, 601–3. [↑](#footnote-ref-27)
28. Simpson and Richmond 1936, 176. [↑](#footnote-ref-28)
29. Jones and Woolliscroft 2001, fig. 30, pl. 19; Woolliscroft 2009. [↑](#footnote-ref-29)
30. Wild 2009, fig. 29. [↑](#footnote-ref-30)
31. Croom 2009; the ‘small amount of pre-Hadrianic material’ could equally be a little later (pers. comm. Alex Croom). [↑](#footnote-ref-31)
32. Hodgson 2009, 154. [↑](#footnote-ref-32)
33. Woolliscroft 2009, 74–5, fig. 31. [↑](#footnote-ref-33)
34. Collingwood 1923. [↑](#footnote-ref-34)
35. Breeze and Woolliscroft 2009, 5–6, 77; Mattingly *et al.* 2009, 10–11. Objections: Austen 2008, 116–7; Hodgson 2009, 152–3. [↑](#footnote-ref-35)
36. Linford 2009. [↑](#footnote-ref-36)
37. Breeze and Woolliscroft 2009, 77. [↑](#footnote-ref-37)
38. MacLauchlan 1858, sheet V. [↑](#footnote-ref-38)
39. Hogg 1954, 108–10, fig. 2. [↑](#footnote-ref-39)
40. Perhaps at the site of the undiscovered T 71b, though its measured position is *c*. 80 m to the west. [↑](#footnote-ref-40)
41. Collingwood 1923, 8. [↑](#footnote-ref-41)
42. Richmond 1947, 203, adding that Mossman saw that the Wall made a sharp turn ‘just before reaching the fort’. [↑](#footnote-ref-42)
43. Linford 1992, fig. 21, no. 11. [↑](#footnote-ref-43)
44. Frere 1977, 376. [↑](#footnote-ref-44)
45. Esmonde Cleary 1994, 263. The document on the website referred to in Breeze and Woolliscroft 2009, 5, seems no longer to be available ([www.brad.ac.uk/carlislearch/sect2.htm](http://www.brad.ac.uk/carlislearch/sect2.htm)). [↑](#footnote-ref-45)
46. Esmonde Cleary 1999, 333. Plans of the excavations in 1993 and 1998 have yet to be published, but what seems to be an early draft of a full report is available (Hirst 1988), though it has some gaps and lacks illustrations. The road at Milton House was defined by parallel ditches spaced 7.1 m apart; no metalling survived, but it had presumably been removed by later cultivation. In Figure 1A, the line of road has been plotted between the 1993 trench as located on Mattingly *et al.* 2009, fig.1 and the grid reference for the 1998 excavation given in the interim note. [↑](#footnote-ref-46)
47. English Heritage 2010. [↑](#footnote-ref-47)
48. Collingwood 1923, plan on p. 2. [↑](#footnote-ref-48)
49. Cumberland XV.12 (Burgh-by-Sands), 25 inches to the mile. [↑](#footnote-ref-49)
50. Mattingly *et al.* 2009, fig. 1. [↑](#footnote-ref-50)
51. Martin 2016. [↑](#footnote-ref-51)
52. Collingwood 1923, 5–7. [↑](#footnote-ref-52)
53. Martin 2016, fig. 22. [↑](#footnote-ref-53)
54. Linford 2009, 52, fig. 1, no, 1. On Fig. 1A the main features of the survey have been located in respect to the boundaries of the cemetery as shown by Collingwood. [↑](#footnote-ref-54)
55. Martin 2016, 15–18, figs 9 and 14. The excavator’s context numbers are given in the main text. [↑](#footnote-ref-55)
56. Bidwell 2018, 145–7. For Milton House, see note 46. [↑](#footnote-ref-56)
57. Parker and Zant 2018, 6–11, figs 4–6. [↑](#footnote-ref-57)
58. The position of building remains excavated in 2009 is consistent with the hypothetical southern extent of the fort (Anon. 2010, 268). [↑](#footnote-ref-58)
59. Masser and Evans 2005. [↑](#footnote-ref-59)
60. MacLauchlan 1858, 81. [↑](#footnote-ref-60)
61. The line of the Vallum ditch has been determined at Monkhill by recent excavations (Martin 2014; Anon. 2019). [↑](#footnote-ref-61)
62. Swinbank 1954, 114. Much of this field has since been built over. [↑](#footnote-ref-62)
63. Richmond 1947, 202, retained in the next three editions of the *Handbook*, but omitted in the last edition which nevertheless accepts the course of the Vallum indicated by the preceding observations. [↑](#footnote-ref-63)
64. Simpson 1976, 14. [↑](#footnote-ref-64)
65. ‘F3’ and ‘F20’ presumably refer to observations by successive surveyors. [↑](#footnote-ref-65)
66. For the course of the Vallum west of Carlisle, see Poulter 2009, 69–70, map 2.32. [↑](#footnote-ref-66)
67. Austen 1994, 49, 52–3, fig. 2. [↑](#footnote-ref-67)
68. Mattingly *et al.* 2009, 7–11, figs 1–3. [↑](#footnote-ref-68)
69. Mattingly *et al.* 2009, context number as shown in section on fig 3. [↑](#footnote-ref-69)
70. Breeze and Woolliscroft 2009, 5, 77. [↑](#footnote-ref-70)
71. Graafstal 2020, 134, fig. 9. [↑](#footnote-ref-71)
72. Graham 2008, including a topographical survey. [↑](#footnote-ref-72)
73. Bellhouse 1960, 21: his description of the pottery, ‘a piece of the black polished ware that became common in Hadrian-Antonine times’, can only refer to BB1. [↑](#footnote-ref-73)
74. Graham 2013, for a geophysical survey and the dimensions of the fort; traces of the central range were visible, and a large trapezoidal enclosure, possibly a shrine, immediately beyond the north-west corner of the fort. [↑](#footnote-ref-74)
75. Zant 2009, 416, fig. 237. [↑](#footnote-ref-75)
76. Dating evidence summarised in Zant 2009, 200–1, 238–9, 441. [↑](#footnote-ref-76)
77. Ward 2009, 546, figs 282–3. [↑](#footnote-ref-77)
78. Welfare 2013, 84, 95. [↑](#footnote-ref-78)
79. Haverfield 1897, 416–26; 1898, 175–7; E. Birley 1934–5, 97. [↑](#footnote-ref-79)
80. ‘… a new ditch cutting across the line of the Vallum …’: Breeze 2015, 9. [↑](#footnote-ref-80)
81. Frere 1986, 381. [↑](#footnote-ref-81)
82. Biggins and Taylor 2009. [↑](#footnote-ref-82)
83. Richmond and Hodgson 1934, 161. [↑](#footnote-ref-83)
84. A.R. Birley 2005, 134–5. [↑](#footnote-ref-84)
85. Haverfield 1902, 385–90; 1903, 339–46. [↑](#footnote-ref-85)
86. Biggins and Taylor 2007, 20, figs 4–5, nos 5–6. The numbers in the text above are those denoting features in the original report. [↑](#footnote-ref-86)
87. Biggins and Taylor 2007, 21, fig. 3. [↑](#footnote-ref-87)
88. English Heritage 2010. [↑](#footnote-ref-88)
89. Biggins and Taylor 2007, fig. 4. [↑](#footnote-ref-89)
90. Sommer 2006, 97–103. [↑](#footnote-ref-90)
91. Richmond and Hodgson 1934, 163–5, fig. facing p. 164. [↑](#footnote-ref-91)
92. Jones and Woolliscroft 2001, 57–8, fig. 26. [↑](#footnote-ref-92)
93. Bidwell 2021 forthcoming. [↑](#footnote-ref-93)
94. MacLauchlan 1858, 32, sheet III. [↑](#footnote-ref-94)
95. As shown in part on the RCHME survey (Bidwell 1999, fig. 32) and visible extending up to MacLauchlan’s line on LiDAR. It also appears in an aerial photograph (Jones and Woolliscroft 2001, 95, colour plate 12, with arrow marking the feature). This shows very clearly on an aerial photograph in the Cambridge collection (CUCAP BLK 90 1973-01-16). [↑](#footnote-ref-95)
96. Haverfield 1904, 240–3, fig. on p. 238. [↑](#footnote-ref-96)
97. Collingwood 1933, 78. [↑](#footnote-ref-97)
98. Swinbank 1954, 62. [↑](#footnote-ref-98)
99. Salway 1967, 79–80, fig. 8, and RCHM plan in Bidwell 1999, fig. 32 [↑](#footnote-ref-99)
100. Salway 1967, 80. [↑](#footnote-ref-100)
101. Editorial comment in Biggins and Taylor 2009, 108. [↑](#footnote-ref-101)
102. Richmond 1966, 84. [↑](#footnote-ref-102)
103. Bidwell 2021. [↑](#footnote-ref-103)
104. Haverfield 1904, 239. [↑](#footnote-ref-104)
105. Bishop and Dore 1988, 133–5, fig. 72. [↑](#footnote-ref-105)
106. Hartley *et al.* 1975, 86, 88. [↑](#footnote-ref-106)
107. Bidwell and Snape 2002, 257–9; for the possibility that the Tyne crossing was of ‘great social, economic and ritual significance’ to the pre-Roman populations, see Graves and Heslop 2013, 21–30. [↑](#footnote-ref-107)
108. Simpson 1976, 159–68. [↑](#footnote-ref-108)
109. Gibson and Simpson 1909, pl. V, nos 5–6 and 18–19. [↑](#footnote-ref-109)
110. Simpson *et al.*1936, 183–4. [↑](#footnote-ref-110)
111. Jackson *et al.* 2015, 35–6. [↑](#footnote-ref-111)
112. Bruce 1853, 408. [↑](#footnote-ref-112)
113. Rushworth 2009, 33–4. [↑](#footnote-ref-113)
114. Charlesworth 1971. [↑](#footnote-ref-114)
115. See especially Simpson 1976, 125-9. [↑](#footnote-ref-115)
116. Dickinson 2009, 488. [↑](#footnote-ref-116)
117. Simpson 1976, 130–1, 147, pl. XIV, nos 1–7. The mortarium stamp of [O]SENV seems to be Hadrianic or Hadrianic-early Antonine according to K. Hartley (commenting on another stamp from the same die at T 39a in Simpson 1976, 105). [↑](#footnote-ref-117)
118. R. Birley 1961, 312–16; 1962, 131–3. [↑](#footnote-ref-118)
119. Rushworth 2009, 273–4. [↑](#footnote-ref-119)
120. Rushworth 2009, 41–2. [↑](#footnote-ref-120)
121. Bellhouse and Richardson 1982, 36, unnumbered figure. [↑](#footnote-ref-121)
122. E. Birley and Bellhouse 1963, 131. [↑](#footnote-ref-122)
123. E. Birley and Bellhouse 1963, 128. [↑](#footnote-ref-123)
124. Bellhouse and Richardson 1975, 63, who at this stage in their excavations at the site considered that the area of the fort might have been as large as 10 ha but later recognised that much of the occupation was extra-mural. [↑](#footnote-ref-124)
125. E. Birley and Bellhouse 1963, 137, fig. 2, illustrating four South Gaulish Dr. 37s; samian noted but not catalogued in the two subsequent reports. [↑](#footnote-ref-125)
126. Bellhouse and Richardson 1982, fig. 4, nos 11, 13; see also Bellhouse and Richardson 1975. figs 6–7 (nineteenth-century finds) and fig. 8, nos 15–16 (unstratified in the area of the fort). [↑](#footnote-ref-126)
127. E. Birley and Bellhouse 1963, 127, 135. [↑](#footnote-ref-127)
128. RGZM NoTS Database. [↑](#footnote-ref-128)
129. Welfare 2011. [↑](#footnote-ref-129)
130. M. Symonds, pers. comm. [↑](#footnote-ref-130)
131. E. Birley 1961, 244–5; Gates and Hewitt 2007, 26; unpublished plan by Richmond dated 1956 kindly shown to the writer by N. Hodgson. [↑](#footnote-ref-131)
132. Breeze 2018, 25–6; Zant 2019, 9, regards the structural evidence for an earlier fort south of the known fort as equivocal. [↑](#footnote-ref-132)
133. RGZM NoTS Database; cf. Greene 1976, 56, no. 3. [↑](#footnote-ref-133)
134. Leary 2019, 87, from the extramural settlement; Leary 2020, 141–2, no. 56, from the temples site. [↑](#footnote-ref-134)
135. Oswald *et al.* 2017. [↑](#footnote-ref-135)
136. Jones and Woolliscroft 2001, 54–6, figs 22–4. [↑](#footnote-ref-136)
137. Simpson 1974, 325–6: a Hadrianic to early Antonine bowl, as Stanfield and Simpson 1958, 161 (Acaunissa, *c*. 125–50), and some late ‘transitional’ South Gaulish ware together with vessels from Les Martres-de-Veyre, as Stanfield and Simpson 1958, 21 (Potter X4, Cocatus, whose name was later read as Igocatus) and 38 (Ioenalis); both potters were said to be working at Les Martres in *c*. 100-120, though the later date must depend partly on the belief that the Stanegate sites were abandoned early in the Hadrianic period, now not the case at Corbridge and Vindolanda. [↑](#footnote-ref-137)
138. E. Birley 1961, 142, including Stanfield and Simpson 1958, 264 (Cinnamus, *c*. 150–95, dated by Hartley 1972a, 49, to *c*. 140–75). [↑](#footnote-ref-138)
139. Crow 2004, 118. [↑](#footnote-ref-139)
140. Haverfield 1901–2. [↑](#footnote-ref-140)
141. Bowden and Blood 1991, 30, fig. 3; Poulter 2009, 42, map 2.5. [↑](#footnote-ref-141)
142. Snape *et al.* 2010; Hodgson 2019, 109. [↑](#footnote-ref-142)
143. For the fort, Dacre 1985 (excavation on the northern defences in 1984) and McCarthy 1999; for the *vicus* west of the fort, Caruana 2000 with a valuable summary of what is known about the fort. [↑](#footnote-ref-143)
144. Dickinson 1985. [↑](#footnote-ref-144)
145. Dickinson 2000, 62. [↑](#footnote-ref-145)
146. English Heritage 2010. [↑](#footnote-ref-146)
147. Richmond 1947, plan on p. 199, the only record showing the position of the Vallum excavations in the 1930s. [↑](#footnote-ref-147)
148. Esmonde Cleary 1999, 334, an interim statement. [↑](#footnote-ref-148)
149. Simpson 1913, 363–81. [↑](#footnote-ref-149)
150. Simpson 1913, pl. XXVI, nos 15–16, cited under Gillam (1968) Type 119, 125-160. [↑](#footnote-ref-150)
151. Simpson 1974, 326. [↑](#footnote-ref-151)
152. Hodgson 1840, 200. [↑](#footnote-ref-152)
153. E. Birley 1931, 188–90. [↑](#footnote-ref-153)
154. Hodgson 1840, 315. [↑](#footnote-ref-154)
155. Bidwell 1985, 9–10; R. Birley (2009, 112, 123–4) regarded its provenance as uncertain, but Tomlin (2012, 209–10) accepted it as a Vindolanda find likely to mark an early Hadrianic rebuilding of the fort. [↑](#footnote-ref-155)
156. R. Birley 2009, 183. [↑](#footnote-ref-156)
157. R. Birley 2009, 131. [↑](#footnote-ref-157)
158. A. Birley 2019, 174–6. [↑](#footnote-ref-158)
159. R. Birley 2009, 112, considering this possibility. [↑](#footnote-ref-159)
160. Blake 2014, 85–8, fig. 68. [↑](#footnote-ref-160)
161. Blake 2014, 87. [↑](#footnote-ref-161)
162. Blake 2014, 68, figs 47, 51–2, 54. [↑](#footnote-ref-162)
163. The relationship of the fort to the annexe would be similar to that shown in Blake 2014, fig. 47, although the projecting western gate formerly attributed (in the writer’s opinion still correctly) to the third-century, north-facing fort seems out of place. [↑](#footnote-ref-163)
164. Blake 2014, fig. 68. [↑](#footnote-ref-164)
165. As R. Birley 1994, fig. 32 and A. Birley and Blake 2005, fig. 42, but R. Birley (2009, pl. 6) shows the forts of Periods II-V all with the same orientation, at an angle to that of the Period VI fort and its successor. Most recently, A. Birley (2019, fig. 4.39) has shown the Period IV fort with its orientation as originally reported in 1994. [↑](#footnote-ref-165)
166. R. Birley 1994; Blake 2001, 17–22. However, at one stage in the excavations it had seemed that the Period IV fort was enclosed by a rampart and stone wall that was retained by the supposed Period V fort (R. Birley 1994, figs 29–31, but not mentioned in subsequent publications). [↑](#footnote-ref-166)
167. Main excavation reports: Hodgson 2003; Rushworth and Croom 2016; for the relationship of the fort to the Narrow Wall extension from Newcastle, Bidwell 2018. [↑](#footnote-ref-167)
168. Dickinson 2016, table 22.05. [↑](#footnote-ref-168)
169. Casey and Howard 2010. [↑](#footnote-ref-169)
170. Breeze 1982, 83. [↑](#footnote-ref-170)
171. Evans 1997; 2004. [↑](#footnote-ref-171)
172. Bellhouse 1954. [↑](#footnote-ref-172)
173. Cf. Reddé and Mees 2022. [↑](#footnote-ref-173)
174. Hartley 1972a. [↑](#footnote-ref-174)
175. Reddé and Mees 2022; Hartley 1972a, 13, for the earlier dating. [↑](#footnote-ref-175)
176. Stanfield and Simpson 1958. There is a later French edition of this work (Stanfield and Simpson 1990), but it is more convenient to refer to the original version. The revised dating in the 1990 version mainly concerns the early Antonine and later potters. [↑](#footnote-ref-176)
177. Marsh 1981. [↑](#footnote-ref-177)
178. Hartley *et al.* 1975, 88. [↑](#footnote-ref-178)
179. Hartley and Dickinson 2010, 108. [↑](#footnote-ref-179)
180. Dickinson 2009, 488. [↑](#footnote-ref-180)
181. Dickinson 2016, table 22.01. [↑](#footnote-ref-181)