

Hadrian's haste: a priority programme for the Wall¹

Erik P. Graafstal

SUMMARY

It is usually thought that the construction of Hadrian's Wall followed from the emperor's visit to Britain in 122. This paper argues that the Wall decision came much earlier, c. 119, following Hadrian's first difficult year of succession and a wave of wars that had shaken every corner of the empire. The visit of 122 was part of a well-prepared journey of inspection that also encompassed the German palisade that had been commissioned c. 119. If Hadrian inspected work in progress in Britain as well, it is the so-called 'fort decision' that presents itself as the direct outcome of his visit to a project that clearly embodied the emperor's personal vision of the ideal frontier barrier. The structural time slice of the resulting Narrow Wall decision sheds light on the Wall's very disjointed building order. This is usually explained as following from allotment patterns, work logistics and/or the availability of building materials. Renewed analysis, however, suggests that work was segmented and prioritised on the basis of a thorough terrain assessment, both on a macro-level (defining the successive seasons' targets) and on a more local level allowing individual stretches and structures, or even parts of them like mile-castle towers, to be prioritised according to topographical sensitivity.

This paper is dedicated to David Breeze

TROUBLE IN THE NORTH

WHEN HADRIAN SUCCEEDED TRAJAN IN AUGUST 117, the *Historia Augusta* curtly notes, 'the Britons could not be kept under Roman control' (SHA *Hadr.* 5.2). The new emperor, facing trouble in every corner of the Empire, responded swiftly by transferring his friend Pompeius Falco from Lower Moesia to Britain.² Peace was soon restored, perhaps in 118, but only at the cost of serious fighting — sufficiently serious to merit a victory issue in 119 depicting a dejected Britannia.³ The war of 117/8 probably contributed to the human toll that was still remembered a good forty years later, when the orator Cornelius Fronto consoled Marcus Aurelius after heavy losses against the Parthians, pointing at the number of Roman soldiers killed under Hadrian 'at the hands of the Jews as well as the Britons'.⁴ We may happen to know one of them, T. Annius, centurion of the *Cohors I Tungrorum*, who 'was killed in the war' according to his tombstone from Vindolanda.⁵ Presumably, the source of trouble in 117/8, like a few years later, was somewhere in the northern highlands, perhaps symbolised by the rocks on which the dejected Britannia sat.⁶

Rather more is known about a 'second war' which may have occurred in the mid-120s. Its prime source is an inscription from Ferentinum in Italy recording the career of T. Pontius Sabinus, who was sent by the emperor Hadrian on an *expeditio Britannica* commanding a 3000-strong reinforcement drawn from the Spanish and Upper German legions. The previous steps in Sabinus' career hardly allow this campaign to have taken place in c. 118 — the normal pattern of service would launch him only in the early or mid-120s.⁷ Equating the expedition

with Hadrian's visit of 122 could be an economic solution, but the emperor's journey would be 'an entirely inappropriate context for description as an *expeditio*', a term that is normally reserved for active fighting campaigns.⁸ That the *expeditio* was a separate occasion is clearly implied by its second piece of documentary evidence, *sc.* the career inscription of M. Maenius Agrippa, who was 'chosen by the late emperor Hadrian and sent on the British expedition'.⁹ Agrippa's next step is the command of the *Cohors I Hispanorum equitata*, stationed at Maryport. At this garrison base he left a series of dedications that can be dated from either 123/4 or 127/8.¹⁰ The balance of evidence, then, favours an *expeditio* taking place in one of the years 123–6. The time, and place, of the trouble may tentatively be narrowed down by a horizon of early-Hadrianic coin hoards from Northwest England, two of which, coming from the Wall fort of Birdoswald, would be most naturally dated *c.* 123–4.¹¹ All of this fits very neatly with the suggestion that a series of Alexandrian *Nike* coins, datable to 124/5 and 125/6, pertain to victory in Britain, this being the only theatre in the Roman orbit where rumours of war resound at that time.¹² It is to the lasting credit of David Breeze that he has put this 'second war' firmly back on the agenda, with a provisional date of 123–4.¹³ Trouble may have started in the former year, if not late in 122, giving time to raise a substantial reinforcement from two provinces overseas and to gain the victory that was celebrated on the Alexandrian *Nike* issues.

We don't know for sure where the fighting of 117/8 and 123/4 occurred. But the rocks of Britannia (on the coin of 119), the tombstone of T. Annius, and the buried savings of Birdoswald may give us a first hint. The evidence of coin hoards, in particular, is a potential pointer to trouble in the northwest in the early second century: there is a distinct horizon of Trajanic to (early-)Hadrianic hoards in Cumbria and Lancashire that seems to stand out from the general distribution pattern in the preceding and Antonine periods.¹⁴ The sensitivity of Cumbria and the western and central Tyne-Solway isthmus has long been recognised. There is a host of indications, from the early-Trajanic period on, that this corner was considered particularly exposed (fig. 1). The early development of the central and western Stanegate sectors is a classic of Roman frontier studies, and still stands in stark contrast to the eastern sector.¹⁵ The provision of Trajanic fortlets at Haltwhistle, Throp and Boothby was curiously mirrored, on Hadrian's Wall, by the larger Stone Wall milecastles 47–54.¹⁶ The disposition of milliary garrisons along the Hadrianic barrier also speaks volumes: the first plan for the Wall forts may have envisaged a triple block of them at Housesteads-Great Chesters-Birdoswald, later modified to include Carvoran, but still producing the densest disposition of force along the stretch of Wall that faced the least population — implying 'a strong enemy to the north'.¹⁷ The Carlisle-Stanwix area, the natural portal and pivot in the west, had the 1000-strong mounted intervention force of the *Ala Petriana*. It is in Cumbria that the Hadrianic frontier enveloped another 25 miles of coast line to the south, about the length needed to raise an effective security shield against seaborne raiding from present-day Dumfries and Galloway.¹⁸ It was the same corner that first saw the novelty of outpost forts: Bewcastle, Netherby and Birrens. Whether protecting a chunk of Brigantian or Carvetian territory separated by the Wall, or providing an early-warning system, these outliers, all garrisoned by milliary units at one stage, are clear pointers to a perceived threat coming from the central Borders region and South-western Scotland.¹⁹ During the Antonine occupation the central lines of supply and communication that passed through Annandale and Nithsdale were covered by a dense network of fortlets, unparalleled elsewhere and notable for their strong and site-specific defensive features.²⁰ Many arrows, then, seem to point to the *Selgovae* and *Novantae* in South-western Scotland as a continuous source of trouble.²¹ Significantly, it is the stretch of Wall that faced

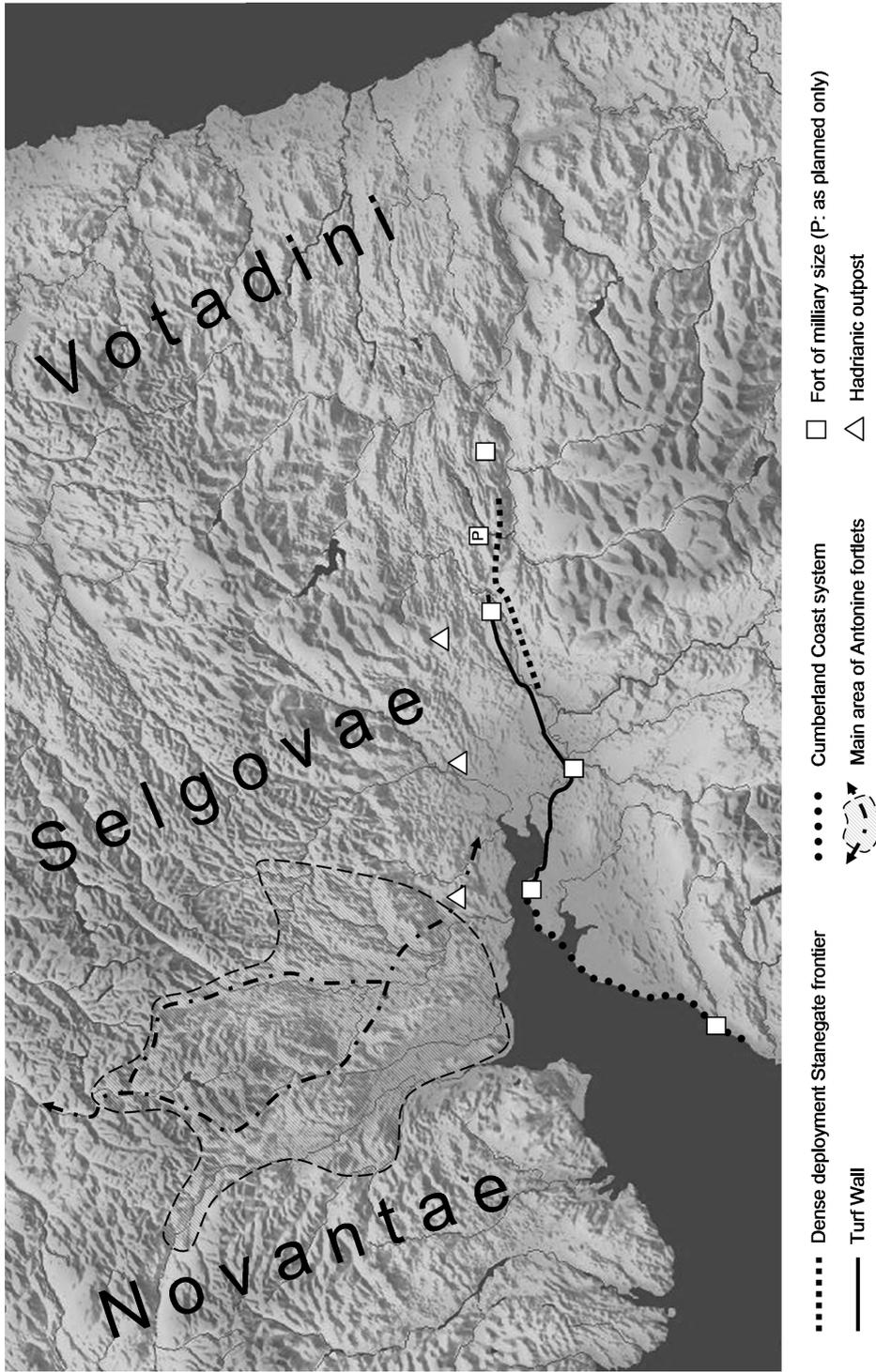


Fig. 1 Special security arrangements in North-west England: the Vindolanda-Brampton sector of the Trajanic Stanegate frontier; the Turf Wall; the Cumberland Coast system; forts of milliary size or garrison (and as planned at Great Chesters, cf. Swinbank and Spaul 1951); Hadrianic outpost forts; main distribution area of Antonine fortlets with the central arteries through Annandale and Niithsdale (based on Symonds 2011).

this unruly corner that was provisionally built in earth, the quick-fix material of the Roman army — hopefully to the pleasure of an emperor who was expected to come and see for himself how his grand vision translated to the field.

ADVENTUS AUGUSTI

Hadrian visited Britain in the summer of 122. The emperor's *adventus* was commemorated on coins later in his reign, and the contemporary poet Florus commented he 'would not like to be Caesar, to walk among the Britons'.²² The visit is still sometimes dated to 121,²³ but Hadrian attended the *Parilia* in Rome on 21 April of that year, and the travel scheme for the first two seasons given in the *Life of Hadrian* (10.1–11.2) is very clear: first Gaul, 'next' Germany, then Britain.²⁴ There is a fine series of milestones of 120 and 121 from Gaul and Upper Germany dedicated by local communities in anticipation of a possible imperial visit.²⁵ So Britain ought to be scheduled for 122. The season follows from the arrival of the new governor Aulus Platorius Nepos, who issued a military diploma on 17 July 122 to a veteran who had completed service under his predecessor Pompeius Falco, perhaps indicating a certain lapse of time between the tenures of both.²⁶ Nepos came over from his earlier post in Lower Germany, and was joined, or soon followed, or perhaps preceded, by *Legio VI Victrix* from Xanten.²⁷ On his way from Upper Germany, Hadrian apparently visited the Rhine delta, for he promoted the administrative centre of the *Cananefates* (Voorburg) to the status of *Forum Hadriani*.²⁸ This may also have been the occasion that he commissioned major repairs on the *limes* road in the western Netherlands, the timbers for which have been uniformly dated to the autumn/spring of 124/5 — giving a rough idea of the amount of time that might pass between the issuing of an imperial ukase and the actual commencement of works in the field.²⁹ The likelihood, then, is that Hadrian travelled with his old friend (and possible kinsman) Nepos, from Cologne, where he may have stayed over the winter, experiencing the 'German snows'.³⁰ If so, Hadrian probably arrived in Britain in late spring/early summer 122. Before the end of the sailing season he would have left Britain for Gaul *en route* to Spain.³¹

So the emperor probably had the best of the summer season to spend in Britain. His personal involvement in the commissioning of the Wall is not in doubt. Much lesser works needed the approval, and very often the personal funding, of the emperor.³² This prestige project, in particular, Hadrian seems to have claimed as his entirely. The feat of building an 80 mile wall, coast to coast, 'to separate the barbarians from the Romans', was duly canonized, and preserved, in imperial biography (SHA, *Hadr.* 11.2).³³ A monument at Newcastle commemorating the building of the Wall spoke much the same language, and even referred to the emperor's 'divine instruction'.³⁴ On the evidence of a new Wall 'souvenir', the Staffordshire Moorlands (or Ilam) Pan found in 2003, the contemporary name of the barrier appears to have been *Vallum Aelium* — Hadrian's Wall.³⁵ At its original eastern terminus, Newcastle, where construction is traditionally thought to have commenced, a bridge was built over the River Tyne, and it was duly called *pons Aelius* — one of the rare instances of an attested bridge name outside Rome, where these normally honoured their builder.³⁶ It has been little noted in this connection that the famous series of milecastle dedications by *Legio II Augusta* (*RIB* 1634, 1637, 1638 and 1666) has the emperor in the genitive case, which is a rarity. 'It seems less likely to indicate imperial property', the *RIB* editors commented, 'than to be connected with the fact that the Wall was in a very specific sense 'Hadrian's work' arising directly out of his visit to the province'.³⁷

During his visit of 122, the emperor probably travelled up north, perhaps alluded to by Florus, in order to inspect the frontier zone personally. A luxurious building at Vindolanda, dated to about this time, has been found to befit an emperor, and one of the writing tablets, a draft version of an appeal, actually addresses 'your majesty', surely meaning Hadrian himself according to his most scrutinous biographer.³⁸ Better evidence, perhaps, are three Hadrianic milestones from Thurmaston, Llanfairfechan, and Caton – the earliest dated examples from Britain. They share some of the clumsy features of the Gaulish series that paved the way for the emperor's visit in 121, like the standard imperial title of *Pater Patriae* which Hadrian, exceptionally, took only in 128.³⁹ The British *milliaria* clearly belong together: two of them are dated to 119/120 and 120/121, while the third is perhaps ignorant of the precise date (it combines an uncounted TP with COS III) and put in the dative, perhaps exposing it as a local dedication in anticipation of the emperor's journey.⁴⁰ The latter is from Caton, on the road from Lancaster to Burrow-in-Lonsdale, suggesting that the emperor's expected travel schedule included a loop along the northern frontier. So, in Britain, Hadrian stuck to his habit of personally inspecting all frontier works, travelling 'through one province after another, visiting the various regions and cities and inspecting all the garrisons and forts ... He personally viewed and investigated absolutely everything, not merely the usual appurtenances of camps, such as weapons, engines, trenches, ramparts and palisades.'⁴¹

TWO PLANS IN ONE SEASON?

It is normally assumed that Hadrian first ordered the construction of the Wall when he was in Britain, and that work was taken in hand in late summer 122 at the earliest. 'Hadrian had never been to Britain and was unlikely to instigate so radical a plan without first-hand knowledge.'⁴² He might have taken a first draft plan with him, and summoned a sizeable work force to be present on his arrival. We also have to keep in mind that 'the Roman army had been operating in the area for some 40 years, and preparation time could have been short enough to allow work to begin while Hadrian was still in the province.'⁴³ Such a scenario is entirely possible within the boundaries set by the emperor's visit and the securely dated line installations and primary Wall forts, most of which were delivered under the governorship of Nepos (122–c. 126).⁴⁴ The classic reconstruction of the Wall's building order worked out by David Breeze and Brian Dobson easily fits this time frame, certainly if we acknowledge the very basic standard of workmanship that Peter Hill has done so much to bring to the fore recently.⁴⁵ On logistic grounds, then, or from the long-standing breakdown of building allotments, there seems to be no shortage of time, nor an urgent need to have the job started before 122.⁴⁶ Paul Bidwell has recently stated that the whole idea of an inception before the arrival of the emperor 'lacks any supporting evidence.'⁴⁷ On the other hand, it is little more than an assumption that the idea for the Wall sprang up during Hadrian's visit of the British frontier only. The truth is we don't know at what stage of design, planning or execution the project was at when Hadrian arrived on the scene, and even the best advocates of the classic view were always aware that the whole matter must remain open to speculation.⁴⁸

In recent years, the late version has gained much momentum through the work of Peter Hill, notably his Durham thesis and the fine book derived from it.⁴⁹ Remarkably, his is the first comprehensive study of the actual building process of the Wall itself, covering all the streams of supply and logistics, and it is rare luck that this was done with the working experience of a professional stonemason. The author has done much to bring down to earth the feat of

building the Wall, emphasizing the generally low standard of workmanship and the at-hand choice of building materials which were largely quarried within one or two miles' distance. 'The Wall is for the most part a utilitarian work of military engineering carried out by the army to low but acceptable standards.'⁵⁰ Consequently, the building rates worked out by Hill are significantly faster than anything previously assumed.⁵¹ An important bottleneck, on the other hand, rather ignored so far, would have been the need for scaffolding for all the work above 4 to 5 feet. The main thrust of Hill's work is to reverse the picture of a Wall developing in complete lengths to a much more dispersed building process, with 'small gangs ... at work simultaneously at very many points' progressing through horizontal stages, with foundation, footing and the first four/five feet all being potentially relevant subdivisions.⁵² This analysis is then corroborated by a detailed survey of the work that had been carried out by the time the decision was taken to add some ten forts to the Wall and substantially reduce its width. Hill asserts that, by then, none of the Broad Wall stretches and structures had been completed, or indeed brought higher than the first scaffold-lift, with the exception perhaps of milecastles 47 and 48. On his reckoning the amount of (surviving) Broad work might have taken no more than two or three months to construct, planning and preparation included, leaving 'ample time for [Hadrian] to have made the initial decision and to have revised the plans to include forts before he left.'⁵³

Hill's work is a major step ahead, and his ideas have rapidly, and deservedly, gained ground among Wall students over the last few years. One of its attractions is that the initial Wall plan now suddenly becomes a totally imaginable project that might have been largely realised within two or three working seasons — if left alone. But the most alluring implication, perhaps, is that it allows Hadrian to have taken the very incisive fort decision while still in Britain. This could be a promising avenue to an old problem. There has always been a distinct feeling among those most knowledgeable about the Wall that its metronomic rigidity, its imperviousness to the local terrain, and some of its over-the-top solutions, must have been the consequence of the emperor's direct interference with 'his' project.⁵⁴ Hadrian's Wall, providing a fortified gate every mile, two towers in between, and an elevated sentry-walk with crenellated parapet on top, smacks of an attempt at the 'ideal' frontier barrier, perhaps inspired by Hellenistic urban defences.⁵⁵ The rigid spacing of its line installations, which placed several milecastles in awkward positions, is a classic beyond reference. Within each Wall mile some deviation was allowed, perhaps up to a sixth or so of the normative spacing, but the system as a whole was set out with meticulous precision, seeing that the average milecastle spacing in Wall miles 30–58 has been found to be one Roman mile and three inches — an inaccuracy of only 0.000072 per cent!⁵⁶

If rigidity and extravagance bespeak the hobbying emperor, there was a second round of involvement later on. The intervention of the 'fort decision', or 'second scheme' was as pertinacious as the first, and equally over-the-top. It imposed a deployment scheme apparently designed on a drawing board, with forts planned to a normative interval of $7\frac{1}{2}$ miles and ideally projecting north of the Wall with three excessively generous twin-portal gates.⁵⁷ And to perfect the model frontier the new scheme quite probably introduced the greatest novelty of all, the Vallum, a mighty bundle of ditch and mounds to back up the Wall complex: neither pain nor expense were spared to construct it, but it was curiously allowed to deform and silt up soon after.⁵⁸ It has been rightly underlined that the innovations of the fort decision 'are as schematic as those in the earlier plan'.⁵⁹ Tellingly, elements of both schemes, like some of the milecastle gates and twin-portals in forts were later eliminated, and the Vallum slighted at

many places, again suggesting that 'the original concept was imposed on the army by the emperor rather than developed by those working in the province.'⁶⁰

The new schedule worked out by Hill has opened up the perspective that 'Hadrian could have been responsible for the unique elements in both the first and second plans for the Wall' — while he was in Britain.⁶¹ This, however, seems to put a little too much strain on the whole project. First of all, Hill's timetable relies on the assumption that all three British legions had close to half their effective strength on standby on the isthmus at a point where the Wall decision proper still had to be taken and worked out in terms of manpower and logistic needs — quite apart from all the preparatory work in the respective legionary drawing offices. The business of setting out the fabric of the Wall, in particular, must be allotted a good deal more time, certainly now that John Poulter has shown that the intricate texture of signal links between line installations and hinterland forts unravelled by David Woolliscroft for the central sector probably applied to the entire length of the Wall — adding the need to position a handful of new forts in those sectors where the existing Stanegate system did not provide them.⁶² Logistic preparation also required more time. It would have made little sense to unleash the full building capacity of three legions within a few weeks after a supposed 'Wall decision' if an essential requisite like scaffolding material had not been arranged. Hill reckons that the three legions needed some 45 km (!) of straight poles each to do their job efficiently — potentially 'the major bottle-neck in the building programme,'⁶³ but this was a foreseeable one. It would help a lot if blueprints for the project were communicated to the three *praefecti castrorum* a few months in advance, so that most materials and troops could be in place the moment Hadrian arrived. In such a scenario, however, it is but a small step to propose that the order to build the Wall must have been communicated and put into effect *before* the emperor's visit.

THE AMOUNT OF WORK BEFORE DISLOCATION

The crucial issue, of course, is the amount of work that had been actually completed at the point where the fort and Narrow Wall decisions were taken. Hill's work carefully builds up to the conclusion that none of the Wall's structures or stretches had been taken beyond the first scaffold lift, so that we may, in fact, be looking at two or three months of 'Broad' work in total at the most. This estimate rests on a few important premises, *sc.* that (1) scaffolding was indispensable for the building of the curtain wall, (2) that the completion of the upper parts of milecastles and turrets was ideally postponed until the arrival of the 'scaffold train' that brought the adjoining curtain above 4/5 feet, so that (3) 'where Broad Wall is recorded at a structure but the only record of curtain wall to one side or both sides is of Narrow Wall, the structure is ... seen as completed in Narrow Wall'.⁶⁴ Now, the third step is arguable. First of all, we have to ask ourselves if packages of scaffolding could have been moved around to allow the priority completion of turrets and milecastle components. Hundreds of freestanding towers along the German *Limes* were built, and rebuilt, as separate entities. And we are lucky to have the contemporary evidence of the stone turrets on the Turf Wall: surely these were built up to Wall-top height before the adjoining earth ramparts were piled up against them — showing that, prior to dislocation, scaffold-poles were circulating in sufficient numbers to allow the advance construction of some 60 stone towers.⁶⁵

In the case of the stone Wall, where these structures were to be bonded into a curtain 15 foot high, things may have been a little more complex. Here, it would make good sense to

differentiate between installations that for some reason were a matter of priority, and others that could wait until the 'scaffold train' passed by. A differential approach is precisely what is suggested by the varying length of wing walls that allowed specialist work gangs to either lay the base of a turret (4 or 5 ft. high) or to build the structure to full height ahead of the adjoining stretches of the curtain.⁶⁶ There is evidence for such differentiation in the sector east of Housesteads, one of the most consistent legionary blocks. Here, T 34a and probably 35a were provided with short wing walls (0.90 m in the case of the former), whilst the next turret, T 33b, has them *c.* 2.9m long.⁶⁷ Given the average masonry of the Wall, with raking joints climbing at *c.* 60°, these are about the minimal lengths you need either (T 34a, 35a) to bring the structure up to 4 or 5 foot, wait for the curtain to bond with the turret base, and continue with the rest of the structure when the 'scaffold train' had arrived to bring the curtain to the first lift; or (T 33b) to advance the construction of the turret separate from the curtain. Short-winged T 34a and 35a are suggestive of a very pragmatic approach whereby turret gangs only built as much as they needed at that stage. This seems to indicate that, in this particular stretch, we are close upon the heels of turret gangs laying the base of their work, perhaps just a few weeks, or months at most, prior to dislocation. It would be bad planning, and perhaps bad building, to advance the construction of turret bases more than that, and to have specialist gangs return after a long delay to finish the upper part, exposing the turret base's structure to the elements in the meantime.⁶⁸

If this all makes sense, the (limited) record of wing walls rather favours the view that a considerable number of turrets were scheduled for completion well in advance of the adjoining curtains. The majority of them are in the 3 to 4.5 m range, allowing the turrets to be built as separate structures.⁶⁹ 'The length of the wing walls', Hill agrees, 'suggests that building to full height was initially provided for'. The logistics of scaffolding may have dissuaded the builders from the idea of advancing complete turrets, but this objection would have been immediately apparent, and yet the evidence shows that turret gangs kept constructing long wing walls in most cases.⁷⁰ All in all, their dominance in the record is a strong pointer to the advanced completion of turrets. So is their preserved height: T 48b's eastern wing wall still rises some 60 in. (1.52 m) above foundation, 'pushing the limit for building from the ground', while T 29a (Black Carts) was drawn, following excavation in 1873, with the junction of the western wing wall and the turret standing some nine courses high (fig. 2) — almost certainly taking work above the first scaffold lift, and implying that the turret was advanced wholesale.⁷¹ On a more speculative note, there is the careful squaring off of the protruding south faces of Broad wing walls that were later bonded by the Narrow Wall. The decent appearance of this work — e.g. at T 29a — makes one wonder if the extension was taken all the way up to provide a more comfortable entrance to first-floor turret doorways that, in our interpretation, would have been aligned to a planned Broad wall-top — meaning that the turrets were completed before dislocation.⁷²

But there is more. Two of the three towers that were abandoned to make room for Wall forts (T 27a and 36b at Chesters and Housesteads respectively) have produced traces of occupation.⁷³ Then there is the case of T 41a (Caw Gap) the base of which can still be seen to *precede* short stretches of Broad Wall foundation on both sides, indicating that it was (to be) erected as a freestanding structure without wing walls, exceptionally.⁷⁴ A little further west we have T 43a (Cockmount Hill) sitting in a long stretch of curtain, starting at Great Chesters, where the Narrow Wall was carefully aligned *next to* the original Broad foundation for some reason. But the turret rests on the Broad foundation, forcing the Narrow Wall to join the original line,

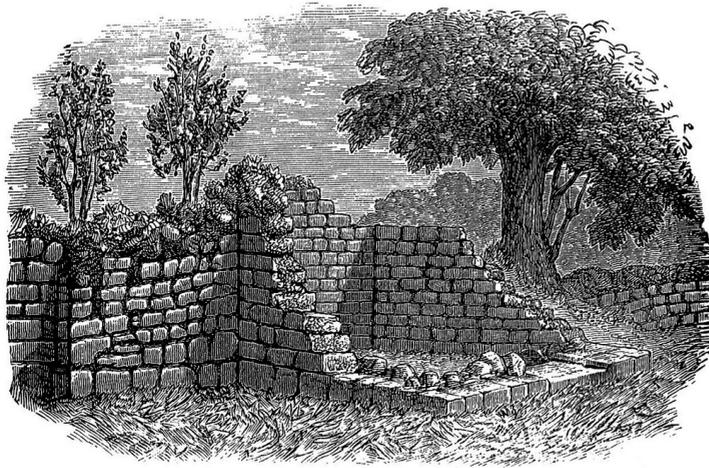


Fig. 2 Woodcut of T 29a (Black Carts), drawn shortly after excavation in 1873, showing the Broad western wing wall preserved, at the junction with the turret, to an estimated height of at least c. 1.8 m (reproduced from Clayton 1876, 259).

and then divert from it again — strongly suggesting that the tower had been substantially built at that point.⁷⁵ Staying in the central sector, there is the recent observation by John Poulter that turrets 35b, 42b, 43b, 45a, 49a, 56a played a role in setting out the line of the Vallum — the implication is that they stood tall at the moment of dislocation.⁷⁶ Finally, there are turrets 48a and b (Willowford East and West) which we will later argue to be part of a local priority programme in the Gilsland area delivered before the fort decision. So there is a range of evidence, of very diverse nature, suggesting that a significant number of turrets in the central sector were completed well in advance of the curtain. This may point to a desire to have the observation screen up and running as soon as possible.⁷⁷

With the milecastles it is much the same story. There is abundant structural evidence to show that they took a head start in the building scheme, particularly in the central sector where many of their north faces were constructed as separate entities, much in advance of the curtain.⁷⁸ This has been generally explained by the special demands posed by the milecastle gates. These, however, could have been built with the help of a simple trestle, without any scaffolding.⁷⁹ But the structural evidence suggests that, in most cases, it was the *complete* north wall that was advanced. And there is a logistic oddity again, not sufficiently contemplated so far, in that it is the *north* wall only in many cases that was prioritised — not the south walls, so that the same specialist gate builders would have to return to the site later.⁸⁰ The most natural explanation would be that the north gates carried the towers that were to provide the links in the observation chain.⁸¹ If so, the north sides of many milecastles would have been *completed* in advance, towers included. A substantial group of milecastles, moreover, were accelerated *wholesale*. Of the examples that have been sufficiently excavated to establish their building specifications, almost half (MC 4, 9–10, 14, 23–27, 47–48) had their perimeter walls started at Broad gauge. If Matt Symonds is right that this apparent prioritization relates to the sensitive position of the named milecastles, the implication is that they were (to be) completed well in advance of the adjoining Wall stretches.⁸² This can be all but proven for MCs 47–48, as we shall argue presently — again implying that scaffolding was applied locally before the great dislocation. The general impression, to be elaborated upon below, is that a good deal more work on the line installations had been done at the point of the fort/Narrow Wall decision than Hill has allowed for.

The same holds good for the stone barrier wall. To the east of Portgate (Wall miles 7–22), there was a clear focus, pointed out by Hunneysett in 1980, on finishing the curtain first — at the cost of the remaining milecastle walls.⁸³ The observation that the turret wing walls, in this sector, have largely dissolved into the fabric of the surviving Broad Wall, seems to indicate that the work schedule for the curtain, in this sector, had entered the last stage of completion.⁸⁴ In response to Hill, Nick Hodgson has recently pointed to ‘the absence of reliably recorded Narrow Wall in the 18 miles west of Newcastle, where there is every indication that excavated lengths of curtain at Denton and Heddon were built to full height at the 10 foot gauge.’⁸⁵ There appears to have been substantial progress locally further west as well, notably west of T 26b, where it is said that ‘some Broad Wall’ was built, where in fact a height of *c.* 1.8 m survives.⁸⁶ A piece of Broad work of almost the same height is preserved at Willowford bridge.⁸⁷ Apparently, scaffolding was applied on a flexible basis prior to the Narrow Wall dislocation. If so, it could have been used for completing structures as well, allowing both turrets and milecastles to be delivered with priority. But the greatest additional burden to be taken into account is the building of the Turf Wall west of the River Irthing, not to mention the Cumberland Coast system.⁸⁸ There is every reason to believe that the earthen barrier was commissioned in conjunction with the stone Wall, but accelerated (explaining its provisional building material) and completed, in part at least, by the time of the fort decision.⁸⁹ We will elaborate on most of these points below, and argue that something very different from legionary lengths or rational building stages determined the order of works.

For now, it is the sheer workload that counts. Before the fort decision, a good deal of work had apparently been done on the curtain east of Portgate (miles 7–22) and west of the Irthing (Turf Wall). Scaffolding material apparently circulated along the Wall, and was applied locally west of MC 22, prior to the ‘great dislocation’. So there is no reason to discredit the evidence provided by the long wing walls of the majority of turrets in the central sector suggesting that their completion well in advance of the curtain was anticipated. There is a host of arguments, to be looked at in more detail below, that a priority programme obtained for milecastles in sensitive sectors and spots, probably somewhere between a third and a half of the total number to be built. In estimating the amount of time needed for preparing, supplying, planning and building all the work that preceded the great dislocation, we cannot take for granted that *three* legions were instantly and completely available at the start of the programme.⁹⁰ Hill counts on 1900 workmen per legion, which seems optimistic given the structural involvement of legionaries in running the provincial economy and administration, ranging from markets to mines — and given the downward trend of legionary strength figures in recent studies.⁹¹ A final thing to provide for is the need to keep the work force along the line protected and well fed. If we consider all these things it seems to overstress even Roman military engineering capacity to have both the Wall and fort decisions taken within three months or so, with all the planning, preparation, surveying and supplying crammed in between — quite apart from the sheer volume of work actually delivered. The amount of work done at the point of the fort decision, Turf Wall included, simply explodes the tight schedule necessary to credit the visiting emperor with the Wall decision as well.

There is one piece of evidence that has gradually slipped away from active discussion, but is most relevant for assessing the amount of time that passed between the inception of work on the Wall and the dislocation brought about by fort and Narrow Wall decisions. This is Francis Haverfield’s series of observations when he was excavating the Wall ditch at Chesters in 1900. Haverfield found the base of the east gate to be cut into a 0.75 m thick deposit of peat

and clay that had formed in the bottom of the ditch.⁹² There is no way of telling how much time was involved in the formation of this sediment, but it cannot have been those few months in 122 only, which would have been high summer, with little rainfall and few leaves whirling around. The sequence at Chesters indicates a substantial lapse of time between the Wall and fort decision, probably in the range of a few years.

The Wall may be our favourite project, it may even have been Hadrian's plaything, but it was only one of very many things that would have called for the emperor's attention in Britain. There is a good deal of evidence for Hadrian's involvement in other British building programmes, and he appears to have given much attention to administrative problems and abuses.⁹³ So we can't claim the emperor for our Wall project exclusively. He would have been there for a few weeks at most, and cannot have taken both the Wall and fort decisions while in Britain, let alone while he was in the north. With easily as much as a full season's work in between, and probably a good deal more, as we shall see, one of the decisions has had to be taken on the continent — and it is obvious which one it was. On the face of it, the Wall decision was a drawing-board plan worked out 'without local knowledge' and forced upon a situation that proved much more differentiated.⁹⁴ The fort decision, on the other hand, annulling so much careful planning and quite a bit of actual construction, bears all the marks of a radical intervention in a project that was in progress, perhaps after shortcomings had come to light. The first Wall plan smacks of an attempt at an 'ideal' frontier barrier that could have been made up anywhere, whereas the fort and Vallum decisions do suggest a certain amount of 'local knowledge'. The first plan is better understood if started in the emperor's *absence*, while it is the very incisive fort decision, or second plan, that probably reveals his active *presence*.

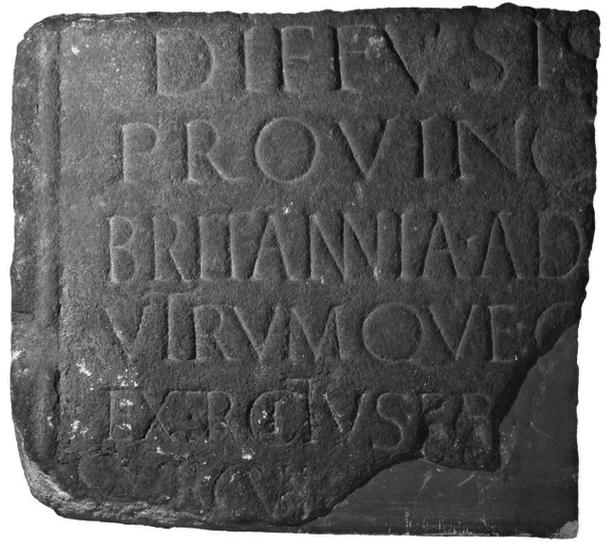
This is just a return to a position taken, on different grounds, by C. E. Stevens and Julian Bennett and others.⁹⁵ It has the alluring implication that the project's principal came to visit the work at an early stage of execution — the natural order. It is the same sequence as has been recently ascertained for the German *Limes*. We now know that work on the German palisade, a work of equally colossal proportions, had been taken in hand one and a half year at least before Hadrian's planned visit.⁹⁶ The emperor probably inspected the first delivered stretches in late 121, and apparently endorsed the concept, seeing that it was implemented for hundreds of kilometres and canonized in imperial biography, including some of its distinctive constructional features (SHA, *Hadr.* 12.6).⁹⁷ On the evidence of the Marköbel dendrochronology-dates (winter 119/120), the German palisade was commissioned in 119, or perhaps more probably the year before, if we want to allow for some planning and logistic preparation.⁹⁸ This puts the conception of the German barrier very close to an epiphany that befell Hadrian in 118, in the wake of the wars that had shaken the beginning of his reign.

A divine injunction

We now come to one of the most important documents of the entire Wall, *sc.* the two inscribed panels that were discovered in Jarrow church in 1782 (*RIB* 1051a-b). They once adorned a monument that may have stood near the eastern terminus of the Wall, seeing its proximity to Jarrow. Enough survives of the two stone panels to make it clear that the memorial mentioned both the inspired decision and the actual feat of building the Wall, or perhaps its reconstruction in later times. The two stones are shown in fig. 3, along with their texts, as restored



[DIVORUM] OMNIVM FIL[IVS]
 [IMP CAESAR TR]AIANVS HADR[IANVS]
 [AUGVSTVS IMPOSIT]A NECESSITAT[E IMPERII]
 [INTRA FINES CONSER]VATI DIVINO PR[AECEPTO]
 [.....]C[OSIL].....[.....]
 [.....]



DIFFV[SIS] [BARBARIS ET]
 PROVINC[IA RECIPERATA]
 BRITANNIA AD[DIDIT LIMITEM INTER]
 VTRVMQUE O[CEANI LITVS PER MP LXXX]
 EXERCITVS PR[OVINCIAE OPVS VALLI FECIT]
 SVB CVR[A A PLATORI NEPOTIS LEG AVG PRPR]

Fig. 3 Left: woodcut of RIB 1051a, reproduced from J. C. Bruce, *Lapidarium Septentrionale*, London 1875, no 539. 2b. Right: cast of RIB 1051b in the Great North Museum, courtesy of the Society of Antiquaries of Newcastle upon Tyne / Great North Museum. Below the panels are the reconstructions given in Collingwood and Wright (1995)

in *The Roman Inscriptions of Britain*.⁹⁹ These are certainly among the more adventurous reconstructions in the corpus, but enough remains of the original text to impress on us that this is a truly extraordinary document, even if the size of the lettering is hardly on a par with its lofty content, perhaps reproducing phrases from an official address.¹⁰⁰ There are several oddities, moreover, that seem to have stood in the way of its confident use by Wall students, like the unique formula *Divorum omnium filius* ('son of all deified emperors') and the different styles of lettering.¹⁰¹ The text was resolutely relegated to the Severan period by Eric Birley, who pointed to the 'manifest affinities' with early third-century inscriptions (obviously meaning the lavish use of ligatures in 1051b) and the very modest size of Hadrian's name. According to Birley, the monument commemorated the reconstruction of the Wall, mentioned in the *Historia Augusta*, by Septimius Severus, but 'referring back to Hadrian as its original builder'.¹⁰²

None of the reconstructions proposed is entirely satisfactory. The lettering of the two slabs is sufficiently different to conclude that we are, in fact, looking at two separate inscriptions probably cut at different moments, with RIB 1051b probably the younger of the two.¹⁰³ This does not automatically imply that they were taken from two different monuments, as sug-

gested by the present display in the Great North Museum. On the contrary, their twin provenance from Jarrow church rather points to a common original source. So does the decreasing size of the lines in both inscriptions, as if the second inscription copied the format of the first so that it could be placed next to it.¹⁰⁴ This all suggests that we are looking at two panels of different date that were taken from a complex monument perhaps restored in the later second/early third century and obviously related to the (re-)construction of the Wall.¹⁰⁵ The present writer can see no reason why the first panel (*RIB* 1051a) should be relegated to the Severan period, but if it must it certainly reproduced the phrasing of an authentic Hadrianic inscription (and the same cannot be excluded for the second panel).¹⁰⁶ For it is very unlikely that Severus should have felt the need to bolster up Hadrian's claim to act in legitimate succession, by construing his filiation from all preceding emperors.¹⁰⁷ There would also be little point for Severus in stressing *Hadrian's* sense of necessity and divine inspiration (*necessitate . . . divino praecepto*) that had urged him to build a Wall that, by the beginning of the third century, had been a fact of life for three generations of Romano-Britons.

The phrasing of the Jarrow inscription perfectly fits the awkward situation Hadrian found himself in after he had taken on imperial power.¹⁰⁸ His succession had been far from smooth and uncontroversial. Upon the death of Trajan on 11 August 117, Hadrian, the governor of Syria, had been hailed as emperor by the troops under his command, following an improvised deathbed adoption on Trajan's ailing journey back to Rome — with the heir presumptive absent. Hadrian had long been married to Sabina, Trajan's closest eligible relative, and his career steps so far, not least his designation as *consul ordinarius* for 118, were clear signs of Trajan's favour. But there had been rumours about tensions between the two, and on several occasions Trajan, childless himself, had asked his trusted friends for names of potential successors. These certainly included L. Julius Servianus, whose career, and imperial favour, had so far rivalled Hadrian's. The execution of four consulars in Rome on the orders of the praetorian prefect Attianus, Hadrian's former guardian, led to the suspicion that the new emperor was involved, irreparably souring Hadrian's relations with the senate.¹⁰⁹ In 117/8 Hadrian had an acute public relations problem as well. To the very last, the *optimus princeps* Trajan had sent a hail of despatches to the senate claiming victory upon victory. The truth is that his last Parthian campaign (116) had ended in catastrophe, unleashing a chain of revolts, including an all-out uprising of the Jewish diaspora in Cyrenaica, Cyprus and Egypt. With the entire East on the brink of revolt, one of the first steps Hadrian took was the immediate abandonment of Trajan's annexations in Mesopotamia. He then turned to Dacia, where a rebellion had broken out the year before and a governor had died on campaign — and he abandoned Trajan's conquests east of the River Olt.¹¹⁰ Hadrian's frontier changes were bound to raise the suspicion of jealousy in some circles. But he claimed to be executing the deathbed instructions of Trajan, only further fuelling resentment in Rome (*SHA, Hadr.* 9.2).

These were the troubled conditions of Hadrian's succession, and we can hear them resonate in the Jarrow inscription. If it were true that the monument was restored in the Antonine or Severan period, the second panel (1051b) may well have been copied from an Hadrianic original. If so, the 'shattering' of enemies could refer to the recent war in Britain that had been serious enough to merit a victory issue in 119. But it is the first panel that really pins the text down to the political circumstances of c. 118, in which the drawing of fixed boundaries suddenly seemed so controversial an issue. This, presumably, is why Hadrian chose to emphasise that he was acting in line with all of his deified predecessors, highlighting his filiation in the unique title *Divorum omnium filius*.¹¹¹ This also is why he spoke of the

'necessity', claiming a 'divine injunction', to 'conserve' the Empire within safe boundaries.¹¹² The phrase is followed by what, according to the *RIB* editors, is a date: [C]OS II — indicating the year 118.¹¹³ If there is one juncture that might explain some of the curious language of *RIB* 1051a, especially the unique instance of *Divorum omnium filius*, it has got to be the months following Hadrian's *adventus* in Rome on 9 July of that year, when an unprecedented show of public assuagement, including Trajan's deification, was put on stage, soon followed by Matidia's incorporation among the *divi* — raising Hadrian's deified parentage to a number that might explain the use of *omnes* ('all').¹¹⁴ Whatever its precise nature and date, the Jarrow inscription, in its few surviving words, unmistakably echoes the dilemmas and preoccupations of Hadrian's troubled year of succession, 118.

The Jarrow inscription apparently made the connection between the building of the Wall and the 'divine precept' and victory of 118/9. This is more than a hint that the idea of the frontier barrier did not originate during Hadrian's visit of 122. In the case of the German *Limes* it is now clear that the order to construct a 'mural fence' followed the divine injunction of 118 to conserve the Empire within safe limits. A similar decision was quite possibly taken for Britain as well in 118/9. But there may have been a few remaining hotbeds to stamp out first — Victory was only minted in 119. And there may have been quite a bit of damage to repair and losses to replace. Besides, a project on the scale of the Wall required more than a return to normality. With Roman authority recently put to the test and a gigantic building project on the stocks, it may have been concluded that Britain needed its third legion back. It may have taken a little while before the chain of legionary displacements finally disengaged *Legio VI Victrix* from Xanten. There may have been other reasons why a decision reached in 118/9 went full speed ahead one or two years later, one of them being Hadrian's insistence to visit the project while it was still in its initial stage, like he did in Germany. The visit was probably planned a few years in advance, witness the Gaulish and British milestones, so there was more than enough time for some proper preparation.

A quick fix: the Turf Wall

If, for the sake of argument, we assume that Hadrian visited the project at an early stage of execution, can we identify the point where he made his mark? There are a few promising places to look for clues. The first is the curious Turf/Stone Wall dichotomy that occurs at the crossing of the River Irthing, close to milecastle 49. The obvious explanation for the break would be local availability of building materials. Most students of the Wall, however, will acknowledge that the limited occurrence of sandstone west of the Irthing, does not, in itself, sufficiently explain the Wall's initial construction in earth. After all, the Turf Wall was rebuilt in stone later on (the first stretch under Hadrian), possibly using some of the Roman quarries that are known in this sector.¹¹⁵ Likewise, the absence of limestone (the essential raw material for mortar) west of the Red Rock Fault in Wall mile 53 has been advanced as a reason for building in turf and earth.¹¹⁶ But the Broad Wall stretches that remain usually have clay as bonding material for both core and foundation, mortar being reserved for the bedding and pointing of facing stones, so lime would have been a minor consideration in the planning of the Wall.¹¹⁷ This is all the more true as limestone occurs only sparingly in the central and eastern sectors of the Wall as well, so the amount of lime that was needed would have to have been carted substantial distances anyway, some of it perhaps from kilns well outside the Wall

zone.¹¹⁸ Local availability of stone and lime, then, does not sufficiently explain the Wall's change from stone to Turf.

It is for these reasons that David Breeze has suggested that we should really turn the Turf Wall problem upside down: building a wall from earth and turf would have been quite natural for the Roman army — it is the choice for stone that calls for an explanation. Recently, he has gone one step further, advancing the idea that the change to stone may, in fact, be Hadrian's personal statement.¹¹⁹ The implication could be that the construction of the Turf Wall had already been started as a separate project before 122. This is a point that has been developed before, by David Shotter, among others, who has recently suggested that work on the Turf Wall may have started as early as 119.¹²⁰ But there is no evidence to sustain this, and at least one counter-indication that militates against it, *sc.* the chain of milecastles that were set out with such meticulous precision that we may conclude that the entire building project was planned, and started, as a whole. Given the very expedient building material and its proven extraction along the very berm of the barrier, the Turf Wall can hardly have taken more than a few months to build.¹²¹ By the time the fort decision was taken, the curtain had apparently been completed at the site of Birdoswald, where the infilled ditch of the Turf Wall was found to underlie the fort, with the turves still recognizable in the downcast.¹²² On the other hand, we have a fragmentary building inscription from MC 50 TW to prove (if reconstructed correctly) that this installation was only delivered under Nepos.¹²³

There is no compelling reason, then, to separate the decision to build the Turf Wall from that to construct the rest of the barrier in stone. But maybe we can add a little edge to the picture. For there is one explanation for the materialisation of the Turf Wall that merits more serious consideration than it has received so far, and that is speed of execution.¹²⁴ When it was decided, *c.* 159, to advance the German frontier to the line of the Vordere Limes there was little to this move that seemed provisional: reproducing the proven deployment and design principles of the former Odenwald-Neckarlimes it amounted to a one-to-one transfer of garrisons that had been housed in forts with stone defences and central ranges from the Hadrianic period.¹²⁵ But their replacements on the Vordere Limes were initially built in earth and timber. The explanation could be a desire to have the new frontier system up and running in the first season, as indicated by the date of the Benefiziarierstation of Osterburken (159/60).¹²⁶ The same explanation may hold good for the Antonine Wall, where there is evidence for an initial intention to build in stone, like its predecessor. If so, this idea was quickly abandoned for a more expedient construction, using earth and clay cheeks if turves were not at hand.¹²⁷ In Cologne, it has now become clear that the original plan for a stone wall to protect the *oppidum Ubiorum*, in execution from AD 4/5, was abandoned for an earth-timber rampart immediately after the Varian disaster of AD 9.¹²⁸ In the western sector of the Tyne-Solway gap, likewise, the decision to build the Wall in earth initially may simply point to a desire to have the gap closed within the first season. The Turf Wall has a close parallel in one of our most reliable Roman military sources, *sc.* the 19-mile barrier wall (*murus*), 16 feet high with a fronting ditch, that Caesar built between the Lake of Geneva and the Jura mountains in 58 BC to keep the Helvetii from invading Gaul (*BG* I.8). He had only one legion at his disposal at that stage, but his narrative implies that the job was done in a matter of weeks, perhaps, rather than months.

The 'Turf Wall decision' may have been influenced by a limited supply of sandstone and lime, but there are many indications, which we are about to discuss, that the decisive factor in the Wall's building order was terrain — that is to say: perceived exposure. We have already

seen the first indications, to be elaborated below, of a priority programme of line installations with a probable focus, certainly in the case of milecastles, on sensitive access points.¹²⁹ In the eastern sector, the first season's assignment was apparently to construct a continuous barrier from Portgate to the Tyne, and to give it full priority — to the point of leaving most milecastles unfinished for the time being. As to the Turf Wall, we may observe that its occurrence roughly coincides with the western sector that, from a host of other indications, surfaces as the most exposed on the isthmus (*cf.* fig. 1). It has been little noted, moreover, that its point of inception was the Irthing crossing at MC 49 (Harrow's Scar), whereas the supposedly relevant geological fissure occurs at MC 54 (Randylands) only — about 8 km to the west. Local availability of building materials, then, may explain why the first five miles of the Turf Wall were reconstructed in stone under Hadrian, whereas the rest only followed after the recommissioning of the Wall *c.* 158.¹³⁰ However, surface geology was probably not the reason why the western part of the Wall was provisionally built in turf: the earthen barrier was part of the Wall's priority scheme, designed to bridge the exposed gap in the west within the first full season, so its basic building material was chosen accordingly.¹³¹

A PRIORITY PROGRAMME FOR THE WALL

A second fissure that calls for our attention in the light of Hadrian's visit is the fort decision, and the change to the Narrow Wall gauge that came after it. The decision to add some ten forts to the barrier wall obviously caused a major dislocation of works, undoing much of the careful planning for the observation and signalling system, and destroying quite a bit of work on both barrier and line installations — quite apart from the additional job of building the forts themselves, easily amounting to two to three years of work.¹³² The evidence for a substantial hiatus between the suspension of work on the Broad Wall and its resumption at Narrow gauge that has been observed in places, notably at Peel Gap, is usually explained by assuming that most of the work gangs were now summoned to the fort sites.¹³³ Building to Broad specifications appears to have continued for a little while after the fort decision, best illustrated at Chesters where a stretch of Broad Wall foundation was laid over the backfilled end of the newly dug fort ditch (fig. 4). At Great Chesters, likewise, the bundle of fort ditches on the west side stopped just short of the Broad Wall foundation, 'the builders presumably believing that it was the Broad Wall which was to be built.'¹³⁴ The sequential evidence at Chesters and Great Chesters need not amount to more than a few weeks' work before the Narrow Wall decision was taken.¹³⁵ At the Vicarage garden in Gilsland, the way the freestanding face of the Broad Wall's footing was left to be filled in with the Narrow Wall's core is suggestive of a quick resumption of work, at that point, after the dislocation.¹³⁶ At other places, work on the curtain appears to have been suspended long enough for the Broad Wall's foundation to have become largely overgrown or seriously eroded, so that a new foundation for the Narrow Wall was cut deep into the prior work, or laid out on an entirely new alignment.¹³⁷

The unique value of the fort/Narrow Wall decision is that it forms a virtual time slice that cuts through the entire building project, allowing us to get a fair impression of progress at the point the ukase went out that dislocated most of the ongoing work.¹³⁸ It is to the lasting credit of Peter Hill that he has made a comprehensive and critical survey of surviving Broad work, albeit verging to the minimalist side if it comes to assessing how much had been actually built.¹³⁹ The milecastles, in particular, vary widely in their state of completion, ranging from

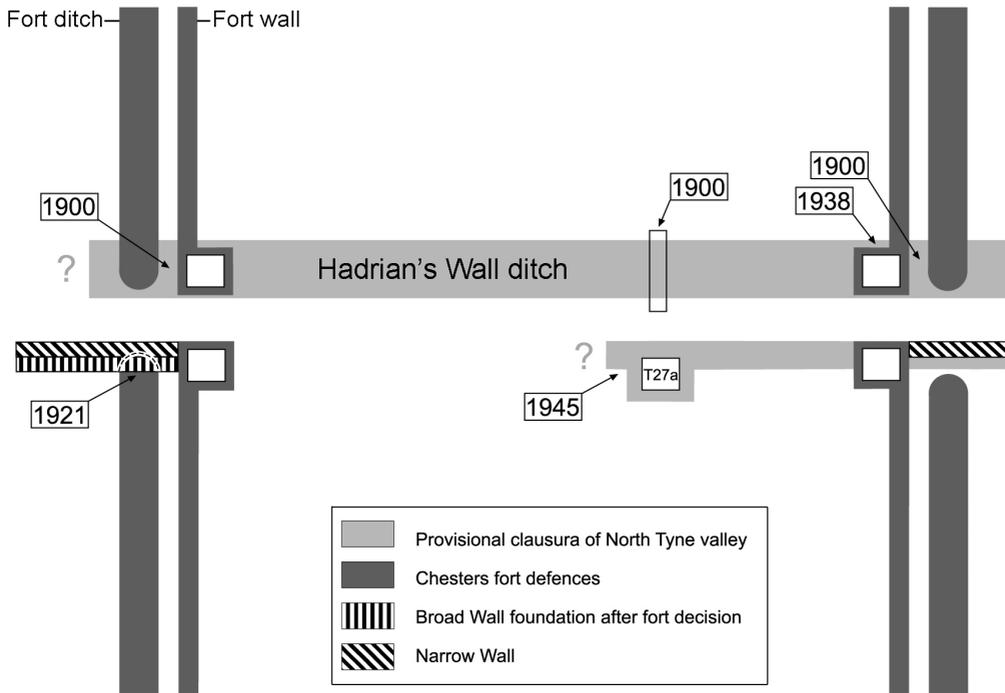


Fig. 4 The schematic chronological sequence at the centre of the fort at Chesters: the Broad Wall with Turret 27a — part of the provisional clausura of the North Tyne valley — the gates and defences of the fort, and the Narrow Wall (on Broad foundations) across the western ditch of the fort. The dates of crucial observations are given (see Bruce 2006, 195–204, 484).

'ready for occupation' (MC 48) to 'only just begun' with even the north gate piers unfinished (MC 37) — and every intermediate variant imaginable actually on record. The picture is further complicated by a small group of milecastles that were partly built to a distinct 'Middle' gauge, possibly pointing at a first order to speed up things, perhaps just weeks before the fort decision.¹⁴⁰ The picture of the curtain is just as varied and disparate, with stretches and patches of Broad work spread out over the entire length of the stone Wall west of MC 22, ranging from a short length towering up to 1.8m west of T 26b to the absence even of the Broad Wall's foundation in several places along the crags. 'The widespread, although not uniform, occurrence of Broad Wall in all legionary lengths between Newcastle and the River Irthing indicates that small gangs were at work simultaneously at very many points'.¹⁴¹

The emerging picture is not particularly suggestive of a rational building order guided by some internal logic, be it consecutive construction stages (either horizontal or vertical), legionary allotments, or supply logistics. On the other hand, the job was certainly not taken in hand in a haphazard fashion, with construction gangs starting at those points where building materials were most readily at hand. In general, there is a very weak correlation between the availability of building materials and the construction order of Hadrian's Wall. Paradoxically, it is the central sector that has the best supply of sandstone and limestone along the line, but was the slowest to develop.¹⁴² However, it was in the lower-lying sectors in the east and west that the barrier was accelerated before everything else, in spite of the absence of limestone

east of MC 16 and west of MC 53, and the difficult supply of sandstone in the west generally. This, as argued, is probably why the Wall was built in earth and turf west of the Irthing, allowing the barrier to be completed in one season. In the east, the same priority is apparent, notably in the Newcastle–Portgate sector (MC 7–22). Here, it has been suggested before, completion of the curtain apparently took precedence over the construction of milecastles, several of which had their north walls built to Broad gauge and bonded by the Broad curtain, while still awaiting the commencement of work on their side walls.¹⁴³ Work on the stone Wall almost certainly started east of Portgate,¹⁴⁴ and there can be little discussion that this sector had progressed most when the great dislocation came. There are, in fact, few formal objections against having it largely completed by the time the fort/Narrow Wall decision came. We've already noted the meagre record of Narrow Wall plus the absence, or dissolution, of turret wing walls between MC 7 and 22. We may add the early completion of the barrier ditch at Halton Chesters, effectively cutting off supply from the north — probably indicating that the curtain was largely finished.¹⁴⁵

Newcastle–Portgate is the stretch that triggered the classic reconstruction of legionary building allotments worked out originally by Eric Birley, and refined by Joyce Hooley and David Breeze, on the basis of the sector's regular groupings of milecastle gate types, turret variants and curtain standards. There have been criticisms, notably by Julian Bennett who has proposed much longer building sectors, but the balance of evidence still heavily favours the original five-mile lengths.¹⁴⁶ Confidence may have waned as to the identification of the legions involved, giving way to a more neutral 'legion A, B and C', but the likelihood remains that we are looking at the distinctive signatures of legionary drawing offices. Twenty years later, the same three legions leap-frogged in regular lengths to build the Antonine Wall, as we know from its famous distance slabs.¹⁴⁷ A few irregularities certainly remain in the legionary lengths between Newcastle and Portgate,¹⁴⁸ but in general the five-mile breakdown seems to stand unshaken for three blocks in a row east of Portgate. This was one of the reasons why David Breeze and Peter Hill came up with the suggestion, in 2001, that the Dere Street crossing at Portgate rather than Newcastle was the point of departure for setting out the Wall's main divisions in the east.¹⁴⁹ It has been little noted that the stretch from Portgate to the North Tyne also measures five miles exactly. This can hardly be a coincidence. If we are right, the implication is that the Dere Street crossing was not the point of departure but somehow followed from a regular series of five-mile blocks set out from the North Tyne to the east, and that this division was taken as the starting point for the first series of legionary allotments towards *Pons Aelius*.¹⁵⁰

There is a remarkable parallel on the Turf Wall, where convincing evidence exists for at least one five-mile block, *sc.* MC 49–54.¹⁵¹ Seeing that it is of the correct size rather than an irregular filling-in piece, it was apparently set out from the Irthing to the west, mirroring the arrangement in the east. On the evidence of the Birdoswald sequence, the earthen barrier wall was largely completed before the fort decision. If MC 50 TW was only delivered under Nepos (as suggested by *RIB* 1935),¹⁵² this may indicate that, in the west as well, priority was given to the construction of the curtain wall *sensu stricto*, with the remainder of the milecastle perimeters following later, in close parallel to the Newcastle–Portgate sector. The strong suggestion, then, is that the Wall project was compartmentalized on the basis of a rough terrain assessment, coinciding with the tripartite subdivision that we use today, with the more low-lying eastern and western sectors taking a head start over the craggy central sector — probably by as much as one or two work seasons. The North Tyne and the Irthing were apparently

chosen as relevant breaks, with future Portgate providing an additional subdivision in the east. Both priority sectors, *sc.* Portgate–Newcastle and the Turf Wall, appear to have been built on the assignment ‘curtain first’. The five-mile allotments only further support the impression of a forced programme carried out by substantial work forces drawn from all three legions working side by side, both in the eastern and western sector, in order to deliver the two outermost stretches of the barrier wall as soon as possible.¹⁵³

There appears to be a clear rationale behind all this. If we take a simple relief map we can see the two priority sectors neatly straddling the 200m contour line of North England’s central spine (fig. 5). Ignoring local availability of building materials, the planners of the Wall apparently chose to prioritize the two outer sectors of the new barrier. Apart from being more inviting to north-south movement, as any present-day road map will show, the low-lying flanks were both exposed in their own way. The western sector faced the unsettled, perhaps unfriendly, corner of the Selgovae and Novantae. The eastern sector had, as yet, no regular chain of forts east of Corbridge to support the projected new frontier line. Apart from penetrability (determined by the topography) this may help to explain why, in the east, the *second* and subsequent five-mile blocks to the east of the North Tyne were prioritized in the curtain programme.

We have to look at the eastern sector in a little more detail, especially at the five-mile block between Portgate and the North Tyne, for there are a few strange things happening here. There is an abrupt change to the west of MC 22, observed by Hunneysett in 1980, in the building order of milecastles and curtain: MC 23–27 all had their perimeter walls built, or started, to Broad gauge, placing them early in the sequence, whereas the curtain had progressed proportionally less in this sector at the point of dislocation — perhaps explaining the local variant of the ‘Six-Foot Narrow Wall’ when work on the curtain was finally resumed.¹⁵⁴ West of Portgate, then, the assignment apparently was: ‘milecastles first’. The change in building order coincides with the 200m terrain divide just mentioned. West of Portgate, the land rises markedly, staying close to 250m almost up to MC 26, Planetrees. The main divisions of the eastern sector were apparently planned and set out before the inception of works, with the first five-mile point east of the North Tyne (the future site of the Portgate) acting as the dividing line between two quite different priority schemes: to the east of it, the curtain took precedence over the milecastles, in parallel to the Turf Wall; to the west of it priority was given to the line installations, milecastles in particular, while the curtain was allowed to wait for the time being.¹⁵⁵

We have to contemplate what this really means. Prioritization of specific Wall components would have mattered very little if their delivery was expected to differ by only a few months. At this point it is important to note that the proposed priority programme — consisting of the running curtain of the Turf Wall (miles 49–80), the stone Wall east of Portgate to the Tyne, the corresponding stretches of the Wall ditch, plus a premier league of milecastles (MC 23–27 and a series of twins and singles: see below) and an adequate first provision of turrets — would probably constitute a decent workload for at least a season or two (making sense of Haverfield’s observation at Chesters). So we have to bear with a few unfinished wing walls and curtain butt-ends for perhaps a year or two, or perhaps more in some cases. One temporary butt-end may have been at Portgate, where we have Broad Wall to the east, but the Six-Foot variant immediately to the west, perhaps meaning that this last hole in the curtain was closed at a relatively late stage when even the Eight-Foot gauge had come to be reconsidered.¹⁵⁶

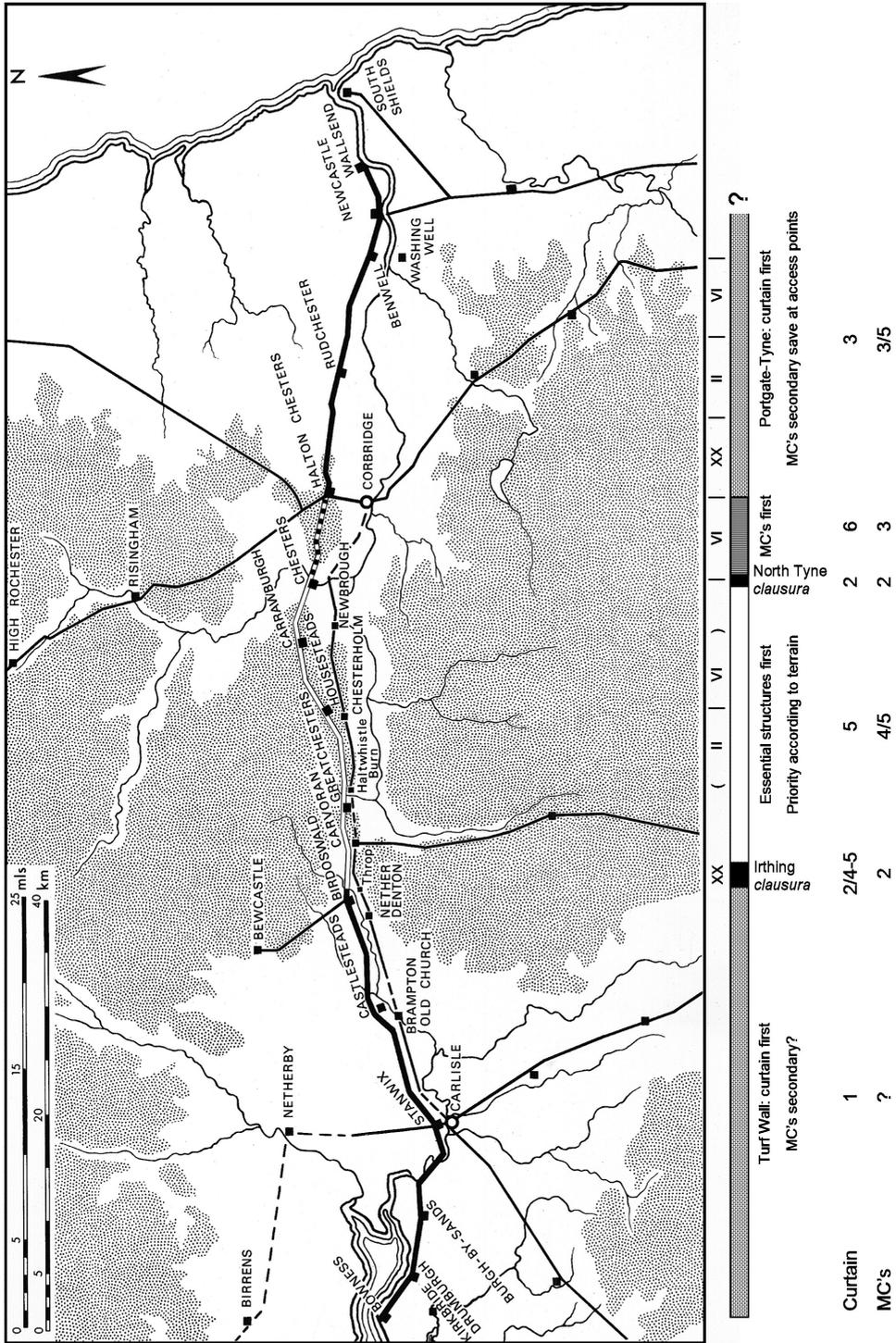


Fig. 5 The priority programme for the Wall, in relation to the topography, notably the 200 m contour. The key at the bottom provides: proposed legionary allotments (legions II, VI and XX); major breaks and priority assignments; and a possible relative building order of curtain and milecastles (numbered 1 to 6, stage 4 representing work going on at the moment of dislocation).
Base map by courtesy of David J. Breeze.

This may help account for the curious fact that the frontier crossing of Dere Street at Portgate coincides with the first five-mile mark east of the North Tyne. This ought to mean that, north of Corbridge, the construction (and realignment, in places) of Dere Street as an engineered road postdates the Wall decision.¹⁵⁷ John Poulter, using his wonderfully simple method of establishing the direction of planning of Roman roads, has recently pointed out that the stretch of Dere Street that crosses Hadrian's Wall at Portgate was set out from north to south. From the Dry Burn to the southeast, Dere Street was planned to coincide with an old long-range alignment that may have dated back to the Flavian period, but then at Beukley after 6.8 km it turned southwards abruptly, just in time to cross the Wall at Portgate.¹⁵⁸ The most natural explanation would seem to be that the setting-out team, working from the north, followed the given alignment as far as possible, thereby largely avoiding the tract of high ground (above 250 m) in Wall miles 23–26, and then took a sharp bend south in order to slip right past the temporary butt-end of the curtain. There is a very strong suggestion here, again, that the running barrier east of Portgate had been finished by then.¹⁵⁹

Priorities in the central sector

The building process of Hadrian's Wall appears to have been segmented, and carefully prioritized, on the basis of a thorough terrain assessment. This comes out even better in the central sector. The strongest evidence is contained in the varying widths of the walls of milecastles. Matt Symonds has done much of the work, and given some important hints, in his crucial 2005 paper.¹⁶⁰ Proceeding from his data, we may draw up a comparative table taking the Broad (B), Middle (M), and Narrow (N) gauges of north, side and south walls, respectively, as an indication of their position in the building sequence (see Table 1). The suggested priority order is very tentative; it is probably too schematic, and is certainly open to discussion. But a few things come out quite nicely at a first glance, e.g. the distinction between the 'curtain first' and 'milecastle first' assignments to the east and west of Portgate, respectively, and the much more diversified picture in the central sector, with several milecastles started only after the dislocation, whereas some of their neighbours had the construction of their north walls accelerated. There must be a hidden order here that has largely eluded us so far. Matt Symonds has observed that the milecastles that are typologically earliest, i.e. those with Broad north and side walls, occur in a few disparate groups, *sc.* MC 4, 9–10 and 47–48 (apart from MC 23–27) — to which we may now add MC 14. There is the appealing suggestion that they occur at some of the more incisive, and inviting, terrain features along the Wall, *sc.* the main Tyne valley (MC 4), the Dewley Burn (MC 9–10), the March Burn (MC 14), and the Irthing-Tipalt fork (MC 47–48) respectively — plausibly explaining their early planning.¹⁶¹ Some of the members of the second league, like MC 38 (Hotbank) and 42 (Cawfields), were situated at gaps that may have been considered sensitive to penetration. Inversely, it may be observed that the latest milecastles in the sequence, *sc.* the ones with Narrow north walls, tend to sit on crests that were less inviting to cross-border movement. MC 35, in particular, 'one of the most difficult sites to infiltrate on the entire Wall', appears to have been a low-priority job showing signs of multiple dislocations, perhaps indicating that its work gangs were summoned elsewhere several times.¹⁶² The strong impression left by the milecastles is that they were scheduled, individually and as couples, as part of an overall priority scheme, the details of which were decided by a thorough assessment of terrain and penetrability.

Table 1 Milecastle wall-widths, as assembled by Symonds (2005, table 1, supplemented with new measurements for MC 14 supplied by Wilmott 2009c, 161). Measurements are given above the offsets, save for a few cases where only footings survive (F). Widths measured off plans are marked with an asterisk (*). Widths of 2.74 m or more are considered Broad (**bold type**), and those up to 2.41 m, Narrow (normal type) — leaving a quite distinct group of Middle gauge walls between 2.6 m and 2.44 m (*italic*). The last two columns give a key of B(road)/M(iddle)/N(arrow) north/side/south walls, and the resulting (hypothetical) priority order.

MC	NORTH	EAST	WEST	SOUTH	KEY	PRIORITY
4	—	—	2.9 F	2.9 F	?BB	1
9	2.92	2.74	3.05 F	2.54	BBM	1
10	2.92	2.92	2.92	2.92	BBB	1
13	2.82	2.33	2.33	—	BN?	3
14	—	—	<3.53 F	<3.52 F	?BB	1
17	2.79	2.41	2.41	2.41	BNN	3
18	2.82	2.36	2.36	2.36	BNN	3
19	—	—	—	2.38	??N	?
20	2.92	—	—	—	B??	?
22	2.79–2.87	2.44	2.44	—	BM?	2
23	—	2.89	2.89	—	?B?	1
24	—	3.05	3.05	—	?B?	1
25	—	2.74	2.74	—	?B?	1
26	—	2.74	2.74	—	?B?	1
27	3.25 F	—	2.89	2.84	BBB	1
33	2.31–2.00*	2.21	2.11	—	NNN	4
35	2.18	—	2.85–2.48	2.8	NBB	4
37	2.74–2.29	2.59	2.59	2.59	BMM	2
38	2.99	2.49	2.49	2.49	BMM	2
39	2.13	2.13	2.13	2.13	NNN	4
40	2.06	2.06	2.06	2.06	NNN	4
42	2.79	2.44	2.44	2.44	BMM	2
43	—	2.44	2.44	—	?M?	2
47	—	2.74+	2.74+	2.74+	?BB	1
48	2.79	2.79	2.77	2.77	BBB	1

Broad	Bold	3.0–2.74 m
Middle	<i>Italic</i>	2.6–2.44 m
Narrow	Normal	2.41–2 m

In Wall miles 22–48 (Portgate–Irthing), the ‘time slice’ of the great dislocation sheds light on a very disjointed building process. This can hardly be seen as the outcome of some internal building logic, be it consecutive construction stages, equal work allotments, or supply logistics. Even small entities like milecastles were apparently built in a very disjointed fashion (graphically illustrated by the butt joints of MC 42), the construction of their north walls being

accelerated while the other sides were left aside for the time being — requiring specialised 'gate gangs' to return later. This has been tentatively explained above by a desire to have the north gate towers up and running as part of the observation screen. This fits in very well with the picture of the turrets. If these had been regularly built with the curtain in one sequence, it would have been rational planning to start the structures just a little in advance of the unfolding curtain, to provide them with wing walls about 1 m long (allowing the turret to be constructed to 4 or 5 ft. high before receiving the curtain wall), and then to build the remainder after the arrival of the 'scaffold train'. To illustrate the sequence we are lucky to have the example of short-winged T 34a, frozen in that stage by the great dislocation.¹⁶³ However, in most cases where Broad wing walls survive to mark the interruption of work these tend to be in the 3 to 4.5 m range (T 26a, 26b, 29a, 29b, 33b, 48a, 48b), easily allowing the construction of the turret to full height before receiving the curtain. We have argued that scaffolding was applied locally before the fort decision, allowing turrets to be prioritised, and delivered, well in advance of the curtain.¹⁶⁴ Various arguments have been adduced to suggest that T 35b, 41a, 42b, 43a, 43b were completed before dislocation, and we shall point at prototypical design flaws in T 48a and 48b shortly. We have also mentioned traces of occupation found in T 27a and 36b — turrets that were demolished to make room for the new forts after the great dislocation. It all points in the same direction: the observation facilities that served the chain of response centres in the central sector, *sc.* the turrets and milecastle towers, were an element to have up and running as soon as possible. After the flanks of the isthmus had been closed by continuous barrier walls, the installations that activated the response centres along the Stanegate were a first and obvious priority.

The remaining programme for the curtain wall was clearly subjected to a critical review. The general impression of the Portgate–Irthing sector is one of extreme segmentation, and the strong suggestion is that even short stretches of Wall were prioritized according to terrain. James Crow has pointed out that, west of MC 39, Broad Wall foundations tend to be absent along the line of the crags, occurring 'only in the broad gaps in the Whin Sill such as Peel Gap and from Great Chesters to Cockmount Hill'.¹⁶⁵ This seems to indicate that the Wall was prioritized 'where there were wide gaps in the Whin Sill, further suggesting that construction schedules were sensitive to topographic concerns'.¹⁶⁶ Even relatively small loop-holes like Peel Gap in Wall mile 39 appear to have been advanced: Broad foundation was laid out across the gap, and at least the first course of Wall proper (and the onset of rather more on the eastern slope) was constructed before the great dislocation.¹⁶⁷

Against this background, the two main rivers that penetrated the frontier zone, *sc.* the North Tyne and Irthing, merit our closest attention. River valleys provided sunken, sinuous access routes that were less easily covered from a linear observation screen, and they naturally attracted mounted bands and driven animals if only for their ready supply of water. The Irthing valley was particularly sensitive seeing that, just north of Gilsland, there is only a very low watershed between it and the head of the Tipalt Burn which crosses the projected frontier zone between MC 46 and 47; further south, the valley of the Tipalt Burn provides access to the Maiden Way and to South Tynedale. Now, it is generally accepted that the structures in Wall miles 47–48 are among the very first to have been built — and actually delivered, I would add. Matt Symonds has recently argued that milecastles 47–48, given their size and lavish provision of accommodation, were finished before the fort decision.¹⁶⁸ Turrets 48a and b, moreover, have north walls of the same width as their side walls (little over 80 cm, not even 3 feet), a feature that was nowhere repeated along the Wall, turret recesses normally

leaving a minimal 4 to 5 feet for the structures' north walls — exposing T 48a–b as an ill-considered prototype.¹⁶⁹ Significantly, the only stretches of Broad Wall that we have in the central sector (above the footing courses that is) occur in Wall mile 48.¹⁷⁰ Willowford bridge, connecting this stretch with the Turf Wall, also came very early in the sequence, apparently preceding even the adjoining Broad foundation.¹⁷¹ It looks as though Wall miles 47–48 were scheduled as an urgent job, their structures taking a head-start in a local priority programme that was to result in a provisional separate barrier element (*clausura*) covering the sensitive Irthing–Tipalt access. Interestingly, Wall mile 48 is home to a very specific observation suggesting that work in progress, in this sector, was not allowed to be interrupted by the fort decision. At the former Gilsland Vicarage, work on the curtain was apparently resumed as if it had been left only a very short while ago, with the faces of the Broad footing still waiting to be filled in by core work.¹⁷² There is a battery of structural evidence, then, that marks out Wall miles 47–48 (we have no comparable evidence for mile 46) as a local priority job designed to close the Irthing–Tipalt gap as quickly as possible.

If we now move to the North Tyne access we stumble over a chain of early features suspended as it were from Wall turrets 26b (Brunton) and 27a (Chesters). In the centre, controlling the valley bottom, is MC 27 the foundations of which have been found to be 'unusually wide, varying between 3.35m and 3.50m (11ft and 11ft 6in).'¹⁷³ It is part of the supposed 'milecastle first' sector (Portgate–North Tyne, MC 23–27) where these structures were prioritised at the cost of the curtain, and foundation works for the Wall proper do not seem to have started until months (at most) before dislocation. So it may be significant that, at this special point, the Broad Wall was built as a seamless whole with MC 27 (at least the preserved lower courses), continuing well beyond the normal length of wing walls.¹⁷⁴ Further east, adjoining T 26b, there is that famous chunk of Broad Wall that was apparently prioritised and raised beyond the first scaffold lift before the general curtain programme reached Brunton.¹⁷⁵ These are clear pointers to an exceptional arrangement for the left bank of the North Tyne.

A stretch of Broad foundation of a construction comparable to MC 27 (large whin boulders rather than the more usual flags) and even greater width (11ft 10in, 3.61m) was excavated in 1945 on the other side of the river, just east of T 27a and underlying Chesters fort. The turret's foundations, likewise, were found to be unusually wide (4ft 6in, 1.37m).¹⁷⁶ A short distance west of T 27a (not necessarily further than a wing wall's length), this early stretch of Broad foundation (and any height of Wall that once stood on it) apparently stopped. This follows from the observation that the fort's western ditch did not respect the projected line of the curtain, so that its butt end had to be backfilled before the Wall's foundation could be laid when work on the curtain was resumed.¹⁷⁷ The next thing to note is that the early stretch of Broad foundation underlying Chesters fort was fronted by a ditch — ideally (logistically speaking) one of the last elements to be constructed, seeing that this obstacle effectively cut off any supply from the north. By the time the fort was built over it, the ditch had existed sufficiently long to have accumulated at least 0.75m of compact peat and clay. Francis Haverfield cut the ditch at several places in 1900, one of his sections 'containing also evidence of man' like animal bones, a leather strap, a bronze nail. We now know that this section was dug right in front of T 27a, one of the two pre-fort turrets (with T 36b) that have produced evidence of occupation — prior to the fort decision that is.¹⁷⁸ The overall impression, then, is that we are looking at a provisional stretch of Wall terminating at T 27a, which may have been considered a fitting structural end-point of a temporary *clausura* Wall delivered complete with

its ditch (see fig. 4).¹⁷⁹ It has been little noted that the projected line of the Wall makes a slight kink at T 27a, whereas otherwise the curtain was set out in long straights mostly between the North Tyne and Sewingshields.¹⁸⁰

If we now jump back to the left bank again, there is a potential counterpart at T 26b (Brunton) which has always puzzled scholars for its curious junction of Broad and Narrow work. The received interpretation is that the turret had progressed no further than about five feet before its eastern wing wall was overridden by the Narrow curtain which apparently bonds with the uppermost course of the turret's east wall.¹⁸¹ In that view, we are fortuitously looking at the meeting point of two work allotments, with both gangs working westward, the eastern one having progressed no further than Planetrees, still 800 m away, when work was dislocated. But the structural evidence is not that straightforward: there are a few too many asymmetries occurring at T 26b. To the east, only the foundation had been laid before dislocation, whilst the curtain west of the turret had almost certainly been taken above the first lift (4/5 ft.), breaking away from the rational logistics of scaffolding so convincingly analysed by Peter Hill.¹⁸² To continue, the eastern wing wall is almost a foot narrower than its counterpart to the west: 2.7 m against 2.96 m, increasing to a median of 3.15 m a little further west — adding to the impression that we are looking at two quite distinct stages.¹⁸³ If we look in more detail, the actual building-line of the Wall does not appear to have been set out in one go: the curtains to the east and west neatly align with the respective corners of the turret, but as this structure was built to a slightly parallelogrammatic plan the eventual north face of the Wall shows a slight kink at T 26b (see fig. 6).¹⁸⁴ A final indication that we are looking at something more than just an allotment break is provided by the carefully finished lateral end face of the eastern wing wall, which stood on a proper footing three courses high before the Narrow Wall bumped onto, and rode over, it.¹⁸⁵ Has this wing wall, at an early stage, somehow been tampered with? All in all, the evidence at T 26b is suggestive of much structural complexity.

At this point, it is important to note that it is the Six-Foot Wall that eventually bonded with the turret.¹⁸⁶ Now, there is every reason to believe that this was a quite distinct, late gauge applied in the remaining Wall miles 22–26 after the main work on the curtain between North Tyne and Irthing had been completed to the imperially sanctioned Eight-Foot standard.¹⁸⁷ The implication would be that T 26b, so obviously crucial for controlling the North Tyne valley, was only built several years later. This is very unlikely and, of itself, sufficient to raise the question if the turret as we have it could be a partial rebuild, replacing an earlier one built in conjunction with the Broad Wall to the west and separate from (much?) later work to the east.¹⁸⁸ It might explain some of the asymmetries observed at T 26b, notably the misalignment of the curtains on both sides. It would also restore the logic of the building process at Brunton turret. How else can we explain the curious fact that the curtain to the west was taken above the first scaffold lift, including the western wing wall, and the turret itself left unfinished only 4 to 5 foot high? That doesn't seem to make much sense. If you are building a wall to bond with structures, you don't postpone the structures — you build them with, or rather ahead of, the adjoining curtains. So if it is accepted that the Broad Wall west of T 26b, including its notional wing wall, was taken beyond the first scaffold lift, the original turret would normally have risen with it.

Taken together, the structural evidence of the Brunton-Chesters area is suggestive of a provisional arrangement whereby T 26b and 27a were to function as the end-points of a solitary barrier element (*clausura*) about 1 km long, backed up by the early milecastle 27.¹⁸⁹ Whatever the intended function of this distinct blocking element (defensive, regulatory, or

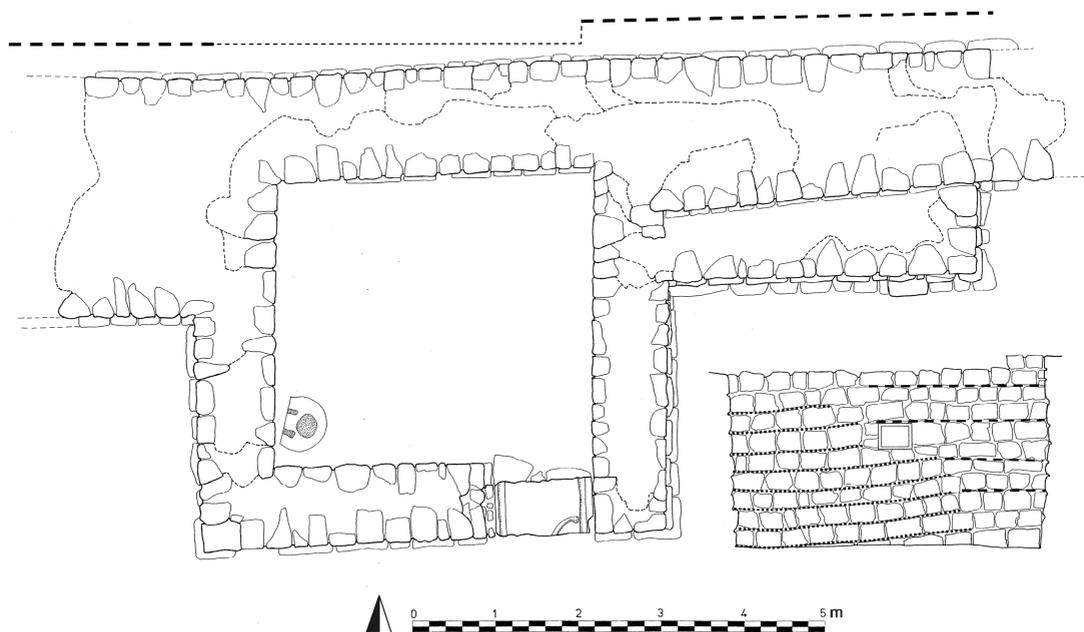


Fig. 6 Plan, and elevation of the internal north face of T 26b (Brunton), based on a drawing made in 1988 by Alan Whitworth (now in the Plans Room of the English Heritage National Monuments Record, Swindon), rearranged by the author. The dotted line marks out the kink in the alignment of the curtain's north face. The sagging (western) and more level (eastern) courses of the internal north wall are highlighted in different dotted lines. Note the widening of the Narrow curtain as it joins the turret.

rhetoric?), its situation strikingly coincides with the valley bottom of the North Tyne, one of the most inviting and sensitive access points along the entire line of the Wall.¹⁹⁰ The planning of temporary *clausurae* for the two main river valleys that penetrated the frontier zone would be a completely new element in our understanding of the Hadrian's Wall, with wide ramifications for the expected duration of the building project, its purpose and urgency. To give a rough idea of the time scale involved, there are the peat and clay deposits that Haverfield found underlying Chesters fort: the North Tyne *clausura* may easily have been advanced a year or two.

We are slowly but steadily moving away from the traditional view of a vast building project following its own inner logic of work allotments and building stages, horizontally and vertically. There appears to have been a different concern that was often allowed to override the natural working order that would have followed from rational supply and building logistics. To put it succinctly: the building scheme for Hadrian's Wall appears to have been segmented and prioritised on the basis of a thorough sensitivity assessment of the terrain to be crossed, both on a macro-level (defining the successive seasons' targets) and on a more local level allowing individual structures and stretches to be prioritised according to their topographical sensitivity. Such segmentation and prioritisation presupposes that the initial plan for the Wall (with some 225 installations along its line, and a few additional forts east of

Corbridge) was expected to take several years to complete, probably in the range of three to five. It may have been taken into account that the closing of the isthmus would provoke the aggression of the tribal communities beyond — only further necessitating a careful security analysis and prioritisation. We have seen that the more low-lying, and penetrable, east and west sectors had their protective curtains closed first — contrary to the natural supply of the basic building materials. The materialisation of the Turf Wall was probably chosen so that the job could be done within one working season. The Turf Wall plus the curtain of Wall miles 4–22 (including turrets and milecastle north walls) alone amounted to a decent workload for a season or two, and perhaps more than that. The remainder of Hadrian's Wall was built in a very disjointed fashion, with couples of milecastles and provisional *clausurae* accelerated to cover sensitive points, and a number of turrets and milecastle north walls advanced to close the gaps in the observation screen that had existed in the central sector since the Trajanic period. The apparent pressure may have actuated attempts at manpower savings before the great dislocation, perhaps exemplified by the short-lived experiment with Middle gauge milecastle walls.¹⁹¹

IMPERIAL INSPECTION

Such were the circumstances of the 'great dislocation'. The fort decision, in particular, was a very incisive measure, bound to have great repercussions.¹⁹² First of all, it was a significant waste of labour, coming, in our view, after months (and one previous season at least) of hard work in anticipation of the emperor's visit. The work that was discarded included several turrets that may already have been commissioned (T 27a, 36b, 49a, and quite possibly T 65b and 71b too), one milecastle that was part of the short-lived 'Middle gauge acceleration programme' (MC 43), and a substantial length of ditch and curtain, cumulatively, at all the fort sites, as established at Halton Chesters, Chesters and Birdoswald. The fort decision also threatened to disturb the delicate signalling arrangements on which the entire fabric of the Wall had been designed. And to add insult to injury, the decision entailed a substantial additional building programme, easily amounting to two or three years for the best part of the work force.

An intervention as incisive as the fort decision, suddenly occurring half-way in a mega-project such as this, and completely dislocating a forced, but carefully planned building programme, surely demands a special explanation. A change of command, of governor that is, is the least that may be surmised. There *was*, in fact, a change of responsibility about the spring of 122, as we have seen, perhaps the consequence of the emperor's displeasure with the reported progress of work. But it is very doubtful if a provincial governor, on his own, could intervene so drastically in a project that was so obviously one of Hadrian's *grands travaux*. Whimsicality and waste of such magnitude normally are the prerogative of autocrats. So if Hadrian left a fingerprint on the Wall, here it is. The fort decision was bound to cause widespread murmur and grumbling, and it seems that an echo resounds in our sources. It is almost a *topos* of Roman military historians that good generals had an unflinching eye for the best sites to build forts, and we have Tacitus' eulogy of Agricola to illustrate the point.¹⁹³ But Hadrian's commemoration as fort builder, as voiced by Dio, is very odd: 'Some of these he removed to more desirable places, some he abolished, and he also established some new ones' (LXIX.9.1–2). The abolition and displacement of forts is a curious deviation from tradition that was quite uncalled for. However, Dio's description could not be more apt if applied to the rearrangement of garrisons occasioned by the fort decision — pinning down *Hadrian's* visit to that moment.¹⁹⁴

Can we get any closer? Perhaps we can. Immediately adjoining the Turf Wall, to the east of the Irthing, is a stretch of stone Wall that is remarkable in many ways, as we've already noticed, bearing all the marks of a model section delivered with priority. Built to Broad gauge entirely, MC 47 and 48 must have been among the very first Wall installations that were finished.¹⁹⁵ Measuring c. 21 by 18 m (70 by 60 ft: 385 and 395 sq m respectively), their internal areas are substantially larger than all other known milecastles on the stone Wall (average 18 by 15 m, equalling 60 by 50 ft, c. 277 sq m).¹⁹⁶ A further feature that sets them apart is the fact that both had double barracks, with eight entrances in the case of MC 48, using up most of the effective internal space.¹⁹⁷ This contrasts starkly with the rest of the milecastles, which show large empty spaces, with a much-reduced, single-entrance building using little more than a quarter of the two strips available for barracks on the model of MC 48. The obvious explanation, in the words of Matt Symonds, 'is that the barracks in milecastles 47 and 48 are the only ones so far recovered that were constructed before the fort decision was taken. If so, they would represent the quantity of accommodation considered necessary to house a garrison capable of policing the Wall.'¹⁹⁸ What is particularly striking is the presence, in MC 48 (the most thoroughly excavated of the two), of rather special features like stone steps, a baking oven, verandas fronting the barracks, and even window glass and roof tiles. This suggests that 'these internal buildings came early in the building sequence, before such provisions were considered to be an unnecessarily costly extravagance.'¹⁹⁹ To complement the picture there is the dedicatory inscription by the XXth legion (*RIB* 1852), generally believed to have come from MC 47. The piece is singular among the epigraphy of the curtain in that it gives the full filiation of Hadrian, rather in the style of 'grandiose public inscriptions'.²⁰⁰ It is all the more remarkable that it fails to include the near-obligatory mention of the 'care' of the governor — Platorius Nepos, especially, appears to have been rather insistent on this point.²⁰¹ This may be taken, very tentatively, to indicate that MC 47, or perhaps an adjacent stretch or structure, was delivered during the supposed vacancy that preceded his tenure.

This is not the end of it. Turrets 48a and 48b, the westernmost installations of the original stone Wall, are remarkable in several ways.²⁰² Both have very prominent wing walls, suggesting that they were (to be) completed before the adjoining curtain.²⁰³ What really sets them apart is that they were recessed almost 2 m into the Wall, leaving only a normal tower-wall width to protect their north faces. Such recesses were not repeated anywhere on the stone Wall, exposing them as an ill-considered, prototypical design flaw.²⁰⁴ Again, there are signs of unusual expense on workmanship: 'Several stones with a bevelled edge were found close to the inside walls of the turret [48a]; it was suggested that they had served as a cornice. Flagstones on edge in the masonry debris at this turret and its neighbour were taken to indicate the former existence of a flagged upper room, though possibly only across the recess.' Exceptionally, T 48b also produced a piece of roofing tile.²⁰⁵ In the same sector, neither pain nor expense were spared on the ditch that fronted the Wall: in the Gilsland area (Wall miles 46–48) a width of c. 15 m (50 ft) has been established in several places as against an average 8.5 m (27/8 ft) for other comparable stretches of the Wall.²⁰⁶ A final element that springs to mind is Willowford bridge, the *trait d'union* between the Turf and Stone Wall, the alignment of which, in contrast to that of Chesters bridge, suggests that it preceded the adjoining Broad Wall foundation.²⁰⁷

What we have in Wall miles 47–8, then, is a range of structures and installations that are either demonstrably early or arguably prototypical.²⁰⁸ For all the haste of execution, there are clear signs of extravagance and lavish expense, both in dimensions and details. MC 48

(Poltross Burn), in particular, bears all the marks of a showpiece, undeservedly earning it the role of textbook example.²⁰⁹ Both milecastles were apparently delivered before the fort decision, quite possibly during the supposed gubernatorial *interregnum* that preceded Nepos' arrival — and probably Hadrian's. Now, if the emperor made a long-planned visit up north in 122 to judge and, if necessary, to adapt the novel concept of a fortified frontier wall, it is a fair assumption that a proof stretch was prepared for the occasion.²¹⁰ And if the idea for the stone wall really was Hadrian's, there would be no better place to show, and compare, its monumental expression and superior performance than the Gilsland sector that adjoins the Turf Wall.²¹¹ There was also a very obvious tactical relevance to the line installations in Wall mile 48, together providing an exemplary coverage of the vulnerable potential access that the valley of the Irthing provided into provincial territory — so there may have been some very clever stage-managing going on here, perhaps explaining T 48a's substantial deviation from its normative position. The stretch may have been chosen, and designed, with foresight. MC 48, in particular, was an excellent viewpoint from which the whole fabric of new frontier could be overlooked.²¹² To complete the model, the sector's response centre, the fortlet of Throp, was within close sight, 300m to the southwest. Finally, and most importantly for an imperial visit, MC 48 lies at the exact, and only, spot where the Stanegate road virtually touches the line of the Wall.

Wall mile 48, then, met all the requirements posed by an intended imperial visit, and its structural and artefactual evidence are strongly suggestive of a proof section, prepared on a lavish budget. The stretch has also produced an exceptional find that is obviously related to some grand commemorative act that took place hereabouts in the early days of the Wall. The frontiers of the Roman Empire have produced quite a bit of evidence for monuments commemorating imperial visits and addresses, not least Hadrian's, and we may just have another instance in the case of the Victory relief that was found a few hundred metres north of the Wall at Gilsland on a knoll called Rose Hill, between T 47b and MC 48. The piece must have belonged to a monument, perhaps another *tropaeum*, of quite substantial proportions, seeing that the imagery on the surviving slab (1.10 m wide) presupposes a pendant plus a central text panel, making a total of 3 m or even more.²¹³ The bucolic style of the scene (as drawn by Fairholt) is suggestive of a Hadrianic to Antonine date, and the curious domed structure in the background may well be a local Victory shrine of the same type and shape that was later (?) built just north of the Antonine Wall.²¹⁴ An early date is also suggested by the place where the relief was found. Initially, Gilsland had been the western terminus of the stone Wall, but the place lost its special significance after the stone Wall had been taken west of the Irthing for another five miles in the later Hadrianic period.²¹⁵ If the find spot is anywhere near the original position of the monument, the point was well-chosen, probably occupying a last commanding plateau before the Wall descended the slopes of the Irthing valley.²¹⁶ It is a tempting thought that the Gilsland relief belongs to an early-Hadrianic monument that commemorated the delivery of the western terminus of the Wall, parts of which seem to have been carefully prepared in anticipation of the emperor's visit in 122.

AFTER DISLOCATION

It is very difficult to unravel the building order of Hadrian's Wall after the dislocation caused by the fort decision. It is the signature of turret bases and milecastle gates that allows us to differentiate and follow the work forces during the first two seasons or so, but at the moment

of dislocation all but a few of the tower foundations and the north gates of milecastles had been constructed. What *is* apparent is a series of reductions in gauge and of quality in structures preceding and following the fort decision, perhaps indicating an effort to speed up work and save materials and manpower. Prior to the fort decision, perhaps just weeks before, there appears to have been a short-lived experiment into the viability of Middle gauge (2.44 to 2.6m) milecastle walls, soon abandoned for the Narrow standard, suggesting a sudden interest in speeding up the programme.²¹⁷ The decision to narrow the gauge of the 'Great Wall' itself from 10 to 8 feet was probably also taken to achieve just that, quite possibly in compensation for the additional workload imposed by the fort decision.²¹⁸ Close examination of surviving work at the forts, notably the gates, has brought to light that sharp declines in the standards of care and of quality occurred early in the building sequence at Birdoswald, Housesteads and Chesters, perhaps indicating forced acceleration.²¹⁹ Comparable evidence is available for the north gate of MC 37 and the south gate of MC 42, both tentatively datable close to the moment of dislocation on account of some transitional features.²²⁰ At MC 37, after a decent start showing 'honest Roman military engineering', there was 'some reduction in the degree of care taken ... Apparently very soon afterwards there was another change, this time with half-finished stones being fixed as though getting the work finished took priority over all else.'²²¹

There is quite a bit of structural and technical evidence, then, for a series of reductions in gauge and of quality occurring somewhere in the middle of the building programme. It is very uncertain how much of this synchronises to a 'second dislocation', still less to the 'second war' of c. 123/4.²²² The indications occur at milecastles at a building stage close to the moment of dislocation, and at forts soon after the foundation stones of the gates were in place. The evidence we have is for reduced specifications and lowered standards, not necessarily building hiatuses, save perhaps at Birdoswald. The structural sequence allows all of these changes to have taken place in a time span that may have lasted from a few weeks before until just months after the fort decision — not necessarily much longer. Rather than the outbreak of the 'second war' we may be witnessing a series of ukases issued in the building season of 122 to economize and speed up wherever possible — and perhaps a petrified sigh of relief that the emperor had finally left the province and the governor was back in London.

The remaining part of the construction programme is not easy to reconstruct. Little evidence is available for the building order of the Wall forts. It is a guess how much time was needed to complete them, still more how this affected the organisation of the work force and the continuity of work on the Wall and the remaining structures. A final problem is the place of the Vallum in the post-dislocation programme. We will look into all these issues briefly, to see if we can clarify one or two points. To start with the first, there is a tendency to see the forts built in clusters, with the eastern trio (Benwell, Rudchester, Halton Chesters) being given a head start in order to get this frontier sector properly backed up at last.²²³ But there are many reasons to have all the Wall forts started, and get them commissioned, more or less at the same time. First of all, the fort decision clearly implied a dramatic change in the tactical concept of the Wall, whatever it was. The occurrence in all sectors, east, west and central, of projecting forts, a short-lived experiment on Roman frontiers, points to an integral design. So do the remarkable regularities in the original spacing, and probably garrisoning, arrangements observed by Swinbank and Spaul long ago. The author of such an incisive and symmetric plan clearly would have wanted to see it implemented as a whole. Humour apart, you don't want to have two tactical concepts, each with their own signalling arrangements and

response instructions, functioning side by side for a number of years.²²⁴ The planning of the Vallum, finally, clearly suggests a synchronous transfer of forts to the Wall. As we shall see, the Vallum was set out in a very consistent manner, in conjunction with the forts, working from their established positions in most cases, but before some of them were actually built or even delineated. The Wall forts and the Vallum were part of one package that was prioritized at the cost of the curtain.

The structural evidence, likewise, points to a wholesale concentration of work forces to the new fort sites. A general withdrawal from the curtain for a period of at least one or two years is implied by the disregard of existing stretches of Broad foundation by the returning work gangs at Mons Fabricius and Great Chesters, by the cutting of a new Narrow foundation into its derelict Broad precursor at Planetrees and T 33b, or most graphically by the burnt vegetation that marks the transition from Broad to Narrow work at Peel Gap. So there's evidence for a 'Broad-to-Narrow hiatus' in Wall miles 26, 33, 38, 39 and 43 — all along the remaining curtain programme that is, and we know that the Wall forts in this stretch (Chesters, Housesteads, Great Chesters) belong in this hiatus sequentially. We have just noted the parallelism of building standards tumbling at much the same point at Chesters, Housesteads and Birdoswald, suggesting that these forts were launched on the same timetable. We've also seen that the fort ditches at Chesters (and perhaps Great Chesters) were dug at a stage when the Broad Wall was still on the programme, while the ditch diggers at Housesteads apparently anticipated the Narrow Wall. This seems to indicate that the start of these forts and the decision to narrow the curtain were close in time.²²⁵ We shall finish this essay arguing that the defences and accommodation of Birdoswald had sufficiently progressed to provide cover for two coin hoards probably connected with the 'second war' of 123/4, while Maryport on the Cumberland Coast may seal the argument of a radical and wholesale prioritisation of forts following that eventful summer of 122.

That the completion of the curtain was struck out for a couple of years seems to be borne out by the fact that the new forts were built without wing walls, showing that they 'were originally built as free-standing structures'. The builders of Housesteads apparently didn't anticipate the bonding of the curtain in the northeast corner — they just built a regular fort as if no Wall was ever going to obstruct the view from the northeast corner-tower.²²⁶ This was one of the reasons why Julian Bennett came up with the suggestion, in his 1990 thesis, that the plan for a continuous stone wall was removed from the agenda altogether, to be substituted by a more economical earthen barrier a little to the rear, the Vallum — still a formidable combination of a steep-sided, flat-bottomed ditch flanked by a bank on either side. There is some evidence to support this. There are many indications that the planning of the Vallum came early, in close connection with the forts, taking their positions as a point of departure. In some cases the earthwork was apparently set out prior to the actual building of a fort (Birdoswald, Stanwix) or even before its exact shape and size had been decided on (Benwell, Rudchester).²²⁷ One of the Vallum's striking features is that it was dug with relentless effort, cutting through bedrock where the Wall ditch was left unfinished, famously exemplified at Limestone Corner, much as if it had been given priority over the initial barrier.²²⁸

There are many objections, however, to the idea that the Vallum was ever thought of as a replacement for the Wall. First of all, the savings on manpower foreseen by Bennett have largely vanished in recent calculations.²²⁹ More seriously, the initial concept of Hadrian's Wall provided for a continuous chain of watchtowers that activated response centres to the rear, but the Vallum, lacking observation facilities and taking 'a totally undefensive course' at the

very bottom of the Whin Sill in the central sector, certainly couldn't replace the Wall as a forward observation screen. David Woolliscroft has shown that, under the adapted plan, the positions of the Wall forts were carefully chosen so as to make the most of the positions of the line installations as we have them, so these structures would have to be completed anyhow, if the forts were to have an adequate alert system.²³⁰ If the structures were finished, it would be rather penny-wise and pound-foolish to annul the remaining curtain in between and construct the Vallum instead. Besides, there is an anomaly here: you don't move up forts to the line of the Wall to enhance their function in concert with that of the barrier (the obvious rationale of the fort decision), only to decide that you are no longer going to build the Wall. We may also call into evidence the projecting forts with their three twin-portal gates north of the barrier line: these clearly presuppose that the Wall was going to be built. Finally, Bennett's suggestion implies that, under his (and our) chronology, Hadrian would have visited his prestige project only to conclude that an earthwork could replace his grand statement of the ideal frontier barrier. This cannot be: that Wall was going to be built — every metre of it! We may remember Gilsland, part of the planned Irthing *clausura*, where work on the stone Wall was probably resumed months rather than years after dislocation. The Vallum, then, was an *additional* element to the Wall complex. It was an integral part of the 'fort-decision package' and (almost) consistently planned from the established positions of the new forts. It may have been developed piecemeal, however, and usually it would have been one of the later elements to be constructed in a given sector, seeing that the triple obstacle would cut off all supply and communication from the south to a very complex linear building site.²³¹ So we may turn Bennett's argument upside-down: rather than replacing it, the delivery of the Vallum marked the completion of the Wall complex. It may (or may not) be relevant to its late place in the building order that it was largely constructed by auxiliaries.²³²

So where does this leave us? It is commonly accepted that work on the Wall continued to the late 120s, principally because the Narrow Wall has been reported to bond with the fort of Great Chesters which was supposedly delivered in 128 at the earliest.²³³ A dedicatory inscription found close to the east gate of Great Chesters (*RIB* 1736) honours Hadrian as *Pater Patriae*, a title he officially took only in 128. Seeing that a causeway across the Vallum was provided to this fort, it has been recently concluded that the new earthwork was contemporary with, or later than, this date. The secondary Wall fort of Carrawburgh, which was built over the infilled Vallum, is thus pushed into the early 130s, bolstering up confidence in a rather problematic inscription from the site that is believed to mention the governor Sextus Julius Verus (c. 131–3, *RIB* 1550).²³⁴ But the whole chain of reasoning is vulnerable on several points. The part of the Carrawburgh inscription where the name of the governor is supposed to be is badly damaged, leaving room for a powerful rival: Cn. Julius Severus, attested in 158 — the year of the recommissioning of the Wall.²³⁵ The Great Chesters inscription may have been dedicated upon completion of a fort *planned*, and perhaps started in conjunction with the Vallum, several years before. More alarmingly, however, the 'dedication' is very oddly placed on the lower half of the ansate panel, showing 'execrable lettering and layout', as if it has been clumsily inscribed at some later point with the stone already in place.²³⁶ Particularly problematic for a formal dedication is the fact that the text fails to mention the commander and/or unit responsible for the job. But the most severe objection is that the title of *Pater Patriae*, which all preceding emperors except Tiberius took on their accession (apart from a few pretenders like Otho and Vitellius), was often wrongly *assumed* for Hadrian as well, and used in several early dedications, like the series of milestones that were erected by local authorities

in Gaul and Britain on the eve of his 121–2 journey.²³⁷ The evidential value of *RIB* 1736 is thus very questionable, allowing both Great Chesters and the Vallum to be constructed earlier, and further eroding confidence in *RIB* 1550 from Carrawburgh. None of the primary Wall forts and line installations, then, are unequivocally dated under one of the later Hadrianic governors.²³⁸ There is, in sum, little formal objection to having the emperor's favourite, Aulus Platorius Nepos, deliver the Wall from head to tail — perhaps the Vallum included.²³⁹ He may, in fact, have been continued in office beyond the normal term, perhaps as late as 127, to get the job properly done.²⁴⁰

CORROBORATION

The above, as stated at the outset, is no more than a series of proposals to regroup some of the evidence pertaining to the building order of Hadrian's Wall. Luckily, we cannot prove any of them, but the beauty of our field of work is that sometimes things come together in ways that are encouraging. The Wall, in particular, invites us to a series of built-in resistivity tests. The greatest challenge is: legionary signatures — you don't want to have conflicting claims to building allotments in the schedule leading up to the emperor's visit. So what is the impact of our proposals? One of the switches made is to have the structures in Wall miles 47–48 delivered by the summer of 122. This would provide a fitting occasion for the most elaborate building inscription from the curtain, *RIB* 1852, and might explain its omission of a governor's name, assuming that a vacancy preceded Hadrian's visit and the transfer of Nepos (a huge reservoir of misses had built up when the diploma of 17 July 122 was issued). Now, if the dedicant, *Legio XX Valeria Victrix*, built the structures in Wall miles 47–48, we have thereby identified the unit that signed for the 'the clearest legionary block', sc. T 17a-MC 22.²⁴¹ To proceed, if MC 37, 38 and 42 were part of a forced 'Middle gauge acceleration programme' that preceded the great dislocation, it is a fair assumption that these installations were duly delivered with their perimeter walls complete by the unit that signed them: *Legio II Augusta*.²⁴² The five-mile block T 12a-MC17 then goes to this unit. This leaves block T 7a-MC 12 for *Legio VI Victrix*. The same signature recurs in all investigated structures in the sector T 22a-MC 27 and in the block consisting of (at least) MC 33–T 36a. The latter includes broad-winged T 33b (Coesyke) where the recess-blocking wall contained a reused building inscription of *Legio VI*.²⁴³ The former comprises T 26a (High Brunton) which produced pottery with red-striped painted decoration made by *Legio VI* at York in the early Hadrianic period. At this point it is fitting to honour the late Vivian Swan: 'Such products are uncommon, even in York, and were not normally traded. Indeed, their contexts are usually military. It is therefore quite probable that they were carried to these sites by detachments of *Legio VI* involved in early Hadrianic building activities.'²⁴⁴ Perhaps York ware was more likely to travel with settled detachments rather than rugged work gangs. This opens up the possibility that the building legions also furnished (some of) the occupying forces for the structures that were successively delivered in the pre-commission years of Hadrian's Wall. The side-effect of all this could be that, after years of uncertainty, we finally have our legions back in line, though in a different order from the one proposed by Hooley and Breeze.

Another happy coalescence occurs at Birdoswald. In 1930 and 1949 two coin hoards were found in the fort. The first, contained in a pot, was reported to have been 'pushed in the floor' of a building at the junction of the *via decumana* and *via sagularis* in the southernmost strip of the fort. The second, a bronze wrist-purse, came from the base of the earth rampart that

backed up the perimeter wall north of the east gate.²⁴⁵ The composition of the hoards is remarkably similar to the one found at Thorngraftern near Vindolanda in 1837, all three showing a significant proportion of Republican *denarii*. On the Continent, these valued items largely went out of circulation under Trajan. In Britain, they seem to hang on only a little bit longer, so their strong presence in our three hoards would seem to support a date rather early than late under Hadrian. His four coins in the Thorngraftern hoard apparently predate 128 (relying on the absence of the title *Pater Patriae*). Those of Birdoswald, two of which are in mint condition, are types that were dated 119–121(2) in *RIC*, later broadened to 119–124/5 in *BMC*.²⁴⁶ Context and composition of the three deposits are suggestive of a single hoard horizon postdating the fort decision of (in our view) 122 and predating Hadrian's more prolific coinage starting in 125.²⁴⁷

Most hoards we owe not to sudden strokes of amnesia on the part of their former owners but to events that prevented them from retrieving their savings. When found in a Roman fort (normally an ordered environment with facilities for the keeping of money deposits) it is likely that something serious was going on, like the Batavian revolt of 69 that caused an officer to 'push' a hoard of 50 *aurei* into a floor in the fort of Utrecht. In the case of Birdoswald, it is very tempting to connect the hoards with the 'second war' of 123/4. The war may also plausibly explain the start, if not the duration, of a long hiatus in the fort's construction.²⁴⁸ Progress at the point the break occurred is difficult to assess. One of the hoards was found under a floor, the other at the base of the earth rampart — *prima facie* meaning that the facing stone wall stood tall by then and some first accommodation was available in the *retentura*. But nothing much was built in the northwest quadrant before the hiatus, and the west gate was left unfinished, so we are probably looking at a few months of actual building at most. Over and above that, one or two months would have been needed after the fort decision to replan sites and signal links, reshuffle work forces, and reroute supply chains. The Birdoswald evidence, then, seems consistent with this fort being launched somewhere late in 122, under construction in 123, and scheduled for commissioning in 124 or so.

Before we move on to consider the consequences, we have to widen our scope. Unexpected support comes from the far west. Hadrian's Wall has a much-neglected little brother, the Cumberland Coast system. It is, in fact, the Wall's twin for all practical purposes. It takes over west of MC 80, regularly continuing the Wall's metronomic triplet pattern for another 25 miles, and sharing the Turf Wall's idiosyncrasy of earth-and-timber fortlets and stone towers.²⁴⁹ The spacing interval of one-third of a Roman mile (c. 490 m) is observed with even greater rigour than on the Wall itself, putting some installations in obviously malfunctioning positions.²⁵⁰ This, in itself, is perhaps the strongest indication that we are looking at a coherent system that was set out simultaneously with the Wall. To support the coordination of the twins, it has been observed that the most senior garrison (and the strongest mobile striking force) of the northern frontier, the *Ala Petriana milliaria* at Carlisle/Stanwix, lay very close to the centre of the combined Hadrian's Wall-Cumberland Coast system.²⁵¹ And there is a coin of 119–21 in near-mint condition, from the foundation of Tower 13a, to support their synchronicity.²⁵² But the strongest argument is that the rigorous spacing pattern of the line installations does not tie in with the forts at Beckfoot and Maryport, which seem superimposed on the original design, just like the Wall forts, taking the positions approximately of Towers 14b and 23b.²⁵³ Maryport, in particular, sits on one of the highest points along the Cumberland Coast (55 m), a 'visual watershed' providing direct signal links with a maximum number of lesser installations, comparable to the elevated positions of e.g. Benwell and

Housesteads that bespeak their secondary planning.²⁵⁴ There is every reason, then, to believe that the development of the Cumberland Coast system ran parallel to Hadrian's Wall, adding yet more to the colossal workload that any timetable that we may devise for the Wall will have to take into account. But there could be a far more dramatic consequence.

In 1870 seventeen Roman altars were found in a series of pits about 300 m north-east of the fort of Maryport — the biggest cache ever found in Britain. At some point they had apparently been removed from an official shrine to provide packing stones for a huge timber structure. Together with earlier finds, some of which were demonstrably from the same site, they form the core of a unique assemblage of 22 altars to Jupiter Best and Greatest (and the *numen* of the emperor in some cases).²⁵⁵ It is generally accepted that they constitute a (near-)complete series of yearly dedications probably posed on 3 January (*nuncupatio votorum*), when a new corporate vow was made, and the previous one paid, for the prosperity of the emperor, and thereby the welfare of the empire.²⁵⁶ The altars were dedicated by the commander on behalf of his unit, the name of which might be skipped on reiteration. What interests us here is the series left by the First Cohort of Spaniards (not necessarily in chronological order), shown in Table 2. The last-named altar in the table (*RIB* 836) has lost most of its text, but it was found close to *RIB* 820 as part of the 1870 cache, and according to some of the best experts 'the ornament indicates clearly that it is attributable to *I Hispanorum*'.²⁵⁷ This leaves us with 16 dedications by the Spaniards. Their departure from Maryport can be confidently dated to 138 or early 139.²⁵⁸ This would bring the *Cohors I Hispanorum* to Maryport between late 122 and late

Table 2 List of dedications by the *Cohors I Hispanorum* from Maryport roughly following the order of Roman Inscriptions of Britain (Collingwood and Wright 1995). Given their special rank of *tribunus*, *Maenius Agrippa* and *Caballius Priscus* are considered to have started the series, commanding a temporarily enlarged garrison from c. 123 and 127, respectively (or inversely).

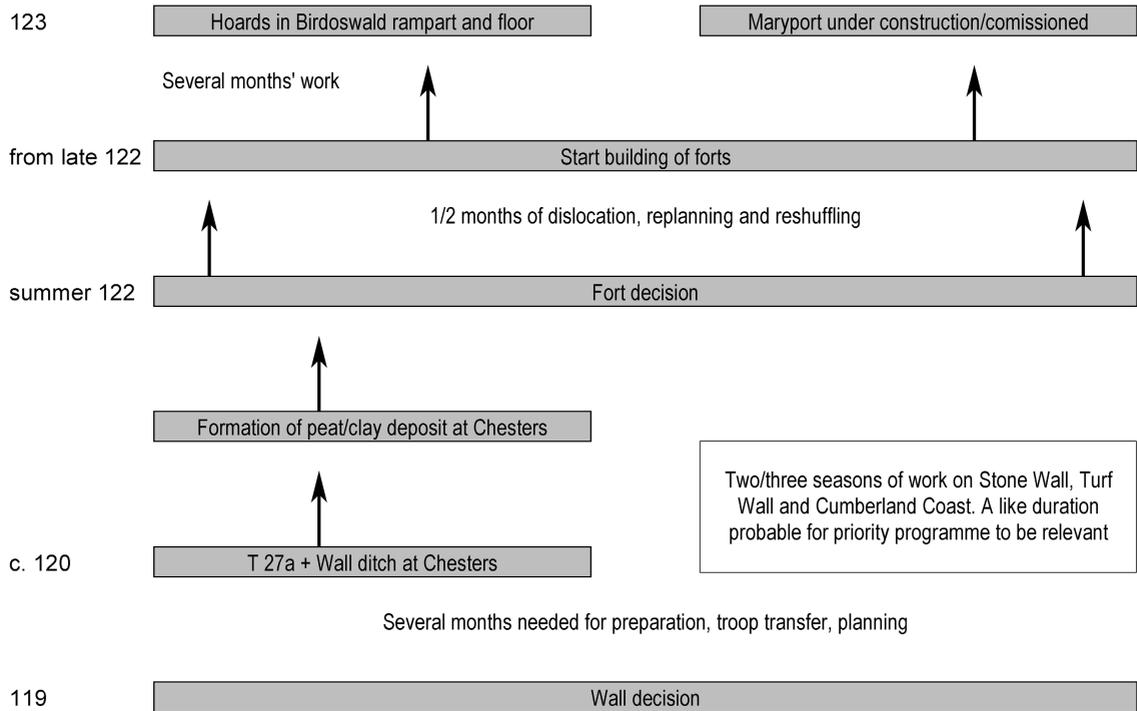
COMMANDER	RIB	UNIT	RANK
M. Maenius Agrippa	823	<i>Coh I Hispanorum</i>	Tribunus
M. Maenius Agrippa	824		Tribunus
M. Maenius Agrippa	825		Tribunus
M. Maenius Agrippa	826		Tribunus
C. Caballius Priscus	817	<i>Coh I Hispanorum</i>	Tribunus
C. Caballius Priscus	818		Tribunus
C. Caballius Priscus	819		Tribunus
C. Caballius Priscus	820		Tribunus
M. Censorius Cornelianus	814	<i>Coh I Hispanorum</i>	Praepositus
[Not named]	815	<i>Coh I Hispanorum</i>	n.a.
L. Antistius Lupus Verianus	816	<i>Coh I Hispanorum</i>	Praefectus
Helstrius Novellus	822	<i>Coh I Hispanorum</i>	Praefectus
L. Cammius Maximus	827	<i>Coh I Hispanorum</i>	Praefectus
L. Cammius Maximus	828	<i>Coh I Hispanorum</i>	Praefectus
L. Cammius Maximus	829	<i>Coh I Hispanorum</i>	Praefectus
Name lost	836	Name lost	Lost

123, the *nuncupatio* of 124 being the latest possible occasion for the altar series to start. It is a very attractive possibility that M. Maenius Agrippa, one of Hadrian's elect in the *Expeditio Britannica*, first commanded this unit as part of the emperor's answer to the 'second war' of 123/4. We now have structural evidence at Maryport to suggest a temporarily upgraded garrison — perhaps sufficient to warrant Agrippa's title of *tribunus*.²⁵⁹ Assuming that the series of dedications at the fort's shrine did not start before the new garrison had been formally established, the Maryport altars lead us to conclude that this fort was under construction by 123 — just like Birdoswald.

Maryport and Birdoswald provide very strong evidence that the fort decision was carried out as a single coherent operation in 122–123, as argued earlier on systemic grounds, even if the 'second war' intervened and managed to hold up parts of the programme. This, now, has far-reaching implications for the building history of the Wall: it simply explodes the time frame set by the traditional start date (summer 122) and is needed to accommodate the intervening structural sequence. The problem may be schematised as shown in Table 3. Without pressing or stretching anything unduly, the scheme shown in Table 3 pushes the start of the Wall project towards AD 120 or so. There are few escapes. One could object that Chesters fort might have been launched two or three years after the fort decision, allowing the Wall ditch to accumulate the thick peat deposit that so manifestly implies an interval of approximately this duration. But the relations between Broad and Narrow work established at Chesters, Housesteads and Gilsland clearly support the place of Chesters among the first league of Wall forts. Besides, there are many indications for the early development of the stretch of Wall that ends under the fort (T 26b-27a). If it is accepted that this represents a provisional barrier (*clausura*) of the North Tyne access, such a priority measure only makes sense if it was taken for an expected period of, say, two or three years — not months. Finally, there is the volume of work that was started (and arguably completed in most cases) before the fort decision: 15 miles of stone curtain from Portgate to MC 7 (or more probably 18 miles down to the river Tyne); the perimeter walls of at least 11 milecastles (4, 9–10, 14, 23–27, 47–48); a good deal of the turrets and the north walls of milecastles in the central sector; the curtain, turrets and some of the milecastles of the Turf Wall; and enough work on the Cumberland Coast installations to preclude the thought of replanning them. All in all, the sequence presupposes a few years' space *before* the fort decision — and there is plenty of time if we look in the right direction.

The central argument of this paper has been that the start of the Wall project, and the whole chain of following stages, may be advanced a year or two if we let Hadrian visit (and interfere with) a work-in-progress rather than having him order it on the spot. So instead of calculating *forward* from 122 to make room for the whole complex sequence, it is now possible to move *backward* in time and have the programme start in *c.* 120. Many things now fall gently into place: the Chesters ditch has time to accumulate its problematic peat deposit, and occupants are more than welcome at T 27a; two or three building seasons are available for the immense amount of work taken up from the River Tyne to the Cumberland Coast, so that it makes good sense to make a priority analysis and advance certain elements in exposed areas; there now is time to provide sufficient scaffolding material so that Broad-winged structures may be completed as planned; a few structures in Wall mile 48 fitted up on too lavish a budget may be justified as specimens for imperial inspection; and the construction of additional forts can start early enough to hide hoards (Birdoswald) or place garrisons (Maryport) in them during the war of 123/4; we are also freed of the paradox that a peripheral affix, the Cumberland

Table 3 Schematic Wall sequence, counting backward from the critical 'under-construction' dates of Birdoswald and Maryport.



Coast system, 'an afterthought' perhaps of Hadrian's Wall, somehow managed to have its first response centre up and running well before the mother-project,²⁶⁰ and we no longer need to add a stroke to the Jarrow inscription that so manifestly puts the Wall decision in the political context of Hadrian's succession.

CONCLUSIONS

If work on the Wall started c. 120, the order to build a barrier across the Tyne-Solway isthmus was probably taken in Hadrian's first difficult year in Rome (118/9), in the wake of the wars that had marked the beginning of his rule and touched every corner of the Empire. An invaluable inscription from Jarrow pertaining to the Wall speaks of a 'necessity' and 'divine injunction', probably to conserve the Empire within safe limits. The measures apparently included the construction of a continuous 'wooden wall' in Upper Germany, trees for which were being felled in the winter of 119/120. One of the objectives of Hadrian's first journey, apparently announced by 120 to judge from the milestones, was to see how things were progressing along the northern frontiers, and how his designs had translated to the field. When the emperor finally visited Britain in the summer of 122, a provisional earthen barrier had been built in the west, a good part of a stone Wall in the east, and probably as much as half the curtain-related structures in between. At this point a drastic intervention in the

building programme occurred, annihilating much planning and quite a bit of work on the one hand, and reducing building specifications on the other. An echo of the uproar still resounds in one of our main sources on Hadrian's inspection journeys.

In the end, our story is not about chronological detail or imperial anecdote, however, still less about the fabric of Hadrian's Wall. Following tradition, the Wall student relies on its many fissures to reconstruct the building process, but we really have to return to them afresh and ask ourselves what the successive disjoints and gauge-reductions tell us. What could have made the authorities decide, first of all, to close 18 miles of a stone barrier in the eastern sector and to leave the relatively minor milecastle attachments unfinished for the time being — except those that sat beside hidden valleys that penetrated the frontier zone? And why is it that its counterpart in the unruly west, rebuilt in stone from the later Hadrianic period, was first provisionally constructed in earth, the quick-fix material of the Roman army? Very significantly, the two flanking sectors appear to have been set out in five-mile lengths from the two rivers, the North Tyne and the Irthing, which marked out the less penetrable central sector from the more accessible coastal plains and cultivated country. Tellingly, the points where these rivers penetrated the frontier were given special attention: some of the very earliest stretches and structures of the Wall were built across the North Tyne valley and the Irthing/Tipalt gap, amounting to a provisional *clausura* in the first case. For the gradient-rich central sector a very disjointed building programme is in evidence, prioritizing stretches of curtain to fill in the gaps between the crags, and advancing, or postponing, milecastles according to the exposure of their sectors. Counter to rational practice, a large number of turrets and milecastle north walls were accelerated — for no other reason probably than to have the observation system up and running as soon as possible.

The building order of the Wall did not follow from some autonomous logistic rationale, whether it be construction order, building allotments or supply streams. Normally, the complex logistics of scaffolding alone would have dictated a much more orderly delivery of Wall sections. Not to mention an impending imperial inspection. This exceptional building project, however, appears to have been partitioned and prioritized following a careful terrain survey, both on a macro-level determining the successive year programmes and on a sectoral level allowing tactical sensitivities to disjoint both structures and stretches. The decisive factor in all this appears to have been: penetrability. This seems to go both for the wider geography, explaining the first two (?) seasons' rush to close the curtains in the east and west, and for local topography focussing on points of 'concealed penetration'.²⁶¹ The temporary *clausurae* that were planned and partially built across the North Tyne valley, the Irthing/Tipalt gap and the dips between the crags seem to indicate that work on the Wall was originally expected to last a good deal longer than just two years or so. It also implies that security threats were a recent reality, or were present and imminent. The provisional material chosen for the Turf Wall, perhaps detracting from the vision of its principal, reveals what mattered here: to have this gap closed within one season. The Wall's fabric and fissures bespeak the urgency that moved on the project.

It has been one of the recurring themes of this paper that the building order of Hadrian's Wall largely depended on the perceived sensitivity to penetration as defined by terrain and topography — that is to say: security considerations. The strong suggestion is that the new barrier was planned and built under the pressure of imminent hostility, whether perceived or real. Let us be clear what is meant by this. There is no intention here to revive the imagery of the famous painting at Wallington Hall, with native work forces whipped up to complete a

defensive barrier under continuous Pictish assault. In our view the Wall, like the German palisade, was one of the functional requisites, along with towers, fortlets and forts, of a security concept that provided a basic, essentially interceptive, anti-raiding shield on the one hand, and a springboard for forward, preventive or punitive, action on the other. As such, the Wall and its various components could well be a matter of urgency, a thing in short to have up and running within a few years, all according to terrain and threat.

On our new chronology, the first seasons of work on Hadrian's Wall are clasped between the wars of 117/8 and 123/4, and building was apparently interrupted by the second at many points. We do not know the exact nature of those 'wars' — we may be looking at successive waves of large-scale raids and punitive campaigns. If the Wall's spatial arrangement makes any sense as an alert-and-response system the heat was obviously expected to come from the north. The fort decision, in particular, annulling so much work but dramatically increasing the Wall's capacity to function as a forward springboard, is a clear reminder that security and tactical considerations were the thing that ultimately shaped Hadrian's Wall. The construction of the Vallum, undertaken in a time of stringent manpower savings, may indicate that security risks of a nature, or on a scale, not experienced before now had to be faced. We have to remind ourselves that when Hadrian came to power, 'the Britons could not be kept under Roman control', and thousands of soldiers were killed in action in the following years, Fronto later remembered. The very act of building the Wall may have exacerbated feelings among communities on both sides. Before Nepos left Britain, a 'second war' involving a 3000-strong *expeditio Britannica* had probably been fought. Hadrian's Wall may have taken shape under the pressure of hostilities in a way quite unimaginable in the peaceful decades of frontier studies that lie behind us.

NOTES

¹ This paper reproduces, and slightly augments, the chapter of the same name from my study into the development of Roman frontiers in NW Europe, *From corridor to perimeter* (in prep.). This is part of the multi-disciplinary project, 'A sustainable frontier? The establishment of the Roman frontier in the Rhine delta', funded by the Netherlands Organization for Scientific Research (NWO), Biax Consult, Radboud University Nijmegen, the Municipality of Utrecht, and the Foundation for Provincial Roman Archaeology. This paper is little more than a proposal to regroup some of the evidence on the early building order of Hadrian's Wall. There may be differences of interpretation with some of the principal architects of the sequence as currently understood. This does not detract, however, from the author's awareness that anything useful in the following pages firmly rests on *their* shoulders — only a fraction of my debt to them could be repaid in the notes. This goes in particular for Peter Hill who first really made us understand the actual job of constructing Hadrian's Wall. I thank Ton Derks, Brian Dobson, Ian Caruana, Peter Hill, Fleur Kemmers, David Shotter, Matt Symonds, Alan Whitworth, Tony Wilmott, and David Woolliscroft, who all shared thoughts and information without inhibition. David Breeze, to whom this little essay is dedicated, did all of this, and more: in his swift response to drafts and difficulties he has set an example of both method and humanity that has inspired me since. His latest edition of the *Handbook to the Roman Wall* (Bruce 2006) provides all the necessary backup on sites, structures and issues that are treated in too great haste below. There would have been many more shortcomings if it hadn't been for him and Peter Hill who both read the paper and helped me improve it.

² See Birley 1997, 77ff., esp. 90 (Falco); 2005, 117f. Cf. below at n. 108.

³ RIC II, Hadrian 577a-b; cf. 845-6.

⁴ *De bello Parthico* II, 22of. (Van den Hout). Cf. Birley 2002, 75, suggesting that the 3000-strong force that Pontius Sabinus brought over from Spain and Upper Germany in the 120s 'may give an indication of how many legionaries were killed.'

⁵ Birley 1998. The tombstone is datable to the early 2nd century on stylistic grounds, but the Tungrians remained in Vindolanda for some years after the construction of Hadrian's Wall, so the epitaph may refer to the 'second war' of c. 123/4 (see below).

⁶ As suggested by Shotter 1996, 54. Birley 1997, 130; 1998, 303f., suspects the *Brigantes* and their neighbours across the Solway, pointing to recruitment practices attested two decades earlier.

⁷ *CIL X 5829 = ILS 2726*. Sabinus held a centurionate in two legions, and the primipilate in a third, between the Parthian war of 114–7 and the British expedition. I follow the argument of Maxfield 1981, 196, sanctioned by the expert judgement of Brian Dobson (pers. comm. in Breeze 2003, n. 24), but cf. Dobson 1978, 236.

⁸ Frere 2000, 25. For the equation: Jarrett 1976a; Jarrett and Stephens 1987, 61; Birley 1997, 123, 141: 'Hadrian's *expeditio* formally brought to an end' the war of 117/8; cf. 2005, 118 with n. 79, 307f.

⁹ *CIL XI 5632 = ILS 2735* from Camerinum in Italy. If the *expeditio* had coincided with Hadrian's visit, Agrippa's *cursus* would surely have mentioned that he accompanied the emperor, just as the inscription takes care to commemorate that Agrippa had once been Hadrian's host, obviously in his hometown in Italy.

¹⁰ *RIB 823–6*, giving his rank as *tribunus*, like Caballius Priscus (*RIB 817–20*), whereas the other Maryport commanders were *praefecti*. This is usually explained by assuming that the fort (c. 1.9 ha internally) was originally built for a milliary unit: e.g. Jarrett 1976b, 21; Davies 1977, 8, 11; Jarrett and Stephens 1987, 61. But see the caveats of Holder 1998, 258ff.; Frere 2000; and Caruana 2009, 103. The issue is taken up below at n. 259.

¹¹ Robertson 2000, nos. 131–2, originally published in Richmond 1931 and 1954, both apparently from the earliest strata of the fort. A closely comparable hoard (Robertson 2000, no. 137) was found in 1837 at Thorngrifton near Vindolanda, in a context suggestive of deposition during the early-Hadrianic rebuilding of that fort: Bruce 2006, 436. Date and context are discussed in more detail below at n. 246.

¹² See Casey 1987, 69f., plausibly assuming one phase of coining activity extending over two Alexandrian years (ending 29 August), which might confine the series to the Julian year 125. Note the *Nike* issues for Years 5 (120/1) and 6 (121/2), tentatively attributed to military endeavours in Britain under Pompeius Falco (table 1 with p. 69).

¹³ Breeze 2003; cf. Hodgson 2009a, 16f. For the objection of Wilmott 2006 see below n. 222.

¹⁴ This is no more than an impression gained from the distribution maps in Robertson 2000, xxxiv ff.; the Portable Antiquities Scheme data as analysed in: http://www.aoti76.dsl.pipex.com/hoards/coin_hoards.htm (accessed 05 March, 2012); and numbers kindly provided by David Shotter from his inventory of *Roman coins from North-West England* (1990–2011). The point clearly needs further research. For the complex origins of hoarding peaks cf. Shotter 2011, 132ff., discussing the role of general economic conditions; and Duncan-Jones 1994, 67ff., 86ff., stressing the effect of donatives.

¹⁵ The classic statement: Birley 1961, 132ff. Recent surveys: Bruce 2006, 415ff.; Breeze and Dobson 2000, 16ff.; Hill 2002; Hodgson 2000; 2009b. For the 'western Stanegate' and a balanced treatment of the supposed towers in the Solway Plain: Woolliscroft 2001, 57f.; 2009a and b. For the road: Bidwell and Holbrook 1989, 150ff.; Poulter 1998; 2010, 49ff., 112ff. For the gap in the east: Bidwell and Snape 2002, 256ff.

¹⁶ Hill 2002, 95ff.

¹⁷ Bruce 2006, 112, stressing the specific security problems of relatively lightly populated hill country which allowed concealed penetration as opposed to settled coastal plains; cf. Breeze 1985. As to Great Chesters, I follow the suggestion of Swinbank and Spaul 1951, 227f.; cf. below n. 57 and 134.

¹⁸ Shotter 1996, 79f.; Woolliscroft 1994, 60f.; 2001, 93f.

¹⁹ See Breeze and Dobson 2000, 46, for a convincing argument that the outpost forts may have been part of the first plan for the Wall. Early warning: Woolliscroft 2001, 79ff. For the regiments: *RIB 968, 976ff.* (Netherby); 991 (Bewcastle); 2093, 2110 (Birrens), with Breeze and Dobson 2000, 263; Edwards 2010, 128, 131.

²⁰ Symonds 2011, esp. 27: 'It is hard to read this as anything different than a response to a very real concern of direct attacks.'

²¹ The different attitudes of the 'philo-Roman' *Votadini* versus the *Selgovae* and *Novantae* is a recurring theme in Sheppard Frere's analysis of the successive Agricola to Antonine deployments: Frere 1987, 44, 91f., 106f., 111, 114, 133f. There is a remarkable coincidence with the main areas of

'reiver' activity carried out in late-medieval and early-modern period by 'quasi-autonomous kinship groups inhabiting parts of the frontier region, particularly in the poorer west and middle marches' (Ellis 2004, 120f.). The nature and setting of this region, with strong gradients and isolated pockets of arable land, frontier country by vocation, appears to have been particularly inviting to raiding.

²² Florus, 1.2: *ego nolo Caesar esse, ambulare per Britannos*. The poem was probably written soon after Hadrian's journey: Birley 1997, 143. Coins: RIC II, Hadrian 882 (*Adventus Aug[usti] Britanniae*), 912–3 (*Exer[citus] Britannicus*).

²³ The year 121, or even 120, is suggested by Shotter 1996, 54, 59, partly on the basis of an aureus of AD 120 showing a reclining deity tentatively identified as the River Tyne.

²⁴ For this order: Birley 1997, 113. The commemorative coins naming the *Exercitus Raeticus* and *Noricus* probably pertain to a detour in 121/2: Halfmann 1986, 195; Birley 1997, 120. Halfmann 1986, 195, adduces an Alexandrian coin of the 5th year, ending 29 August 121, that probably marked the inception of the imperial journey. If so, Hadrian left Rome between 21 April and late August.

²⁵ Zahrt 1988 sees them as mere dedications. See Rathmann 2003, 72f., however, who convincingly argues that the milestones pertain to real road improvements carried out by local authorities in anticipation of the emperor's journey. David Breeze alerted me to preparations that were in hand at Oxyrhynchus some eight months before Hadrian's expected visit to Egypt in the summer of 130: Van Groningen 1956; Birley 1997, 222.

²⁶ *CIL* XVI 69. The number of units named (50!) is the highest on record for Britain, and has been explained as a reservoir saved up for 'some special ceremony' staged for Hadrian's visit: Birley 1997, 127. This does not, however, readily explain the unusual mention of two governors in the same *diploma*. The two anomalies seem to point to an exceptionally long interval, quite possibly the consequence of a vacancy between Falco and Nepos.

²⁷ As assumed by most, e.g. Birley 1981, 101, 104; 1997, 124; Frere 1987, 111; Breeze and Dobson 2000, 64; Bruce 2006, 27. It is doubtful, however, if imperial journeys and displacements of entire legions are a happy couple, logistically. There is no objection to an earlier transfer of *VI Victrix*, say in 121, in anticipation of the works that were foreseen on the northern British frontier.

²⁸ On the evidence of the milestone cluster from Watingen (discovered 1997), Voorburg had attained full municipal status by 151. For the possible granter cf. Hessing 1999, 155 (Hadrian), and Buijtendorp 2006 (Antoninus Pius).

²⁹ Preparations would have included funding, disengaging troops and logistic facilities, procuring the building materials that were needed, and planning in the field.

³⁰ Halfmann 1986, 197, has Hadrian pass the winter in Lyon, but the 'German snows' of Dio, LXIX.9.4, may point to the Upper German capital of Mainz, or better still Cologne, where his friend Nepos resided. Cf. Birley 1997, 113f. For their friendship: SHA, *Hadr.* 4.2, 23.4.

³¹ SHA, *Hadr.* 12.1; Halfmann 1986, 196.

³² Reuter 1997.

³³ One of the main sources of the *Historia Augusta* were the *Vitae caesarum*, a work written in the early 3rd century by Marius Maximus, who used the autobiography Hadrian wrote towards the end of his life.

³⁴ *RIB* 1051a: *divino pr[aecepto]*. Wording, date and context are discussed below at n. 99ff.

³⁵ R. S. O. Tomlin, *Britannia* 35 (2004) 344f.; Hodgson 2009a, 20ff.

³⁶ The sparse evidence for the bridge is discussed by Bidwell and Holbrook 1989, 99ff. For its name: Bidwell and Snape 2002, 259f. Two dedications to Oceanus and Neptune by *Legio VI Victrix* (*RIB* 1319–20), recovered from the River Tyne nearby, have been taken to commemorate either the safe arrival of *legio VI Victrix* from Lower Germany or its delivery of the Tyne bridge. Birley 1997, 130f.; cf. 2005, 121, sees a close connection with the visit of Hadrian, consciously reproducing in the far West the dedications that Alexander the Great had once made on the Indus. See the caveat of Bidwell and Snape 2002, 259f, however, pointing out that the placing of the dedication on the capital is a distinctly late trait (see Kewley 1973), matching the foundation of the fort at Newcastle (cf. Bruce 2006, 145). Perhaps also sobering is the survey of Caplan 1976, esp. 175.

³⁷ Collingwood and Wright 1995, 520. Also noted in Breeze 2009, 90. Hill 1991, 37, argues for execution by one and the same hand.

³⁸ Bowman and Thomas 1994, 344, l. 4–5: *tuam maies[t]atem*. See Birley 1997, 135f.; 2002, 75f. ('surely Hadrian himself'), also discussing the building, 'more elaborate and expensive than anything previously constructed at Vindolanda' (76).

³⁹ Zahrtnt 1988; Rathmann 2003, 73, with n. 432 and 436 for the title of PP. The relevance of the milestones is also noted by A. Birley 1997, 138.

⁴⁰ *RIB* 2244 (TRP III) from Thurmaston on Fosse Way near Leicester, 2265 (TRP V) from Llanfairfechan in Gwynedd, and 2272, from Caton, Lancs, respectively. On the dative case as a criterion for 'dedicatory' milestones: Rathmann 2003, 72f., 120ff., but see Edwards 2008, 77 with fig. 2–3, raising doubt as to the dative.

⁴¹ Dio, LXIX.9.1–2 (tr. Ernest Cary, Loeb Classical Library); cf. SHA, *Had.* 10.6.

⁴² Breeze and Dobson 2000, 66. Cf. Hill 2006, 19. But see Birley 1997, 128f., for Hadrian's early and first-hand sources of information on North Britain.

⁴³ Bidwell and Hill 2009, 37.

⁴⁴ The main evidence being: *RIB* 1340 (Benwell), 1427 (Halton Chesters), 1634 (MC 37), 1637, 1638 (MC 38), 1666 (MC 42), 1935 (MC 50 TW). The construction/completion of the forts at Great Chesters and Carrawburgh is traditionally dated after 128 and c. 130 respectively (now with the Vallum sandwiched between them: Wilmott 2009b, 51), mainly on the basis of *RIB* 1550 and 1736. But see the critical comments below at n. 233.

⁴⁵ The classic timetable: Breeze and Dobson 2000, 75ff., summarized p. 84ff., largely based on Hooley and Breeze 1968. Workmanship: Hill 2006, 127f.

⁴⁶ The work breakdown followed by Breeze and Dobson 2000 (and previous editions) long seemed to favour a first full-scale building season in 123, and certainly served as an argument against a pre-122 commencement: cf. p. 66.

⁴⁷ Bidwell 2009, 34.

⁴⁸ Cf. Hooley and Breeze 1968, appendix; Dobson and Breeze 1976, 9: 'There is no way of deciding between these views', sc. a start under Nepos in 122, or under Falco c. 120.

⁴⁹ Hill's thesis as published in the BAR series (2004) gives the complete evidence, but I will often refer to his book (2006) seeing that it will be more easily available, while retaining most arguments and evidence in abstract. As it follows the line of the BAR publication, details and full references can be easily checked there.

⁵⁰ Hill 2006, 145; cf. 127f. For quarries and the basic type of walling: Hill 2006, ch. 3. Cf. Bidwell and Watson 1996, 33, who propose that, over considerable lengths in the eastern sector, 'the Broad Wall ... represents nothing more than the re-assembled contents of the Wall ditch.'

⁵¹ His aggregate estimate is that 'within five weeks of beginning of work a force of under 1900 men could build the curtain wall in a legionary length [assumed to be 5 Roman miles] to a height of 735 mm (29 in), the turrets to a height of 1470 mm (58 in), and erect all the milecastle gate piers and arches' (Hill 2006, 125).

⁵² Hill 2006, 146 (quotation). For scaffolding see ch. 5, esp. p. 68f. for reasons why it is indispensable. For the relation of foundation, footings and first Wall courses in the work breakdown see p. 95ff.

⁵³ Hill 2006, 125. For the amount of work done see the caption 'Progress at dislocation', p. 129ff.

⁵⁴ Lastly Breeze 2009.

⁵⁵ Baatz 1976, 31ff.; Crow 1991, 57; 2007, 129. Hadrian would have known a very good model, the Piraeus Long Walls, from his stay in Athens in 111/2: Birley 1997, 133. The provision of a wall-walk and crenellated parapet is cogently argued by Bidwell 2008.

⁵⁶ Calculated by Woolliscroft 2001, 59. Cf. Hill 2001, 11, noting an average of 1480 m between MC 1 and 9 — just 1 m over one Roman mile; and Bidwell 2003, 19, noting a distance of 4 miles (+ 6 m) between the west wall of Wallsend and the Westgate milecastle. Poulter 2010, 164, has recently pointed out that, in places, deviations of structures from their normative positions continue to grow over several consecutive Wall miles, presumably indicating 'a sequential method of working, in which those planning the positions of the milecastles and turrets simply proceeded from one chosen location to select the next.' This does not necessarily contradict the former observations: it seems to indicate that prior to setting out the positions of the installations the line of the Wall had been divided into blocks of (a fixed number of?) full Roman miles within which deviations of single installations were evened out — a potential key to unravelling the planning process of Hadrian's

Wall. For the normal deviation range (about 80m?) see the graph in Woolliscroft 2001, fig. 18, and the table in Poulter 2010, 160ff.

⁵⁷ Spacings: Swinbank and Spaul 1951, 226ff.; *cf.* Breeze and Dobson 2000, 51 with table 2, giving slightly different numbers. The former paper, albeit partly outdated by new evidence, still leaves the strong impression of a rigid spacing scheme, based on ten intervals between the primary Wall forts, with a central spine of milliary bases at Housesteads, Great Chesters (never finished as such; *cf.* below n. 134) and Birdoswald. Great Chesters lies almost exactly halfway the two terminal forts, that is five times $7\frac{1}{2}$ miles west of Benwell, from which Rudchester and Halton Chesters are duly spaced $7\frac{1}{2}$ and $7\frac{1}{2}$ miles consecutively. As with the milecastles, limited deviations from normative positions were apparently allowed, partly explained by reference to terrain by Swinbank and Spaul, 229ff. For a different note on spacing: Bruce 2006, 74.

⁵⁸ Hill 2006, 125ff., calculates a total of 370,904 man-days for the construction of the Vallum — two and a half times the amount of work estimated for the ditch that fronted the Wall. Whereas the ditch was left unfinished in a number of places, the Vallum was constructed with unsparing tenacity, from the River Tyne to Bowness-on-Solway continuously, 76 miles in all: see below at n. 228. For its early silting-up and the absence of recuts see e.g. Crow 1991, 53; Wilmott 2008, 121f.; Wilmott and Bennett 2009, 96 with fig. 202, 101f., 112 with fig. 217, 125 with fig. 233; *cf.* Wilmott, Cool and Evans 2009, 254.

⁵⁹ Dobson and Breeze 1976, 23 ('and as typically Hadrianic').

⁶⁰ Hill 2006, 21.

⁶¹ *Cf.* Hill 2006, 146; Bidwell and Hill 2009, 37. The quotation is from Breeze 2011, 68, discussing Hill's work.

⁶² On planning and setting out in the field: Hill 2006, 36ff. with fig. 66. Signal links: Woolliscroft 2001, ch. 2.

⁶³ Hill 2006, 76. This figure obtains for an ideal allocation of forces where 'say, five gangs [were] taking curtain wall to full height, four gangs building milecastle towers, and two gangs completing turrets'.

⁶⁴ Hill 2006, 129f. There can be no argument, I think, about the first premise: see p. 68f. For the second see p. 105f. and 130: 'no structure would have been taken above the first 1200–1500 mm (4–5 ft) in height until scaffolding was available as part of the progress of the curtain wall.' For the special demands of milecastles and turrets in terms of masonry and building skills: 100ff. The following has profited much from a very open-minded discussion with Peter Hill.

⁶⁵ We have the case of T 49a, which would have been finished before the adjoining stretches of turf curtain that were demolished to make way for Birdoswald fort: *cf.* Wilmott, Cool and Evans 2009, 388. If scaffolding was provided to bring the Turf Wall turrets up to 12 feet, it would have made sense to complete their walls at that stage. At much the same time the freestanding stone towers of the Cumberland Coast system would have been built using portable scaffolding packages.

⁶⁶ The few wing walls that survive we owe to the dislocation of work marked by the switch from Broad to Narrow gauge. When a structure was built to either Broad or Narrow specifications *with* the adjoining curtain wall, as e.g. T 7b or 44b respectively, even if only up to the first scaffold lift, then the temporary wing walls will be hard to distinguish in what remains of the Wall.

⁶⁷ Bruce 2006, 226f., 231. T 34a: Charlesworth 1973, 99 with fig. 3. T 35a: Woodfield 1965, 158. T 33b: Miket and Maxfield 1972, 148 with fig. 2. Legionary block: Hooley and Breeze 1968, fig. 2. Significantly, the Stone Wall realignment in miles 50–51, which would have been built in one go, without prioritization of structures, has produced evidence for a short-winged turret: T 49b (Bruce 2006, 313).

⁶⁸ A case in point is T 29a (Black Carts), where there is little evidence for Broad work in the adjoining stretches (not even foundation, it seems: *cf.* Charlesworth 1973, 97). This would imply a lead of tower gangs ahead of the 'scaffold train' of easily 2–3 months according to the organizational scheme for a legionary length as given in Hill 2006, fig. 66.

⁶⁹ T 26a, 26b, 29a, 29b, 33b, 48a, 48b against short-winged T 34a and 35a-east; *cf.* the eastern wing wall (3.66 m) of MC 48, almost certainly a priority structure (see below at n. 195). It must be noted that relevant information is available only for about a third of the turrets in the central sector: *cf.* Hill 2006, 132.

⁷⁰ Quotation: Hill 2006, 105. *cf.* Hill and Dobson 1992, 39: 'The wing walls are of just the right length to allow the turret to be built up in advance of the curtain wall to at least a height of 15 in'.

The suggestion that the logistics of scaffolding soon overruled the original idea is first found here, leaving the long wing walls as instances of 'less than perfect' planning.

⁷¹ The vegetation on Clayton's woodcut (fig. 2) may conceal a tenth course. There has been considerable loss since then at the turret's northwest corner: Clayton 1876, 258, counted 17 courses on the north face, whereas 11 survive today. The turret's west wall and the western wing wall have also suffered greatly. There may have been some 19th-century rebuilding at the end of the wing wall: Charlesworth 1973, 97 with pl. IX.2. Cf. fig. 2. For the general reliability of Clayton's woodcut cf. Coates's 1877 drawing: Whitworth 2009, no. 73 (wrongly indicated as T 29b). Quotation and information on T 48b from correspondence with Peter Hill (Jan. 2012).

⁷² For the structural sequence: Hill 2006, 106. For the suggestion cf. below n. 186.

⁷³ Three pieces of a cooking pot in T 27a, a reddened stone possibly indicating hearth in T 36b: Bruce 2006, 197, 234. See the caveat of Hill 2006, 106, however. The case for T 27a is further strengthened by the argument, below at n. 176ff., that this turret was the western terminus of a stretch of Wall delivered with priority.

⁷⁴ This is on the assumption that wing walls would have been laid out with the first courses of the turrets. Cf. Hill 2004, 144, 186; 2006, 132.

⁷⁵ Cf. Hill 2006, 133 ('partly built'). For the reason why the builders of the Narrow Wall chose to ignore the Broad foundation cf. Bruce 2006, 277 ('perhaps they considered the foundations too shallow') and below at n. 137.

⁷⁶ Poulter 2010, 103ff. with figs. 70, 72f., 75f. Better maps and more details are provided in Poulter 2009, 33ff., which runs largely parallel to, but may be less easily available than Poulter 2010, to which I will refer in most cases. For the implication see below at n. 224ff.

⁷⁷ There is one final, potentially decisive, observation that militates against the provisional construction of mere turret bases: if this had been normal practice, several of the start-ups in the central sector that were so well placed to alert the Stanegate forts would have been demolished and relocated to restore some of the direct turret-to-fort signal links that had been disturbed by the move of the forts to the line of the Wall (see Woolliscroft 2001, 74ff. with fig. 31). But there is no evidence of discarded turrets. Instead of relocating turrets, a series of sub-optimal links were accepted to make up for the disrupted scheme. This, again, is a strong pointer that many towers had been completed by the time of the fort decision.

⁷⁸ Graphically illustrated by the short stubs of side wall at MC 37, the butt joints of MC 42 (Bruce 2006, 252, 265) and the varying gauges of north, side and south perimeter walls presented in Table 1. Cf. Symonds 2005, 72; Hill 2006, 130ff.

⁷⁹ For the skills involved: Hill 2006, 100ff., 108.

⁸⁰ For a list of candidates (i.e. milecastles with Broad north walls and Narrow or 'Middle gauge' south walls) see below, Table 1, with the figs. of Hunneysett 1980. In a few cases, e.g. MC 39–40, Hunneysett's argument of the setting-out lines points to a priority delivery of both the north and south walls — but not the side walls (p. 104).

⁸¹ For towers over milecastle gates: Bruce 2006, 67; Hill and Dobson 1992, 36; esp. Hill 2006, 27f., about type III gates with projecting responds, probably designed to create a greater floor area to the towers over the gates. Cf. Crow 1991, 61, interpreting ten merlon caps from a dump of worked stone found within MC 79 as 'the full complement from the north tower above the milecastle gate'.

⁸² Symonds 2005, 72ff. — a truly seminal paper.

⁸³ Hunneysett 1980, 96f. An objection was raised by Hill 2001, 13, suggesting that two of the legions involved may always have intended to build their milecastle perimeters to the Narrow gauge. But see Symonds 2009a, 46, and Wilmott 2009c, 159ff., 198, for the confirmation, after the English Heritage campaign at MC 14, that all three basic milecastle types have been constructed to Broad gauge initially. Inversely, we may add that instances of milecastles with Broad north walls (or Broad adjoining curtains) but Narrow side walls (cf. Bidwell 2003, table 2) occur in all three legionary blocks between MC 7 and 22. Hunneysett raised the possibility that 'there was merely one legion east of MC. 22 attempting to complete the curtain before the perimeter walls and another legion west of MC. 22 completing the milecastle walls before the curtain' (1980, 102), but this ignores much of the evidence for legionary building styles famously presented by Hooley and Breeze 1968 (see below at n. 146), and augmented by Hunneysett himself (1980, 103ff.).

⁸⁴ Turrets 7b, 19a and 19b, in particular, 'have Broad Wall known close to or abutting their wing walls' (Hill 2006, 131), suggesting completion before dislocation. At T 7b (Denton), in particular, there is no difference or junction noticeable whatsoever between the fabric of the turret and that of the Wall, both showing the same size of large, squarish and well-worked facing-stones.

⁸⁵ Hodgson 2009a, 17. The latter part of the statement cannot be substantiated, I think, or it must be the traces of mortar joints left by the fallen south face of the Wall at the Western Bypass at Denton (Bidwell and Watson 1996, 23ff.), but the evidential value of this observation is questionable: see Hill 2004, 141, 145 with fig. 13.4. For a handsome table of the other evidence: Hill 2004, 160ff. with fig. 13.2. Note that none of the curtain records corresponding to the Narrow gauge are modern, and those in the MC 16 area differ considerably: cf. Bruce 2006, 173. We also have to allow for the possibility of later, partial rebuilds: see Bidwell and Watson, *art. cit.*, 28f. For the depth and local occurrence (next to sections that were maintained) of the 'Severan' reconstruction see Crow 1991, 55. Isolated reports (or survivals, perhaps helped by the hard Severan mortar) of Narrow Wall should therefore not be taken to automatically override the evidence of adjoining Broad work, an admonition that may be relevant to our discussion of early Broad curtain stretches (see below at n. 165ff.).

⁸⁶ Quotation: Hill 2006, 117. The height given includes the footing course, six courses of facing stones and a surmounting crest of core work belonging to the Broad Wall. For its consolidation history: Whitworth 2009, 52, leaving sufficient confidence that the height of the Broad core at this point is reliable, as Richmond 1950, 43, confirmed for the western (notional) wing wall. The 2.59 m (11 courses) mentioned in the *Handbook* (Bruce 2006, 189) pertain to the internal north face of T 26b.

⁸⁷ Bidwell and Holbrook 1989, 56 with fig. 41.

⁸⁸ For the parallel development of the Cumberland Coast system, see Wilson 1997, 17ff.; 2004, 21, and below at n. 249.

⁸⁹ As proven by the backfilling (with Turf Wall material) of the Wall ditch underlying Birdoswald fort: Wilmott 1997, 42, 47.

⁹⁰ It may be noted that *Legio VI Victrix* is not attested building milecastles like *II Augusta* (RIB 1634, 1637, 1638) and *XX Valeria Victrix* (RIB 1852), but did deliver Halton Chesters (RIB 1427), allowing a transfer, if pressed, after the fort decision only. But the number of inscriptions is very small, as Hill 2006, 112, rightly notes. Besides, there is a long-standing assumption that the occurrence of three distinct milecastle gate types (Breeze and Dobson 2000, 67 with fig. 13; Hill 2004, 25f.; 2006, 26ff.) points to the involvement of all three British legions. We cannot exclude the possibility that part of *VIII Hispana*, vexillations of which are attested both in the Carlisle and Nijmegen areas in the beginning of the 2nd century, may have remained in Britain until the transfer of *VI Victrix*, though I prefer a final exit of *VIII Hispana* from Britain c. 115 at the latest, as suggested by Keppie 2000, 94.

⁹¹ For fluctuating legionary strength figures cf. Alston 1995, 46ff.

⁹² The most informative section was dug in the centre of the fort, from which the measurement is taken. See Haverfield 1901, 85ff.; 1902, 15ff.: 'a substantial layer of peat' sealed by a one foot thick sediment of 'blue grey clay', creating an anaerobic milieu that had preserved 'moss', tree leaves and birch bark — clearly a fill that had accumulated over time. The top of the peat is given as 7ft 6in below the present surface, its thickness as 1ft 6in, but the section shows the bottom of the ditch at a good 10ft. (cf. the objects found at 9'8" according to the drawing on p. 20), so Bennett 2002, 828, is probably right when speaking of a 1 m thick deposit, and assuming it to have been 'open to the elements for at least two if not three or more years'.

⁹³ SHA, *Hadr.* 11.2: *multa correxit*. For possible relations between Hadrian's visit and other building projects: Fraser 2006, ch. 4.

⁹⁴ The quotation is taken from Bruce 2006, 28: 'the rigidity of its planning points to some decisions being taken without local knowledge.'

⁹⁵ Stevens 1966, 39, 62, based on his own intricate reconstruction of the Wall's building order and legionary allotments (largely dismissed since Hooley and Breeze 1968), with two legions starting work on the stone Wall in mid 120 and *VI Victrix* coming over in 122 only. For a critique of Bennett's position see below at n. 226. In his classic biography of Hadrian (1997), Anthony Birley assumes that work on the Wall started before Hadrian's visit (ch. 11; cf. 2005, 118, stating that the early scenario 'deserves serious consideration').

⁹⁶ Schallmayer 2005, 802; Thiel 2009, 977. The possible implications of the Marköbel datings were considered by Breeze 2009, 95, 96.

⁹⁷ Like the crossbeams that held together the palisade uprights (*stipitibus ... connexis*): the horizontal slots in the uprights that were to receive the crossbeams come out very clearly in Thiel 2005, fig. 139; Klee 2006, 46.

⁹⁸ In the case of the AD 100 building campaign on the *limes* road in the western Netherlands it took almost two years for the first trees to be felled, on the assumption that orders were given when Trajan acted as provincial governor early in 98.

⁹⁹ Collingwood and Wright 1995, 349ff. The drawings in Graham 1984, 43 and 44, add quite a few strokes and letters on the basis of the RIB reconstruction. The writer feels much obliged to Peter Hill, who voluntarily made a technical assessment of the two stones and their lettering as displayed in the Great North Museum in Newcastle, kindly communicated in a short note (May 2011). I also like to thank the staff of the Great North Museum for letting me study the details of RIB 1051a with the help of a flash-light in July 2011. It appeared that the weathered area in the centre (more or less coinciding with the text strings AIANUS / NECESS / DIVINO), which stands out from much better preserved parts with an old 'patinated' surface along the left, top and margins, has much deteriorated since the photograph for Richmond and Wright 1943, plate III, was taken, involving serious loss e.g. of what remained of ES in *necessitate* and IN in *divino*. Relying on this photograph and on my personal collation of Richmond's drawing, which seems largely faithful, I would be inclined to credit the latter two crucial words. But we are lucky to have Bruce's woodcut (fig. 2) which, unwittingly, gives the best parts of NECESSITAT and DIVINO — again confirming the steady degradation of this historic document. Staying with the same drawing, it should be noted that most of the letters suggested in line 5 other than vertical strokes (notably a P and two N's) seem to have been misread from scratches and damages that occur along the base of the slab, with the possible exception of the rightmost O. Returning to Richmond's drawing, it is important to note that the vertical stroke of the first T in line 3 partly survives in its right lip.

¹⁰⁰ The first lines of both panels are only 75 mm high. This is probably one of the reasons why the label in the Great North Museum suggests that the text may have been reproduced at several key-points along the Wall, explaining some of the differences in the two fragments which, by implication, would have come from *two* sites with homologous inscriptions. For the suggestion of an address: Birley 1997, 132f.; 2005, 122, possibly explaining the economic size of the lettering.

¹⁰¹ As Richmond and Wright remarked in their discussion of the pieces, 'the lettering on each slab is grouped with remarkable diversity of style in different sizes and spacing' (1943, 117). In his assessment report Hill notes that the reconstruction of the monument as reproduced in RIB, 'goes some way towards ironing out these differences, but they are clear enough on the individual RIB drawings and on the photographs in Richmond's paper' (1943, plate III). In his Addenda and corrigenda to RIB 1051, Tomlin concludes that the second panel was 'obviously cut by a different mason' (Collingwood and Wright 1995, 778).

¹⁰² Birley 1961, 159, pointing to a possible resonance of RIB 1051b, line 4, in SHA, *Severus* 18.1 (*utrimque ad finem oceani*). Cf. Bruce 1978, 54. See also Stephens 1987, 57, who argues for C. Julius Marcus (attested 213) as the governor mentioned on panel b. The *sub cura*-formula is otherwise first attested for Q. Lollius Urbicus (139–142: RIB 1147–8). On the specific type of ligature see the caveat of Tomlin in Collingwood and Wright 1995, 778, who points to a Hadrianic parallel (RIB 1340) from Benwell.

¹⁰³ In his assessment report Hill observes that fragment b is slightly coarser than fragment a. 'This could be due to simple variations in the same quarry at the same point in time, or to the use of a different bed in the same quarry later in time, or the use of a different quarry.' Likewise, 'the fact that stone a is some 40 mm thicker than stone b is not necessarily a pointer to a different time or origin for the stones' (p. 4).

¹⁰⁴ In his assessment report Hill points to the 'remarkable peculiarity in that line 1 of a is the same height as line 1 of b', *sc.* 75 mm, the following lines decreasing stepwise to 40/5 mm (a) and 55 mm (b) respectively.

¹⁰⁵ As Richmond and Wright 1943, 99, put it, commenting to lines 3–4 in panel b: 'these words, in a descriptive context applicable to Britain, can only be part of some such phrase as *inter utrumque*

[*ceani litus*]; and on a stone from Tyneside this inevitably connotes not only the Tyne-Solway gap, but the great frontier-wall which spanned it.'

¹⁰⁶ Birley 1997, 132f., discusses *RIB* 1051 as an authentic Hadrianic document entirely, probably taken from a speech, but allowing the possibility that the inscription was restored and amended in the Severan period.

¹⁰⁷ There is a suggestion to that effect in Fishwick 1987–2005, I.2, 313, n. 32.

¹⁰⁸ For a full treatment of events and sources: Birley 1997, ch. 7–9. Oppen 2008, 55ff., 64ff., offers a fine recent version.

¹⁰⁹ SHA, *Hadr.* 5.5ff. On the executions, and the alleged plot that preceded them: Birley 1997, 87f., suggesting that Avidius Nigrinus and his consorts had acted out of 'deep resentment at the abandonment of Trajan's conquests.'

¹¹⁰ It may be relevant to our story that the transfer of Q. Pompeius Falco from Moesia Inferior to Britannia 'must have been one of Hadrian's first acts, and, indeed, since the new emperor was in Falco's province in 118, one may postulate that he communicated the promotion personally' (Birley 2005, 117f.).

¹¹¹ Even if there is no parallel for the use of this title, I can see no plausible alternative for *Divorum*: the *filius*-formula normally carried the name of the ruling emperor's deified predecessor; cf. Fishwick 1987–2005, I.2, 313, n. 32 ('surely the only possible restoration'). For the rise of the cult of the collective *divi* see Fishwick, *o.c.*, 308ff., esp. 313ff.; III.1, 185f. (an earlier version in 1978, 1236ff.), arguing for their inclusion in the ruler cult of the western provinces under Hadrian, probably on the occasion of his first journey. A collective *aedes Divorum* in Rome was visited by the *Fratres Arvales* in AD 145 (*ILS* 5038). Cf. the *flamen divorum omnium* who took care of a local cult of all deified emperors in *Firmum Picenum* in central Italy (*CIL* IX 5357, 5362–3, 5365). For Hadrian's personal devotion to Augustus: Birley 1997, 96, 111, 118, 147.

¹¹² [...]VATI (panel a, line 4) is clearly legible on the photograph in Richmond and Wright 1943, pl. III. The use of the *genitivus absolutus* in conjunction with *necessitas* is very plausible. *Conservare* would be the obvious candidate verb in the context of a protective barrier, which apparently was the subject of the monument given the 'coast-to-coast' statement on the second panel (see n. 105).

¹¹³ The *RIB* editors assumed a lost third stroke, making the inscription applicable to most of Hadrian's reign — he held his third consulate in 119. But the place where the '3' should be really is one of the better preserved parts of the lower zone. Whilst the first and second strokes have been cut deep and sharp, and are still easily readable, including the V-shaped serifs at both ends, there is no sign of a third (cf. Richmond and Wright 1943, pl. III), refuting the suggestion of Stephens 1987, 57, that the text may pertain to the withdrawal from the Antonine Wall. More problematic, in fact, is the preceding [C]OS, the superscript O of which is suspect as it sits in the secondarily worked and much-damaged left margin. But the following S was solidly drawn by Richmond and can be recognised on his photograph (the distinctive middle part of the S is still discernible on the original). The apparent space that follows II inspires confidence that we are looking at a numeral: in Roman epigraphy such separations, when present, tend to occur in the closing lines between enumerations of offices etc. It would be unusual, moreover, for a genitive (. . . *ii*, the only other possible reading of the two strokes) to be given in full, and rare to occur at the end of an epigraphical 'sentence'. Finally, it may be noted that, following II, Richmond saw, and solidly drew, the right upper part of the letter T, without raising the suggestion that it could be the beginning of a count of tribunician powers, e.g. TRPII (= AD 118/9), for which there is room, and some positive indication, notably in the form of the latter three vertical strokes, the first two of which are slightly further apart.

¹¹⁴ For the various ceremonies, including an unprecedented posthumous triumph: A. Birley 1997, 97ff. Cf. Fishwick 1978, 1236f., on the 'systematic deification of imperial princesses' early in Hadrian's reign 'that can only have been prompted by serious reasons of state', notably 'the need to establish a respectable pedigree (. . .) for an emperor whose alleged adoption by the dying Trajan had given rise to suspicions of fraud and rumblings of discontent that necessitated the execution of four consulars.' Cf. Fishwick 1987–2005, I.2, 313 with n. 31, referring to a group of dedications to Divus Nerva, Divus Traianus and Diva Matidia at Pergamum dated between 119 and 122 (*Bulletin épigraphique* 1958, 336, no. 496). For a very fine discussion of Hadrian's early deification policy: Jennings 2010, 64ff., analysing a.o.t. his coinage of Autumn 117 which 'signals a conscious decision to emphasize Hadrian's relationship to many *divi*' (65).

¹¹⁵ Breeze and Dobson 2000, 32; Bruce 2006, 59. More positive: Crow 2007, 122; cf. Bidwell and Hill 2009, 39. Quarries: Breeze and Dobson 2000, 31; Bruce 2006, 91; Hill 2006, 16, 39f., 62.

¹¹⁶ Most famously in the 10th (1947) up to 13th (1978) editions of the *Handbook to the Roman Wall*: see Edwards 2003, 226. Cf. now Bruce 2006, 59, 325.

¹¹⁷ Hill 2006, 96: 'The foundations and footings seem to have been built chiefly with clay as a bonding medium throughout.' Cf. Bidwell and Watson 1996, 32f. See Crow 1991, 57, for the savings of resources and the extension of the building season that would have followed from the decision to largely abstain from mortar — adding to the impression of 'great pressure to complete the Wall'.

¹¹⁸ See the convincing argument of Edwards 2003. It has been little noted in this connection that, in the east, limestone occurs west of Harlow Hill in Wall mile 16 only: see Bidwell and Watson 1996, 33; Hill 2004, 15.

¹¹⁹ Bruce 2006, 59; 2009. Cf. the earlier suggestion in Shotter 1996, 67.

¹²⁰ Lastly Shotter 2008, 110; cf. 1996, 66f. Most outspoken: 2004, 42: 'By 119, stability had been restored, and it was probably then that the Romans began work on a turf wall from the Ituna (Irthing) to Maia (Bowness). In 122, however, Hadrian himself visited Britain with a new plan: to construct a stone wall from Pons Aelii (Newcastle) to join the turf wall at Willowford.'

¹²¹ The stripping of turf along both sides of the Wall has now been established at Appletree and Crosby-on-Eden: Wilmott and Bennett 2009, 106, 118, 121, 127, 132. For local replacements where good turves were not at hand: Wilmott 1997, 50; 2009a, 42; Wilmott and Bennett 2009, 213. For the speed of execution, illustrated in the Birdoswald pollen data: Wilmott 1997, 37; Wilmott, Evans and Cool 2009, 388. For the predominance of grazed moorland in the west as opposed to cultivation in the east right up to Wall mile 30: Wilmott and Bennett 2009, 98ff., 117, 128ff. The potential relevance for the Turf/Stone Wall dichotomy is rightly emphasized by Breeze 2009, 92.

¹²² Wilmott 1997, 42, 47; 2009a, 42. Poulter 2010, 105ff. with figs. 73, 75ff., has established that T 49a and 56a, and MC 59, 66 and 80, were probably used in setting out the line of the Vallum. This is a strong argument for their completion by the time of the fort decision: see below at n. 224ff.

¹²³ *RIB* 1935, depicted in, among others. Bruce 2006, 311; Wilmott 2009a, fig. 51. Bennett 2002, 828, doubts the reconstruction naming Nepos. If Symonds 2005, 74f., is right that milecastle accommodation was drastically reduced following the fort decision, the small single barrack building of MC 50 TW would support the completion of this installation after dislocation.

¹²⁴ Earlier hints in Frere 1987, 115; Shotter 1996, 66. Reserved: Breeze and Dobson 2000, 32; Bruce 2006, 59; 2009, 99 and n. 16.

¹²⁵ One-to-one transfer: Schallmayer 2010, 28 with map on p. 26. The date of the *Vorverlegung* has been much disputed since the 1980s (a fine survey of arguments in Schallmayer, 25ff.), but the cumulative evidence of coins and dendrodates has all but decided the case: Kortüm 1998, 15, 61–3.

¹²⁶ It could be argued, as David Breeze reminded me, that the stone forts on Hadrian's (stone!) Wall are the exception to the rule that forts and frontier works were normally started up in timber, and then converted to stone gradually. See further discussion in Breeze 2009, 91f.; Hanson 2009, 36ff.

¹²⁷ Breeze 2006, 72ff.

¹²⁸ Schütte and Gechter 2011, 37ff.

¹²⁹ Symonds 2005, 72f. See below at n. 161.

¹³⁰ The stone conversion of the first stretch has now been more firmly dated to the late-Hadrianic period by S. H. Willis in: Wilmott, Cool and Evans 2009, 347ff., on the basis of samian ware. Strictly speaking, this new evidence pertains to miles 49–50. So perhaps the two miles that were realigned to the north face of Birdoswald fort were the first length of Turf Wall that was rebuilt in stone. Alternatively, the first stretch may have coincided with the 5 mile-block west of the Irthing (MC 49–54): cf. the date of MC 54 SW as discussed in Bruce 2006, 325f. For the date of the remainder, largely based on evidence at MC 79: *idem*, 365f.

¹³¹ The point could be further underpinned if it were proved that 'Turf Wall milecastles ... are somewhat larger with overall dimensions of 18 by 21 metres' (Crow 2007, 125), comparable that is to the early MC 47–48 (see below). MC 49 and 50 TW, measuring 18.3 × 16.5 and 20.1 × 16.8 m internally (c. 301 and 337sqm), may come close to MC 47–48, but others (like MC 64 and 78 SW) seem to conform to, while MC 79 TW (14.7 × 12.3 m) is clearly below, the 15 × 18 m (50 × 60 Roman feet) standard established by Hunneysett 1980. Still, a clear group of 'super size milecastles' remains, not just the well-known examples MC 50–54 (cf. above at n. 16) but now including

examples further west, like MC 62 and 73, whose internal areas are close to those of MC 47–48: Wilmott 2009c, 174, 199; J. A. Biggins, S. Hall and D. J. A. Taylor *in* Hodgson (ed.) 2009, 154ff. Admittedly, these examples are known from their stone phases mainly, but it has now been established for a handful of cases that the stone conversions were built on the lines of their turf predecessors: Wilmott 2009c, 199. Another indication for the Turf Wall's early construction may be the width of the turrets' north faces, which are only slightly wider than their side walls, just like the south faces, perhaps for some reason related to the nature of the adjoining curtain (*cf.* Symonds 2009a, 48) – but nowhere near the normal 4–5 ft in the case of the Stone Wall. Interestingly, T 48a and b, which we will later argue to be some of the Stone Wall's earliest structures, have the same feature of a normal wall width on the north face, possibly a design flaw that was soon corrected.

¹³² Bennett 2002, 830, reckons with at least two years. *Cf.* Hill 2006, 106f., for fort perimeters.

¹³³ E.g. Hooley and Breeze 1968, 108; Breeze and Dobson 2000, 47. Peel Gap: *Britannia* 19 (1988) 434ff.; Bruce 2006, 260.

¹³⁴ Hill 2004, 147f. (quotation); 2006, 137f.; Bidwell and Hill 2009, 37. At Great Chesters the ditch ends were later filled in to allow the construction of the Narrow Wall, which oddly did not use the Broad foundation but was built immediately to its south (*cf.* the situation at T 43a, above at n. 75). The suggestion at both Chesters and Great Chesters is that the fort ditches came very early in the building sequence. This probably explains the presence of *four* ditches on the west side of Great Chesters (as opposed to two on the east side): the outer two may represent a first lay-out of the fort, which was very soon reduced to its actual size: Bruce 2006, 268; Heywood and Breeze 2010, 5ff. The fort wall was bonded with the Narrow Wall (Hull 1926, 198), but there are many jumps to be taken before a post-128 date, deduced from the spatchcock gate inscription (*RIB* 1736), can be translated to the adjoining curtain: see below at n. 233. On the (non-) bonding of the other forts: Hill 2006, 138.

¹³⁵ At Great Chesters, the design of the northwest corner tower, crossing the re-entrant between Wall and fort, apparently anticipated the construction of the Narrow Wall on its new alignment, again suggesting a short span of time between the fort and Narrow Wall decisions: Hull 1926, 198f.; Bruce 2006, 273. At Housesteads, the western fort ditch stops just short of the Narrow Wall cutting through the Broad foundation (Hill 2004, 147; 2006, 138; Bruce 2006, 235). If this is the behaviour of the original ditch, and if it came early in the building sequence (*cf.* previous note), this ought to mean that when (or soon after) work started at Housesteads, the Narrow Wall decision had been taken.

¹³⁶ See Simpson 1928, 385; Hill 2006, 97, with the caveat of Breeze 2003, n. 23. *Cf.* at n. 172 below.

¹³⁷ Examples of the first occur at Planetrees and T 33b, realignments of the curtain are seen at Mons Fabricius (at the end of Wall mile 38) and at Great Chesters fort and west of it up to, and beyond, T 43a: Crow 1991, 55 with fig. 1; Bennett 2002, 829; Bruce 2006, 257 and 276f.

¹³⁸ Assuming, of course, that there would have been few work gangs that happily continued building to Broad gauge after the decision had been taken that Narrow gauge was a necessary and acceptable economy measure — the switches and taperings from Broad to Narrow gauge within individual milecastles sufficiently disprove this suggestion.

¹³⁹ Hill 2004, ch. 13; 2006, ch. 10. For the assumptions underlying Hill's inventory see above at n. 50ff. and 64ff.

¹⁴⁰ MC 48 and Middle gauge (2.44–2.6 m) milecastles: Symonds 2005, 73ff., 77 respectively. MC 37: Hill 2006, 138.

¹⁴¹ Hill 2006, 146.

¹⁴² For the stone quarries at hand, both north and south of the line, see Hill 2006, 15f., 39f., 62, 109. For the availability of limestone: Edwards 2003.

¹⁴³ Hunneysett 1980, 96f. MC 19, 20 and 22 have Broad north walls, with stretches of Broad curtain close by or meeting them (notably MC 20, on its east), but Narrow side and/or south walls, with positively no Broad foundation underlying the side walls of MC 22: *cf.* Hill 2006, 130f. See also below at n. 154.

¹⁴⁴ Between MC 7 and 12, exceptionally, a mortar-bonded rubble core has been recorded in several places (Hill 2006, 24), perhaps indicating a decent start that was soon abandoned for the less costly clay-bonded variant that was normally applied in the Broad Wall elsewhere.

¹⁴⁵ Halton Chesters: Bruce 2006, 179; Crow 2007, 126f. with fig. 8.4. *Cf.* Hill 2006, 109: 'The presence of the ditch would have interfered seriously with the movement of materials from any quarries to

the north of the wall, and ideally it would have been planned as the last part of the programme to be carried out.' At Appletree and Crosby-on-Eden it has now been all but proven that the digging of the ditch came after the construction of the (Turf) Wall: Wilmott and Bennett 2009, 106, 121, 127.¹⁴⁶ Hooley and Breeze 1968, 102 ff. with fig. 2; Breeze and Dobson 2000, 67ff.; Bruce 2006, 67ff, 72f. It is now clear that all three milecastle types have been constructed to Broad gauge initially: see Symonds 2009a, 46, referring to Wilmott 2009c, 159ff. For possible signatures on turrets: Hill 1997, 27 (wall width), 28 (platforms) and 34 (door jambs). In my opinion, the evidence for 5-mile lengths in the Tyne-North Tyne sector largely survives the criticism of Bennett 2002, 827f. A very consistent legionary 'signature' was delivered in the block (10 miles west of the North Tyne, incidentally) of MC's 37, 38 and 42 — all three short-axis with two type I gates built of massive masonry, all of them with Broad north faces but Middle gauge perimeter walls (see Table 1), and all three delivered by *Legio II Augusta* (RIB 1634, 1637, 1638, 1666). For a fundamental caveat against equating dedicatory inscriptions and legionary 'signatures': Hill 1991, 38; Breeze and Dobson 2000, 68, both pointing to a possible relocation of work forces after dislocation.

¹⁴⁷ Antonine Wall: Breeze 2006, 65ff.

¹⁴⁸ The most conspicuous is that there is a clear change in Wall construction from standard A to B c. 175 m west of MC 17, and a concomitant switch in turret design (Bruce 2006, 174), whereas gate type I continues to occur in milecastles up to MC 18. What is interesting to note is that MC 18 was finished as a long-axis milecastle, with a different legionary signature that is: cf. Hunneysett 1980, 105 (adding MC 33, p. 106); Hill 2006, 130. We should allow for the possibility that there was some exchange of capacity or expertise between legions at the meeting-points or closing stages of their allotments, perhaps explaining some of the 'hybrids' that Bennett 2002, 827, produces as evidence against the 5-mile legionary lengths.

¹⁴⁹ The issue raised by Breeze and Hill 2001 is related to (but does not depend on) the question if the Wall could have been originally planned to terminate at Wallsend, as suggested by Hill 2001. See the critique of Bidwell 2003 and Hodgson 2009a, 18f., however. It may also be noted that several of the symmetries in fort spacings observed by Swinbank and Spaul 1951 would be disturbed if Wallsend were a primary fort.

¹⁵⁰ The 5-mile allotments may initially have been continued west of the North Tyne, but then blurred to some extent after dislocation: there remains a pretty solid block consisting of MC 37–42 (see n. 146, but perhaps including MC 43), and a sharp break in legionary signatures occurring between T36a and b (Hooley and Breeze 1968, 106 ff. with fig. 2). Cf. below n. 208.

¹⁵¹ Hooley and Breeze 1968, 113; Breeze and Dobson 2000, 75.

¹⁵² See above n. 123.

¹⁵³ Note the (circumstantial) evidence for the activity of *Legio II Augusta* in the Birdoswald area collected by Wilmott, Cool and Evans 2009, 370f.

¹⁵⁴ For the priority of milecastles 23–27: Hunneysett 1980, 96f.; Symonds 2005, 72; and Table 1, below. For the homogeneity of the Portgate–North Tyne block in terms of legionary signatures: Hooley and Breeze 1968, 105 with fig. 2. For the 'quite distinct' Six-Foot variant in this block: Bidwell and Hill 2009, 38.

¹⁵⁵ Little is known about the turrets in this sector. T 25b has Broad wing walls of unknown length, while those of T 26a are long (Woodfield 1965, 122, 129, 143), perhaps indicating that this turret was part of the priority package. T 26b seems to be a special case: see below at n. 181ff.

¹⁵⁶ The Six-Foot variant occurs right in the first stretch of curtain west of Portgate: Hill 2004, 168. A substantial time hiatus is implied by the structural sequence at Planetrees: Bennett 2002, 829; cf. above at n. 137. The bulk of the evidence in the central sector suggests that, when work on the curtain was resumed, the Eight-Foot gauge obtained. So perhaps the Six-Foot variant in Wall miles 22–26 represents a final stop-gap for a sector that had been considered sufficiently covered, for the time being, by its milecastles and turrets.

¹⁵⁷ This results in a more convincing sequence than the one suggested by Poulter 2010, 38ff., who has the northernmost part of Dere Street (up to Newstead) rather unexpectedly precede the southernmost (up to Scotch Corner) and intervening (Scotch Corner–Corbridge) stretches, the latter two datable after c. 85 and c. 100 respectively (p. 42ff. with references). Dere Street's alignment at Newstead may have followed from an existing local spur road projecting from an earlier Flavian fort.

¹⁵⁸ For the general direction of planning south of the Cheviot Hills: Poulter 2010, 37ff., 40 with fig. 20 (Beukley-Corbridge). For his method see ch. 3. The kink at Beukley is such that Raymond Selkirk supposed that Dere Street deviated from an earlier track ('proto-Dere Street') that would have crossed the river Tyne at Bywell — causing him to actually dig for it: Poulter 2010, 62f. with fig. 38. For the early date of the long-distance alignment: 34ff. For its survival, with others, as part of a 'large-scale partitioning of the countryside for administration and control': 47f.

¹⁵⁹ It could be argued, of course, that the extension of Dere Street was part of the very first Wall plan, seeing that Portgate so strikingly coincides with one of the 5-mile divisions. On this line of reasoning, the most natural explanation would seem to be that, as this main frontier crossing required a gate of fitting proportions, it was decided not to let this special job interfere with the priority programme for the curtain down to Newcastle — so that Portgate was planned next to the 5-mile block that ended a short distance west of MC 22. But the implication remains the same: getting the curtain closed was the overriding consideration. In both scenarios it appears that the northern stretch of Dere Street was not built before 122, most probably after Hadrian's visit and perhaps as part of an additional plan for the wider frontier that included the forts astride the Wall.

¹⁶⁰ Symonds 2005, 78f. I have used his measurements in Table 1, complemented by the new data for MC 14 (Wilmott 2009c, 159ff.), but note the differences with Hill 2004, table 4.6.

¹⁶¹ Symonds 2005, 72. MC 9 and 10 may both be considered controlling the steep-sided Dewley Burn that swings around their back into the Tyne at Walbottle. For the March Burn, potentially providing cover to 'concealed penetration' from the north: Wilmott 2009c, 164, 198. See Hooley and Breeze 1968, 109, already, commenting on MC 47: 'Perhaps it was a 'priority' milecastle helping to guard the Irthing and Tipalt gaps'.

¹⁶² Symonds 2005, 76.

¹⁶³ Hill 2006, 104ff. with fig. 60.

¹⁶⁴ See Hill 2006, 105, 117, acknowledging that 'building to full height was initially provided for', and the discussion above above at n. 64ff.

¹⁶⁵ And resuming at Longbyre, west of Carvoran: Crow 1991, 62; Woodside and Crow 1999, 36ff.; Crow 2007, 128.

¹⁶⁶ Symonds 2005, 76.

¹⁶⁷ *Britannia* 19 (1988) 434ff., noting 'numerous sandstone chippings' perhaps partly from lost Broad work.

¹⁶⁸ Symonds 2005, 73ff.

¹⁶⁹ Fresh measurements provided by Hill 1997, 42 with table 1, but explained along different lines; 2004, 146; 2006, 137. Additional arguments for the priority of Wall miles 47–48 are explored below at n. 195ff.

¹⁷⁰ See Hill 2006, 133.

¹⁷¹ Bidwell and Holbrook 1989, 56f.

¹⁷² See above n. 136.

¹⁷³ Gillam 1953, 166; Bruce 2006, 191 (quotation). The type of foundation, using boulders of whinstone rather than sandstone flags (*cf.* Gillam 1953, Pl. XVII, fig. 1), was used in some of the earliest stretches and structures of the Wall, e.g. at Willowford bridge (Bidwell and Holbrook 1989, 54).

¹⁷⁴ See Gillam 1953, 166, noting the structural priority of the MC north wall; *cf.* Hunneysett 1980, 102.

¹⁷⁵ See above at n. 86. It may be noted that the width of the curtain west of T 26b varies between 3.05 and 3.25m (measurements from 1988 drawings provided by Alan Whitworth) — about the peak of the Broad Wall's variation range, whereas Broad work on the other side, *sc.* the turret's eastern wing wall, is sensitively narrower: 2.7m (see below).

¹⁷⁶ Partly explaining its unusually small interior dimensions (11ft square). See *JRS* 36 (1946) 134 with fig. 10; Allason-Jones and Gillam 1982, 200. A photocopy from the excavation notebook was kindly provided, through David Breeze, by Andrew Parkin of the Great North Museum at Newcastle.

¹⁷⁷ Or a first spur length built. *Cf.* Hill 2004, 147; 2006, 137.

¹⁷⁸ For the previous points see above at notes 145 (secondary nature of ditch), 92 (ditch fill at Chesters), and 73 (occupation of T 27a). For the 'evidence of man': Haverfield 1901, 87; 1902, 16.

¹⁷⁹ Simpson and Richmond (*JRS* 1946 134 with fig. 10) concluded that the foundation had been levelled at the site of the *principia*, where it had not been found in earlier excavations. There are sound reasons to doubt this conclusion. First of all, the lie of the land is such that levelling would have affected the Wall foundation in the northwest, not the northeast corner of the *principia*. No Wall foundation appears to have been found (nor sought, admittedly) further west in the fort either, and it does not show in the recent magnetic survey: see J. A. Biggins and D. J. A. Taylor, *Britannia* 35 (2004) 273f., and in Hodgson (ed.) 2009, 108ff. The positioning of the *principia* next to T 27a could mean that the fort was planned so as to have its headquarters building respect an earlier stretch of Wall, perhaps in order to avoid differential subsidence. While the turret provided an obvious structural end-point for a provisional *clausura* wall, the ditch may have been dug a short length beyond that point, as suggested by its reported location in 1900, when 'a hole was sunk immediately against the outer wall of the north guard chamber of the north-west gateway' (Haverfield 1902, 17).

¹⁸⁰ Bidwell and Holbrook 1989, 12 with fig. 2.

¹⁸¹ This assumes that the present arrangement at that point is not the outcome of a structural interpretation by either John Clayton in the 1870s or Charles Anderson in 1947, on whose work see Whitworth 2009, 52. There have been suspicions about Clayton tampering with the turret after excavating it in 1873 (*cf.* Hill 1997, n. 14). A detailed comparison, however, of the drawing in Bruce's 1884 edition of the *Handbook* (opposite p. 67), a series of recent photos and the 1948 consolidation report confirms that the present state is almost as it was excavated in the 19th century, apart from a few missing stones of the top course at the SW and SE corners (pers. comm. David Breeze). For the received view: Hill and Dobson 1992, 39f.; Bruce 2006, 190; Hill 2006, 117f., 131.

¹⁸² Hill 2006, 68ff., 99f., 116ff. For the maximum height (c. 1.8 m) of the Broad Wall core's crest, measured from foundation, see above at n. 86. It may be noted that the Narrow Wall east of the turret was constructed on a foundation course placed in a slot that was apparently cut into the existing wing wall some 20(?) cm — suggestive of work taken up after several years' delay (*cf.* above n. 137). The same treatment may then be expected for a supposed resumption of Narrow work west of the turret, but there is no trace of such a foundation, adding another 20 cm or so to the amount of lost Broad work to the west — now certainly bringing this stretch above the critical scaffolding level.

¹⁸³ In a rational building sequence (*cf.* above at notes 66ff. and 163ff.), the base of T 26b would have been laid out with its two wing walls in one go, making the actual difference in width hard to explain.

¹⁸⁴ *Cf.* the kink at T 27a (above at n. 180). The general alignment of the Wall coming down from Brunton Bank otherwise is perfectly straight, just as the stretch in which T 27a sits ought to have been perfectly straight had it been built in one sequence: *cf.* Poulter 2010, 88ff. with fig. 49.

¹⁸⁵ The sequence here is markedly different from, say, the west wing of T 29a (Black Carts), where the Narrow Wall can be clearly seen to rake into the stepped wing-wall end, which was squared off *after* the bonding of the curtain: see above at n. 72.

¹⁸⁶ Interestingly, the curtain meets the wing wall at a width of a mere 1.61 m, but then widens markedly to a more comfortable 1.85 m as it meets the turret, perhaps confirming the earlier suggestion (see above at n. 72) that the existing, or planned, position of doorways to the Wall-top were an important consideration in determining how to shape the meeting of Narrow curtain, Broad wing wall and turret. It may be relevant that, according to the 1988 drawing, there is a slight misalignment (almost 10 cm) of the uppermost courses of the turret's east wall (those that bond with the Narrow curtain) with the original turret base.

¹⁸⁷ Where extant Narrow work in the central sector can be shown/argued to have been built soon after dislocation/fort decision, the new standard appears to be 8 ft. — not 6. The present writer, from what he understands about the rigorous building specifications of Hadrian's Wall, does not believe in gangs operating east of the North Tyne and happily following a standard of their own 2 ft. less than the one prescribed elsewhere. The late position of this local Six-Foot gauge in the Wall sequence is in line with the 'Broad-to-Narrow' hiatus apparent at Planetrees (see n. 137) and the suggested order of events at Portgate (see at n. 159). Perhaps the 'milecastle first' sector (MC 23–27, Portgate–North Tyne), home to the Six-Foot Wall, was considered sufficiently equipped for the time being, seeing that its line installations had been generally advanced.

¹⁸⁸ There is nothing in the present structure that forbids the idea, nor, admittedly, anything that necessarily supports the suggestion of a rebuild. Or it must be the masonry of the turret's internal north face which is suggestive of significant differential subsidence, perhaps due to the 10 × 15 ft. chunk of stone and clay that was leaning onto its west side. It may be noted that it is the lower courses mainly that sag to the west, while the upper ones tend to lie more horizontally (*cf.* fig. 4). Along the German Limes, it may be noted, many dozens of stone towers were taken down and rebuilt once or twice.

¹⁸⁹ Newbold 1913, 56, 70, reports a width of 7ft 10in (2.20m) 50 yards west of the turret (but see Hill 2004, 170: still 3.05m 56 yards west of T 26b). This measurement clearly deviates from the Six-Foot Wall east of T 26b. It must be noted, moreover, that Newbold's observation coincides with the reported find spot of an unusual building inscription (*RIB* 1445) recording the building of 113 feet by a *cavalry* troop — probably indicating local reconstruction work by a unit from the *ala* fort of Chesters. See Bruce 2006, 190; Hill 2004, 121; 2006, 113. The Narrow wall that abuts Chesters' east gate obviously is a later rebuild: see Hill 2004, 147.

¹⁹⁰ Roman awareness of this weak point may have led to an earlier military presence at Chesters: see Birley 1961, 173.

¹⁹¹ Symonds 2005, 77.

¹⁹² It has been suggested by James Crow (e.g. 2004, 15ff.; 2007, 126ff.) that the blueprint for the Wall had always included the plan for forts along the line; *cf.* the resonance in Hodgson 2009b, 18f. But there are many objections. First of all, there is the waste of carefully planned work at several sites (see below). A much more formidable objection is the fact that all line installations in Wall miles 30–57, except T 56b, appear to have been set out with a view to direct visual communication with an existing Stanegate site (Woolliscroft 2001, 58ff.). The same south-facing design of the Wall has now been confirmed by Poulter 2010, 84ff., 121ff., for the eastern and western sector as well, probably meaning that, under the original plan, rearward forts were *planned* to cover the notorious void east of Corbridge/Chesters. The impact of the fort decision is graphically demonstrated by the drastic reduction of milecastle accommodation after the pre-dislocation delivery of MC 47–48: Symonds 2005, 76. The existence of a revetted causeway and gap across the Vallum ditch and mounds at MC 50 TW may point to the early establishment of a branch road to Bewcastle. This arrangement is less easily explained if a fort had been on the stocks at Birdoswald from the start: *cf.* Bidwell and Holbrook 1989, 153; Breeze and Dobson 2000, 46.

¹⁹³ Tacitus, *Agr.* 22.2. *Cf.* SHA, *Had.* 10.6: *locum castris caperet.*

¹⁹⁴ See now Hodgson 2009b, 18f. with table 1.

¹⁹⁵ Symonds 2005, 72ff. For the homogeneity of Wall miles 47–48 in terms of legionary signatures: Hooley and Breeze 1968, 100, 105f. with fig. 2. Perhaps tellingly, the builders of MC 48 had recourse to the intractable, metamorphosed sandstone from the adjacent Poltross Burn valley, explaining the low standard of finishing of the north gate: Hill 2006, 39, 41.

¹⁹⁶ Symonds 2005, 73; Bruce 2006, 65. See Hunneysett 1980 for a convincing argument that the milecastles (of the stone Wall) were originally set out to standardized sizes, either 50 × 60 or 60 × 70 feet, but started to diverge after dislocation depending on whether their perimeter walls had been set out internally or externally. On the larger specimens of the Turf Wall see above n. 131.

¹⁹⁷ Symonds 2005, 73, is reserved on accommodation requirements as a sufficient explanation for the size of MC 47–48. I tend to disagree, however, with his contention that 'barracks of an equal size could have been erected in the smaller milecastles'. Symonds has a redrawn plan of MC 48 (fig. 1). Barracks sizes and garrisons strengths are discussed in Breeze and Dobson 1972, 188f.; 2000, 41; Hill and Dobson 1992, 37, 49.

¹⁹⁸ Symonds 2005, 76.

¹⁹⁹ Symonds 2005, 74.

²⁰⁰ Rightly noted by Bennett 2002, 828, who concludes that it may have come from Carvoran or a supposed shrine at Gilsland (see below). *RIB* 1852 was found in the mid-19th century reused in a stable at Chapel House almost 300m west of MC 47.

²⁰¹ *Cf.* Bennett 2002, 830: 'a man with a high degree of self-pride and self-satisfaction, as demonstrated in the relative abundance of his inscriptions'.

²⁰² Noted by, among others, Bidwell and Hill 2009, 37.

²⁰³ For the evidence of wing walls see above at notes 69ff. and 164. The way T 48b's western wing wall gently tapers down to the Narrow gauge over some 12 m (Hill 1997, n. 69; 2006, 133) may represent a less common solution to the problem of bonding in the raking wings of a *completed* turret (for the alternative: Hill 2006, 105f. with fig. 60). This solution, comparable to the tapering north wall of MC 37 on both sides of the gate, would less readily suggest itself if the respective structures had been built only two or three courses up.

²⁰⁴ Recesses at both turrets remeasured as 77 in (1.96 m), wall widths on all sides as 32 in (0.81 m) by Hill 1997, table 1, who suggests (p. 42) the possibility of a beginner's mistake — equally indicating the towers' early place in the building sequence.

²⁰⁵ Quotations and details from Bruce 2006, 288f. For the possible positions of the bevelled stones: Hill 1997, 36, 40.

²⁰⁶ Bruce 2006, 284; cf. Birley 1961, 80 ('probably wider and deeper than anywhere else'). Alternatively, this may be taken as an indication of perceived exposure, seeing that the oversized ditch is a recurring feature in the Carvoran-Gilsland sector (Wall miles 46–8) that covered the vulnerable Irthing and Tipalt valleys including the corridor that connected both.

²⁰⁷ Bidwell and Holbrook 1989, 12f. (Chester), 56f. (Willowford).

²⁰⁸ Judging the relevant 'signatures', the structures in Wall miles 47–48 were built by the same legion as T 17a-MC 22 (Hooley and Breeze 1968, 100, 105f. with fig. 2), but the deep recesses of T 48a-b were not repeated in the eastern sector, perhaps indicating the priority of Wall miles 47–48 (cf. Hill 1997, 42). It can be imagined that Wall miles 47–48 were a very early special assignment that predated the regular series of 5-mile allotments, leaving four neat blocks west of the river North Tyne (*grosso modo* MC 27–47) in the central sector (cf. above notes 145 and 150).

²⁰⁹ The sub-standard quality of workmanship at the gates of MC 48 is noted by Hill 2006 several times (e.g. 55, 128), but 'the poor work in the piers ... can be entirely explained by the very difficult nature of the stone used there' (143).

²¹⁰ I have looked for suggestions to this effect among recent authors, but was able to find only Birley 1997, 133: 'it is reasonable to conjecture that at least a sample section was completed to full height for imperial inspection and approval.'

²¹¹ Perhaps a sample of Broad curtain was completed somewhere in Wall mile 48, where a few short lengths of Broad superstructure survive, one of them abutting Willowford Bridge — the point of contact with the Turf Wall. See Hill 2004, 21; 2006, 133.

²¹² Today, as Bruce 2006, 285, points out, 'it lies at the east end of the only mile on the line of the Wall where both milecastles, both turrets and virtually the whole of the Wall is visible.'

²¹³ Coulston and Phillips 1988, 105. Also depicted in Bruce 2006, 285.

²¹⁴ See Coulston and Phillips 1988, 105f., for a fine discussion of 'Arthur's O'on' (as the domed structure on the Antonine Wall was called before it was destroyed in the 18th century) as a possible Victory shrine; likewise Breeze 2006, 56 with fig. 4.10.

²¹⁵ A similar suggestion in Coulston and Phillips 1988, 106.

²¹⁶ It happens to be the watershed between Tyne and Irthing: Bruce 2006, 284. See Servius, *Aen.* 11.6, on where to place such memorials: *in colle quia tropaea non figebantur nisi in eminentioribus locis* ('on a hill because trophies were only positioned in eminent places').

²¹⁷ Symonds 2005, 77. The Middle gauge occurs at MC 43 which was demolished to make way for the fort of Great Chesters.

²¹⁸ The sequence at Chesters shows that the decision to narrow the Wall gauge came some (not necessarily much) time after the fort's western ditch had been dug: see above n. 134. Construction considerations for the reduction cannot be ruled out: see Hill 2006, 24, pointing out that 'any instability in the clay-bonded core would be greater in the broader wall'. There appears to be no significant deterioration of work on the curtain following the change to Narrow gauge: Hill 2006, 127.

²¹⁹ Hill 2004, 149ff.; 2006, 140ff.

²²⁰ Both had their north faces begun to (sub-) Broad specification, but were finished with Middle gauge side and south walls. The north wall of MC 37 was started to Broad gauge at the gate, but then tapers to Narrow, uniquely (cf. the new drawing in Symonds 2005, fig. 4). Cf. Table 1 above. It may be objected, however, that similar differences in quality are noticeable at MC 10 (Hill 2006, 143), which ought to be one of the first to have been delivered (Symonds 2005, 72), not to mention the low standard of work at MC 48 (see above n. 209).

²²¹ Quotations from Hill 2006, 141, and Bidwell and Hill 2009, 38, respectively.

²²² Cf. Breeze 2003; Hill 2004, 149ff.; 2006, 140ff., with the suggestion (p. 144) that the war may have sapped the last drop of enthusiasm for a Wall project that was dragging on. The relevance of the stone fort of Birdoswald to the issues of the 'second dislocation' or 'second war' has been questioned by Wilmott 2006, who argues for an intervening timber fort: Wilmott 1997, 42ff.; Wilmott, Cool and Evans 2009, 213f., 388f. None of the evidence for the timber fort seems decisive, however: the 1927 drain under the stone fort's defences does not imply an earlier phase; the material contained in the stone fort's south rampart may come from the promontory enclosure; some of the supposedly early features found at the south gate in 1932 rest on a layer of mason's chippings probably belonging to the stone fort; the artefactual evidence (Wilmott, Cool and Evans 2009, 389) cannot possibly be used to isolate a fort of the early 120s; the first generation of interior buildings in a stone fort could well be timber-built, as shown by Hadrianic Wallsend. I thank David Breeze for information and discussion. See now Hodgson 2010, 440.

²²³ I am referring to the notorious lack of forts along the 'eastern' Stanegate: see Bidwell and Snape 2002, 256ff.; Hodgson 2009b, 17ff. For the priority of the three eastern forts and the remarkable similarity of their granaries, perhaps meaning that they were all built by the same unit, *sc.* the *Classis Britannica* attested at Benwell (*RIB* 1340): Breeze and Dobson 2000, 50, 78. If so, Halton Chesters was a co-production, *Legio VI Victrix* signing for one of the gates (*RIB* 1427), and thereby for over-all coordination presumably. Both inscriptions are dated under Platorius Nepos.

²²⁴ The tactical implications of the fort decision fall beyond the scope of this paper: they will be treated in a separate chapter of my study (see n. 1). Signalling arrangements: Woolliscroft 2001, ch. 3. For the symmetry and regular spacing of the Wall forts: Swinbank and Spaul 1951.

²²⁵ See above at n. 134f.

²²⁶ Bennett 2002, 828 (quotation). Cf. Hill 2006, 138, on wing walls. For the non-bonding of Chesters and Housesteads: Bruce 2006, 200; Hill 2004, 147. Housesteads' NE corner tower: *JRS* 36 (1946) 134 with fig. 9; Hill, *loc.cit.* David Breeze reminded me that perhaps the new Wall forts were built without wing walls out of simple military convention, just as Balmuildy on the Antonine Wall may have been built *with* wings simply because this had become the standard appearance of line forts.

²²⁷ Bennett 2002, 828f. An early date for the Vallum has been suggested/argued by a.o. Hooley and Breeze 1968, n. 23; Breeze and Dobson 2000, 80; Hill 2004, 149; 2006, 139; and lastly Poulter 2009, 74ff.; 2010, 105ff., who has the new observations on Birdoswald and Stanwix, and gives a convincing exposition of the Vallum's method of planning. Wilmott and Bennett 2009, 118, implicitly suggest that the Vallum, at Appletree, could have been constructed with the Turf Wall in one go, based on the observation of a truncated subsoil underlying both the Wall ditch glacis and the Vallum north mound. But it is very doubtful if, say, two years of regeneration of grassy vegetation will survive in the archaeological record as a distinct soil horizon, not to mention the likelihood that the construction of the Vallum mounds led to renewed stripping of turfs. Finally, if the Vallum was set out from the known positions of the forts, including nearby Birdoswald (Poulter 2010, 105 with fig. 74), it almost certainly postdates the construction of the Turf Wall.

²²⁸ Hill 2004, 36f., 117; 2006, 34f., 36, 109.

²²⁹ Bennett's calculation is clearly much too low, *sc.* 100 days if done by four auxiliary units (2002b, 829). Hill 2006, 125ff., using modern-day benchmarks based on all-steel shovel blades, calculates 527 days for six such units — a far more realistic figure. Building rates for the stone Wall, conversely, have dropped dramatically with the appearance of Hill's major studies (2004, 2006).

²³⁰ Woolliscroft 2001, 74ff. Cf. above n. 77. For the Vallum's lack of defensive features: Wilmott 2008, 126f.; 2009b, 53 (quotation): it doesn't have 'even a remote defensive function' — a point seen by Bruce long ago: Bruce 2006, 177.

²³¹ Hill 2004, 117; 2006, 113.

²³² That is, if the extant epigraphy is representative: Hill 2004, 121f.; 2006, 113.

²³³ Cf. Breeze and Dobson 2000, 81; Bruce 2006, 104, both with due reserve.

²³⁴ Wilmott 2008, 119; 2009b, 51. For the Great Chesters Vallum causeway: Heywood and Breeze 2010, 2ff.

²³⁵ *RIB* 1550, line 1: [. . .] *Julio Se*[v]*er]o leg(ato)*. Cf. De la Bédoyère 2000, 147: 'only parts of two letters of a governor's (?) name survive (and none of the emperor's, or his, titles) so it is of dubious value.' For the rival: Birley 2005, 132, 145ff. It would be more normal for a governor's name to appear at

the end of the text. Very suggestively, the last full line reads (...) IO NEPOTE, but the text closes [...]EF, most naturally read as *praef(ecto)*, making this Nepos the unit's commander. The Hadrianic foundation date of Carrawburgh is indisputable: Breeze 1972, 100f., 124.

²³⁶ Cf. De la Bédoyère 2000, 146f. Quotation from Hill 2006, 57.

²³⁷ E.g. *RIB* 2244 from Thurmaston and *RIB* 2265 from Llanfairfechan, dated to 119–20 and 120–1 respectively. On the mistaken use of PP on the dedicatory milestones of 120/121 see Zahrt 1988, 199, who points out that at least six of the ten discussed have the false title, and Rathmann 2003, 73 with n. 432 and 436. On Hadrian's repeated refusal of the title (SHA, *Had.* 6.4) cf. Bennett 1984, who adduces *CIL* III 3968a from Siscia dated 124/5.

²³⁸ Cf. De la Bédoyère 2000, 147, who concludes that 'apart from Nepos, none is thus unequivocally associated with building on the Wall.'

²³⁹ The centurial stone of *Cohors I Dacorum* that 'certainly' comes from the Vallum (Hill 2004, 121ff. with table 12.1: *RIB* 1365) fails to mention the title *Aelia* which the unit carried by August 127: Holder 1998, 255.

²⁴⁰ For the early date of the Vallum see n. 227ff. Nepos' direct successor, Trebius Germanus, was in office on 20 August 127, probably resuming the normal pattern of three-year tenures: see Birley 1999, 246f, and 2005, 125ff., admitting that Nepos 'could easily have continued until 126 or even 127' (126f.), given that the date of the Walcot diploma (*CIL* XVI.88) remains uncertain and the initial letter of the governor disputed (available space cannot, I think, decide between *Trebio Germano* and *Platorio Nepote*).

²⁴¹ Quotation and evidence in Hooley and Breeze 1968, 102f. with fig. 2, also applicable to the following.

²⁴² See above n. 146. Perhaps, the Turf Wall from MC 49 to 54 was assigned to *II Augusta*: Wilmott, Cool and Evans 2009, 388f. The evidence of the turret entrances would allow it (Hooley and Breeze 1968, 113). The point of turret wall widths may be less relevant to the Turf Wall (see n. 131 *in fine*).

²⁴³ Bruce 2006, 73, 226; R. P. Wright and M. W. C. Hassall, *Britannia* 2 (1971) 291, no. 10 with Pl. XXXIX, B.

²⁴⁴ Swan 2008, 60.

²⁴⁵ Richmond 1931; 1954. For the find spots: Wilmott 1997, fig.7.

²⁴⁶ Mattingly and Sydenham 1926, 315, 320ff.; Mattingly 1936, cxvf., retaining a strong argument for a virtual 'absence of coinage' in 122–125. Prof. Fleur Kemmers (Goethe Universität, Frankfurt) kindly looked into the hoards, based on Robertson 2000, nos. 131, 132 and 137. The two Hadrianic coins in mint-condition in the 1930 hoard are RIC 80 and 128. For the liquidation of Republican coins in *denarii* see Duncan-Jones 1994, 196 with fig. 14.3–4: 'British hoards ending between 110 and 125 still show a median percentage of Republican coin above 20%. But Republican coin is virtually absent from the hoards of the 130s.'

²⁴⁷ For a similar conclusion: Bennett 1990, 350.

²⁴⁸ For the dark 'hiatus soils' that cover most of the NW quarter of the fort, clearly representing an interruption of several years: Wilmott 1997, 59 (for its position in the west-gate sequence), 73ff.; Wilmott, Cool and Evans 2009, 214ff. and 389 with fig. 313. In his review of the latter work, Paul Bidwell has recently suggested that the hiatus may represent the Antonine intermezzo: *Britannia* 42 (2011) 493. This seems unlikely. It has now been securely established that the stone Wall structures west of Birdoswald were occupied from the later Hadrianic period: S. H. Willis *in* Wilmott, Cool and Evans 2009, 347ff. The realignment of the Wall in this area was probably carried out in order to enhance the structures' signal links with the fort, and the move certainly meant that the former response centre at Nether Denton was now out of sight: Woolliscroft 2001, 74. This ought to mean that, by then, Birdoswald functioned as such for its own sector. But the hiatus soils apparently precede all fort buildings in the NW quarter, so they would seem to date to the middle Hadrianic period. The duration of the hiatus calls for a separate explanation, I think. This may tentatively be sought either in Birdoswald's very difficult site — a bog, in fact (Wiltshire 1997, 27ff. with fig. 13), inescapable apparently for its position and signal links but needing substantial raising and several years of settling — or in a reconsideration of garrisons in the western central sector, touching Great Chesters and Carvoran (Swinbank and Spaul 1951), and perhaps a planned fort west of it (Poulter 2010, 104 with fig. 73).

²⁴⁹ Recent surveys: Breeze 2004; 2006, 373ff.; Symonds 2009b.

²⁵⁰ Bellhouse 1989, 2f., though mainly based on averages of longer stretches (cf. above n. 56). For an example, sc. MF 21 (Swarthy Hill): Woolliscroft 2001, 90, but with Symonds 2009b, 57f. Matt Symonds reminded me of the strong positions of many milefortlets (pers. comm.). For signalling as a possible explanation of minor irregularities cf. Woolliscroft 1994.

²⁵¹ Breeze 1991, 3. The late-Roman *Notitia Dignitatum* still registered the coastal installations as part of the Wall system (*per lineam Valli*).

²⁵² M. G. Jarrett in Bellhouse 1954, 49ff.

²⁵³ See Wilson 1997, 17ff.; 2004, 21. Bellhouse 1970, 42 with fig. 6, argued that the system was set out symmetrically from Maryport's corner towers (= T 23b and 24a, in his system), but the discovery of a tower, in 1981, at the site of his expected milefortlet 26 (cf. Bellhouse 1984, 54) upset the symmetry, and the case has been further weakened by MF 23's discovery further west than Bellhouse predicted (Jones and Woolliscroft 2001, 131, fig. 82), pushing T 23b to the SW corner of Maryport — a happier solution, I think, than the escape suggested in Bellhouse 1989, fig. 13; cf. p. 56. Cf. Daniels 1990, 403ff. with fig. 1.

²⁵⁴ Quotation: Woolliscroft 2001, 90. Some of the Wall forts were probably put in unconventional positions (Housesteads) or awkward terrain (Birdoswald) in order to let them to take in as many as possible of the existing turrets and milecastles in their response sectors. The latter had been originally planned to link with rearward response centres along the Stanegate: Woolliscroft 2001, ch. 2, for the central sector, now confirmed for the entire line of the Wall by Poulter 2009, report no. 1; 2010, ch. 9 and 11. See Breeze 2004, 80, for the suggestion that, under the original plan, Old Carlisle and Papcastle may have been planned as rearward response centres for the Cumberland Coast system, perhaps making sense of the supposed Roman signal-tower at Raise Howe, Aldoth: *Britannia* 24 (1993) 286.

²⁵⁵ Re-excavation in 2011 by the University of Newcastle has established that RIB 823 also comes from one of the pits emptied in 1870: T. Wilmott and I. Haynes, Maryport excavation blog no. 3 (http://www.hadrians-wall.org/ResourceManager/Documents/Maryport%20Excavation%20Blog%20No%203_107_634465894099605000.pdf (accessed 05 March, 2012)).

²⁵⁶ For the ceremony see Plinius, *Ep.* X.35 (quotation), 100–101. The roughly formulaic nature of the texts, all addressed to Jupiter Best and Greatest, the iterative pattern implied by the series of Agrippa, Priscus and Maximus, combined with the apparent provenance of the altars from a single repository, all point to a yearly sequence of official corporate dedications in accordance with the *nuncupatio votorum*. The oral oaths of loyalty taken by the army on 1 January, and repeated on the anniversary of emperor's succession (*dies imperii*, 11 August in the case of Hadrian), were 'a completely different ceremony' (Waldock 2002, 113). Note that the *numen Augusti* occurs in RIB 815 and 824–5 only, the latter ones posed by Hadrian's protégé Maenius Agrippa.

²⁵⁷ Jarrett and Stephens 1987, 62; cf. Jarrett 1976b, 12 with fig. 4. The remaining text [...] ET [...] points to a combined dedication to Jupiter and the *numen Augusti*, just like 824–5. The same argument supports the inclusion of RIB 815, found close to RIB 816 and 817, as a regular member of the series, although it fails to name a commander, perhaps pointing to a vacancy (cf. Davies 1977, 9).

²⁵⁸ None of the altars gives the prestigious title *Aelia*, so the Spaniards probably earned this battle honour during the reoccupation of Scotland in 139–42. The change of garrison would have occurred in 138 or 139, when preparations for the campaign were going on (RIB 1147). Judging by its coin graph, Maryport was decommissioned during the Antonine occupation of Southern Scotland, but it may have taken one or two years before a new troop disposition had been decided upon, leaving a short intermezzo for the *Cohors I Delmatarum* which is securely attested with one altar only (RIB 831, cf. 833). This unit may have marked its arrival at Maryport by some work at the shrine, perhaps commemorated by a sumptuous dedication slab (RIB 832) found alongside the altars. The inscription omits Antoninus Pius' title of *Pater Patriae* which he only took in 139. So the Dalmatians probably arrived in 138 or early in 139. Discussion and evidence in: Jarrett and Stephens 1987, 62; Holder 1998, 258ff.; Frere 2000, 26; Bruce 2006, 400.

²⁵⁹ In 2005, excavation by the Maryport and District Archaeological Society immediately southwest of the fort has located the defences, *via sagularis* and a barrack (?) of identical construction and orientation to the earliest buildings in the visible fort: *Britannia* 37 (2006) 392; Flynn 2006. So the latter may well turn out to be the rump of a short-lived earlier one of normal playing-card shape, solving an old problem posed by its square shape: cf. e.g. Woolliscroft 2001, 94. This original large

fort, with an annexe to the southeast, may have provided just those 'added responsibilities for extra facilities or personnel' that Frere 2000, 27, proposed to warrant Agrippa's title, rightly doubting the milliary size of *Cohors I Hispanorum* in his days (cf. Holder 1998, 258ff. In personal communication, Ian Caruana pointed out to me that the amount of stone recorded in the 2005 excavation counter-indicates a pre-Hadrianic date, while the scarcity of find material clearly suggests a very short occupation of the cut-off part of the fort.

²⁶⁰ The problem is pondered by Wilson 2004, 21 (quotation), who rightly opts for Maryport's secondary place in the sequence — but implying that the fort, and the altars, cannot date before 125/6: cf. 1997, 17ff.

²⁶¹ Quotation from Wilmott 2009c, 198, commenting on MC 14.

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Abbreviations

- BMC Mattingly, H. and Carson R. A. G. (eds.), *Coins of the Roman Empire in the British Museum*, 6 vols. London 1923–62, repr. 1976.
 CIL *Corpus Inscriptionum Latinarum*, Berlin 1862–
 ILS Dessau, H. (ed.), *Inscriptiones Latinae Selectae*, Berlin 1892–1916.
 SHA *Scriptores Historiae Augustae*
 RIC H. Mattingly a.o. (eds.), *The Roman Imperial Coinage*, 10 vols., London 1923–94.

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Erik Graafstal, Burgemeester Verderlaan 32, 3544 AD Utrecht, Netherlands.

e.graafstal@ziggo.nl