

## *Roman siege warfare or training exercises at Burnswark?*

# Hillfort under attack

Not far from the little town of Lockerbie in southwest Scotland, travellers on the busy A74 motorway may glimpse, on the skyline, the distinctive flat-topped profile of Burnswark hill. Almost two thousand years ago, a traveller on roughly the same route might have heard the thump of artillery balls, the deadly hiss of sling bullets, and the horn blasts of Roman forces moving purposefully into action. The remains of two encampments can still be seen, lying at the foot of the hill, and the ground was littered with missiles, amply demonstrating the presence of the Roman army. But modern scholars are undecided whether the assault was accompanied by the sounds of slaughter, or by the barks of a Roman drill instructor. Are the remains at Burnswark simply vestiges of practice manoeuvres? Or do they signify a genuine episode of Roman warfare?

*By Duncan B. Campbell*

Burnswark lies ten miles (16km) north of Hadrian's Wall and three miles (4.5km) northwest of the Roman outpost fort at Birrens. The surrounding countryside was the homeland of the Anavionenses – not an extension of Brigantian territory, as is often mistakenly assumed from the find of a dedication to the *Dea Brigantia* ("goddess of the lands of the Brigantes") at Birrens, for the lands of the Brigantes did not extend beyond Hadrian's Wall.

The fort at Birrens and its vicinity were under Roman occupation from around AD 80, in the days of Agricola. The locals had even submitted to a census in around AD 100, but by then the Romans were in the throes of a staged withdrawal, leaving the tribe to enjoy independence for an entire generation. Then, in the early AD 140s,



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*The flat-topped Burnswark hill can be seen on the skyline, dominating the lands of the Anavionenses in present-day Dumfriesshire.*

the emperor Antoninus Pius ordered the reconquest of Scotland.

The Romans marched north, as they had done 60 years before, along an eastern and a western route. This time, the western route, running 40 miles (64km) from Birrens to Crawford before heading up the Clyde valley to Castledykes and beyond, was protected by a series of fortlets (Professor Eric Birley, a giant of Romano-British archaeology and the study of the Roman army, compared them to police stations). Each accommodated a few dozen soldiers whose job was presumably to ensure that the roadway stayed open, an indication that the Anavionenses were not entirely to be trusted. The first of these fortlets lay at the southern foot of Burnswark hill.

For almost two decades, Hadrian's Wall lay vacant. Troops were busy further north, constructing the new Antonine frontier as a bulwark against the native Caledonian communities of the far north. However, by AD 158, the decision had been made to recommission Hadrian's Wall as the northern frontier, signalling a general withdrawal from Scotland.

### Pieces in a jigsaw

Understanding the northern frontier during the reign of Antoninus Pius (AD 139-161) is rather like piecing together a jigsaw. One of the key pieces is the site of Birrens, where the Antonine garrison had demolished the Hadrianic fort and built a new one on top, probably extending over 5 acres (2ha) (it was common for a newly arrived garrison to remodel their fort in this way, particularly when they needed more room). However, fire had subsequently raged through the Antonine fort, creating widespread destruction that seemed to the excavator, Professor Anne Robertson, "less likely to have been Roman and orderly, than savage and wayward". Thus, we may assume that it was the violent incursion of an enemy force that led to the fort's rebuilding in AD 158.

The fort at Drumlanrig, about 30 miles (50km) up the road, provides another piece in the jigsaw. Here, a small fort enclosing 3.7 acres (1.6ha) was founded in the Antonine period, no doubt as one of the headquarters from which soldiers were outposted to man the local fortlets. Archaeologists found that the ramparts had been strengthened shortly before the fort was finally destroyed by fire. The

cause remains unknown, but a connection with Birrens seems likely.

Another important piece in the archaeological jigsaw is the site of Burnswark, where the Antonine fortlet was superseded by a pair of camps, one to the north of the hill, the other to the south. In recent times, criticism has been levelled against the obvious notion that these camps formed the temporary accommodation of an assault force sent to capture the hillfort. Sceptics claim, on the contrary, that the camps represent practice manoeuvres. Perhaps, by sifting through the evidence, we can arrive at the truth.

### The two camps

The majority of known Roman camps were intended for short-term accommodation by troops on the march. Normally, each of the camp's four sides was pierced by a centrally-placed entrance; the longer sides might have their entrances somewhat off-centre, or even have two entrances, but opposite sides invariably matched.

However, the two camps at Burnswark are quite different from this. The North Camp, enclosing an area of roughly 6 acres (2.4ha), has the appearance of a square with a smaller rectangle tacked onto the side. Examining the site in 1925, Professor

### Roman practice grounds

During the 1960s, when archaeologist George Jobey was excavating at Burnswark and developing his interpretation of the site, military manoeuvres formed the hot topic of discussion amongst Roman army scholars. Indeed, a 1967 PhD thesis (Roy Davies, *Peacetime Routine in the Roman Army*, University of Durham) addressed, in large part, the army's training and exercises.

It is clear, chiefly from the testimony of the ancient writer Vegetius, that Roman soldiers were expected to be able to construct a temporary encampment quickly and efficiently, and it was one of the centurion's many tasks to check the accuracy of the soldiers' work. Camp building was thought to be such an important skill that those who failed to attain the required standard were severely punished. Its importance, of course, stemmed from the fact that a campaigning army had to be able to build a camp at the end of a day's march. Consequently, this was a skill that every soldier would require throughout his military service.

Another skill that every soldier required was the handling of weapons. Vegetius recommended that troops should "very frequently be occupied for most of the day cutting and thrusting with poles instead of swords, until they sweat" (*On military matters* 3.4). Vegetius' poles are probably the heavy wooden *rudes* (singular, *rudis*) mentioned by other ancient writers. Fronto, for example, complained that Hadrian's army played around with such practice-weapons when they should have been fighting the enemy.

It is likely that weapons drill took place in the levelled enclosures known as *campi* (usually translated as "parade grounds") which are often found adjacent to the permanent forts and fortresses of the Roman army. The ancient writer Arrian explicitly linked the *campus* with cavalry exercises, but infantry sword drill, though undoubtedly far less flamboyant, must have been a common parade ground activity. Vegetius also refers to practice with missile weapons, shooting at *scopae* ("bundles of brushwood or straw") set up as targets at one end of the *campus*. Curiously, although he mentions archery and slinging, he does not include practising with artillery.

The well-known *adlocutio Hadriani* ("speech of Hadrian"), displayed on the *campus* at Lambaesis, mentions both of these training activities: different groups are commended for camp building and carrying out weapons drill "with the appearance of real warfare". The only other regular exercise prescribed for Roman soldiers was the *ambulatoria*, or "route march", which guaranteed the men's general fitness. However, the writer Onasander also recommends mock battles in the countryside between men armed with staves and others with *curves* (*The General* 10.4-5) to hone their fitness without risking their lives.

R.G. Collingwood, author of the classic *Archaeology of Roman Britain* (1930), thought it likely that two working parties, advancing from opposite directions, had simply failed to meet. He was well aware that temporary camps often display astonishing errors of geometry. But the more serious allegation, that the north rampart had been left incomplete, was addressed in 1939 by O.G.S. Crawford, a pioneer of aerial photography, who was able to spot traces of the 'missing' rampart from the air.

The South Camp is reasonably rectangular, with an area roughly twice as large as its northern counterpart, but it exhibits its own peculiarities. Besides incorporating a Roman fortlet in its northeast corner, the disposition of the gateways is odd: the Roman surveyors had provided three gateways on the north side, facing up the hill, but only a single gateway on each of the other sides.

Gordon Maxwell, archaeologist and aerial photographer, suggested that the visible South Camp overlies an earlier predecessor which had three gates on the south side to match those on the north, but this rather complicated theory is not easily proved. It is much simpler to suppose that the unorthodox layout deliberately addressed the need for a rapid deployment from the camp's north side in order to storm the hillfort.

#### A Roman training facility?

Until 1963, scholars accepted that a Roman siege had been fought at Burnswark. Then, in that year, archaeologist Kenneth Steer suggested that the Burnswark camps "were never used in actual operations, but were simply training-quarters for troops engaged in storming native fortifications".

What had prompted this change of heart? Steer believed that the South Camp was rather more permanent than a siege would have required. He cited the results of a pioneering excavation carried out in 1898 by James Barbour, a Dumfries architect, which seemed to demonstrate this.

Barbour believed that the Romans had faced the camp's ramparts with stone, but all of his evidence came from the north rampart where the soft bedrock was fairly near the surface. So near, in fact, that the Roman ditch diggers had been obliged to cut into it, in order to reach their allotted



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**Over a dozen red sandstone balls, and fragments of another nine, were discovered at Burnswark. The largest balls weigh only 2½ lbs (1.1kg) but their shape and finish suggest that they are Roman catapult missiles. By the Antonine period, the one-armed onager was probably the Roman army's main stone-projecting catapult. Now in the National Museum of Scotland, Edinburgh.**

depth (Vegetius tells us that soldiers were punished if they failed to meet the regulations when laying out a camp). Under these circumstances, it is only natural to assume that the final layer of upcast rampart would include the rocky debris from the ditch bottom, a fact that Professor George Jobey of Newcastle University was able to confirm when he excavated there in 1967.

Barbour also claimed that "a pavement, about five feet wide" ran around the inner perimeter of the camp; but, finding no trace of it, Jobey suggested that Barbour's pavement was simply a misinterpretation of the naturally rocky subsoil. A similar misconception probably lay behind Barbour's claim to have found evidence of buildings in the middle of the camp, for a recent magnetic survey disclosed only haphazard features, some of them apparently geological.

Nevertheless, proponents of the 'practice manoeuvres' theory continue to draw support from these problematic features, summed up in Steer's pronouncement that the South Camp was "not a temporary but a semi-permanent" training facility. In fact, the term "semi-permanent" had been coined by Collingwood in 1925 in order to describe a siege camp which, by definition, was "designed for an occupation extending over a certain period of

time, not a few days only".

This was exactly the kind of camp that Roman troops arriving at a trouble spot would have built. Vegetius explains that, "where a stronger enemy force threatens, it is advisable to fortify the perimeter of the camp with a proper ditch, twelve feet wide and nine feet deep 'below the line', as they say; also, the earth dug from the ditch is piled up to make a barrier all around, reaching four feet in height. This happens so that the defences are thirteen feet high and twelve feet wide" (*On military matters* 1.24). Vegetius could almost be describing the defences of the South Camp.

#### Ancient artillery practice?

Roman camp gateways were simply gaps in the rampart. Those in the South Camp were around 40 feet (12m) wide and protected by an outlying earthwork set some distance in front of the gap. The writer Hyginus, in his *Book about camp fortifications*, explains that this earthwork should consist of a ditch (called a *titulus*) and an accompanying length of rampart.

Each of the South Camp's gateways was protected by a substantial oval or circular mound. The size of the three northern gate mounds (known locally as 'The Three Brethren') is exaggerated by the sloping ground, which makes them seem

especially odd, although they are by no means unique (see sidebar, "A comparison of camps"). Nevertheless they have given rise to a surprising theory.

Collingwood suggested that The Three Brethren were actually intended as artillery emplacements. The Romans had certainly deployed catapults at Burnswark, for the site has produced over a dozen small red sandstone balls of the sort that were shot from such machines. However, as far as we can tell, the Romans avoided exposing their catapults in a forward position, and there is no good reason to suppose that they would have positioned them outside the camp gates in this way.

Although Collingwood warned that the identification as artillery emplacements was tentative, his theory was enthusiastically adopted by Roy Davies, well-known for his study of Roman military routine. Davies suggested that Burnswark was an "ancient artillery range", an idea that was soon picked up by others.

### Obsolete sling-bullets?

Besides catapult balls, the site of Burnswark has produced a huge haul of lead sling bullets, the *glandes* of the Roman army. Over a hundred are lemon-shaped, but thirty-four are the classic "acorns" implied by the word *glandes* (one or two are suspiciously round, and may be musket shot, for a turf-built redoubt was constructed on top of the hill in the 17th century and the site was revisited by armies during the 18th century).

Proponents of the 'practice manoeuvres' theory claim that lead *glandes* were obsolete by the second century AD, and would only have been used for training, not in a genuine assault. However, this curious argument, advocating the manufacture of an outdated variety of weapon solely for training purposes, is mistaken; the Burnswark *glandes* were not obsolete curiosities, but up-to-date lethal weapons.

Interestingly, the ancient historian Josephus, commenting on the efficiency of the Roman army, once wrote that "he who says that their exercises are bloodless battles, and their battles are bloody exercises, would not be mistaken" (*Jewish War* 3.75). He was making the point that the Romans trained their troops as vigorously as possible, while avoiding casualties. This might be achieved by using padded or wooden practice weapons, or

by substituting clods of earth for missiles, as Onasander describes (see sidebar on "Roman practice grounds"). However, the notoriously lethal lead *glandes* do not fall into this category. During Hadrian's visit to the *campus* at Lambaesis, the men of one cohort demonstrated their skill at slinging, but they used stones, not lead bullets, no doubt for safety reasons.

### Target practice?

Proponents of the 'practice manoeuvres' theory also believe that the Roman slings and catapults were shooting at artificial

targets on the hilltop, rather than rebellious Britons. They claim that the hillfort had long been abandoned by the time the Romans arrived.

On the contrary, Jobey's excavations, which concentrated on the badly weathered remains of the hillfort itself, uncovered traces of occupation extending into the mid-second century AD. He also found evidence to suggest that the stone-fronted ramparts had begun to collapse prior to the sling-bullet barrage, by which time the hillfort had become "ostensibly an open native settlement".



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*The western summit of Burnswark hill is here viewed from the rampart of the South Camp (NE corner). The large mounds of 'The Three Brethren' can be seen, protecting the northern entrances to the Roman camp.*

### A comparison of camps

In the South Camp at Burnswark, the central gateway on the northern side was found to be fronted by a mound roughly 5 feet (1.5m) high and 40 feet (12m) in diameter at the base; the material for its construction had been dug from a 5-foot ditch which curved around the front. By contrast, the mound fronting the east gateway was more oval in shape, measuring around 3 feet (1m) high, 30 feet (9m) wide (to cover the entrance way) and 15 feet (4.5m) deep.

These dimensions are often thought to be abnormal, but an interesting parallel is provided by the marching camp at Rey Cross, which can still be seen on the Stainmore Pass in Cumbria. There, although the Roman builders had cut only a shallow ditch in the hard ground, they had scraped the rocky soil up to form substantial earthworks. The camp's nine surviving gateways (the modern A66 highway has obliterated two) were protected by oval mounds surviving to a height of around 5 feet (1.5m) and up to 30 feet (9m) wide, which compares very well with those at Burnswark.

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**A selection of Roman lead sling bullets discovered in the Antonine fort at Birrens. The same combination of lemon-shaped and acorn-shaped bullets was found at Burnswark. Now in the National Museum of Scotland, Edinburgh.**

However, Jobey was persuaded that the Roman soldiers stationed in the nearby fortlet would never have allowed the hillfort to remain occupied. He may well be correct, but the hypothesis is a fragile one. In particular, the hillfort's poor state of preservation made his analysis of the remains difficult, and his opinion that the ramparts "were in some disarray" does not guarantee that the site had been vacated.

Jobey also re-examined the two south-facing hillfort entrances, originally excavated by Barbour, who had found rough paving in both. Jobey's excavations demonstrated that the paving was a later feature, overlying three feet (1m) of rubble that had tumbled down from the ramparts.

Interestingly, the same style of pavement also occurred at a western entrance, which was probably a later addition by the 17th century garrison, to facilitate access to their turf-built redoubt. Thus, it would be natural to conclude that the paving of the two south-facing entrances had been laid at the same time. Nevertheless, Jobey was misled by their superficial resemblance, in Barbour's sketch plan, to "a single-portal gateway (as in a milecastle on Hadrian's Wall)", and tentatively proposed, in his interim report, that "this was some sort of target area in a Roman field firing range" (he did not repeat this suggestion in his final report).

However, there is no reason to suppose that the pavements were Roman, and no traces of a target structure were

found. Furthermore, Vegetius tells us that target practice was carried out on the *campus* (see sidebar on "Roman practice grounds"). So it seems that Jobey fell into the same trap as Collingwood with the "artillery emplacements": he proposed a completely unprecedented (and quite unlikely) interpretation for a feature that seemed baffling.

Nevertheless, others continue to quote his opinion. For example, archaeologist David Breeze has combined both Jobey's and Collingwood's doubtful theories in his statement that "Roman gates were laid out in plan using flagstones. These were targets for stone shot fired by catapults placed on mounds in front of the camp gates". The obvious difficulty, that the two supposed "target areas" do not mirror the three "artillery emplacements", has been quietly smoothed over: a kink in the hillfort rampart towards its southeastern end has been re-interpreted as a third gateway, and hence a third 'target area'!

### **Bloody battle or bloodless manoeuvres?**

Proponents of the 'practice manoeuvres' theory claim that the hillfort was abandoned by the time the Roman army arrived; but we have seen that this is only a theory, and a doubtful one, given the fact that Jobey found evidence of occupation. They also point out that the South Camp was a 'semi-permanent' camp, but we have seen that this was precisely the sort of camp recommended by Vegetius

for use in hostile territory. They also claim that the pavements, laid over the disused hillfort entrances, were Roman targets, but this seems highly improbable; no clues to the dating were found, apart from the fact that the similar paved entrance on the west side appears to be a 17th century addition. Finally, they claim that the lead sling-bullets would not have been used in the Antonine period, except for training; but we have seen that precisely the opposite is true.

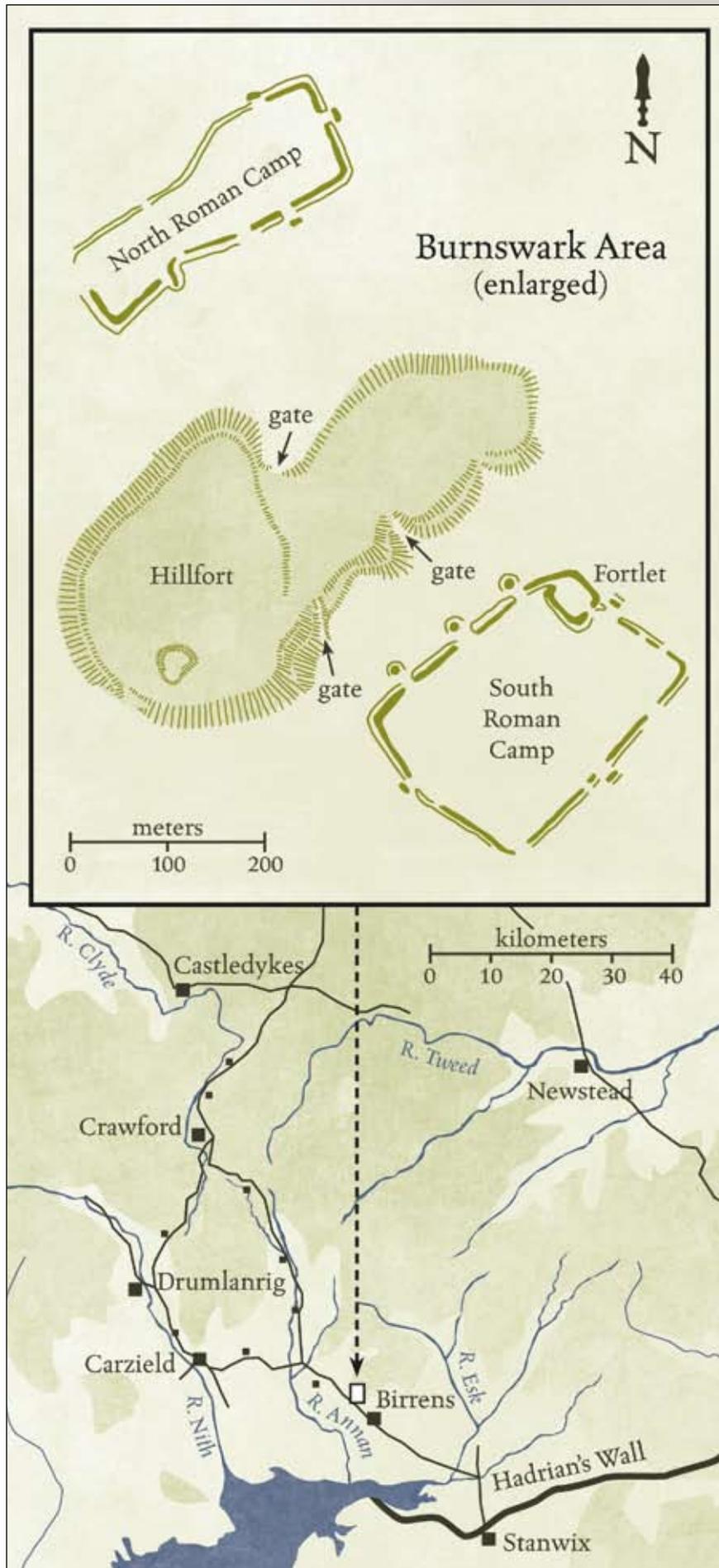
So, why are the 'practice manoeuvres' lobby dead against a genuine assault? Even as early as 1899, doubts were raised that "a people so well skilled in siege operations as the Romans" would have needed to build two camps. However, it seems to have been established practice for Roman generals, preparing to assault a defended position, to divide their forces between two camps in order to keep the enemy under surveillance from both sides.

In fact, critics are fond of transferring their own opinions onto the Roman commander who was given the task of capturing Burnswark hill. "If the Romans really did build the works to capture the hill-fort in battle", wrote Davies, "they were using a remarkably powerful sledge-hammer to crush a nut". Perhaps our anonymous Roman commander preferred to use the sledge-hammer technique.

The fact that the combined area of the two Roman camps exceeds the habitable area of the hillfort is frequently quoted as a valid argument against a genuine siege, as is the trifling height of the hillfort, which rises a mere 340 feet (105m). Of course, the only relevant factor to the Roman commander was the nature of the threat, which unfortunately is unknown to us.

### **The battle of Burnswark?**

In fact, it is not *entirely* unknown: a likely historical context lies ready and waiting. In the late AD 150s, the Romans began the process of withdrawal from Scotland. One reason for this withdrawal – or perhaps an opportunistic side-effect – was a revolt centred on the lands of the Anavionenses. Roman imperial coinage issued in AD 155 alluded ominously to events in Britain, and legionaries who had been on loan to the governors of the German provinces



were recalled. Clearly there was trouble afoot. The fort at Birrens was destroyed; an inscription mentions rebuilding work in AD 158 (the refurbishment of Hadrian's Wall was under way at the time, and the fort was retained as an outpost). The fort at Drumlanrig also suffered destruction, and the line of fortlets down to Burnswark must have been threatened, too.

Such behaviour could not be tolerated. If the rebels had taken refuge on top of Burnswark, we can imagine that this was the moment when a legion arrived to mete out summary justice. The Burnswark fortlet, which perhaps already lay in ruins, was now incorporated into the corner of a siege camp (the South Camp). Perhaps the builders were the Sixth Victrix legion, whose commander set up a dedication near Hadrian's Wall, giving thanks for "successes beyond the wall".

No matter which legion was involved, the scatter of sling bullets is just what we would expect from a besieging attack; the other finds of arrowheads and catapult balls would have added to the general barrage, forcing the defenders to keep their heads down. The assault would follow swiftly.

This was no 'practice manoeuvre', a theory that seems to be based on a sequence of misunderstandings and misinterpretations. I believe, on the contrary, that the archaeological evidence points to a genuine siege at Burnswark. Others still disagree. ●

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#### Further reading

For the siege theory, D.B. Campbell, "The Roman Siege of Burnswark", in: *Britannia* 34 (2003), pp. 19-33.

For the practice theory, G.S. Maxwell, *A Gathering of Eagles: Scenes from Roman Scotland* (Edinburgh, 1998; repr. 2005), pp. 46-49.

On ancient sieges in general, D.B. Campbell, *Besieged. Siege Warfare in the Ancient World* (Oxford, 2006).