

Great Grandad's Army: Rifle Ranges of the Lake District

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This paper describes the outcome of a study of 18 rifle ranges in the Lake District National Park undertaken by a group from the Lake District Archaeology Volunteer Network during the winter of 2015/16. The purpose of the study was to try and find out when these ranges were established, why, who used them and for how long. The study involved a Level 1 survey of each range. A metal detector was employed to find spent bullets and cartridge cases to help date the ranges. This was followed by desk-based research, with local newspaper archives proving especially helpful. At a late stage in the study, we had the benefit of access to earlier unpublished work on rifle ranges in Cumbria and this allowed us to confirm and enlarge on our findings.¹ The study shows that most of the ranges owe their origin and use to the Rifle Volunteer movement, which began in 1859, but that some of them continued in use until after the Second World War.

Introduction

IF you come across some large rusting cast iron plates when walking on the Lake District fells, you could be looking at the remains of an old rifle range target. Rifle ranges were established in a number of places in what is now the Lake District National Park, but the Historic Environment Record² (HER) shows some uncertainty about their provenance. The remains, if they feature at all in the HER, are variously described as dating from before the Boer Wars through to the Second World War. This article considers the results of a survey of 18 rifle ranges shown on the map below carried out by a group of volunteers from the Lake District Archaeology Volunteer Network in the winter of 2015/16.

We actually make reference in the discussion to more than 18 rifle ranges (see below) but these additional ranges remain elusive and were not the subject of survey.³ Reference to them does, however, help to build up a more complete picture of activity in the area. The immediate purpose of the survey of the 18 ranges was to try and clarify their origin. In doing so, we hoped to shed some light on why the rifle ranges were constructed, who might have used them, how they operated and when the use of the ranges ceased.

The survey began with a desk study of early maps to identify the location of the rifle ranges and to throw some light on their date. One would expect the early Ordnance Survey sheets to record military infrastructure. This was followed by field work in the form of a detailed Level 1 survey⁴ of each identified range. The survey included a search for spent bullets in the vicinity of the targets and for cartridge cases at possible firing positions. A metal detector was used to identify the quantity and spread of bullets around the targets and to assist in the search for cartridge cases at the firing positions. The survey was followed by a further desk study online, in the local newspaper archives, in the Cumbria County Library and in the County Archives in Kendal, to try and shed

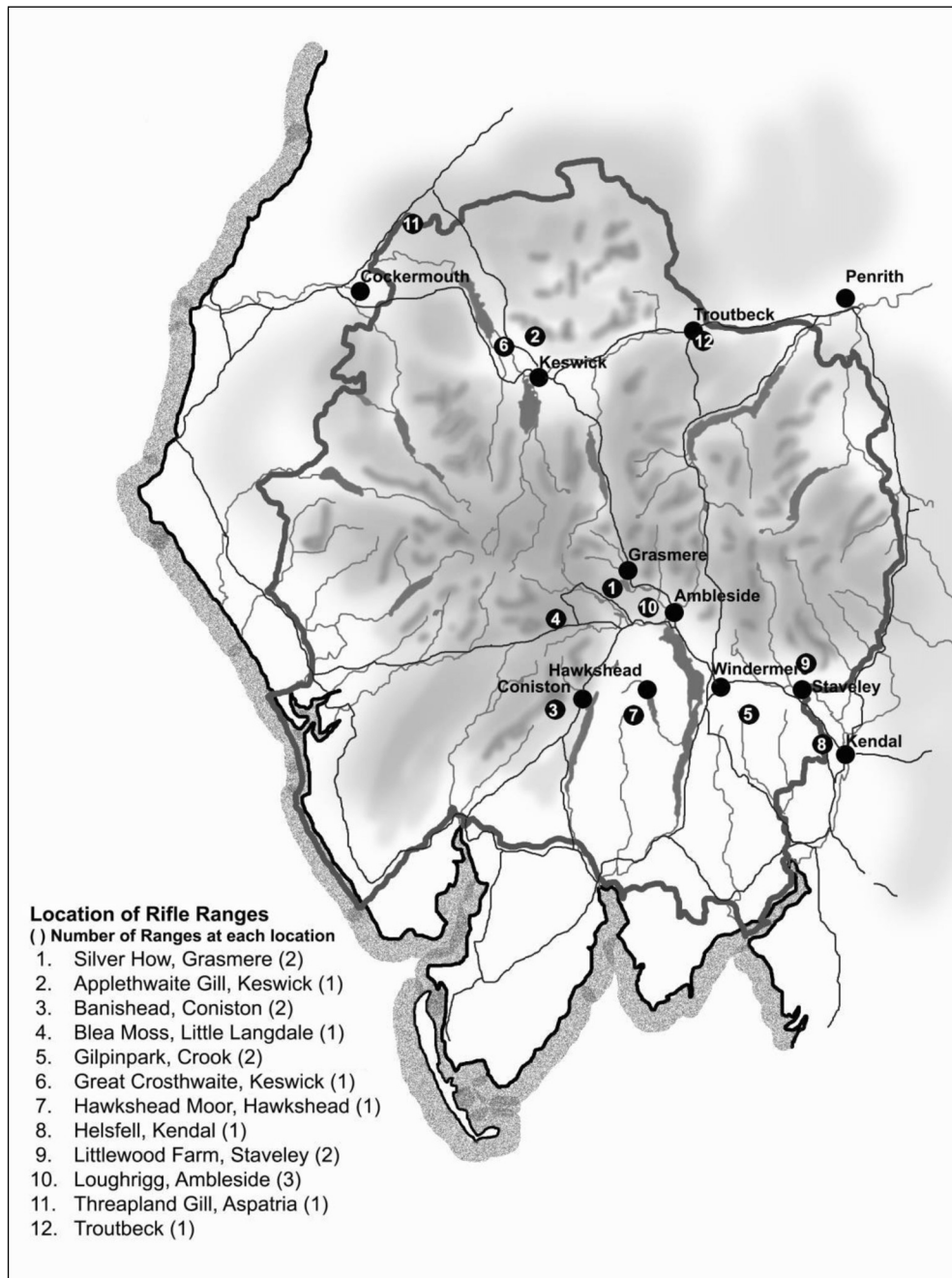


FIG. 1. Location of Rifle Ranges.

TABLE 1: Rifle ranges surveyed.

Range	Length and number of ranges	Location of target
Applethwaite Gill, Keswick	300 yards	NY 26819 26249
Banishead, Coniston	600 yards 300 yards	SD 28339 96688 SD 28561 96807
Blea Moss, Little Langdale	500 yards	NY 29360 03524
Gilpinpark, Crook	600 yards 300 yards	SD 43760 95798 SD 43695 95743
Great Crosthwaite, Keswick	500 yards	NY 25680 24838
Hawkshead Moor, Hawkshead	800 yards	SD 34213 96027
Helsfell, Kendal	800 yards	SD 49599 93777
Littlewood Farm, Staveley	800 yards 200 yards	SD 48329 00602 SD 48330 99460
Loughrigg, Ambleside	800 yards 300 yards 600 yards	NY 36047 04840 NY 36041 04314 NY 35464 04731
Silver How, Grasmere	800 yards 300 yards	NY 32548 06246 NY 32673 06279
Threapland Gill, Aspatria	600 yards	NY 16273 36642
Troutbeck	1000 yards	NY 39423 25810

light on the origin and use of the ranges. In practice, the research was not as neatly sequential as this suggests.

This article is divided into four parts. It begins by recording the results of the surveys of ranges at three locations. These have been selected because they are representative of the variety of ranges: moorland and farmland, fixed targets and target hoists, firing platforms and natural firing positions, limited use and extensive use. The survey of the two ranges at Silver How is described at some length because it provides the most comprehensive information and offers a template against which to compare the others. From the surveys of the 18 ranges we are able to draw some preliminary conclusions about their origin and operation. We then consider the historical context to see whether this supports our preliminary conclusions

and whether it explains who might have been using the ranges. We conclude by considering when use of the ranges may have come to an end.

The Rifle Ranges

1. Silver How Rifle Ranges

Above Grasmere on the lower slopes of Silver How are the remains of two rifle range targets described in the HER (35943 and 35944) as possibly dating from the Second World War. However, since the first target is shown on the six-inch OS Westmorland plate XXV NE (1897 revision), this seems questionable. The target lies on the hillside

just beside and to the north-west of a public footpath from Grasmere to Langdale. It is set into the top of a constructed earth and stone mound. The target is located in what can best be described as a sort of pit created in the mound, although the pit has filled in to a considerable extent over the years through natural processes.

On the east side of the mound are the remains of a revetment wall. Targets in the late 19th century were normally set in front of substantial butts which would absorb stray shot. In this case, however, the target was located on a hillside so butts would have been unnecessary; nor was it necessary to have the customary safety area of at least 1500 yards behind the target.



FIG. 2. Remains of long range target, Silver How.

The target remains are in two parts. First of all, there are three cast iron plates set into the front (the range side) of the pit, each measuring 0.63m wide x 1.80m long (two feet by six feet). These would originally have displayed the targets at which to fire. A target would have been painted onto each plate and a bullet striking the target would have made a resounding and satisfactory 'clang'. For some reason, the iron plates are embedded deeply in the ground and are set into the ground back to front. In other words, the back of the plates faces down the range. A fourth plate lies discarded on the ground, about five metres away.

Secondly, behind the plates at a distance of two metres but still in the pit are the remains of a device used for raising targets. At the base is an iron spar 2.85m in length with six sockets attached. At either end are two vertical spars 0.63m in height each with a slide. Each pair of spars is joined at the top and there is a wheel attached at either end. An iron rod, 2.85m in length, joins the two pairs of spars at the top.

This appears to be a version of the 'window sash' type of target hoist in which the target would be raised in the slide on the vertical spars by a chain, wire or rope run over the wheels.

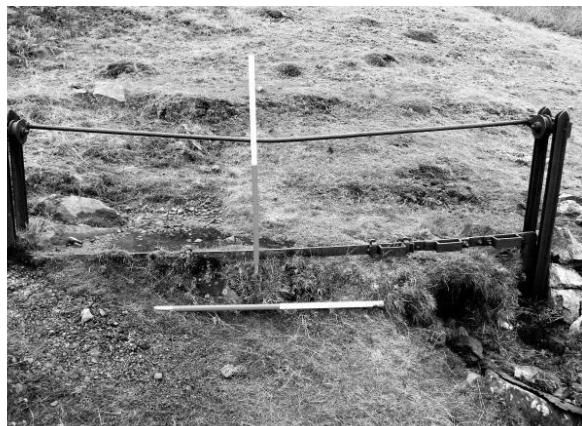


FIG. 3. Target hoist, Silver How.

The 1897 map shows a small building a few metres to the east of the target. This has been described as a 'shooting hut (ruin)'.⁵ It is represented on site by a substantial mound of stone. If this was, indeed, the small building, then it is likely to have been the position from which the target marker signalled the results of firing, using a system of flags.



FIG. 4. 1853 pattern long Enfield muzzle-loading rifle with Snider breech-loading modification.

We made no rigorous search for bullets, but scattered around the remains of the target we found spent bullets and fragments of bullet from two types of projectile and we analysed a small sample. First of all, there were a lot of fragments of 'white' lead bullet. The fragments were identified as pure lead as used in .577 ammunition. Pure lead turns white after prolonged exposure to the elements. We assume the fragments are from bullets which disintegrated on striking the iron plates. These may be from the muzzle-loading Enfield 1853 pattern long rifle which used .577 bullets with a lead skirting or, more likely, from the Snider breech-loading modification to the Enfield rifle, introduced in 1866, which used pure lead bullets. Secondly, we found fragments of the distinctive Martini Henry .45 bullet. The Martini Henry rifle was introduced in 1871 and used by the British Army for the next 30 years. It was a breech-loading, single shot rifle firing a metallic cartridge. It was capable of being fired faster and over a longer range than the Snider Enfield. One fragment was clearly identified as the rifle ball Mark III, introduced in 1873. It has two distinct annular grooves. With a metal detector, we found signs of numerous bullets scattered over a wide area around the target.

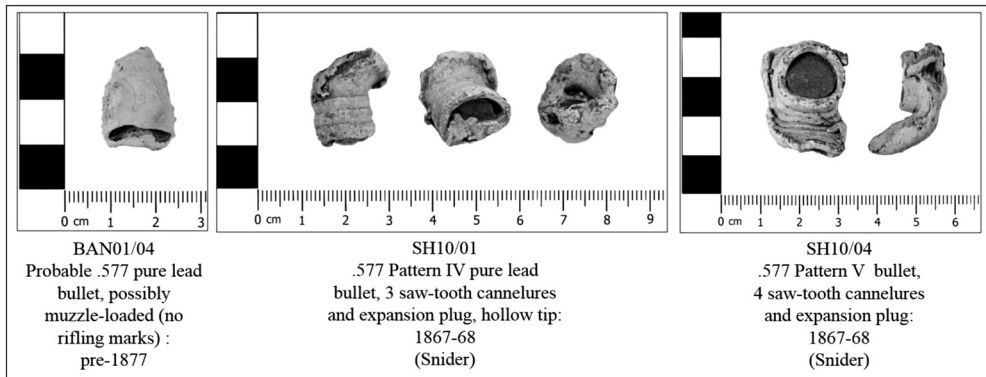


FIG. 5. Early bullets from Silver How and Banishead c.1867.

To the north east of the target at a distance of about 12m, we came across a half buried iron spar measuring 5.22m (a little over 16 feet). The spar was constructed like a rail with a broad base. Attached to the rail were nine pairs of lugs spaced evenly 60cm apart.

About 60m to the east of the first target remains and lower down the hillside are the remains of a second target. This, too, is shown on the six-inch OS Westmorland plate XXV NE (1897 revision) but as part of a 300 yard range. The remains are contained in a roughly rectangular pit, measuring approximately 2m x 2.20m x 1.8m deep. The pit has been created, partly by digging into the ground and partly by raising a stone and earth mound around it. Again, there is no butt, the mound being set against a hillside.



Fig. 6. Remains of short range target and hoist, Silver How.

Inside the pit at the east (range) end are set three cast iron plates of the same dimensions as for the 800 yard range. As before, the plates are set back to front. In other words, the side of the plates with inscribed target rings is facing away from the range. At the west end of the pit is a repeat of the device we came across at the first target location which would have been used for raising targets and which comprises two pairs of spars set two metres apart and equipped with slides.

The 1897 OS map shows a small building located a few metres away from the pit, which may have been used by the target marker to signal the results of the firing. Near to this point, we found what may be the remains of a bit of walling, although it is heavily overgrown and difficult to distinguish from the natural outcrop.

As at the first site, we came across a scatter of bullets in front of the target and identified white lead fragments from Enfield/Snider Enfield ammunition and fragments of Martini Henry .45 ball. We also found fragments of .303 bullets, as used in Lee Metford and Lee Enfield rifles, the latter used by the British Army from 1895 to 1957. One of the bullets showed a rounded head and must pre-date 1910, when the pointed Spitzer bullet was introduced. Again, the metal detector showed evidence of a considerable spread of bullets around the target area.

Part of a further discarded iron plate (making eight in all) was found in the beck below the second target. From its position, it looks as though it may have been used at one time as a bridge.

The placing of the cast iron plates at both target sites is odd. They are set into the ground, so that only a small part of their length is showing above the mound and they have been placed back to front. A possible explanation is that the first target was originally constructed by fixing all eight plates to the now discarded long spar, using the evenly spaced lugs. The spar would have been set into the ground. The spacing of the lugs is such that they may have accommodated all eight iron plates. The

targets would have been painted onto the plates, using the inscribed rings. We think the introduction of target hoists changed this.

At what point the target technology changed and 'window sash' target hoists were introduced is unclear. However, it has been suggested⁶ that the introduction of the .303 round with the Lee Enfield rifle in 1895 necessitated a re-think of the design of rifle range targets. The .303 bullet was jacketed, had a higher velocity and was less friable than those used with the earlier Enfield, Snider Enfield and Martini Henry rifles and would have ricocheted rather than disintegrating or compressing on hitting an iron target. The response was the introduction of penetrative targets through which the bullet would pass. Printed paper, card or canvas targets mounted on a wooden frame set into a target hoist would have replaced the cast iron painted plates. This suggests that target hoists would probably have appeared at the Lake District rifle ranges some time after 1895.

At Silver How, it may be that the long spar employed to hold the targets on the 800 yard range was discarded at this point and three of the bullet-proof iron plates were then used to create a protective shield for the person operating the target hoist, who would have been sheltering in the pit while the shooting was going on. A mound was constructed against the iron shield to provide additional protection. A fourth plate may have formed a protective roof over the shield before it was eventually discarded; and three other plates were used to form a protective shield in the pit created at the second target location. The last plate may have been used as a protective roof over the shield at that location before eventually being used as a bridge. This is just speculation but it fits the evidence.

Having surveyed the two targets, we then walked the two ranges to see whether we could identify firing points.

On the 800 yard range we came across what appeared to be firing platforms at 77 yards from the target, 176 yards, 394 yards and 498 yards. The positions do not quite correspond with the firing positions shown on the six-inch map for 400 yards and 500 yards from the target. This may be because some of the positions shown on the map would have been impractical, once firing from a prone position was introduced. A marksman would have been unable to see the target.

The firing positions were flat, roughly rectangular platforms with a revetted front wall facing the target comprising three or four courses of stone.



Fig. 7. Firing platform, Silver How.

The front walls ranged from 4.10m to 7.70m in length. These are recorded in the HER as peat drying platforms but at the first, second and fourth platforms we found evidence of cartridge cases from .577 bullets used in Enfield/Snider Enfield rifles and from .303 bullets, used in Lee Enfield and Lee Metford rifles. There was no evidence of cartridge cases at the third platform and the metal detector obtained no signal.



Fig. 8. Range officer's hut and shelter, Silver How.

Slightly out of the line of the range and on the lower slopes of Dow Bank were the remains of a rectangular hut measuring 5.5m by 3.7m. The walls were in good condition and measured 2.55m at the highest point. There was no roof. The hut was entered through a doorway in the east wall and there are bolt holes on both sides of the doorway, which suggests a substantial door. The hut is recorded in the HER (23064) as a peat drying hut but there is a window in the front wall looking directly towards the target. There is also a small window in one side wall looking onto a platform (below). We interpret the hut as the probable control point for the range officer and a shelter for troops using the range. The possibility of a substantial door may indicate that it also had a storage use. The hut is shown on the six-inch map adjacent to the 600-yard firing position. This must be the adjoining rectangular platform at 604 yards from the target. It has a revetted wall on three sides, comprising six courses at the highest point. The platform may also have doubled as a signalling and observation point. However, there was no surface evidence of cartridge cases and the metal detector showed no signs of cartridge cases buried under the platform. Since firing would have taken place at this position directly under the eye of the controller, it is possible that all cartridge cases would have been collected from the platform on conclusion of the firing exercise.

We found no revetted firing platform at 800 yards but there was a rocky knoll with a flattish top at this position and we found one Martini Henry .45 Mark III cartridge case, which lends some support for the view that this was the 800 yard firing position.

On the 300 yard range, we found no evidence of firing platforms. The 300 yard position is marked on the six-inch map but there is no trace of any structure at this point.

We have also reviewed possible dates of the ranges.

2. Blea Moss Rifle Range

On the west side of Blea Moss below Pike O' Blisco are the remains of a rifle range target. It lies below the footpath from Blea Tarn to Wrynose Pass. The target does not appear on any OS sheet.

The target is in remarkably good condition and comprises four cast iron bullet proof



Fig. 9. Target remains, Blea Moss.

plates of the same dimensions as those at Silver How. The plates are erected side by side on the side of the hill. Target rings are visible on the plates. No mound has been created on which to set the target and there are no butts. Stray bullets would simply have embedded themselves in the hillside. The four plates appear to be resting on a stone base and are slightly inclined backwards. Each plate is supported by two iron stays at the back, measuring 5.6 inches long and one inch in diameter, set into the hillside. Two of the stays are missing, but the rest are still in place. Piled on top and around the stays are stones to weigh them down. The maker's name is cast on the back of the plates: 'Hill & Smith, Brierley Hill Iron Works, Nr Dudley & 118 Queen Victoria St, London'. There is no evidence of a target hoist ever having been employed on the site and the remains provide a useful example of what the Silver How ranges probably looked like before target hoists were introduced. It is one of only two targets in the UK still in its original form.⁷

Slightly to the south of the target and at a distance of approximately 10m are the remains of a hut. The hut appears on the OS Westmorland map (1920) but not on the earlier 1897 revision. The remains are too far gone to determine if the hut was associated with the rifle range but its location makes it probable that it provided shelter for the target marker while firing was taking place.

A search with the metal detector revealed few bullets. We collected a couple of fragments of Martini Henry bullets, the metal cladding from a .303 round and most of an early pattern .303 bullet. There was no evidence of Enfield/Snider Enfield bullets. There was nothing like the scatter of ammunition encountered at the Silver How ranges.

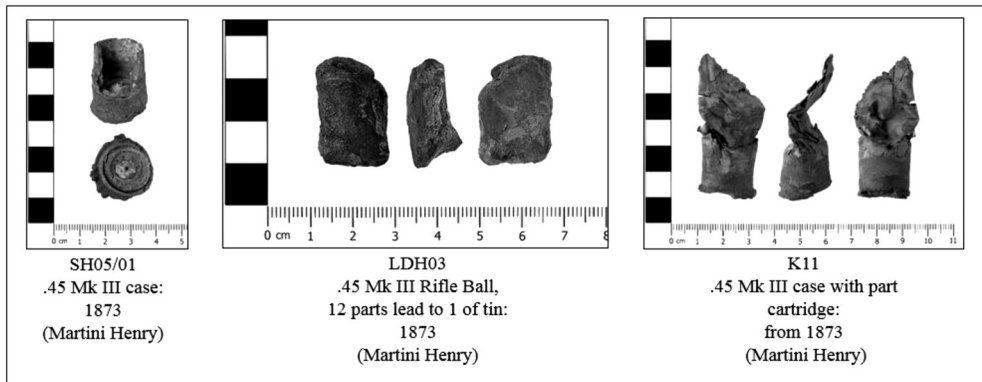


FIG. 10. Martini Henry bullets and cases from Silver How, Loughrigg and Kendal.

The firing positions for the range to the south east would have crossed Blea Moss, a very wet area. There was no evidence of constructed firing positions but there were dry, elevated rocky knolls at 300 and 400 yards and a flattish area on the slope of the north west side of Castle Howe at something over 500 yards which might have been used; but a search with the metal detector revealed no evidence of cartridge cases.

3. Troutbeck Rifle Range

Below Great Mell Fell, near the hamlet of Troutbeck, are the remains of a disused rifle range. The land for the range was purchased by agreement in 1898 under the Military Lands Act, 1892. That is just before the outbreak of the second South African (Boer) War in 1899 and the setting up of the range may have reflected the growing tension. Its proximity to Troutbeck railway station on the Penrith to Cockermouth line would have ensured ready access. It is shown on the Cumberland LVII.SE 6 inch OS sheet, revised 1898, as a 1000 yard range.

A footpath runs from the nearest road alongside the range and gives access to Great Mell Fell. The range is situated in a long thin field running north-west to south-east which is currently used for grazing.



Fig. 11. Protective mound and target marker's hut, Troutbeck.

The remains of the target are located at the foot of the fell. There is a protective man-made mound behind which is a ditch, 2.45m wide, which has been largely filled in. At the back of the ditch is a brick wall, some 29.6m long by 1.30m high and 0.45m wide, topped with concrete. The remains of iron stanchions, some 2.10m apart, can be seen protruding from the surface of the concrete. While there is some evidence that iron target plates

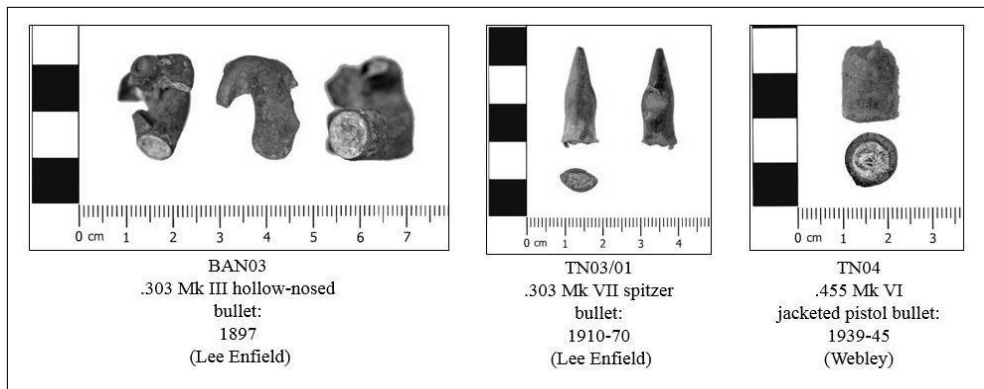


FIG. 12. Lee Enfield and Webley bullets from Banishead and Troutbeck.

were originally employed on the range, these seem to have been quickly replaced by penetrative targets.⁸ The stanchions would probably have supported the frame in which the target hoists operated. The ditch would have provided shelter for the hoist operators and target markers. Behind the wall, the land has been banked up to create a substantial back stop to collect stray bullets. Spent bullets were scattered around, all .303 rounds, many of them blunt Mark IV bullets or earlier (pre-1910).

There were some Spitzer bullets dating from 1910 onwards. One appeared to be hollow-tipped and may be a later composite round. We found one pistol bullet, possibly .45 or .455 calibre. The metal detector picked up numerous signals of spent bullets all around the target area.

There is a hut at the south west end of the target position, made of red brick with concrete rendering and with a corrugated iron roof. There is a doorway facing the target and another doorway and two windows in the south west elevation, facing away from the target. The hut is well protected by an embankment on its north-west side facing the range, with only the top half metre showing above the embankment. That half metre of wall shows signs of bullet strikes. We think the hut will have housed the target markers and hoist operators and may have been used for signalling.



Fig. 13. Looking along the line of the wall to the target marker's hut.

There is no obvious firing position at 100 yards but a .303 cartridge case was found. Distinctive firing positions are evident at 200, 300, 400, 500 and 600 yards, comprising rectangular platforms approximately 22m x 3.20m. Some .303 cartridge cases were found at all firing positions, except for 400 yards. There is no obvious firing position at 700 yards but a small rectangular platform is evident at 800 yards. A .303 cartridge case was recovered from the position. There is no evidence of firing positions at 900 and 1000 yards.

Beside the range between the 600 and 700 yard firing positions are the remains of a three-roomed hut which appears to have been used in association with the range. It is in poor condition. The long side faces the range. It has wooden walls with corrugated sheeting protecting the south-west elevation facing away from the range. There is a corrugated iron roof.



Fig. 14. Graffiti on the wall of the hut at Troutbeck.

The hut had wooden floors placed on timber joists resting on the earth. The rooms measured 4.85m x 3.65m, 6.0m x 3.65m and 3.9m x 3.65m.

There are metal hooks along the back wall of the two longer rooms and what may be the remains of a rifle rack. There are two score sheets from shooting competitions on the back wall, one of them dated 16 September 1910. The range regulations are also displayed but have become unreadable with age. Some graffiti are scribbled on the walls, the earliest dating from 8 September 1898 and the most recent from 1954. The hut appears to have been occupied by troops using the range for storage, shelter and, possibly, instruction.

Some Preliminary Findings

Fig. 1 shows the distribution of the 18 rifle ranges we surveyed. Some of the sites had two, and in the case of Loughrigg, three ranges.

From the surveys of the 18 ranges we can make some provisional observations about their operation. First of all, it is clear from successive OS sheets that ranges were elastic in the sense that they increased or decreased in length over time, according to requirements.

Secondly, where there were visible target remains, it would seem that they were originally modelled on the design details for rifle ranges in the drill manual issued by the War Office in 1859.⁹ This, in turn, drew on the experience of the Army School of Musketry, set up in 1853 at Hythe in Kent.¹⁰ Targets were to be six feet in height by two feet in breadth and constructed of cast iron of sufficient thickness to be bullet-proof. These iron plates would have been bolted together to achieve the required width. We think the original configuration of the targets for the long range at Silver How may have been eight of these cast iron plates set side by side and that was probably the position at the Banishead long range and also at Hawkshead. Blea Moss had four plates bolted together; Great Crosthwaite probably two. The design details in the drill manual go on to say that the targets were to be coloured white, using a mixture of whiting and size and the bull's eye and circle describing the 'centre' were to be coloured black, using lamp-black, water and size. Not surprisingly, we found no evidence of colour on any of the targets but some of the plates had the outer edge of target rings inscribed on them.

Thirdly, we found it difficult to determine where the person acting as target marker would have been positioned with the original targets. The drill manual refers to a trench being dug 'where the nature of the ground admits it', about 15 yards in front of and to one side of the target, with the earth from the trench forming a protective barrier on the range side.¹¹ No trenches were evident at the sites we surveyed. At Silver How, Blea Moss and Troutbeck, the huts in close proximity to the target were probably constructed for the target markers.

Fourthly, the advent of the target hoist, probably sometime after 1895, changed the configuration of the targets at ranges such as Silver How and Banishead and, we suspect, also at Kendal. Bullets would have passed through the new form of targets,

and the hoist operators at Silver How appear to have been protected by a pit and mound in front of the targets. At Troutbeck, the hoist operator and the target marker would have sheltered in the ditch or the adjoining hut. At Gilpinpark, they would have sheltered in the enclosure behind the butts; and at the 600 yard range on Loughrigg, the hoist operator and target marker would probably have sheltered in the pit.

Finally, the marksmen themselves would have fired from platforms, either natural, as at Loughrigg, Blea Moss, Applethwaite Gill, Staveley and Banishead, or man-made, as at Silver How, Gilpinpark, Kendal and Troutbeck, located at set distances from the target. It seems that, where natural firing positions were employed, a pragmatic approach was taken and the yardage from the target was not always an exact multiple of 100. Nor did the firing positions always form a straight line from the target. At Hawkshead Moor, for example, the positions were spread over an arc of 15 degrees, in order to accommodate the irregular, broken terrain.

So can we provisionally date the ranges? The answer is 'yes', within limits. The early OS sheets give some indication. The Silver How (both ranges), Loughrigg (800 yard and 200 yard ranges) and Kendal ranges do not appear on the 1859 OS sheets but do appear on the 1897 revisions, so they were probably established some time between the two dates. And the ranges at Banishead (both) and at Hawkshead Moor do not appear on the 1846/48 survey but do appear on the 1888 revision. In other words, the maps give us a range of about 40 years for a start date. Blea Moss does not appear on any map, which initially led us to believe it was set up, used and then discontinued between the two editions of the map (1859 and 1897).

The spent bullets and cartridge cases we found can help to narrow down the dating of the ranges. It would seem, for example, that the Silver How ranges were established some time after the 1859 OS survey, at which time the Long Enfield, the Short Enfield and the Snider Enfield rifles were in use, and before 1871, when the Martini Henry rifle came into use. The Banishead (long range), Applethwaite Gill and Great Crosthwaite ranges would appear to be of similar vintage. Blea Moss, on the evidence of the bullets, would appear not to have become operational until after 1871, when the Martini Henry rifle came into use; and two of the three ranges on Loughrigg appear to be of a similar vintage. Gilpinpark and the third range on Loughrigg would appear to have become operational even later, some time after 1895, when the .303 calibre rifles came into use.

The next question to consider is why these ranges would have been constructed at that time. The Crimean War had ended in 1856 and the second South African War did not start until 1899. In other words, is there an historical context which supports our provisional dating of the ranges? And does that context throw any light on who might have used the ranges? The answer is 'yes' to both questions.

The Historical Context

The Crimean War had revealed just how stretched Britain's military resources might be in the event of a conflict. A significant proportion of the British Army was committed to garrison duty in various parts of the Empire. With the remainder dispatched to

the Crimea, there was insufficient force left to defend the British Isles. The militia, essentially the army's infantry reserve, was available in peacetime to support the civil power; but in time of conflict, the militia was used to boost the number of troops in the field. The yeomanry, the cavalry reserve, performed a similar function. Neither could satisfactorily fill the home defence gap left in time of war.

The tension which arose between Britain and France in 1858 was the catalyst which brought about a solution to this problem. There was an attempt to assassinate the Emperor Napoleon III in January 1858 and the report of the subsequent French inquiry alleged that the assassin had travelled to Birmingham to have the bombs made which were used in the attack. For a while, there was fear of an invasion by the French Army. Then in April 1859 the Second Italian War of Independence broke out between France and the Austrian Empire and there was concern that Britain might be drawn into a wider European conflict. Public opinion favoured the use of volunteers to fill the home defence gap and, despite reservations on the part of the military, the secretary of state for war issued a letter in May 1859 to lords lieutenant of counties authorising them to raise Rifle Volunteer Corps (RVCs).¹² The response was astonishing. More than 180000 men volunteered in the months following the announcement.¹³

It is interesting to look at the response in the old counties comprising what is now Cumbria, because it may give an indication of who used the rifle ranges we have been examining.¹⁴ In Cumberland, corps were set up in a number of towns around the Lake District, including Whitehaven, Penrith, Workington, Cockermouth and Egremont; and within what is now the Lake District itself, the 3rd Cumberland (Keswick) RVC.

The pattern was the same in Westmorland, with two corps set up in Kendal and one in Kirkby Lonsdale; and within the Lake District itself, the 4th Westmorland (Windermere) RVC, the 5th Westmorland (Ambleside) RVC and the 6th Westmorland (Grasmere) RVC, with a sub-division in Langdale. An RVC was also established at Staveley sometime later; it is recorded in the Army List in 1880.¹⁵ In Lancashire, 83 VRCs were formed, including one within the Lake District, the 37C Lancashire (Hawkshead) RVC, and one on the edge, the 75th Lancashire (Broughton-in-Furness) RVC; and three reasonably close at Ulverston, Dalton-in-Furness and Cartmel.

Table 2 gives more information about RVCs within the area of what is now the Lake District National Park.

RVCs were created for purposes of local defence.¹⁶ Each corps was to comprise between 60 and 100 men under the command of a captain, although in some localities smaller detachments were set up, each under the command of a lieutenant. Volunteers were expected to attend eight days drill and exercise every four months or 24 days a year. They were also expected, in the beginning, to meet the cost of their own arms and equipment, although arms were subsequently provided under the superintendence of the War Office to ensure uniformity of gauge. Initially, this was the Long Enfield muzzle-loading rifle but by the mid-1860s this had been replaced for volunteer corps by the Short Enfield rifle and subsequently by the Snider Enfield breech-loading modification. This, in turn, was replaced by the Martini Henry breech-loading rifle

TABLE 2: Rifle Volunteer Corps within what is now the National Park.

RVC	Date of acceptance or commission	Number enrolled	Commanding officer
3rd Cumberland (Keswick) RVC	15th February 1860	54	Captain Charles Wade
4th Westmorland (Windermere) RVC	29th February 1860	79	Captain George Ridehalgh
5th Westmorland (Ambleside) RVC	28th February 1860	58	Captain John Peddar
6th Westmorland (Grasmere) RVC	17th April 1860	49	Captain Jasper Selwyn
Langdale Sub-division of the 6th Westmorland RVC	1860 (precise date unknown)	26	Lieutenant James Bowsfield
Staveley RVC	Probably sometime in 1880	Unknown	Unknown
37C Lancashire (Hawkshead) RVC	28th February 1860	Unknown	Captain William Beck

SOURCE: Westlake R., *Tracing the Rifle Volunteers* (2010); Beckett I., *Riflemen Form* (2007).

issued to the Army in 1871 and eventually released to volunteers between 1879 and 1885.¹⁷ To assist in the training of volunteers, a drill manual was published¹⁸ and many volunteers attended courses at the Army School of Musketry.¹⁹ RVCs were advised to establish rifle ranges.²⁰

In 1862 a royal commission was set up to enquire into the condition of the volunteer force and its continuance.²¹ Its recommendations, which dealt with the organisation of the volunteer force, were implemented in the Volunteer Act of 1863. Amongst other matters, the Act included provision for acquiring land for shooting ranges, either through ownership or licence. To be accepted, a volunteer corps had to have access to a safe rifle range.²² It would seem from this that a substantial rifle range building programme was probably undertaken throughout the country from 1859.

To begin with, the RVCs operated under the authority of the lords lieutenant and had a great deal of autonomy. This led to organisational difficulties and some lack of efficiency and uniformity. Under the Regulation of the Forces Act of 1871, jurisdiction over volunteers was effectively removed from the lords lieutenant and given to the secretary of state for war.²³ This began a process of increasing integration of the volunteer force into the British Army. In 1881, under the Childers reforms,²⁴ the RVCs were constituted as volunteer battalions of the new county infantry regiments, which also comprised regular and militia battalions. Under this reform, the various

corps of rifle volunteers in Cumberland were constituted as the 1st (Cumberland) Volunteer Battalion of the newly formed Border Regiment, and the rifle volunteers in Westmorland became the 2nd (Westmorland) Volunteer Battalion of the Regiment. In Lancashire, the rifle volunteers were brought into the King's Own (Royal Lancaster) Regiment as the 1st Volunteer Battalion. In 1908 the process of integration was completed when the volunteer battalions were merged with the militia and the yeomanry to become part of the Territorial force under the terms of the Territorial and Reserve Forces Act, 1907.

A Start Date for the Ranges

Given this historical context, the evidence of the OS maps and the bullets and cartridge cases found on site, our hypothesis was that many of the ranges we had surveyed were constructed in the period from 1859 during the first flush of enthusiasm for Rifle Volunteer Corps. It is unlikely that they were earlier militia or yeomanry ranges, because they do not appear on the earlier OS maps, while the militia and yeomanry tended to operate from towns on the edge of what is now the National Park.

To test this hypothesis, we conducted a search in the local newspaper archives. The search supported our hypothesis and also showed us who used some of the ranges. It showed that the Hawkshead Moor range was approved for the 37C Lancashire (Hawkshead) RVC, following an inspection in February 1860,²⁵ that the Silver How range was being used by the 6th Westmorland (Grasmere) RVC in June 1860,²⁶ that the Hellsfell range was operational for the 3rd Westmorland (Kendal) RVC by September 1863,²⁷ that the Rydal Park range was in use by the 5th Westmorland (Ambleside) RVC in November 1860,²⁸ that a range at the head of Bassenthwaite was in use by the 3rd Cumberland (Keswick) RVC in November 1860,²⁹ that the Applethwaite Gill range was in use in January 1861 and that the Helm range was in use by the 4th Westmorland (Windermere) RVC in November 1861.³⁰

From other sources, we also have precise start dates for the 600 yard range on Loughrigg and the 1000 yard range at Troutbeck. The creation of the Ambleside golf course in 1903 put an end to the two earlier ranges on Loughrigg, which had in turn replaced the earlier one in Rydal Park,³¹ and necessitated the construction during that year of a new one. And there is evidence that the Blea Moss range dates from 1898,³² that the Threapland Gill range dates from 1903³³ and that the Troutbeck range also dates from 1898,³⁴ a time of growing tension leading to the South African War. Regular shooting competitions were held at Troutbeck by the 1st (Cumberland) Volunteer Battalion of the Border Regiment in the years before that war.³⁵ And it is recorded that, after the annual shooting competition at Troutbeck in December 1899, the yeomanry adjourned for dinner to the Agricultural Hotel, after which they volunteered almost to a man for service in the South African War.³⁶

The position regarding other ranges is more speculative, but it would seem reasonable to assume, on the evidence of the spent shot, that the Great Crosthwaite range, where .577 bullets were found, was set up in between 1859 and 1879, and the 800 and 300 yard ranges on Loughrigg were constructed sometime after 1879, when the Martini

Henry rifle was first released to RVCs. The Littlewood Farm ranges were probably in use in 1880, when the Staveley RVC first appeared on the Army List. And from the evidence of the OS maps, we can date the start of the Gilpinpark ranges to sometime between 1897 and 1912.

Table 3 summarises our findings regarding start dates.

An End Date for the Ranges

Providing an end date for the use of the ranges has been more difficult. It would be interesting to know, for example, if they continued in use for training during the First and Second World Wars.

A search in the local newspaper archives and in the County Archives Service in Kendal shed some light on the position. Records showed that during the First World War, Volunteer Training Corps (VTCs), comprising the young, the middle-aged and those exempt from military service, were set up in many parts of the country under the Volunteer Act, 1863, as a home defence force, referred to by some as 'Grandpa's Army'. Detachments in Penrith³⁷ and Coniston were recognised in 1916.³⁸ Westmorland was the last county in the UK to get involved, but detachments were established in 1917 in Kendal, Burneside and Staveley, Windermere and Bowness, and Grasmere as part of the 1st Battalion of the Westmorland Volunteer Regiment.³⁹ Amongst other things, volunteers engaged in shooting practice on open ranges: there is evidence that the Kendal detachment used the Helsfell range and that the Burneside and Staveley detachment probably used the Littlewood Farm ranges.⁴⁰ It is reasonable to suppose that the other detachments also made use of their local ranges. VTCs were disbanded in 1920, but the outbreak of the Second World War saw renewed interest in the establishment of a home defence force, this time in the form of the Home Guard or 'Dad's Army', as it became known. Records showed that the 11th Westmorland (Kendal) Battalion, Home Guard, used the Helsfell range during the first half of the 1940s;⁴¹ the 9th Westmorland (Lakes) Battalion, Home Guard, with platoons from C Company in Grasmere, Langdale, Ambleside and Troutbeck, used the Silver How ranges⁴² (which might explain the HER entry); and the Troutbeck (northern) range was used by Home Guard units in the north of the Lake District.⁴³ Indeed, there are graffiti indicating that that range was still in use for national service as late as 1954, including one piece which states 'L/Bdr Clarke, 51-14, 5 months, 1 week, 5 days to do'.⁴⁴ There are also photographs in the County Archives Service showing the Gilpinpark ranges in use by the Home Guard (date and company unspecified). The likelihood is that the use of all these ranges ceased sometime in the ten year period from 1945-55. We also have a reasonably precise end date for the two early ranges on Loughrigg. They had to make way for the Ambleside golf course in 1903.

The OS maps may give some indication of when other ranges were discontinued. For example, the 1912 revision of the six-inch Lancashire V NW sheet no longer shows the Hawkshead Moor range. We know that a large number of ranges in the UK had to close, rather than convert, in the late 1890s because they were rendered unsafe by the advent of the 'modern' rifle⁴⁵ (the .303 calibre Lee Enfield and Lee Metford rifles)

TABLE 3: The start and end date for use of the ranges.

Range	First user	Start date	End date (approx.)
Applethwaite Gill, Keswick 300 yards	Keswick RVC	1861	Pre 1879
Banishead, Coniston 600 yards 300 yards	unknown unknown	1860 post 1889	post 1961 post 1912
Blea Moss, Little Langdale 500 yards	Grasmere RVC	1898	Early 1900s
Hawkshead Moor 800 yards	Hawkshead RVC	1860	pre 1912
Helsfell 800 yards	Kendal RVC	1863	post 1945
Gilpinpark, Crook 600 yards 300 yards	Windermere detachment 2nd (Westmorland) Volunteer Battalion, Border Regiment	post 1897 post 1897	post 1945 post 1945
Great Crosthwaite, Keswick 500 yards	Keswick RVC	Pre 1879	Late 1890s
Littlewood Farm, Staveley 800 yards 200 yards	Staveley RVC/ 2nd (Westmorland) Volunteer Battalion, Border Regiment	1880 1880	post 1945 post 1945
Loughrigg, Ambleside 800 yards 300 yards 600 yards	Ambleside RVC/ 2nd (Westmorland) Volunteer Battalion, Border Regiment	post 1879 post 1879 1903	1903 1903 pre 1959
Silver How, Grasmere 800 yards 300 yards	Grasmere RVC Grasmere RVC	1860 Unknown	post 1945 post 1945
Threapland Gill, Aspatria 600 yards	1st (Cumberland) Volunteer Battalion, Border Regiment	1903	post 1927
Troutbeck 1000 yards	1st (Cumberland) Volunteer Battalion, Border Regiment	1898	post 1954

and this range may have been an example. This may also explain the disappearance of the ranges near Keswick and at the Helm, Windermere, which were established in 1860 but which do not appear on the OS sheets at the turn of the century. Table 3 summarises the position regarding the start and end dates for the ranges we surveyed.

Conclusion

We set out in this article to try and clarify when the Lake District rifle ranges were established and this we have been able to do with some accuracy. We also wanted to find out more about the ranges: why they were established, how they operated and who might have used them. The 'why' seems clear: in most cases it was a response to the need to establish a home defence force, what might be called 'Great Grandad's Army'. And this was a response which, for some of the ranges, continued through the First World War in the form of 'Grandpa's Army' and right up to the Second World War in the form of 'Dad's Army'. The 'how' we have attempted to answer in our 'Preliminary Findings' above. The 'who' also seems reasonably clear, although who originally used the ranges at Banishead remains a mystery. Banishead would have been accessible from Coniston, but there is no record of an RVC's being established there. However, the railway from Foxfield to Coniston opened in 1859 and this would have brought the range within reach of some of the west coast volunteer rifle companies, particularly the Broughton-in-Furness RVC. It would also have been accessible to the Hawkshead RVC.

The ranges near the edge of what is now the National Park may also have been available for use by militia and yeomanry units. This was certainly the case with the range at Troutbeck and the fact that, like many ranges in the Lake District, it was sited at the bottom of a hill, meant that it offered a resource for a nearby town where a range would be harder to establish.

Many of the rifle ranges constructed throughout the country in the second half of the 19th century as a response to the Rifle Volunteer movement have long since either disappeared or been reduced to humps in the ground as a result of urban expansion, agricultural improvement or other change of land use. This includes some of the Lake District ranges such as those on Loughrigg, displaced by the Ambleside golf course, the Hawkshead Moor range which has disappeared under afforestation and those on farmland outside Keswick and Staveley. That some of the Lake District ranges survive at all is largely due to their more remote location on moorland. This is what makes them such an interesting subject of study.

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Notes

1. D. Balch, W. Flentje, D. Harding, A. Crawshaw, *Unpublished Records Relating to the Rifle Ranges in Cumbria, 2005-6*.
2. The HER is a computer database maintained by the Lake District National Park Authority, which holds information on archaeological sites.
3. Volunteer ranges exist in Rydal Park, Ambleside; Helm, Windermere; Easedale, Grasmere; Broadfold, Staveley; Long Bottom, Cockermouth; and in several locations around Keswick.
4. The reference is to a field walking survey involving the location, measurement, photographing and recording of archaeological remains.
5. A. Wainwright, *The Central Fells* (Kendal, 1958), 'Silver How', 4.
6. J. Kenny, and D. Hopewell, *First World War Military Sites: Military Landscapes* (Bangor, Gwynedd, 2015), 21.
7. Balch, *et al.*, *Unpublished Records Relating to Rifle Ranges*.
8. Balch, *et al.*, *Unpublished Records Relating to Rifle Ranges*.
9. *War Office Drill and Rifle Instruction for Volunteer Rifle Corps* (London, 1859), 52.
10. J. Atkins, 'Early History of the Army School of Musketry in Hythe, Kent', www.mlagb.com/wp-content/uploads/2011/12/200704_hythe.pdf, 2007.
11. *War Office Drill and Rifle Instruction for Volunteer Rifle Corps*, 52.
12. Memorandum from the lord lieutenant for Westmorland, *Westmorland Gazette*, 13 July 1859. For discussion of the events leading to the formation of volunteer rifle corps, see I. Beckett, *Riflemen Form* (Barnsley, 2007), ch.1.
13. Beckett, *Riflemen Form*, ch.1.
14. For the counties in question, see R. Westlake, *Tracing the Rifle Volunteers* (Barnsley, 2010), 'The Rifle Volunteers by County', Cumberland, 1, 2; Lancashire, 6, 7, 15; Westmorland, 2, 3, and Beckett, *Riflemen Form*, Appendix VII.
15. J. Berry and D. Balch, 'Littlewood Rifle Range', *Journal of the Staveley and District History Society*, 6 (spring 2006), 9-11.
16. Some volunteers, however, subsequently saw service in the second Boer War, 1899-1902: Beckett, *Riflemen Form*, ch.1; see also C. Bardgett, *The Black Angel* (Carlisle, 1997), 4.
17. Beckett, *Riflemen Form*, 23, 125, 134.
18. *War Office Drill and Rifle Instruction for Volunteer Rifle Corps, passim*.
19. Atkins, 'Early History of the Army School of Musketry'.
20. War Office circular: *The Times*, 13 May 1859.
21. The Eversley Commission, appointed to inquire into the volunteer force in Great Britain, produced its report in 1862.
22. Beckett, *Riflemen Form*, 24.
23. Beckett, *Riflemen Form*, ch.4.
24. The reforms were undertaken by secretary of state for war, Hugh Childers, in 1881.
25. *Westmorland Gazette*, 25 February 1860.
26. *Westmorland Gazette*, 8 June 1860.
27. *Westmorland Gazette*, 26 September 1863.
28. *Westmorland Gazette*, 10 November 1860.
29. *Kendal Mercury*, 17 November 1860; *Westmorland Gazette*, 1 June 1861.
30. *Kendal Mercury*, 30 November 1861; *Westmorland Gazette*, 30 November 1861.
31. *Kendal Mercury*, 14 July 1860 and 10 November 1860; *Westmorland Gazette*, 2 February 1861.
32. *Westmorland Gazette*, 8 January 1898.
33. Balch, *et al.*, *Unpublished Records Relating to Rifle Ranges*.

34. J. Wooddisse, 'The Rifle Range at Troutbeck', *Transactions of the Matteredale Historical Society*, II, (2001), 20-23.
35. M. Daley, *For Queen and Cumberland*, (Kirkby Stephen, Cumbria, 2008), 140.
36. C. Bardgett, *Better by Far a Cumberland Hussar: A History of the Westmorland and Cumberland Yeomanry*, (Kirkby Stephen, Cumbria, 2001), 25.
37. *Westmorland Gazette*, 28 October 1916.
38. *Westmorland Gazette*, 23 December 1916.
39. *Westmorland Gazette*, 3 February 1917.
40. CAS (K): Records of the 1st Battalion, Westmorland Volunteer Regiment 1917-19.
41. CAS (K): Home Guard Papers of A. V. Birkett.
42. CAS (K): 'Laal Clat', the news sheet of C Company, the Westmorland (Lakes) Battalion Home Guard.
43. CAS (K): Memories of Harry Pridmore; Wooddisse, 'The Rifle Range at Troutbeck', 23.
44. Wooddisse, 'The Rifle Range at Troutbeck', 23.
45. *The Spectator*, 30 December 1899; *Report of the Select Committee on Rifle Ranges*, (London, 1891).

