

FEDDONHILL RIFLE RANGE (INCH RANGE)

The rifle range is situated in woodland owned by Mr. Graham Tuley. Mr. Tuley bought the woodland 4 years ago from the Forestry Commission, it had previously been owned by Rosehaugh Estate. The woodland, planted in the 1960s with Sitka Spruce and Scots Pine is situated between Mount Pleasant and Broomhill farms on the Fortrose-Killen road GRNH7170 5680.

While clearing trees for a planned forest walk two concrete walls were found. These walls had wood and metal fixtures between them with a large bank in front of one and a large mound above and behind the other. These are known locally as "The Targets". The targets are situated to the North side of forest track entrance to Broomhill Farm. These targets are marked on the 2nd. edition OS map 1904. The firing points at 200, 500 and 600 yards distance are marked in the Inch Farm fields. (Hence the name "Inch Range"). These firing points were demolished in the late 60s. Firing was across the public road. Two men with red flags stopped the traffic. A flagstaff is marked in the Inch field.

A rectangular structure is marked between the targets and the entrance to the site.

There are two wells of interest marked, one West of the site entrance (not in site area) and one in wood SW of Broomhill Farm (once agricultural land used for potatoes) which was the water supply to Feddanhill (now Feddonhill) Farm. The farm no longer exists. The farm buildings were just outside the site area.

A square stone built building is situated near the junction of the Inch road and the Fortrose-Killen road, (the ammunition store).

The 1st. edition OS map 1871 shows two rifle butts, not shown on the 1904 map (these were located). The Feddanhill well is shown but not the well near the entrance to the site.

The site was surveyed and planned by the students of the Practical Field Archaeology course run by Aberdeen University for Continuing Education. Under the watchful eye of course tutor Dorothy Low.

RIFLE BUTT 1.

Rifle butt 1 marked on the 1871 OS map lies at the edge of an area of hand-planted spruce. It is now a very low mound disturbed by rabbits and tree roots. Just to prove that this was indeed a rifle butt and not tree stumps a metal detector Micronta Deluxe was used by Mr. William Bremner. Nothing was removed (except 1 piece lead lying in a rabbit hole) only marked until Dorothy Low from the Archaeology Service came to look at the

site. She agreed to careful removal of some of the metal objects, but no excavation as the butt was not under threat.

A number of spent bullets and cartridges were picked up. These were taken to I.F. Thompson, Gunmakers, Cromarty and Mr. John MacRae, Tain Pistol and Rifle Club, for identification. They were fired from P53 Enfield, Snider, Martini Henry, Lee Enfield, Lee Metford rifles also Automatic pistol and a Boyes anti tank rifle.

The dates range from Minie bullet fired from a 3 groove barrel 1853, to a 1942 Winchester cartridge (American).

The first bullets were hollow, later clay plugs were fitted, to expand the bullet on explosion, the bullets then fitted the barrel. The rifling made the bullet fly straighter, to lighten the bullet a wooden plug was put in the nose, all these were found on site.

The American designed Snider rifle, used the first British military cartridge with its own ignition. The Martini Henry rifle was made from the Henry barrel and the Martini breech. The Henry rifle was designed by Alexander Henry, Edinburgh, and the Martini rifle by Friedrich von Martini of Austria. The cartridges for both rifles were designed by Col. Edward Boxer, Royal Artillery.

In the 1860s orphan children used to make the .450 Boxer cartridge for 2d/3d per 100. There was a brass fitting on the inside. The children thought they would get through more bullets if they left this fitting out, but the bullets jammed in the barrel, so a small hole was put in the outer casing to make sure that the inner fitting was in place. (2)

The Ross rifle was designed by Sir Charles Ross of Balnagown and was approved by the Canadian Army in 1910. They were made in Canada by the Ross Rifle Company of Quebec. Considered obsolete in 1940 they were issued to the Home Guard Units, the lathes and other machinery were still there in the 1960s. (1) The Boyes anti tank rifle 1930 was obsolete by 1940 and also given to the Home Guard.

RIFLE BUTT 2.

Rifle butt 2 marked on the 1871 OS map lies 22m North of RBI in the middle of a hand-planted area of spruce trees. It is seen as a low rectangular mound with some stones showing on one side. It is better preserved than RB1, again a metal detector was used but nothing removed, only marked, the markers were later removed. It was not under threat so no excavation was done.

TARGETS.

The targets are marked on the 1904 OS map. They consist of two concrete walls with wood and metal fittings of three targets between. A large bank of earth lies in front of the

West Wall with sand on top. A large mound lies above and behind the East wall. The lower part of the targets were concealed by soil slippage from the mound.

The soil was removed by trowel and revealed the following.

Target 1 North End

- 1 layer of pine needles, cones and twigs.
- 2 dark humic soil, leaf mould (under willow tree).
- 3 loose dark soil.
- 4 leaves
- 5 loose dark soil.
- 6 lighter colour soil.
- 7 thin layer of sand.
- 8 lighter coloured very stony compacted soil.
- 9 concreted rounded beach pebbles including shells. The target floor.

Pit in front of T1

- 1 humic material, leaf mould.
- 2 thin layer of dark silvery grey soil.
- 3 sand.
- 4 concreted rounded beach pebbles.

Target 2 centre

- Same layer sequence as T1 except
- 2 less humic soil
 - 7 thin layer of dark silvery grey soil (piece of sand bag found).
 - 8 layer of sandy mounds (possibly sand bags).
 - 9 concrete floor of target.

Target 3 South End.

- Same sequence of layers as T1 except
- 2 less humic soil (away from willow tree)

Target 1

The floor consists of concreted rounded beach pebbles with shell inclusions. It has a rectangular line of concrete to support the beams, little remains of these beams, the decayed wood showing up as darker soil, two of the beams are laid, with end towards the East wall the third joining them on the east end. The North beam has a piece cut out to take the upright timber. The upright timbers measure 8" x 5" (200 x 127mm). The flattened area of concrete suggests that the lower beams were of the same size.

The uprights had collapsed slightly with the ends resting on the rounded beach pebbles to the South of the lower beams. The uprights had a ¼" x 1¾" (6 x 38mm) metal strapping, also a 2½" (57mm) dia. metal rod attached to them with 11" x 3" (280 x 76mm) brackets. Attached to the rod were three lengths of 2" x ½" (51 x 12mm) metal one on the S side two on the N side, joined at the back by 1¾" (38mm) square metal lengths. These had metal weights attached, possibly as counter balance. Angle-irons were also found. This was a pivotal target.

The pit in front of T1 was 0.45m deep and 0.80m wide, it was lined with concreted rounded beach pebbles, it had a gradual slope down from the W side. There was a drainage channel on the E. side. The marker stood in the pit with a long pole which had an arrow at the top for pointing to where the bullet struck. (The temptation was to try and hit the arrow). (3)

Target 2

T2 had a concrete base with flat hollows which held the remains of beams, which pointed towards the E wall with one in the middle forming an H shape. All that remains of the beams are small pieces attached to the bolts which are set in concrete, and under one of the 6" x 4" (152 x 110mm) uprights. None survive under the other one, only as a darker layer of soil. Three 6" (152mm) dia. wheels are attached to the uprights, suggesting a pulley type of target. A length of 12 strand wire rope was found lying in the target area. A 1" (25mm) metal rod goes through the upright timbers and turns right able to go over the top of the E wall where it is set in concrete, long angle-irons to join the uprights to the lower beams were found, also some smaller right angle irons to support the centre beam. This target was built by the Norwegians during the Second World War (4).

Target 3

This again had a concrete base with a cross-groove dividing it into four sections. The N,E,S grooves 3" (76mm) wide, W 5½" (140mm) wide at top, 4" (102mm) wide at bottom. The two outer beams point towards the E wall. The 6" x 3" (152 x 76mm) uprights had collapsed on top of the lower beams. This was a pivotal type target. Most of the metal work was recycled at the local smiddy. The only metal left is the ¼" x 1¾" (6 x 38mm) metal strapping, the bolts holding the beams to the concrete and long angle-irons connecting the uprights to the beams.

West Wall

Concrete construction 9.20m long 2.04 high (unexcavated height) with three buttresses one at either end extending 0.4m, the centre one extending 0.9m. It has the line of the bench where the men marking the targets sat, and holes near the top possibly to hold supports for the corrugated iron roof. It has a large earth bank (a mantlet) on the W side reaching almost to the top of the wall.

East Wall

Concrete construction with smooth cement on W face 7.60m long, 1.20m high, it is built over natural rock in places. There is a large mound of earth above and behind the wall, (a bullet stop) with a wooden beam 15½" (394mm) behind the wall possibly to stop any soil slippage.

Hollows

Large area of ground SE of target removed to make the earth banks. Smaller area of ground N of target removed possibly to make the bank on the West side.

Flat area

Small flat area immediately to E of RB1 is where the wooden shed that held the targets was situated, (the shed was taken to Mount Pleasant Farm) there are three stones in a row, possible footings for the shed.

Wall

Possible building or boundary wall to the W of the entrance to the site, visibly extending 7.20m and 0.8 wide. This is just outside site area.

Boundary stones

BS1 lies adjacent to possible building or boundary wall

BS2 lies 39.5m E of BS1

BS3 lies on its side in the field W of the targets

These stones have the letter F carved on them, they are shaped and carved by Mr. A. Macdonald, Stonemason, Fortrose (5)

Wells

Well 1 is an old well situated in the woodland SW of Broomhill Farm which was the water supply for Feddanhill Farm. It is marked on the 1871 + 1904 OS maps.

Well 2 lies outside site area but is of interest, it is marked on the 1904 OS map but not the 1871 OS map. It is situated in the SE corner of the field, which lies W of the site, and is now seen as a mound. This is not a natural well. It was constructed by drilling seven holes in the rocks above the field. The material that was drilled out was washed and replaced to act as a filter. The water was channelled into a pipe which brought the water to the well, the overflow goes into the culvert. Before piped water supply people used to bring their carts to this well to collect water, even in times of drought there was also water in this well. (6)

Ratchet fence posts

Two ratchet fence posts; one at the side of the public road the other at the edge of forest track leading to Broomhill Farm.

Ammunition Store

A small stone building situated near the junction of the Inch road and the Fortrose-Killen road and marked on the 1904 OS map was used as an ammunition store. It used to have a slate roof but is now corrugated iron. (7)

History

The site was probably used by the Ross-shire Local Rifle Volunteers, formed in 1860. They had a piping tune named after them "The Ross-shire Volunteers". (8)

Each company had its own rifle range (14 in Ross-shire). The Volunteers used the long Lee Enfield, replaced around 1881 with the Martini Henry (the kick from a Martini Henry was viscous). The volunteers received the more powerful Lee Metford rifles in the 1890s. Many of the small rifle ranges were considered unsafe and musketry training was moved to Fort George. (7)

The site may also have been used by the Ross-shire Militia 6 1798 - 1881. They used the Brown Bess flintlock, P53 Enfield, Snider and Metford rifles.

Flintlocks were in use for 250 years until the Rev. Forsyth, minister at Belhelvie Church, Aberdeenshire invented the percussion system. He is reported to have said of the flintlock "a duck seeing the flash in the pan could dive under the water before the shot reached it". (9)

A rifle competition was held annually between the companies and reported in the Invergordon Times.

Competition was not confined to the local area, competitors travelled to Wimbledon to compete in the Queens Prize.

The Queens Prize was founded by Queen Victoria on 2nd. July 1860 when the Queen fired the first shot at the inaugural meeting of the National Rifle Association on Wimbledon Common. The prize money for competition among the Volunteers was £250, enough to buy a small house or to establish a tradesman in business. (12)

Headquarters of D company Territorial Army Black Isle was in the drill hall at Munloch, they had a permanent instructor, the company consisted of Munloch, Fortrose, Cromarty, Muir of Ord and Culbokie. The rifle range was behind the drill hall. (13)

On the 1871 OS map the Volunteer drill hall is at Wester Gateside Farm, East of the Munloch crossroad. The farm no longer exists.

The Inch range was used during both World Wars by the Territorial Army, and by the Canadians, Norwegians and possibly Polish Forces during World War II. In 1915 Donald Macleman, Merchant, Avoch supplied the 3rd. & 10th Battalion Seaforth Highlanders Cromarty with coal at 1/4d per bag. (14)

In the 1940s the site was possibly used by the Canadian Forestry Corps or "Sawdust Fusiliers" as they were known. They camped at Bog of Shannon, and adapted an old barn as living accommodation. They were to extract suitable saw timber around 1,149-77 tons of timber were extracted from Bog of Shannon. Their other remit was to protect the airfields on the Cromarty Firth. The Canadian Forestry Corps used the local rifle ranges for practice, receiving their rifles in May and ammunition in September. Lee Enfield casualties were taken to Tulloch Castle Dingwall. They integrated well in the community and attended the local dances, one officer of 16th. coy became President of the Avoch Tennis Club. (15)

Avoch has a dialect all of its own which nobody else could understand, and with so many people with the same name, Patience, Jack, MacLeman, Skinner, etc. each family has its own by-name. When writing letters during the war they used their own code. Mr. W.G. MacIntosh was then Sgt 4th. Bn Seaforth Highlanders POW. He received a letter from his mother saying "John (by-name)'s yawlie's in the parkie and it's painted black". He knew then that the Black Watch were camped in Avoch, John (by-name)'s boat was called the "Watch". (10)

The Norwegians built the centre of the three targets, they also changed the firing points (for safety reasons) from the Inch Farm across the road to the Mount Pleasant Farm fields. The Miller family lived at Mount Pleasant and remember these times well, they supplied the Norwegians with eggs and also a meal now and again. When the King of Norway came to visit his troops he called on the Millers to thank them for their hospitality. (King Haakon also played a round of golf at Fortrose and Rosemarkie Golf Club). The Millers remember tanks on the site, and the bullet that went under the corrugated iron roof of the target which led to the need for sand bagging (this explains the sand on top of the earth bank of the W wall). They also recall the stray bullet that entered the steading of Broomhill Farm, the targets were made of wood and paper, the cigarette lighters made from cartridge cases and the target shed, which is still at Mount Pleasant Farm.

It's probable the Military use of the site dates to 1860 when the Local Rifle Volunteers were formed. The evidence of bullets dating from 1853 and fired from rifles used by the Volunteers, and Rifle butts marked on the 1871 OS map suggests this.

The "Targets" marked on the 1904 OS map, were constructed in or before 1904. Possibly after the Boer War 1899-1902 along with others all over Britain, to help improve the marksmanship of men before going to war.

Target 1

Bullets from T1 and the path behind the bullet stop, date to the 1860/70s. This suggests an early target. 70% of .303 bullets came from T1, suggesting it was the main target. It is bigger and more substantially built than T2 or T3. The concrete is a different texture, sandier, more crumbly. It is the only target using rounded beach pebbles in its construction. It has metal strapping connecting the uprights, similar to T3. This was a pivotal type target. The pit in front of T1, had one 1860 bullet, possible sand bags and one piece 1" thick glass, hit by a bullet, possibly to test for bullet proof qualities.

Target 2

Only .303 bullets found at T2, concrete of a firmer texture than T1, layer of sandy mounds, possibly sand bags. Perhaps it was tidied up before the troops left. This was a pulley type target. A 12 strand wire rope was found. T2 was built by the Norwegians during WW11.

Target 3

T3 is the smallest of the three targets. In the area excavated three 1860 bullets were found. Two 1860 bullets were found on mantlet in front of T3, .303 bullets were found, and metal strapping connecting the upright timbers similar to T1. Bullets and metal strapping suggest T3 is earlier than T2. This was a pivotal type target.

There are two main falls of soil with leaves between suggesting a period of stability. At T1 a deeper area of humic soil (under willow tree) suggests a longer period of stability. All bullets were found in the soil slippage. The bullets and cartridges cover dates from 1853 -1943 over 100 years of military use, (though not continuous as locals tell of playing at the site as children in the 1920s) by the Ross-shire Local Rifle Volunteers, TA, Norwegians, Canadians and Home Guard.

The site was a favourite area for picnics, rolling Easter eggs and picking raspberries. Which explains the broken glass bottles, including one dating to approx. 1914 from the Fortrose Aerating Works, James Reid & Company (see finds sheet).

Stage 1

T3 not wholly excavated due to lack of time and severe reaction to insect bites.

Stage 2

To remove remaining soil from T3 and South ends of E and W walls to establish depth of walls. More research is needed to fill in the gaps of the sites history and to gain information about the other 13 rifle ranges in Ross-shire.