

WASC 2188

Langdab Estate

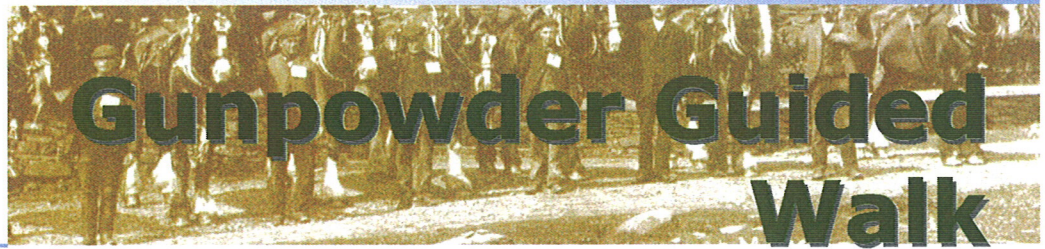
(Elterwater)

Gunpowder

Guided Walk

Brochure

FREE



## Industrial History of the Langdale Estate

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The Langdale Valleys and the Langdale Estate have been the sites of various industrial businesses since pre-historic times.

Jack's Rake was the site of the Neolithic Langdale Axe Factory, and most likely those employed there would have lived on the land which became the Estate.

Water was the key element for all the industrial developments in the area.

In Medieval times, the Estate was the site of a woollen mill...the water from the Great Langdale Beck provided power, and local Herdwick sheep produced a steady supply of wool.

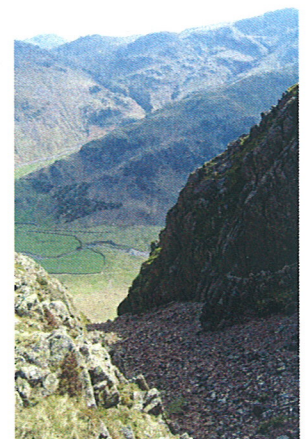
There is some disagreement as to whether or not the next development on this site was a tanning mill, before the

opening of the gunpowder works in the early 1800s.

The Works were closed in 1929 and purchased by Richard Hall: who developed the first Langdale Estate for 'those seeking accommodation and an ideal holiday in one of Lakeland's loveliest valleys.'

The brochure goes on to say, 'It is not our intention that it should become the resort of the undiscerning, but rather it would be the rendezvous of those who appreciate its inherent charm and peaceful, friendly atmosphere.'

The resort comprised of the Pillar Hotel, the Becksides Annex, a number of sleeping cabins, and the Gateway Guest House & Café. All developed from existing gunpowder buildings.



The site of the Langdale Valley Axe Factory

As you walk around the Estate, you will come across many remaining blast walls, wheels and bits of machinery used to manage the flow of water to produce energy for the Works.

### History of the Works:

- The Early Years (1824-29)
- Expansion (1830-66)
- More Expansion (1861-5)
- Explosives Act (1878-97)
- Boom & Bust (1898-1925)
- Closure (1926-30)

## Gunpowder Mills in South Lakeland

The Elterwater Works was one of seven mills in the South Lakes area.

The sites were ideal because of the availability of water power to drive the machinery, woods and outcrops of rock to screen the inevitable explosions, and the low population density.

The village of Greenodd, near Ulverston, was a major port at the time, where sulphur and saltpetre (two key gun powder ingredients) were imported and supplied to the local mills. The finished product was exported mostly to South Africa.

The powder was produced

for blasting and use in mines, and its export made up one side of the infamous 'slave triangle'.

Gunpowder was shipped to Africa, where slaves were loaded on board and taken to America. Cotton and tea were then shipped back to the UK.



*The replica waterwheel at the front of the Hotel. Site of four incorporating mills.*



*Elterwater gunpowder tin...note that very little shooting powder was produced at this mill...it predominantly made blast powder. This tin is in a collection held in Canada.*

**Prior to the passing of the Explosives Act in 1875, licensing for gunpowder was carried out by local Justices of the Peace who knew nothing about it!**



*Swill baskets used in gunpowder works are still made today... Purdey's Restaurant has a number of examples, including some swill panniers used to transport charcoal on pack horses.*

## *The Process of Making Powder*

Before starting off on your walk around the site, it is important to understand the process of making gunpowder.

There are a number of pictures in the Hotel Lounge which may prove helpful, along with site maps of the last days of the mill and recipes for the making gunpowder.

The three key ingredients of sulphur, saltpetre and charcoal are blended in the preparing or mixing house to produce 'green mix'. The saltpetre and sulphur, imported from India and Italy, needed to be refined prior to mixing.

Once prepared, the mix was sent to the incorporating mills to complete the mixing process and reduce the mix to a powder. Finished blasting powder in fact looked like coffee beans and wasn't powder at all. This was known as 'rude' mix.

From there the mixture was taken to the pressing house, where it was pressed into

hard slabs to be broken down into the kernel-like grains.

This was known as the first of the 'danger buildings' where the powder, if set off with a spark, became very volatile. The first pressing house exploded in 1840, killing three men and blowing up the nearby corning and glazing mills.

Corning was the most dangerous of the processes (the three remaining explosions were started here). A series of sieves, each one finer than the one before, were suspended on wooden frames by an oscillating rope that dashed the slabs against the sides to break them up.

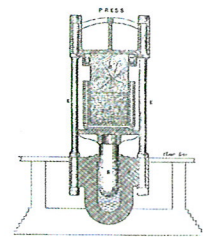
The graded grains were then taken to the glazing house where they were placed in drums and coated with graphite to smooth and polish the grains. This kept the grains separate, in order to make the shipping process safer.

Dust collected was sent to the dust house for a final

gentle sieve, where the oversized pieces called 'stops' were sieved out.

Both the dust and the grains were then taken to the stove and boiler house for drying. The temperature in this building was never lower than 100 degrees Fahrenheit!

Later in the development of the mill, they began to produce blast cartridges from the dust. These were originally produced by miners and their wives at home and by candlelight... not a good idea. Cartridges were made by forming gunpowder into pellets with high amounts of pressure, with a preformed central hole for the fuse. They pressed about 80 at a time. After drying, they were dipped in hot wax, wrapped in pairs and packed into wooden boxes.



**1**

## *In the Hotel*

There are a number of photographs in the Lounge... ones to look out for are on the right hand side wall as you enter. There's an image of the 1907 Gunpowder Parade in front of what is now Beech Tree House. Another photo shows the workers or coopers who made the barrels...note that they used wooden hoops rather than metal bands.

The picture of the barrels being shipped sadly was the recording of the very last gunpowder shipment from the mill.

In the photos showing charcoal being produced (particularly those in the combined photos framed on the far wall), the sod-covered structures were in fact sleeping huts, as a burn

could take several days of continual watching.

These photos are in fact modern as charcoal is still being produced in small quantities here in the Lakes.

Purdey's Restaurant holds a full set of dry coopers' (barrel makers') tools...a rare collection today.

## Mixing and Storage

# 2

As you head towards the back entrance of the Hotel, you will pass the glass window (on right) through to Hobson's bar. Note there are a number of the dry cooper's tools in this window, but the barrels are most definitely not for gunpowder with metal bands and nails!

As you come out of the back doors, turn right and you will see West gable of the mixing or preparing house which is now used by the on-site Marketing Department. It produces much of the materials for the Estate including this leaflet.

Note the column at the left of the building which supported a waterway to the wheel pit (where a waterwheel would have provided power). You can still see the location of the wheelpit, now blocked on the south side of the building (to the right) by the kitchens for Purdey's Restaurant.

Strategically located nearby were the various storage houses for sulphur, saltpetre and charcoal, alongside the

box-makers' house and joinery.

The existing laundry just opposite was originally a store of some kind, and clearly identified at the closure of the mill as the paint and nail store.

Behind the laundry was the saltpetre store, now Waterside bedrooms. This building over the years was also used to store sulphur.

Then as you walk back and join the main road turning right, you pass the east end of the saltpetre refinery.

For many years research about the various mills including the Elterwater Mill was carried out by interested amateurs, mostly from anecdotal evidence of gunpowder workers and their families. As a result, there was much falling out and arguing about what building was what.

In January of 2001, English Heritage approached the Estate and asked if they could do a proper survey of the site. We were delighted.

With the outset of the foot and mouth crisis in February of that year, English Heritage had to pull their staff off the vast majority of their projects and instead concentrated on the gunpowder project, as there have never really been animals grazing here.

As a result, what probably would have been a far more modest survey turned into a major work, with no stone as it were un-surveyed. A silver-lining indeed!

The disagreement over the various uses of buildings was cleared up, as buildings were used for different things at different times. English Heritage produced a most useful series of plans, showing how the site was changed and developed.

Mixing and storage buildings did not collect stray powder, and, as such, were not destroyed when the mill closed. They were used for accommodation when the Estate re-opened as a leisure resort in the early 1930s.



*The mixing or preparing house. The column at the left was part of the wheel pit where a waterwheel would have been used to drive the mixing process.*



*Southern gable of the saltpetre store showing the blocked cart entrance.*



*Saltpetre store in the thirties...used as accommodation for the Leisure Estate, and at one time the home of the owner.*



*This photo of the Becks side bedrooms was taken before Becks side timeshare was built...it was the box-makers' house and the joinery. When the timeshare was built, the old stones were maintained and you can see the lintel and corner stones that were replaced.*

### A bit of history about explosives....

The safe and efficient explosives of today are the result of a gradual revolution that continues still. 'Greek Fire' was first used about 668 AD by a Byzantine fleet against an Arab fleet..it is believed that it was a mixture of naphtha, quicklime and sulphur. Saltpetre was unknown until 1250 when it was discovered by both the Chinese and Arabs.

Roger Bacon (1214-1292) was the first to describe the preparation of black powder, but it wasn't until the invention of the gun by German monks who lived in the 13th or 14th century that gunpowder came into its own. It was the beginning of the 17th century when powder replaced ancient methods used by even the Egyptians for blasting in the mining industries around the world.

Goose quills, straws, rushes, paper or wooden tubes were originally used for ignition; but soon, with the increase in the number of accidents, safer methods of ignition were demanded. The new Miners' Safety fuse was invented in Cornwall and produced on the Estate.

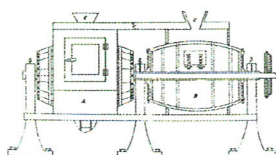
The discovery of nitro-glycerine spelt the end of the gunpowder mills. Still in use today, it was in 1862 that the final refinements were made to the process by Alfred Nobel, who took over Nobel Industries which later bought the Elterwater Gunpowder Works.

## Danger Buildings

# 3

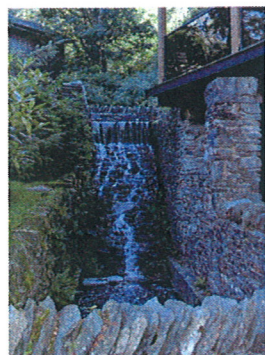


*Blast walls by what was once the pressing house.*



*Diagram of the glazing house where powder was covered in graphite.*

**Gunpowder mills had explosions...it was not a question of if, but rather when and how many. Elterwater had a very good safety record with only a few.**



*Waterfall to provide energy for the glazing house (Lodge 10, left side).*

Once the mix had been prepared, it was shipped to the incorporating mills for finishing and then to the 'danger buildings' for processing. These were the pressing house, the corning mills and the glazing house.

All these buildings were located in various positions around what are now Lodges 10, 11, 14, and 15, and there are a number of remnants of the Works to be seen.

There were four fatal explosions at the Mill, all within this area. The first one started in the pressing house but, as the corning and glazing mills were also nearby, all three buildings exploded. The other three explosions were all in the corning house.

With a total of 13 fatalities, Elterwater had a good reputation for safety, and only Bassingill had fewer fatal accidents.

The use of trees and rocky outcrops helped keep the number of fatalities down.

Blackbeck, which only operated for 68 years, had the worst record with 10 fatal accidents and 33 people killed. It was believed that this was due to there being little water power and much of the Mill was run by turbine engines that let off sparks. They also suffered from lightning strikes...with three accidents attributed to this cause.

See below for details of the Elterwater explosions.

Not all accidents were either reported or were fatal...there is a saying in the Valleys that if anything goes wrong that, 'it's Hobson's fault.'

Hobson was a travelling salesman who stopped at the White Lion pub in Chapel Stile, where many of the gun powder workers lived, on his way through to the West

Coast. He fell in with the then Foreman of the Mill and they continued to drink late into the night.

The next morning, the Foreman, being a bit worse for wear, was careless and set off a small explosion that took off his beard and eyebrows...thereafter, everything was Hobson's fault.

As you follow the main circuit toward the lower mill pond, you can see many remnants of the water system (streams were called leats) and the machinery used to manage the water power.

In the early years, materials were moved around the site by ponies with shoes made of copper (it doesn't spark), or they wore special boots!

Later a tramline was put in to move the powder from process to process. The road you have just taken was part of that system, but sadly there are no traces left.

### Fatal explosions....

#### **24th January 1840 - Pressing, Corning and Glazing Houses (5 killed)**

The worst of all the accidents at the Mill and, as a result, additional land was purchased to improve safety. Before the Explosives Act of 1875.

#### **28th November 1878 - Corning House (3 killed)**

This was suggested to be the result of the use of an old-type machine.

#### **23rd October 1901 - Corning House (1 killed)**

The mill was under repair and it was the first accident that was investigated by the Explosives Inspectorate. Captain M B Lloyd reported that David Bowness, James Sill Baines, John Johnson and Thomas Coupe died in the blast. The mill had been closed down according to procedure and the factory fire engine had completely hosed out any loose dust. However, this particular mill had iron parts covered in wood. The wood was removed in order to tighten a loose nut in the bearing of the main framework. David Bowness, the joiner who removed the wooden panels, was given a candle by which to work!

#### **18th September 1916 - Corning House (4 killed)**

This was investigated by Major T H Crozier. The four men who died were John Dellafield, John Foxcroft, Anthony Atkinson and Frederick Carradus. Only two of the men were in the corning mill when it blew; the other two were walking back for dinner. The report indicated that the explosion was not caused by a 'foolish' act, but rather an unavoidable but regrettable accident, for which no blame could be attached to the management or those who lost their lives.

## The Incorporating Mills



By the 1880s, there were twelve incorporating mills at the Elterwater site...eight at the lower mill pond and four just outside the front of the Hotel, by the replica waterwheel, known as the 'upper' mills. These were used to finish the mixing process.

There were two different

mill designs used...the earlier design was an 'over-driven' mill, meaning that the water power to drive the mill was delivered from above. The newer mills were powered from below and referred to as 'under-driven'. Several of the older mills were converted to the safer under-driven style.

These mills were considered as 'danger buildings', and were destroyed when the Works closed.

However, you can see the remains of one of the mill pits with a diagram showing how this mill would have operated, at the Lower Mill Pond near Lodge 21.



*Blast wall by the Lower Mill Pond.*

## The Early Years - 1824 to 1829

One thing upon which all the amateur experts agreed was that the gunpowder works were started by a self-made banker from Kendal called David Huddlestone. The story went that he had retired and moved to Elterwater, and got very bored with retirement so started the gunpowder mill.

Very simply, new research has proven this to be untrue.

Apparently, he was given a 'little brown book' by it is believed John Wakefield, who was the founder of the Sedgwick Works. Wakefield died in 1811 and probably made a deathbed gift of this book to Huddlestone, who was known to be his good friend. The book contained absolutely everything that one needed to know about

setting up and running a gunpowder mill!

Huddlestone's letter book revealed that, when he retired in 1823, he already had a part-interest in a water-powered corn mill on the site, inherited from his late father-in-law. Within a month of retiring due to serious ill health, he purchased the adjacent fulling mill, with other property sufficient to start the Works, for the princely sum of £755.

Furthermore, by the end of that year he had the consent of the villages via the Lord of the Manor to enclose an estimated seven or eight acres of the Common of Walthwaite Wood adjacent to the main site, in return for building a school-house and

repairing local roads.

It thus seems very likely that Huddlestone had been formulating his idea to manufacture gunpowder for some time before moving to Elterwater...retirement was merely the trigger to put his plans into action!

By 1826, the business consisted of eight co-partners and was known as the Elterwater Gunpowder Works; previously being named David Huddlestone & Co.

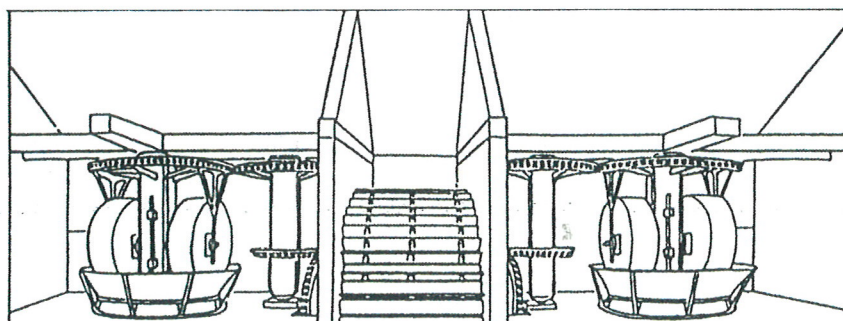
The Power Mill Pond area was the site of the original Works which opened for production with one incorporating mill in 1825. By 1829 there were the full range of buildings required.



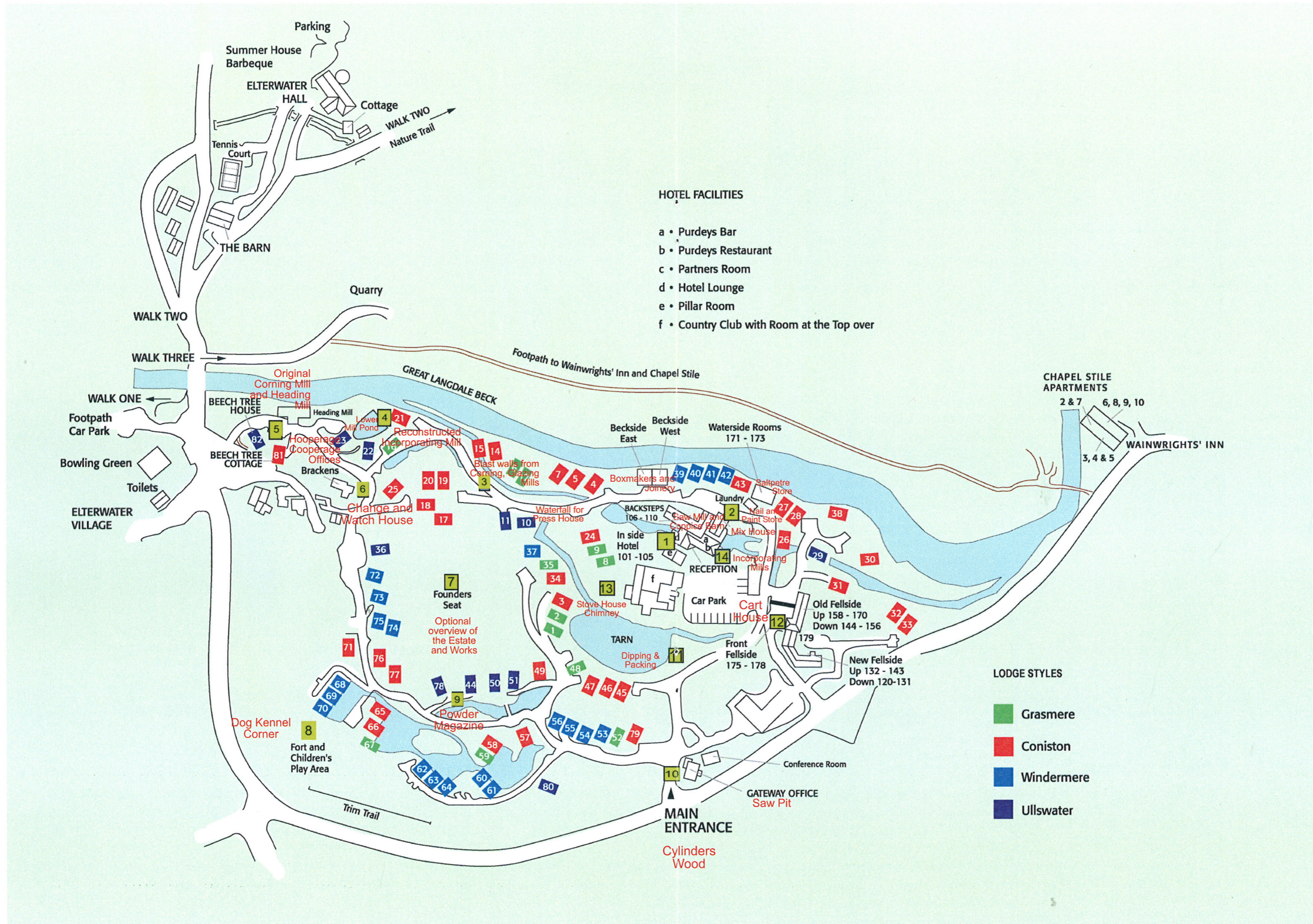
*Runner wheels as shown in diagram below.*



*Surviving fabric at the West end of mill 5, rebuilt when Lodge 16 was erected.*



*Remnants of Mill 6.*



5

## Expansion—1830 to 1866



*The heading mill...all part of the process of making barrels...also the original water-powered corning mill inherited by Huddleston.*



*The smithy for the Works still remains in Cylinders Wood, now private land. It is believed to have been built in the mid 1880s.*

The Works rapidly expanded during these years.

Additional water was needed for power, so a dam was built at Stickle Tarn with sluice gates to raise the level of the lake and turn it into a holding reservoir to regulate the flow of water in the Great Langdale Beck.

The story goes that if the Foreman was annoyed with you...if you turned in late or a bit worse for wear...you got the job of running up the hill to open the sluice gates...a punishment!

Huddleston died in 1831 and the mill was taken over by John Robinson, his brother-in-law and one of the partners.

It was Robinson, living at the time in what is now the Eltermere Hotel (then called Elterwater Hall) who built the present day Elterwater Hall high on the hill. He moved the name with him.

In the now-called Cylinders

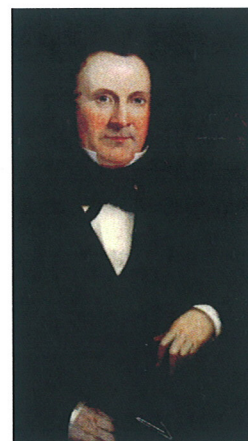
Wood across from the main entrance to the Estate, charcoal was begun to be produced rather than purchased. There is some evidence that timber was supplied locally.

As well as increasing production, the factory was re-organised and all activities to do with storage and refining of the three raw ingredients were removed to the upper end of the enlarged Works...where the buildings remain today.

A new front entrance was built so that horses and carts could bring in materials without passing through the rest of the factory.

After the 1840 explosion, the danger buildings were relocated (it is unknown where they were originally) to where there are now only remains.

Further expansion took place from 1861 to 1865, and additional land was



*John Robinson of Elterwater Hall.*

purchased for future development.

In 1866, the Company needed fresh capital for investment, particularly in the network of roads and the installation of a narrow-gauge tramway system to link the various process buildings, and it adopted limited liability status. At the same time, the charcoal production at Cylinders Wood was closed and instead this material was purchased locally.

## Hooping and Cooping—made Barrels

Gunpowder barrels were made without using nails...with the exception of some for long distance shipping made only with copper nails.

One such barrel was in a small museum in Ulverston, which has since closed, and is now in a private collection.

The vast majority were made using loops of hazel called hoops. This was why there are almost no remaining

barrels in existence.

Hoops were made in early Spring using a special latch that held the hoop in place.

The powder, packed in linen bags, was lifted out of the barrel after removing the top hoop...the barrel fell apart. They were the gunpowder cardboard box of their day.

For many years, we searched for someone who knew how to make these hoops...once when complaining to a friend

about the lack of barrels and knowledge of hoop-making, he simply laughed and pointed out that someone I had known for the last twenty years had been a hooper as a lad of sixteen, when he helped his father produce hoops for the mills.

Since then, having trained friends, there are a number of hoopers in the area. An example is in the Purdey's showcase in the link corridor to the County Club



*Beech Tree House - where the hoopers and coopers made the barrels for shipping gunpowder.*



## 1875 Explosives Act - 1878 to 1897

# 6

In 1878, James Bousfield was the Elterwater Works Manager; an energetic man who wanted to update and modernise the factory after the passing of the Explosives Act in 1875.

This Act created a new professional Explosives Inspectorate who set guidelines and investigated accidents.

Part of the Act set requirements for special clothing for workers, and what is now Brackens became the change and watch house.

Here, workers had to change

into uniforms with no pockets in which to hide matches, pipes, etc.

It is believed that workers, in place of smoking which was strictly forbidden, would have used snuff made locally in Kendal.

There remain only two snuff factories in the UK today, both still in Kendal.

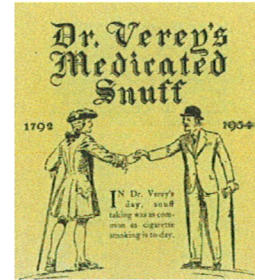
Predominantly, this product is exported to the States.

One immediate consequence of the Act was that the manufacture of blasting cartridges (traditionally done by miners working at home...

not a good idea) was now prohibited except on licensed premises.

Bousfield seems to have been keen to exploit this opportunity at the Elterwater Works, and in 1878, commenced the production of the cartridges on the far side of the Estate, with the agreement of the Inspectorate.

The plan of the Works (middle right) known as the 1932 Plan accompanied the paperwork relating to the purchase of Brackens.



*More than likely, workers would have used snuff produced in Kendal.*

## 7 Founders Seat

*An optional stop to climb to the top of Meat Hill with wonderful views of the entire Estate.*

## Dog Kennel Corner

# 8

Near what is now a children's play area, are the remains of the Company's kennels for their hunting pack.

Another punishment that was dished out by the Foreman was the job of running up the hill to what is now the Founders' Seat to get meat left there to dry to feed the

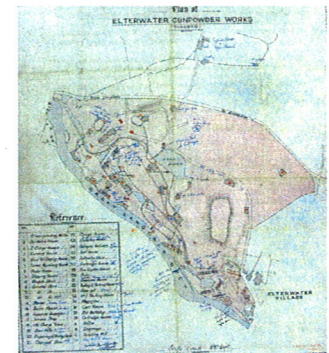
dogs.

This hill was originally named Meat Hill because of this practice.

This was on land purchased in the early 1860s but it is not known exactly when the dog kennels were built.

Another tale told by gunpowder workers was that

the walls of the Estate were full of money...this was because workers paid in cash hid money in the walls before taking their pay packets home, so they had a bit of spare cash for a pint in the pub. Some of the money was never actually recovered.



*An old map of the Estate with hand written corrections and changes.*

## Powder Magazine

# 9

During the 106 years of gunpowder production, there were three separate magazines to store the powder.

The first was located away from the danger buildings and protected by Meat Hill. Originally the Elterwater - Chapel Stile road ran through the Estate, and the

wall of the magazine was on the roadside.

The story goes that the Foreman, walking home one night, was followed by two elderly gents. He saw one of them tap out his lit pipe on the outer wall of the magazine!

The Foreman was petrified,

thinking that not only the mill would go up but the village of Elterwater too.

The other magazines were in Cylinders Wood (after charcoal production finished) and at Half Way House (now self-catering cottages) between the Estate and Ambleside.



*Site of the original gunpowder magazine by Lodge 44.*



*Cylinders Wood, now owned privately by the Pierce family.*



*Internationally famous location of barn where Kurt Schwitters produced the only remaining Mertz sculpture.*



*The Saw Pit as it is today...not very different from bygone days as shown below.*



*Gateway Café and B&B in the early 1930s.*

## *Cylinders Wood (Walthwaite Wood)*

10

In 1834, a part of the Walthwaite Woodlands was purchased by the Company.

Over the years it was used for a number of different purposes, but originally as the site where gunpowder cylinders were used to produce charcoal. This meant that the Mill no longer had to import this ingredient.

As a result, the wood is known to this day as Cylinders Wood rather than by its proper name.

In later years, one of the powder magazines was sited

there, as it was far away from the production and danger buildings, along with a building to house the Mill's farrier.

But by far the main reason for the site's international fame is that the owner of the time, Harry Pierce, befriended Kurt Schwitters, a world-famous modern artist and refugee from Germany who lived in Ambleside.

Harry gave Kurt the use of a barn located on the site to create his own special form of art, known as Mertz. This

involved turning an entire building into a collage-style piece of art.

Schwitters sadly died prematurely after almost completing just one wall of his sculpture.

It has since been moved to the Hatton Gallery at Newcastle University where it is on display and now worth millions.

Some of his smaller works including paintings and collages are on display in Ambleside at the Armit Museum.

## *The Saw Pit*

Now the Gateway Office, this building remains much as it was in the times of the Gunpowder Works, as it never held any powder...one of the few buildings to survive in this area of the Mill.

A saw pit was a two-storey building with the first floor only using approximately half of the available area. Logs were cut using huge hand-held saws that worked from the ground floor up into the open part of the first floor.

It has been suggested that it was sited at the main gate as there was no real requirement for water power, and its proximity to Cylinders Wood meant that the Company may have

begun harvesting standard trees, perhaps for structural repairs, from the surrounding hillsides that were heavily wooded in the late 1800s.

Later, when this part of the site was developed for the production of blasting cartridges - as far away from the other danger buildings as possible - wood was needed to make boxes for the cartridges, and also for the earlier production of charcoal in the woodlands across the way.

This building survived as there was never an explosion in the blast cartridge production buildings nearby.

This would have been considered very fortunate, as the cartridges were made using large amounts of

pressure to press them into shape.

There are some great stories about the renovation of this building from the Gunpowder Works into the Langdale Estate of the 1930s.

The fireplace on the ground floor was purposely made to look very old...but the only authentically old part of this feature is the wooden plank over the stone-made open fireplace.

It actually is the head of an old bed and you can still see where the holes to fix the ropes holding up the mattress are now filled in with circles of wood.

Some of the original beams are still in evidence on the ceiling.

## Dipping and Packing

As you walk toward the Hotel's Fellside bedrooms, you pass the dipping and packing house for cartridge

manufacture on your left. This is now used as an office.

It was here that cartridges were dipped in wax and then wrapped and packed in pairs.

11



*Dipping and Packing House by Hobson's Tarn.*

## Safety Measures

The Explosives Act meant many changes for the Lake District's gunpowder works.

With the introduction of cartridge production, women began to work at the Mills. The building, now Fellside bedrooms, was once the location of the ladies' changing rooms...far away from the traditional changing rooms of the men.

It was also used as the cart house, and it is believed it would have housed the Company's fire engine.

These engines were not for putting out fires, but rather for washing off powder dust or at least dampening it down in the various danger buildings.

The end of the building at the far left as you face it was a cottage that existed when the Mill was opened.

You can note the various lintels on the building and the classic oval door for the carts.

It also may have been used to house the 'searchers'.

These were the 'gunpowder police' who were hired to make sure that workers complied with safety requirements, such as the wearing of special uniforms with no pockets, proper cleaning and dampening of buildings.

Once, in 1875, Elterwater seems to have been lax in applying the strictures of the new Act and an unannounced visit by an Inspector resulted in convictions for twelve offences under the Act.

12



*Now Hotel bedrooms, Fellside was used for various functions over the years.*

## Boom and Bust—1898 to 1925

The first quarter of the 20th century appears to have been a time of consolidation and quiet prosperity, up until the end of the First World War.

This was followed by a decade or so of uncertainty and hardship, as the collapse in demand for black powder led to attempts to consolidate and rationalise the industry.

The Elterwater Gunpowder Company merged with many of its competitors (Lowwood, New Sedgwick, Blackbeck and Gatebeck) in

1917 to form the Explosives Trades Ltd, which very shortly afterwards became part of Nobel Industries Ltd. This lasted until 1926.

The main developments in this period occurred before the War, and mostly had to do with innovations in sources of power.

There is very little evidence of major alterations to the existing stock of buildings or machinery.

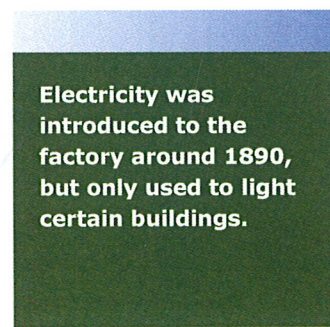
It is here by the old stove house chimney that every

few years or so, various people have caught sight of the Estate's ghost.

Not frightened at all, they were just surprised to see a man with a flat cap, big black beard and in what appeared to be a costume...in fact very much like the description of what would have been worn on the Estate in the early 1900s.

Hobson's Tarn was named after a worker who had planned to paddle a wash tub across the Irish Sea, but sank on a trial run on the Tarn!

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**Electricity was introduced to the factory around 1890, but only used to light certain buildings.**



*Chimney for the Stove House by the Country Club.*



*Old-style incorporating mills contributed to the closure of the Elterwater Works. Retort recently acquired from Gatebeck Mill and generously donated by Mr Brian Gregg.*

## *The ICI Years & Closure—1926 to 1930* **14**

In 1926, Nobel Industries were incorporated into ICI. The new owners made some efforts to improve the factory and keep production going.

However, very rapidly ICI seems to have taken the decision to rationalise black powder production in Cumbria.

Blackbeck was the first factory to close in 1928, followed by Elterwater just over a year later.

The decision, when it came, was no doubt in part influenced by the factory's antiquated infra-structure, such as the incorporating mills seen here at the front of the Hotel.

These still used limestone bedstones and edge-runners, whereas other factories had by this time changed to cast-iron or iron-shod runners.

But it was more probably chiefly taken on the grounds that the factory was poorly placed in relation to the transport infra-structure - being distant from both the

canal and, more importantly, the railway.

At the time of the closure, there seems to have been some talk of turning the factory into a museum or a retreat for ICI executives, but to no avail.

Elterwater was closed and sold off, and sadly the majority of its business records were burned for fear of the tax man; thus bringing

to an end 106 years of gunpowder milling in Langdale.

Cylinder Hill Sub-site (now known as Cyliners Wood) was sold off separately to the Pierce family, who still own it today.

The main part of the Works became the 'prestigious' Langdale Estate, using what buildings were left undestroyed upon closure.

### WHAT A RETORT?

Traditionally, charcoal used in the manufacture of gunpowder was made by slow burning heaps of logs, but in 1787 a new method of stacking wood in a cylinder or retort which was then heated by fire or in a furnace was put forward by Richard Watson, who had held the Chair of Chemistry from 1764 to 1773 at Trinity College, Cambridge.

Later this charismatic Westmerian from Heversham was better known from his job description as the Bishop of Llandaff.

It was claimed that charcoal produced in this way was purer and gave much better gunpowder as shown by test firings of canon balls.

The cylinder located at the front of the Hotel car park came from the former gunpowder works at Gatebeck near Kendal, where two of them had been used as gate posts. This retort had to be removed to provide wider access and the owner, Mr Brian Gregg, generously donated it to Langdale.



## *Under Siege...*

The red squirrel is now absent from most of southern and central England, and, while the North West remains a stronghold for the species and Cumbria still retains reds throughout most of its area, greys are invading from both north and south.

And it isn't just the grey squirrels...destruction of hedgerows, loss of woodlands and changes in management of woodland habitat make it more difficult today than in the past for red squirrels to colonise sites.

Here on the Estate, we've almost lost that battle and we need to come to the rescue.

### *How can you help?*

Make a donation to the Tourism & Conservation Partnership...there is a special collection box in the Gateway Sales Office Reception area. All funds from this box will be specifically earmarked to help red squirrels.



