



Aberllefenni Quarry

Pictures and notes, above and below ground, of the last operational slate quarry in the Dyfi valley area, before it ceased mining it's own slate in December 2003.

Thus ending over 170 years, (some say 500) of uninterrupted production in this quarry.

Pictures and text by Ray Gunn

An Efel Production

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The end of an era.

(To make way for the start of
Another, different one , perhaps ?)

A few pictures and notes to mark the end of slate mining operations at the last working slate quarry in the Dyfi valley area, closing an era of quarrying and mining for slate lasting several centuries. Pictured below are the final six of what was once a total area workforce of thousands.



The production workforce at the quarry in it's final year, with the mill shed team on the left, comprising of :- Anthony Taylor, Darren Davies and Andrew Taylor. The underground team, under the sign, are :- Idris Lewis, Glyn Davies and Philip Evans. Picture taken on 17-Jan-2003 outside the quarry office at Pensarn, formally the village Post Office.



Mention Aberllefenni quarries to most people and the first thing that usually springs to their minds is a view very similar to that pictured above.

There are quarries on both sides of the valley and further up too but the one above is the only one to have been worked in recent years.

The steep, waste strewn, rugged slope, topped by that gaping black eye of a hole tends to stick in most people's minds. Thousands of people over the preceding decades, both local and visitors, must have stood and gazed in awe at the sheer volume of slate waste that had been blasted, hewn and carried out of the bowels of that mountain and tipped down the side.

Over the years it was worked at numerous levels, with the slate being brought out on a small temporary narrow gauge railway, hauled sometimes by men, sometimes by ponies, then latterly by engines.

The present day entrance is just hidden from view, in the lower centre of the picture, to the right of and level with the white shed on the left.

Incidentally, a chamber that opens to the sky near the top of the picture goes all the way down to the level of the current entrance, letting valuable daylight and fresh air into that section of the tunnel.

Some of the various 'levels' that were previously worked can be identified in the picture by the flat tops of the waste tips on the hillside. As the slate was brought out of the tunnel on level rails, new sections of rail were added along the top of the previously discarded waste, so that the trucks could be taken right to the edge and emptied over the side. Thus the 'tip' associated with each tunnel would gradually extend along or outwards from the hillside but always with it's top on a level with the tunnel entrance.

On the right is the old office of the quarry, where the daily business of running what was once a large and complex operation was conducted.

On occasions when it was necessary to assemble the workforce here, their numbers at the peak of the company's productive years would have filled the open area around the front and sides of the building.

On the top right hand end, above the roof, is a rectangular housing constructed of slate slabs, which contains the company bell. Used at one time to summon the workforce for various regular occasions, like pay day, it may also have once been used to mark the beginning and end of working shifts. For those for whom a pocket watch was a luxury item not to be subjected to the rigours of daily working in the quarry, a means of indicating when they should start and cease work was a must.

Another more onerous contingency use may have been as a major accident / disaster alarm, to summon rescue teams etc and such emergency services as existed.



Below left is a rear view of the building, taken In 2002, showing the advanced state of dereliction.



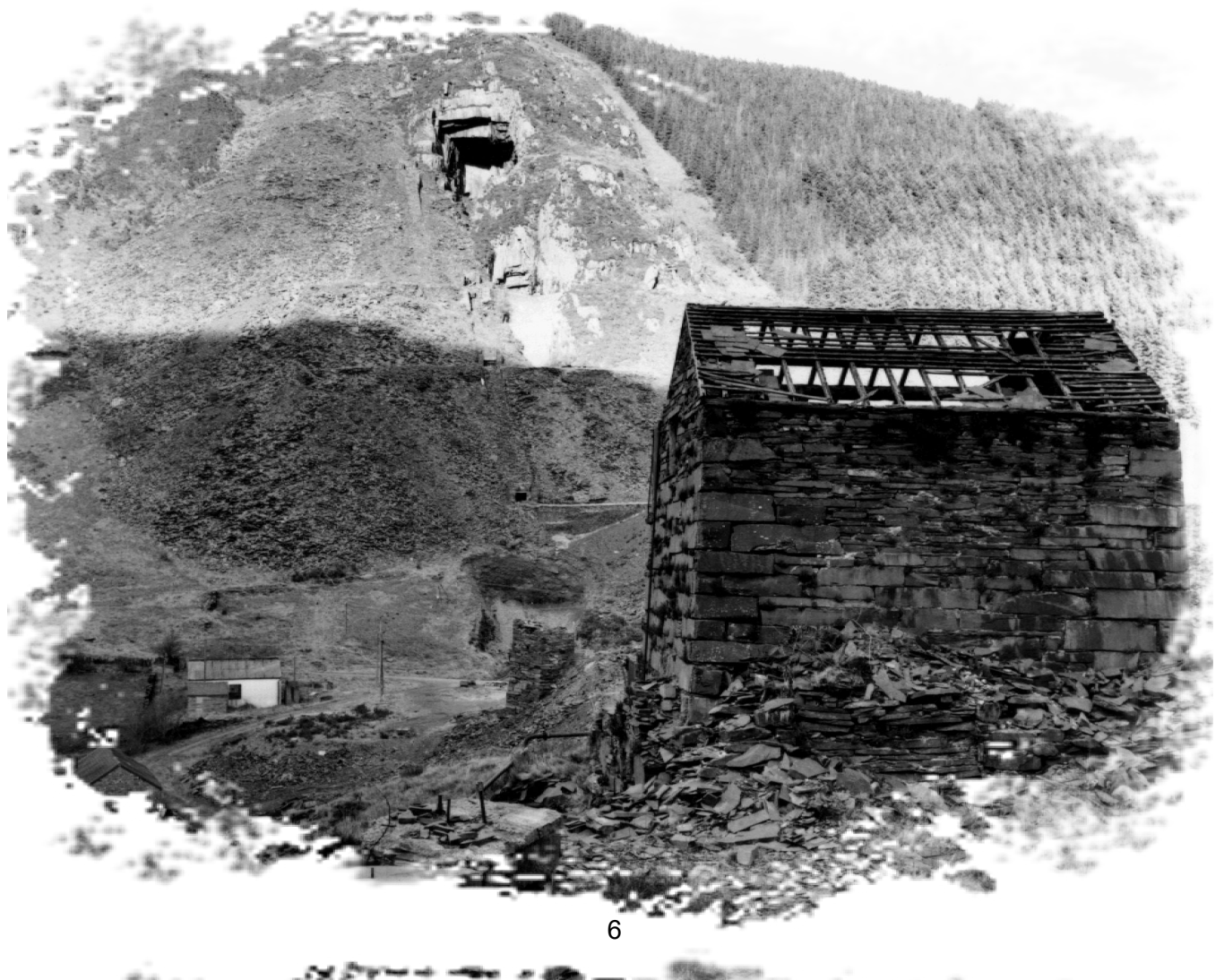
Tipping the waste down the hillside may be an easy and convenient method of moving it out of the way but a rather more delicate means of transportation is needed to get the good bits of rock from the tunnel entrance to the mill shed for processing.

Dotted around the quarry landscape are the remains of what the ever inventive Victorians came up with to raise and lower the little railway wagons to whatever level they needed to be in order to continue their journey.

These odd shaped but very sturdy little buildings, called 'winding houses', would raise or lower the wagons on the end of a steel cable, up and down a rail laid on a steep incline to the next level.

Various power sources were used, depending on the amount needed and just what was available locally. As water was in plentiful supply at Aberllefenni and replenished frequently, free of charge, it was used here in a cleverly designed moving counterbalance system. A water tank mounted on another rail parallel

to the first and attached to the other end of the same cable was filled until it weighed more than the wagon. Gravity then pulled it down the incline, which in turn pulled the wagon up. Emptying the tank at the bottom had the opposite effect.





Above is a closer view of the winding drum and the brake mechanism of the most complete example of a winding house at this quarry at the time of writing.

The slates were removed from the roof just a few years ago and already the effects of the weather have had a serious effect on the now unprotected equipment inside.

As the drum rotated, the brake man could control it's speed of rotation by pressing down on the long brake lever, more clearly seen on the previous page. This tightened the grip of the steel strap around the large cast iron wheel on the end of the winding drum, slowing it down and bringing the wagon to a halt precisely where required.

The brake mechanism is anchored to the beam across the front of the building. Because of the considerable weights involved, the beam is anchored to the ground with chains to prevent the inertia of the turning drum from lifting the brake, beam and indeed, perhaps, even the roof itself if the brake were applied a little too fiercely as a full tank descended the incline a bit on the fast side.

On the right are some of the buildings clustered around the road that winds through the quarry site on it's way up the valley. The building on the right is adjacent to the lowest and current entrance to the mine.

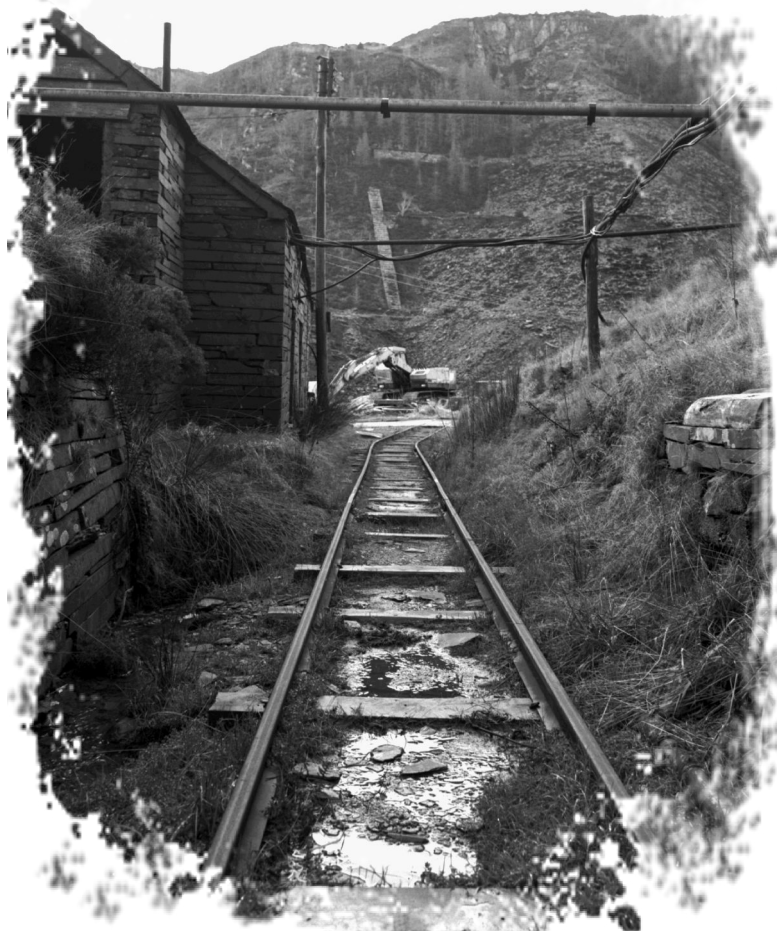




At the top of the page is the site office and rest room for this part of the quarry.

On the right is the view from the mine entrance, just across the road from the office, showing some of the other, older, workings of the quarry on the other side of the valley. Also, just across the road, is the digger recently bought from a now disused quarry further down the valley and used here for general work around the site.

At the back of the building to the left of the mine entrance I found the above two names carved in the wall. They are David (Swiss) Rowlands and Malcolm Holt, former quarry men here, who made their mark on 'May 30th 1975. This age old practice of boys, young and old, is especially prevalent in this area where the local building stone is so conveniently flat and smooth and just crying out to be carved upon.





Here are the very last quarrymen to work underground in this quarry for the purpose of mining slate, which also makes them the last in the whole Dyfi valley / Corris valley area.

They are, from left to right in the top picture :- Philip Evans, Glyn Davies and Idris Lewis. They are pictured by the entrance to the half mile long tunnel, level with and leading off from the road outside.



Soon after entering the tunnel, you emerge into the bottom of an enormous chamber. What is really astonishing, however, is that it is lit by daylight !

Remembering that you are still level with the tunnel entrance at the bottom of the valley, the shaft of light from above is entering the top of the chamber via a hole high up the mountainside, a couple of levels above.

The chamber is so huge that it is difficult to convey the sheer scale of it on this page. The tunnel emerges at the lower centre of the picture, right, while the sheer walls rise up far beyond the top of the picture.

The lower picture is looking down at the bottom of the main chamber, with the tunnel going off into the mountain at the lower left.

To the right is another, smaller, chamber sunk into the bottom of the main chamber, (giving another idea of the scale of things here), with the old lifting tackle still in place. This lower chamber is now flooded with water up to almost the level of the tunnel, work there having ceased many decades ago.

Above it can be seen the service tunnels for operating the lifting tackle etc.

It appears to be a feature in this mine that when work ceased in a chamber, the machinery used to extract slate from it was simply abandoned there.





Above is another view across the bottom of the chamber. The concrete blocks show that it is, despite appearances and at the time this picture was taken, a working mine.

Where the tunnel disappears into the mountain, you can just see the criss/cross lines of a sheet of steel mesh, which closes off the old entrance to the lower

chamber, for safety reasons. Being now filled with perhaps a hundred feet of water, you wouldn't want to stumble into it in the dark, would you.

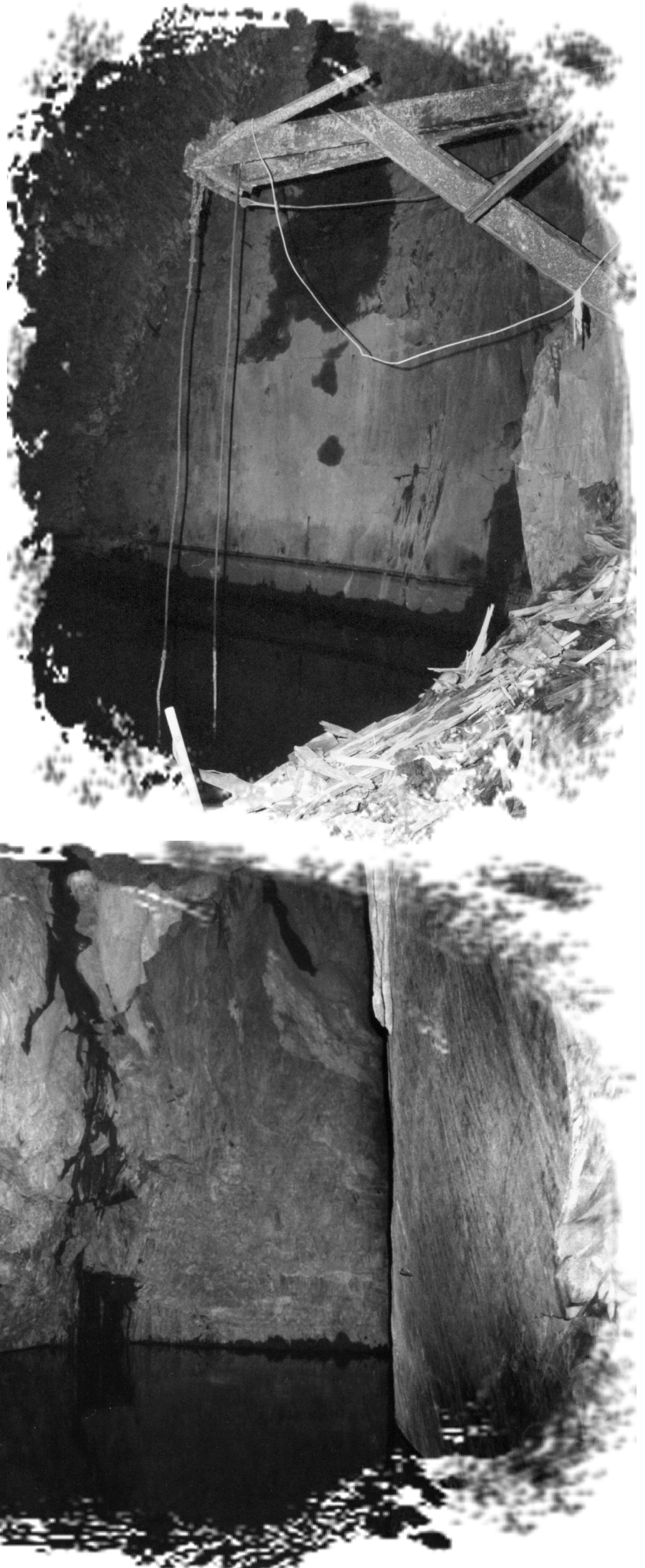
We now leave this chamber and follow the rails a little further into the realm of the quarrymen who hacked, chipped, drilled and blasted their way in here over many generations.

The layout of chambers on this level is such that as the tunnel proceeds through the mountain, every so many yards, an opening appears in the right hand wall. Turn into this and after three or four yards you are standing on the edge of another chamber.

The one pictured on this page, typical of most of the abandoned chambers is full of water. The crane is still there, left as it was when it lifted it's last block of slate from the giddy depths below, many years ago.

Perhaps the reason for this is that every chamber seems to have a quite different design of crane to all the others, made to suit it's situation and it's particular anchorage problems maybe. So each new chamber would have a new crane or lifting tackle made to measure according to the engineering standards of the day.

In order to save time and transport costs, some disused chambers, such as this one, were used to dump waste slate from the chamber in current use further up the line. At the bottom of one (and I think it's this one), lies an engine that got a little too close to the edge while tipping a load one day. The depth of water and recovery hazards made it too dangerous to recover it.



We are well into the mountain now, about a third of a mile perhaps.

The chamber on this page was worked easily in living memory, indeed, by at least one of the current team.

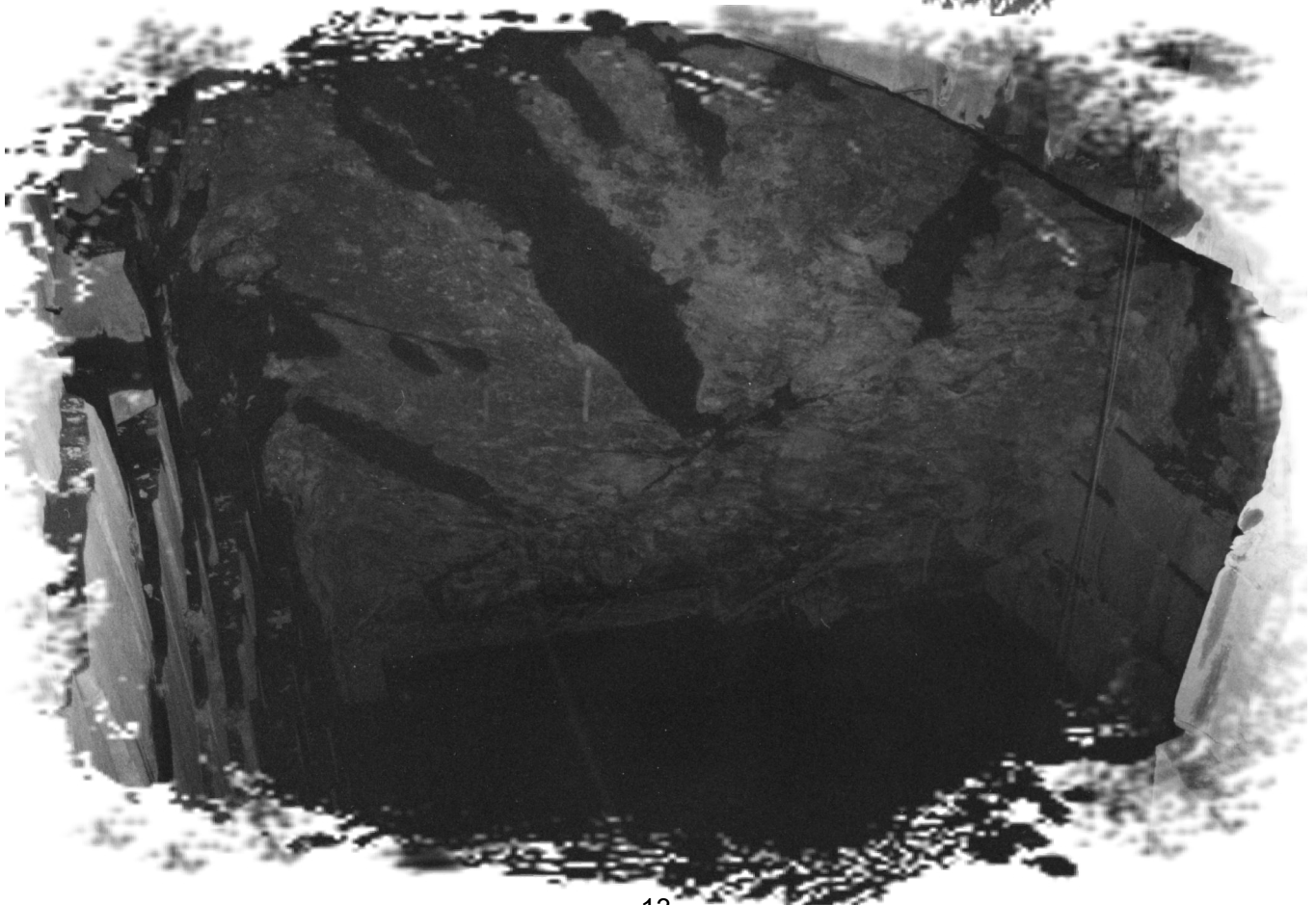
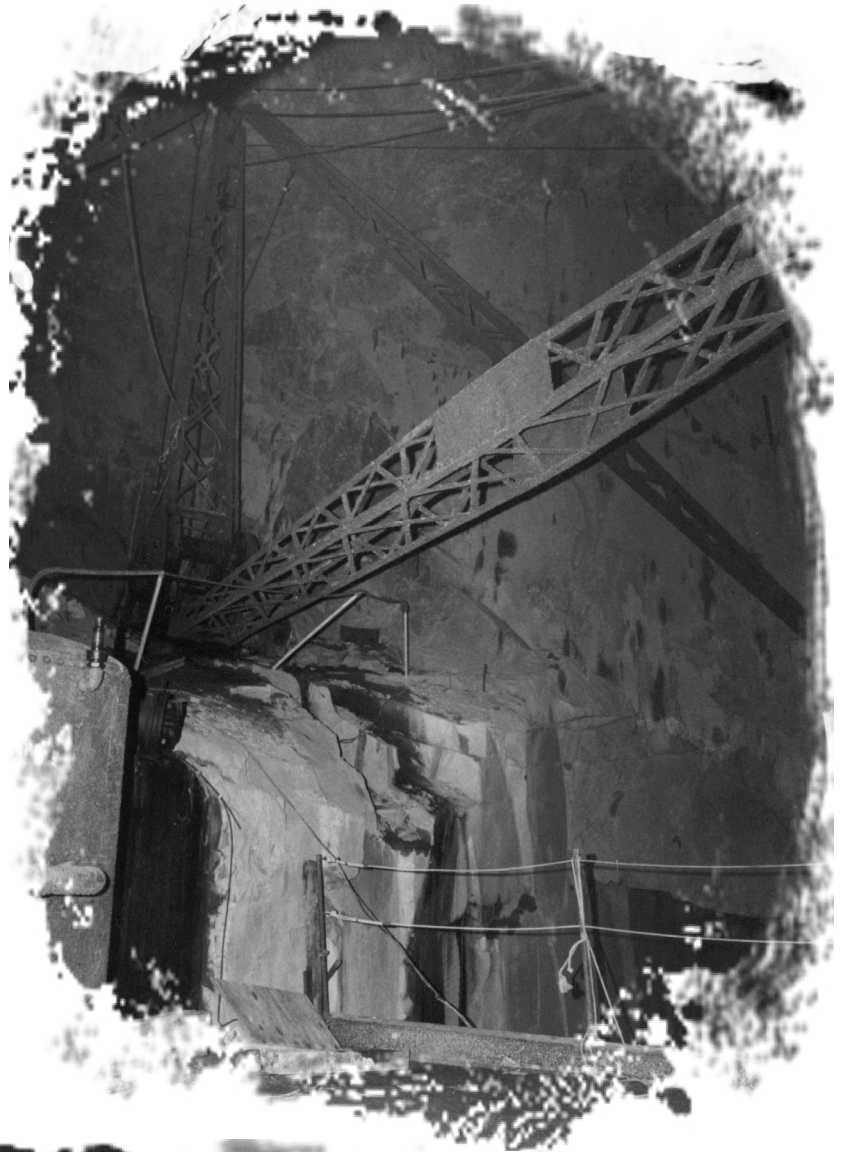
The rectangular ledges on some of the rock faces show that in at least it's latter days it was worked by modern cutting methods that are much less wasteful than the old ways.

In the lower picture you can see that it is only half filled with water, giving some indication of it's true depth.

Notice too that it is considerably undercut, both to the rear and to the right

The huge crane stands on a ledge on top of the rock face on the left of the lower picture. The upper ceiling of the chamber towers way up above the considerable height of the crane. It is definitely the biggest crane in any chamber on this level but yet it was still abandoned there when the chamber's life came to an end. Every part of it is almost glowing red with rust in the cold damp atmosphere down here. Getting it out for scrap would probably cost more than even it's considerable weight is worth.

This place is a future mining archaeologist's dream.





Nearing the end of the line now. The tunnel carries on to the left for a short way but the railway veers right, to the edge of the last chamber being

worked. Indeed, the engine can just be seen on the upper right, parked on the end of the line, awaiting one of the last blocks to come up from below.



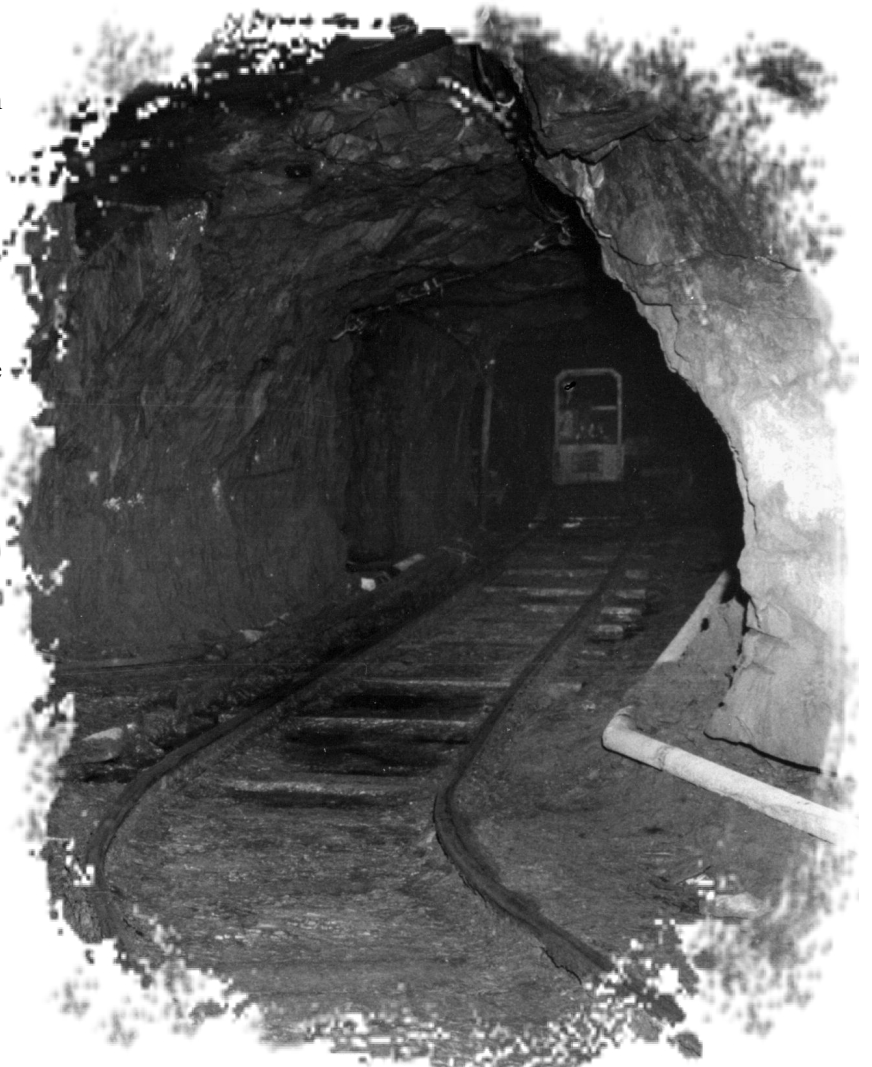


Below left, Idris Lewis, Philip Evans and Glyn Davies discuss exactly how the next block is to be raised the one hundred and seventy feet from the bottom of the chamber onto the wagon waiting above.

In the top picture on this page, is the chain that will hold the block, hanging above the wagon that will carry it the half a mile through the mountain and out into the daylight.

Idris, right stands at the top of the ladder awaiting the final details before descending to the bottom with Philip, centre, to attach the block to the chain and finally split it away from the rock face.

Glyn, meanwhile, will ascend another ladder to start the engine that works the lifting tackle used in this chamber. Instead of a traditional crane, a system of heavy steel cables is slung across the roof of the chamber with a block and tackle mechanism hanging from them, which is lowered down and manoeuvred back and forth to position the hook exactly where required. It is important to get a straight lift, as a ton of slate swinging on the end of 170 feet of cable can be a little un-nerving when you are at bottom of the hole with nowhere to run to.





The picture above shows the last working chamber during it's last week in production. A little blurred but the only one I have unfortunately. It's too late now to go back for another.

Below, Idris Lewis pauses after climbing the 170 feet up the ladder from the bottom. Considering it was his third or fourth climb down there and back up that day, I hope I'm that fit when I'm pushing sixty.





The block has been raised and as Glyn lowers it down from his precarious perch on the ledge above, Idris guides it onto the wagon. It is a difficult and

dangerous manoeuvre, as it's sheer weight makes it awkward to turn and one slip could send it crashing down onto Philip, still at the bottom of the hole.





Meanwhile, back at the mill, the above ground gang, Andrew Taylor, Darren Davies and Anthony Taylor, await the call from the mine to say that another block awaits collection from the tunnel entrance.

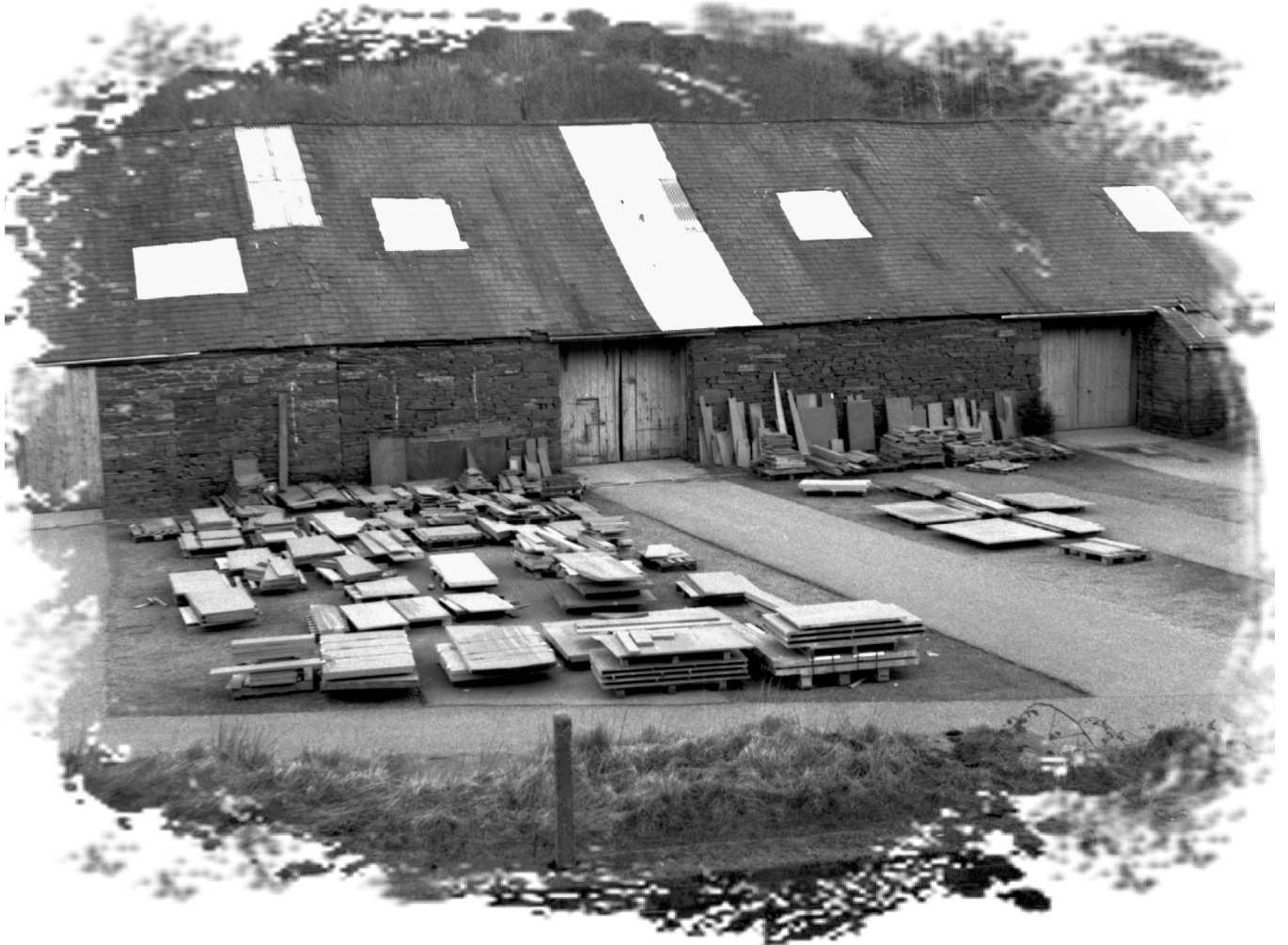
As soon as the call comes in, one of them will set off with the forklift truck to drive the quarter of a mile or so from the mill to the mine. Once there he will lift the block from the wagon and make the slow, careful journey back with it to the mill. There used to be a tramway from the mine all the way to the mill but this was closed and taken up in the early 1980s.

Although the extraction of slate has now ceased at Aberllefenni, work in the mill has not. Slate is being brought in from other areas for processing here and I am sure you will be glad to know that no jobs have been lost at the quarry. The underground team are now working above ground in the mill with their colleagues there.

As for the former workings and waste tips etc, well rumours abound about their abundant possibilities in the new major industry in the area..... Tourism !

A new tourist footpath called 'The Wheel Walk', which starts by the marker stone pictured right, near the old office and winds it's way around some of the waste tips, giving fine views across the valley is already established and proving very popular with locals and





Above is a view of the stock yard in front of the mill shed, showing a range of slabs cut and planed. Below is a view of the mill from the old tram road, the millery, now disused.





Slate was once mined on both sides of the valley and the picture above shows the West side, where, I am told, the rock was better suited for making roofing slates.

There are several inclines on this side, of varying lengths and ages to bring down the rock from all the many levels, both underground and , at the very top, the two open worked quarries.

In the wall near the top centre of the picture is a flight of cantilevered steps made of large flat slabs sticking out of the wall. There is no handrail and in the icy, windy conditions up there in the real winters that used to prevail here before global warming, it must have been quite hair-raising to feel one's way down them in the half light at the end of a long hard day. Still, what was that, compared to hanging a hundred feet up on the end of a chain for several hours, drilling holes by hand with a four foot cold chisel and lump hammer.





On the same side of the valley, right down at the bottom, there was another entrance, (now covered over), almost dead opposite and level with the current lowest entrance on the other side, pictured earlier. In the picture above, it was off to the left, just above where the digger is parked.

The building in the centre was used at one time as, among other things, a canteen for the men working in the vicinity.

The wall on the right is part of another, massive, winding house, used this time I believe, for lifting slate waste coming out of the lower levels up to the top of the waste tips.

On the right, John Pugh-Jones and his companion, Garth are showing me the powder room used to store explosives for use in the quarry. Detonators were kept separately in another box on the back of this one. As you can see, they are no longer stored here





As work progressed, the tips began to encroach upon the public road running up the valley bottom, threatening to engulf it. So retaining walls

were built to hold back the sea of slate. Over the years they have bulged and swelled, sometimes quite alarmingly but so far have managed to stem the blue tide.





This poor house was less lucky in the fight against the relentless growth of the tips.

Tucked almost out of sight under the bottom edge of the enormous bulk of the lower tip on the East side of the valley, the waste is actually piled up against the walls of this sad ruin of what was once a thriving little farm house. The barn was attached to the far end and some remnants of it's roof timbers still remain.

Some private individuals have been working to conserve and partly restore the building to save it from total oblivion. While their actions may be questionable, on what is, after all, also private land, they may well be preserving another relic of this area's past for possible future amenity use, as the site's use changes from industrial production to tourist attraction.





Moving up the waste tip, immediately above the current working level next to the road, you come to the workings pictured on these two pages.

Here on the left, you can see the old entrance to this level, now sealed with a locked gate. Immediately next to the entrance is the former office for checking and counting every load that came out of the mine. As the men were paid a negotiated sum for the amount of slate that they brought out, accurate records were essential

Although simply built, this office comprised of two rooms, a window and even a small fireplace. The walls were pointed and lime washed white to reflect the light, so compared to the conditions underground the man employed here enjoyed a reasonable degree of comfort.

In the picture above, behind the office can be seen the winding house and the wagon platform for taking the slate down to the valley floor.

On the extreme left you can just see 'Blue Cottages' in the distance, a row of former miners cottages. These were recently bought and are being renovated into a single house, with glorious views of the old workings across



Above is a closer view of the winding house. The wagon platform has been pulled off the rails and round to the side of the building. The little turntable lays to one side, in front of what looks like a brake wheel from the winding drum. Like all the others, it's roof is missing and the equipment is deteriorating fast.

Below is the view down and out from the winding house. The railway line bottom centre can be seen emerging from the current working level immediately below on the valley floor, with the road crossing it and passing the office and canteen on the left.





Up another level. Generally speaking, the further up you go the older the workings are. The winding house here has been stripped of all it's equipment, bar a few old beams.

In the opening to the cleft pictured above, the remnants of the former office are on the right, with a tramway to it's left.

Just beyond the bushes is the open top of a deep chamber that goes right down to the bottom level currently being worked. Spanning three levels it's not one to slip into.

Beyond it, at the back of the hole, is an enormous retaining wall, spanning the cleft like a huge dam and rising up to create a platform in front of the entrance to the next level above. Imagine being the mason building that wall. High as it is in it's own right, it also stands immediately on the edge of a yawning hole that drops straight down to the very bottom of the mine. If you drop your hammer, it's a long way to send the apprentice to fetch it back !





Climb to the top of that wall, to the next level and you find the remains of yet another winding house, more walls and signs of quite prolonged activity around the platform outside the entrance here.

There has been a substantial rock fall in front of the tunnel entrance here but because of the size of the rocks, the entrance is not completely blocked. On the next couple of pages are what I found beyond the rocks.







Once inside, you step into a wide low chamber not much more than head height. Looking back you see the rock fall covering the entrance, with the daylight filtering through, as in the picture, top left.

Ahead of you, to your right is the back of the chamber, as in the picture, lower left. In the left corner of the picture is a wall enclosing a small area that may have been used as a work area or even as a 'cabin', a place where the men would sit and eat their sandwiches and discuss everything from politics to next week's choir practice, or next door's cat.

To the left of this wall, in the extreme left of the chamber, a tunnel extends onwards towards a beckoning chink of light about twenty yards on, see picture above.

Here, another minor rock fall litters the tunnel floor, just where it ends, about half way up the side of another huge chamber, with daylight streaming down from above.

This is the big chamber opening with the overhanging roof, near the top of the mountain, that is clearly visible from across the valley and indeed for miles around. In this lesser known view, pictured right, looking up from halfway down it, you will notice another tunnel entrance at the back. This is visible when looking into the hole from across the valley. It opens into the chamber very much like the one I am standing in to take this picture.





Standing in the same place as on the previous page but looking downwards instead of up, the view in the above picture is what greets you. The bottom of the chamber is just visible, a long way down. What is also interesting is the degree of undercutting halfway down the chamber, making the bottom half up to twice

as wide as the top half. This seems to be a feature common to many of the chambers I have seen so far in this quarry.

So, next time you look at that opening from across the valley and wonder what it's like inside, now you know !



Moving on up the mountain, above the overhanging roof of the big chamber on the previous page, is a well hidden tunnel that goes in, again, only about thirty yards before emerging onto a ledge part way down another open topped chamber. There is another tunnel disappearing into the mountain at the end of the ledge.

Looking down over the edge, the chamber is so deep that the daylight does not reach to the bottom, so it's hard to say how far down it goes. About thirty feet down, however, is another ledge, upon which stands a very old wooden crane, see picture right. Sorry it's a bit blurred, I could not use the tripod with my camera for this shot and the low light levels meant a hand held shot with a slow shutter speed. By the time I had climbed this far up the mountain my hands were a bit shaky.

Climb above this level and you are on top of the mountain, looking down on the quarry workings, the mill shed, Aberllefenni village and the valley and mountains beyond. Your only worry now is the journey back down.







In the days when hundreds of men worked here, accommodation for them all was at a premium.

In order to retain their skilled workforce, it became necessary for the company to provide some sort of housing within walking distance of the workplace. Most of the houses around the quarry area (although not all) were built by the quarry for this purpose.

On the opposite page are two pictures of one such terrace, called 'Bluemaris'. Outwardly it has changed very little in the last hundred years or so since it was built. In addition to enjoying their own comfortable accommodation, tenants would sometimes also take in as lodgers other quarry men. These would be either single or sometimes married men working away from home.

Above, the public road crosses a bridge over the reservoir which used to provide water power to the mill shed nearby. In the background is the old quarry office building, also known locally as the 'bell house'.

Pictured right are steps from the road down to another bridge over the reservoir outlet stream. Beyond the bridge is the gateway to Plas Aberllefenni, once the home of the quarry owner. Although quite old in itself, the Plas is mostly an extension to a much older house that formally stood adjacent to it, now demolished.





A pretty view in the heart of the industrial landscape of the slate mining village of Aberllefenni. This is the outlet weir of the reservoir and the stream flowing between the mill shed and Plas Aberllefenni.



Above, is the terrace of Pensarn, opposite the mill shed, with the quarry workings in the background, upper left. Still owned by the quarry and recently modernised, all these houses are fully occupied.

Below, further along the road, are Rock Cottages up on the left, level with the old tram road. On the right, no Welsh village would be complete without it's Chapel and Minister's house.





Around the village of Aberllefenni there are many features, some obvious, some not so obvious, that give clues to the past way of life in the area. The

unusual cantilevered steps pictured above near the council estate were once a way up to the old passenger railway station there, now demolished.



The tram road past Rock Cottages, above, connected with the terminus of the Corris Railway Co line, which ended at the station just to the left of the picture, now demolished, next to where the row of council houses called Maes-yr-Orsaf now stands.

To the East of Aberllefenni, another tram road passed over the little bridge pictured below and up another valley to the quarries at Cymerau and Ratcoed.

That, however, is another story. Perhaps another book, even !





When the author heard at the end of 2002 that the Aberllefenni slate quarry may possibly close within the next year or so, he was concerned that it should not do so without some record of how it looked and who worked there being made for posterity. So he arranged to take a few group photographs of the staff as at January 2003.

Later that year, he quietly set about taking a series of photographs of the work there before it ceased and of the workings, above and below ground, old and new, while access was still reasonably possible and before rumoured changes began to occur.

The world does not stand still and changes must and will take place. However, it is often useful to look back sometimes and see and remember how things were and looked in years passed.

The purpose of this book is to enable us and our descendants perhaps to see what the Aberllefenni quarry looked like in it's final days before closure as the last working slate quarry in the Dyfi valley area in Mid Wales.

Let us all hope that the new leisure industry proposals for this area are successful and as long running as the former industry here.

At least the work in the new industry is likely to be much less arduous and dangerous than in the old one.
