

27) The hinterland, Pwllheli to Portmadoc

Inland from Pwllheli the country is flat and predominantly rural with no real centres of population: the former intermediate stations on the L&NWR line at Llanwnda (pictured right), Llangybi (below left) and Ynys (below right) served districts rather than villages. The principal role of that at Bryncir was as a watering place for the steam engines, being near the summit of the steeply-graded line up from Caernarfon; the large storage tanks remain.



The small corn mill was the only concession to mechanization on the farms but today, as elsewhere, those few that remain are disused.

Felin Bach millhouse (364354) has been restored and converted to a dwelling, but the waterwheel, 8 ft in diameter and cast by Charles Williams & sons, Portmadoc, has been dumped by some outbuildings. Rhyd-Hir Mill (346358) is being renovated and retains its 10 ft diameter waterwheel in position. Felin Pencoed is derelict, having an 11 ft wheel, but no milling machinery remains inside the building (445405). Melin Rhyd-y-Benllig (487401) survives under a preservation order; it was built by Zaccharius Hughes in 1777 but has been disused since 1939. The extensive buildings of Melin Friddllwyd at Afon Wen have more recently been used as the Portmadoc Steam Laundry and none of the original machinery now survives. Porth-y-Felin corn mill (480435) had tandem waterwheels, one of iron and one of all-wooden construction; the former survives but the latter is virtually collapsed. The millers' cottages are adjacent.

One mill that is fortunately still in operation using water power is Melin Wlan, Bryncir (529423). The present woollen factory here was started in 1830 on the site of an earlier fulling mill and corn mill. The machinery is powered by a 10 ft diameter overshot waterwheel and is working most weekdays throughout the summer season, producing goods for sale in the mill shop.

Further east the terrain is becoming more hilly and we return to the usual interspersed of mine workings for both copper and slate, in the Dolbenmaen district. Cwmstradllyn was served by the 3 ft gauge horse-worked Gorseddau Tramway, running from the slate quarries of that name (571453) down to the sea at Portmadoc from 1857. In 1872 the lower section of this line was re-gauged to 1 ft 11½ in, extended 5 miles up the Pennant valley to the Prince of Wales Quarry, and worked by a steam locomotive.

The large, gaunt roofless structure which still stands at the valley entrance (550433) was the Ynys-y-Pandy slate mill (pictures below), serving the Gorseddau Quarries. Like them its life was very short; built in 1864, it was stripped after becoming redundant in 1870. The building is constructed around a deep pit in its centre which once housed a 30 ft waterwheel, driving dressing machinery on either side. Also prominent are the tramway embankments leading into the east side of the building; the upper level for

bringing in quarried rock, the lower for removing dressed slate. Water for the wheel entered via the tunnel in the lower walls, brought via a leat which diverged from the river higher up. Interesting constructional features are the unusually large number of window openings and the recess high in the end wall for a clock which once presided over the mill operations.



The course of the main tramway may be found slightly to the northeast, crossing the river and running through a waterlogged cutting to intersect the road at (552441). Hereabouts was “Braich-y-Big Junction”; the branch to the right is the original tramway and follows the road closely for some 2 miles, skirting the lake to reach the Gorseddau Slate Quarries, disused since the 1870’s. On entering the workings note the remarkable dry-slate overhanging wall, built to protect the tramway from waste rock coming down the tips. The workmen’s barrack block also survives.



A central inclined plane connects the various working levels to the main railway, which was of 3 ft gauge and horse-worked during its short life (the pictures, right are by David Mills).

From Braich-y-Big the route of the 2 ft gauge locomotive-worked line heads up the valley to reach the Prince of Wales Slate Mill (546493), another large building powered by a waterwheel fed from an aqueduct carried on stone piers. The slate was quarried in the workings to the rear, at the head of the valley, and brought down to the mill via the two inclines. In the quarry itself are small splitting-



huts for the workmen, with their barracks directly opposite. Extensive underground workings were connected to the surface by horizontal tramways in tunnels, one of which still contains a wagon standing on the tram rails. The large boiler beside the main incline probably once served a stationary steam engine.

The Prince of Wales Quarry was not used after 1894: the Gorseddau railway was wound up in 1899 and the track finally removed circa 1900. These two pictures along the route are by David Mills.....



Although the slate quarries were the principal source of traffic, a 1 mile branch diverged beside the Prince of Wales mill, running through the prominent deep rock cutting and thence via an incline to reach the remote Cwm-Dwyfawr Copper and Silverlead mine (542507; picture right). This was worked from three or four steep shafts and had its own water powered crushing mill, again with an aqueduct for water supply. The barracks house also still stands. This mine was working for only a few years and probably yielded not more than a dozen or so wagons of good ore.



The isolated slate working on the west side of the valley opposite the Prince of Wales mill was that of Dol-Ifan-Gethin quarry, also with an incline and water-powered dressing mill. It was not connected to the tramway, instead sending its products by cart down the valley road.

Less clear is how the ore of the Gilfach Copper mine was transported, for to explore these workings requires a fair trek over some rough country, best reached from the road at (532477). Evidence of a crushing mill (with pit for 36 ft waterwheel) and an adit entrance are close at hand, but the items of most interest are by the mineshaft itself (526478). Visible from a distance is the 24 ft diameter pumping waterwheel supplied by Dingey & Sons of Truro, which can still be turned in its bearings.....



It was formerly connected by horizontal square-section wooden pump rods to the shaft headgear some distance off, which retains the pump mechanism. The equipment was installed circa 1870 and the mine was working until about 1893. This picture shows the wheel in the background at right, and the headgear towards lower left, fenced off for safety reasons.....



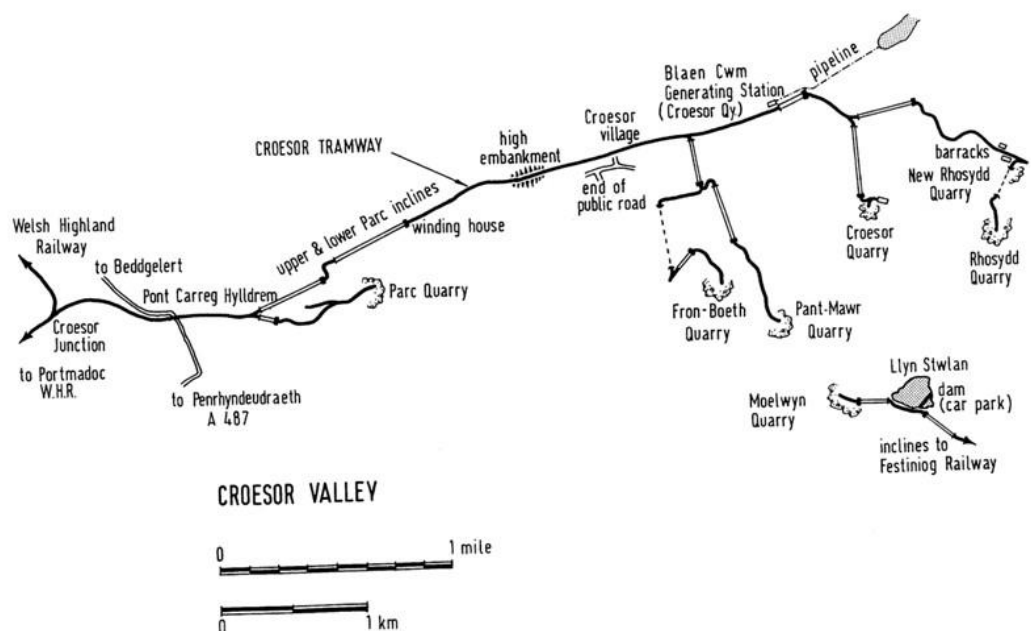
The lower part of the Gorseddau tramway from Ynys-y-Pandy to Tremadoc is now of little interest, though still recalled by the name of an adjacent row of workmen's cottages, Railway Terrace (547407) in Penmorfa village. Part of this section of the tramway had been constructed as early as 1845, from Portmadoc to the Lliadiart Ysbytty ironworks at Penmorfa: hereabouts the later line had to be continued via a reversal and incline from the original terminus (553405), and these features may still be traced.

Tremadoc, the creation of William Maddocks, is a model village built around what was intended to be the last staging post on the proposed Irish mail route to Porthdinllaen, thus explaining how its London Street and Dublin Street came to be so named. The buildings of the village are to a uniform and distinctive "colonial" style, of which the estate flourmill (563403) is prominent. It has latterly been used for storage purposes by the adjacent laundry. The large Woollen Mill (later a tannery) behind it dates from 1805 and was possibly the first such factory-type mill built in Wales.

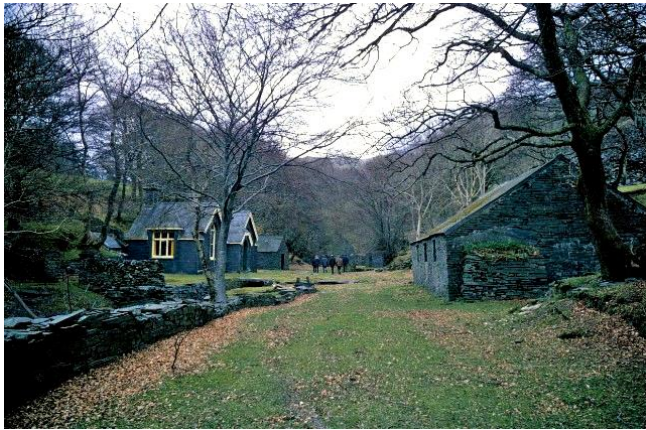
The route of the Gorseddau tramway may be picked up finally where it crosses the former Cambrian Railways standard gauge line just east of Portmadoc station to enter the town (567392). The Welsh Highland Railway also once crossed here, slightly to the east again, behind the buildings at Gelert's Farm where rolling stock is being renovated by the preservation society. Like the northern section of this line already described, this part also had its origins in an older-established concern, the Croesor Tramway.

A horse-worked line built to convey slate from Croesor valley mines down to Portmadoc in 1864, the section onward from what became the Welsh Highland junction near Carreg Hylldrem (615431) remained largely unchanged when the rest was upgraded to form the through line to Beddgelert and Dinas Junction. Indeed, although the valley quarries closed in the 1930's the old 'T'-section tram rails were still in situ until 1969, and much material can still be found. Our plan shows the route of the tramway and the quarries it once served.....

The route may be followed on foot from the river bridge at Carreg Hylldrem. Running alongside the stream, with a branch diverging to the right to serve the extensive Parc slab quarry workings, the main line ascends to the valley floor proper via two long gravity inclines, the upper winding house



of which has been converted into a dwelling (625440). A short detour along the Parc branch brings one to this delightful building in a grassy clearing which was once the Parc Quarry Office, fronting onto the railway sidings (photographed by David Mills).....



Back on the main tramway route, beyond the top of the inclines is a high stretch of dry slab embankment (right).....

There is an alternative road access to the tramway at Croesor village (631447). From here onwards the route pursues a lonely course up the valley, throwing off side spurs up inclines to the small Fron Boeth (647447) and Pant Mawr quarries (654446); the first named reached by a quarter-mile long tunnel through the hillside.



Occasional wagon bodies litter the way; this one (left, by David Mills) appears to have once served as a water tank.....



The only building at the valley head is the former Blaen-cwm hydroelectric generating station (649460; to centre left in David's photograph, below) owned by the Croesor Quarry Co., which supplied power to a primitive overhead-electric mine locomotive and other machinery. The installation dated from circa 1900 and was the pioneering work of Moses Kellow, the mines manager.

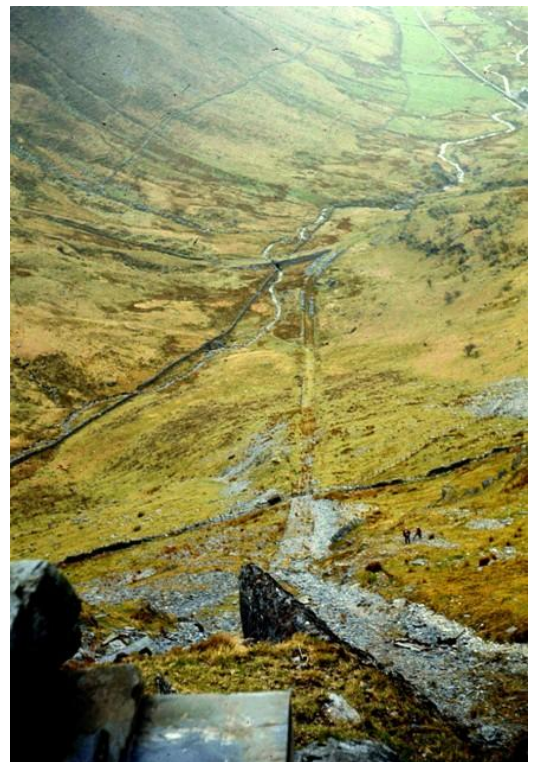


The short incline straight ahead beyond the power house takes the tramway over a mountain stream (picture above right) and up to a junction, from which the right-hand, long incline leads across the valley and up into the Croesor workings. Completely underground, the levels here were used for storing explosives during World War II and they have not yet been entirely cleared. Although some tramway trackwork remains in both the mine and dressing mill and is occasionally used, access is obviously difficult for security reasons.

The other incline leading from the junction is a superb example of the expense to which quarry proprietors were prepared to go winning slate from inhospitable terrain: it is 1500 ft long and ascends 650 ft, gently at first but becoming ever steeper until the gradient of the top section is rather more than 1 in $\frac{3}{4}$, or about 55 degrees to the horizontal (picture right, by David Mills).....

When seemingly about to lose its battle with the steepening mountainside, the track abruptly levels and turns through a right angle to run along it on a narrow ledge. In this situation there was no room for the summit winding house, which is still intact with its wooden drum and wire ropes a short distance further up the hillside. The operator's cabin with brake mechanism is arranged to give a good view down the slope, but remains of slate wagons strewn haphazardly down the hillside bear testimony to frequent accidents. To view this construction today is to wonder how the men of the past were able to operate it satisfactorily, let alone build it in the first place.

These two views are looking down the incline from the top, westwards into the Croesor valley. On the right is the incline itself straight down the centre, with that from the Croesor Quarry joining from the left at its foot. Below shows the whole valley on an unusually clear day in these parts, with the Croesor Tramway route clear at the centre, just to the left of the winding river.....



After traversing a spectacular ledge section, the goal of the tramway is finally in sight: the New Rhosydd slate quarry is entered through a gate leading into the main dressing mill area (664461). Slate was brought out from the underground workings here by trams hauled on a continuous cableway system; the large-bore tunnel, which is fairly dry and still explorable, runs a very considerable distance into the mountainside before the working pits are reached. The mill area has largely been demolished (picture below left by David Mills) but a curious survival is the double row of two-storey barracks for the



workmen who lived up here during the week. Totally unexpected in this remote setting, they most nearly resemble a typical Victorian northern town street.....



The Rhosydd quarries (Old & New) worked from February 1857 up to the 1930's. From this furthest outpost of the Croesor tramway it is but a short distance on foot down past the quarries and lake at Cwmorthin to reach civilization once more at the village of Tan-y-Grisiau, near Blaenau Ffestiniog. Another fairly easy route back down to Croesor village is via the footpath on the opposite side of the valley to the big incline, but the latter should really be climbed once to be fully appreciated!

Keith A. Jagers

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Updates - March 2012

There is now very little remaining of the Caernarvonshire Railway's rural stations: **Llanwnda** succumbed to major road improvements many years ago; **Llangybi** has a newly-built bungalow on the site and **Bryncir** has a large cattle market on the site of the goods yard and one or two older corrugated iron buildings but little else remaining. The station house at **Ynys** survives in residential use, "Hen Stesion" with its distinctive ornate barge boards but the former level crossing adjacent is now difficult to visualise.

Felin Bach is now private property but with a footpath running through; the current status of the waterwheel is not known. **Rhyd Hir Mill** is being renovated for residential use; the iron parts of the waterwheel survive (visible from the road) and it will hopefully be fully restored. **Felin Pencoed** is another now converted to a dwelling, with waterwheel status unknown. **Melin Rhyd y Benllig** is a private property "Hen Felin", heavily wooded and hardly visible from the public road. **Melin Ffriddllwyd** at Afon Wen is on the north side of the main road, just east of the river, and has been extensively converted into a dwelling. **Porth y Felin** (or Llecheiddor) Mill house and cottages are part of an extensive working farm, immediately adjacent to the road. The cottages are advertised as holiday lets. The status of the two waterwheels, around the back on the north side is not known. Lastly in this group it is pleasing to report that the **Brynkir Woollen Mill** is still in commercial operation, open to visitors from Monday – Friday.

Ynys y Pandy slate mill is conserved as an ancient monument, with free access. The **tramway** junction area at Braich y Big is vague and boggy now near the road, but most of the routes can still be followed quite closely further up the valley. The approach to **Gorseddau slate quarry** retains its curious overhanging stone wall, and the quarry building ruins and incline remain worth exploring, likewise the **Prince of Wales** and **Cwm Dwyfawr** sites, with some very rusty metal artefacts remaining. The waterwheel and pump rods at **Gilfach mine** have been restored and conserved as a listed structure.

At **Penmorfa** the isolated group of three cottages known as Railway Terrace survive in residential use. The former tramway reversing loop and ironworks site now lie beneath the new access road to Allt Wen Hospital. The **Tremadoc** Woollen Mill/Tannery building remains prominent, but is derelict, boarded up and surrounded by demolition clearance work; it is hoped that it might survive.

At the former Croesor Junction near Carreg-Hylldrem the Welsh Highland Railway route has been slightly re-aligned to ease the very sharp curve for its trains now running throughout between Caernarfon and Portmadoc. The Croesor Tramway still slumbers of course, and is still well worth exploring. The delightful little Parc Quarry Office building is listed and now in residential use. Blaen y Cwm generating house survives at the end of an access road built along the route of the former tramway; the incline beyond still forms a challenging climb, with splendid views along the route around the hillside from the top! At Croesor Quarry some buildings survive, but there appears to be no track here now. At New Rhosydd Quarry the barracks buildings, mill and other structures are ever more ruinous but still worth exploring.