
12 Drovers' Road, Llanbedr to Bontddu

This is one of the most picturesque walks in North Wales (Figure 30). It follows the old route from Llanbedr to Bontddu, via Pont Scethin, which Fay Godwin and Shirley Toulson described in their book *The Drovers' roads of Wales*. It is possible to take a train from Barmouth to Llanbedr Halt for the start of the walk, and to catch the Crosville bus back from Bontddu to Barmouth at the end. Alternatively a path leads westwards from the Hirgwm valley [SH 650 202] through Bwlch y Rhiwgyr to Tal-y-bont about 4 km S of Llanbedr.

The Llanbedr to Bontddu route is approximately 15 km; the circular route via Bwlch y Rhiwgyr is about 25 km. Both involve a stiff climb over the Rhinogs. All the formations of the Harlech Grits Group, except the Dolwen Formation, are crossed on these walks, which clearly indicate the influence of geology on scenery.

South of the bridge over Afon Artro in Llanbedr follow the first road on the left by Capel Moriah. Take the right fork which climbs steeply uphill and past Brynhyfryd cottage.

Locality 1 The Llanbedr Formation is exposed in the woods to the west and along the roadside. It consists of medium to greyish green cleaved siltstone with well-developed, closely-spaced cleavage which makes this horizon suitable for roofing slate. The slate has been worked near Llanbedr, Llanfair and in a number of other places. Small kink bands which deform the cleavage indicate a second period of deformation. There are several thin intrusions of dolerite within the slates, e.g. near a wall [SH 5890 2651] on the north side of the road where the dolerite forms a massive lichen-covered crag.

Uphill, the walls change gradually from being composed of slabs of Llanbedr slate to more uneven blocks of greywacke derived mainly from the Rhinog Formation.

To the west of the woods there is a fine panoramic view towards the Rhinogs, and further uphill the conical peak of Moelfre comes into view. The road here lies roughly parallel to the strike of the rocks.

The change in land use from woodland and scrub to numerous small walled fields marks the change from solid rock to boulder clay. Erratics, some of them very large, are scattered on the surface.

Locality 2 [SH 5990 2535] Slightly off the track to the south, adjacent to a footpath, thickly bedded medium- to coarse-grained greywacke of the Rhinog Formation is exposed. These rocks are resistant to weathering and stand out in prominent crags above the level of the boulder clay.

From this point the steep northern slope of a lateral moraine is well displayed to the south-east. It is a linear feature, and is part of the moraine complex which separated the glaciers of the Dwyrdd valley to the north from the Ysgethin valley to the south. To the south two more moraine ridges are apparent, but westwards they become less distinct and merge into the surrounding boulder clay. To the northwest from the top of the moraine one can see across Tremadoc Bay to the Llyn Peninsula and, if there is low tide, the seaward extension of this moraine, Sarn Badrig, is visible. The well-marked sand dunes, which die out towards Mochras Island and the Artro estuary, define the edge of Morfa Dyffryn. Mochras Island is a low boulder clay ridge separated from the spread of boulder clay by estuarine sands, silts and wind-blown sand. This spit was the site of the Mochras Borehole, which proved a thick sequence of Tertiary, Jurassic and Triassic sediments, and thus initiated an entirely new interpretation of the geology of the Irish Sea, and changed markedly the palaeogeographical interpretation of the Mesozoic Era on land.

To the east, Moelfre [SH 62617 24561], which stands out as an isolated peak, is capped by shales of the Hafotty Formation, which rest on greywackes of the Rhinog Formation. The hill is covered with blocky debris produced by freeze-thaw action and in situ rock exposure is relatively sparse. Towards the lower slopes of the hill the position of the Moelfre Fault, a N-S-trending reverse fault, is marked only by a slight change in slope. This fault downthrows to the west, and the succession of Hafotty Formation resting on the Rhinog Formation is repeated. About 500 m NE of Bron-y-foel-uchaf Farm the manganese ore-bed near the base of the Hafotty Formation, which also occurs high on

Moelfre, has been worked. The old workings and tips, marked by a line of bushes, stop southwards at the edge of thick boulder clay.

Pass through the gate, cross the 'main' road signed for Nantcol and take the road straight ahead marked as a 'cul-de-sac'. To the south-east this road crosses two bracken-covered morainic ridges before passing on to the thick spread of boulder clay which fills the Ysgethin valley. Where the road forks at Bron-y-foel-ganol Farm take the right branch which winds its way uphill. Beyond the track leading off to Tal y ffynonau the road deteriorates into a grass-covered mountain path.

Locality 3 [SH 6122 2433] From here it is possible to see along the Glaslyn valley to Snowdon, and to the west Moel Hebog, Mynydd Craig Goch and Yr Effel on the Lley Peninsula. Also the estuarine flats of Morfa Harlech and Traeth Bach, south of Portmadoc are visible, as well as Morfa Dyffryn and Cardigan Bay.

To the south-east, the path crosses the line of the Moelfre Fault and blocks of white quartz, possibly from a vein along the fault, are scattered on the slopes above.

Locality 4 [SH 62224 23776] In the Ysgethin valley the long ridge in front stretches up to Diffwys. This locality provides a good viewpoint to observe the geology and its effect on the scenery. The eastward dipping succession lies on the western limb of the Caerdeon syncline. The Rhinog Formation is concealed under boulder clay on the lower slopes, but is exposed on Craig y Dinas which lies to the south of the path. The lower hill to the south of the main ridge is in the Hafotty Formation, and to the south-east the craggier ground is formed by greywackes of the Barmouth Formation. The ridge is capped by the silty shales of the Gamlan Formation. The junction of the Barmouth and Gamlan formations can be picked out, rising uphill with the shales of the Gamlan Formation on the grassy slopes to the east. These formations are partially covered by scree and head. A fault associated with the axis of the Caerdeon syncline passes through Llyn Bodlyn. The fault, which trends N–S, coincides with the western margin of the lake and downthrows to the west. The steep crags south of the lake consist of greywacke of the Barmouth Formation. Boulder clay, which floors the valley, forms a natural dam for Llyn Bodlyn, though the level has been raised artificially. Llyn Dulyn and other small ice-carved rock basins mark the retreat of the Ysgethin glacier up the valley in the waning stages of the glaciation. Llyn Irdlyn is another glacial lake, in this case dammed by a lateral moraine.

From here the path passes into open moorland and becomes difficult to identify. A small cairn marks the next fork. The north-eastern fork leads to the head of the valley and to the ruins of the old coaching inn, Tynewydd, which is visible to the east of the plot of conifers. The route follows the south-eastern fork downhill to Pont-Scethin (Figure 31), a fine example of functional rural architecture, and then zigzags past the Janet Haigh memorial stone up the ridge on the other side of the valley where it follows the outcrop of the softer Gamlan Flags.

Locality 5 [SH 6285 2372] At this exposure are banded, grey siltstones typical of the Hafotty Formation, with bands of parallel- and cross-lamination, 2 to 3 cm thick, alternating with featureless grey siltstone.

Downhill the lower slopes of peat-covered boulder clay support a prolific covering of sedges. The boulder clay is exposed on a meander scar just downstream from Pont-Scethin.

Locality 6 about [SH 6380 2286] A few poor exposures of cleaved, grey, banded siltstone of the Gamlan Formation occur near the summit.

To the north the Rhinog, Hafotty, Barmouth and Gamlan formations can be identified on the Moelfre/Y Llethr ridge, and there is a marked contrast between the lower gentle, boulder clay-covered slopes and the drift-free, craggy ground above. In general, the areas of boulder clay have been enclosed by stone walls, and form better farm land than the rocky open slopes used entirely as sheep pasture. High on this hillside scattered erratics of dolerite and greywacke prove that the entire ridge was overridden by the ice-sheet during glaciation. Subsequently periglacial mass wasting produced rounded hilltops and altiplanation terraces.

The walls crossing the summit are composed almost entirely of blocks of siltstone derived from the Gamlan Formation. From the summit the footpath contours the hill to the east before descending into the valley. It is cut into a thick cover of

soliflucted drift, the only exposures of solid being in small slip scars.

Downhill the path follows the Gamlan Formation along the eastern side of a spur above the Hirgwm valley. On the eastern side of the valley the coarse greywackes of the underlying Barmouth Formation crop out in a number of open folds. From north to south the axes of an anticline, a syncline and an anticline can be detected. South of Craig Aderyn the beds dip away to the south.

Locality 7 [SH 6487 2158] To the west of the path, cleaved banded siltstones of the Gamlan Formation are exposed, but altered dolerite intruding the siltstones stands out as more blocky exposures. Cleavage in the dolerite forms open fractures in contrast to the slaty cleavage developed in the adjacent siltstones.

Downhill, exposure is poor. From near the large erratic [SH 6521 2087] of coarse greywacke, a fault-line scarp stands above the path to the west. This is the extension of the fault that bounds Llyn Bodlyn. Here, interbedded silty mudstone and coarse quartzose siltstone of the Maentwrog Formation are thrown down against the black shales of the Clogau Formation. Farther downhill, black mudstone near the base of the Clogau Formation crops out on the path [SH 6522 2074].

The path meets the road at the Tal-y-bont milestone [SH 6558 2025]. At this point one has the choice of following the path west to Tal-y-bont or the metalled road to Bontddu.

Tal-y-bont The path west follows the old route across the Sylfaen valley, crossing the Llawlech ridge at the spectacular Bwlch y Rhiwgyr and hence to Pont-Fadog on Afon Ysgethin; the route again traverses the succession from the Maentwrog to the Rhinog Formation.

The Barmouth Formation is exposed adjacent to the path on the north side of the Bwlch. The thickly bedded, coarse-grained greywacke shows typical turbidite features. From Pont-Fadog a metalled road to Cors-y-Gedol passing a burial chamber (Figure 32) [SH 603 228] joins the main road (A496) just north of Tal-y-bont.

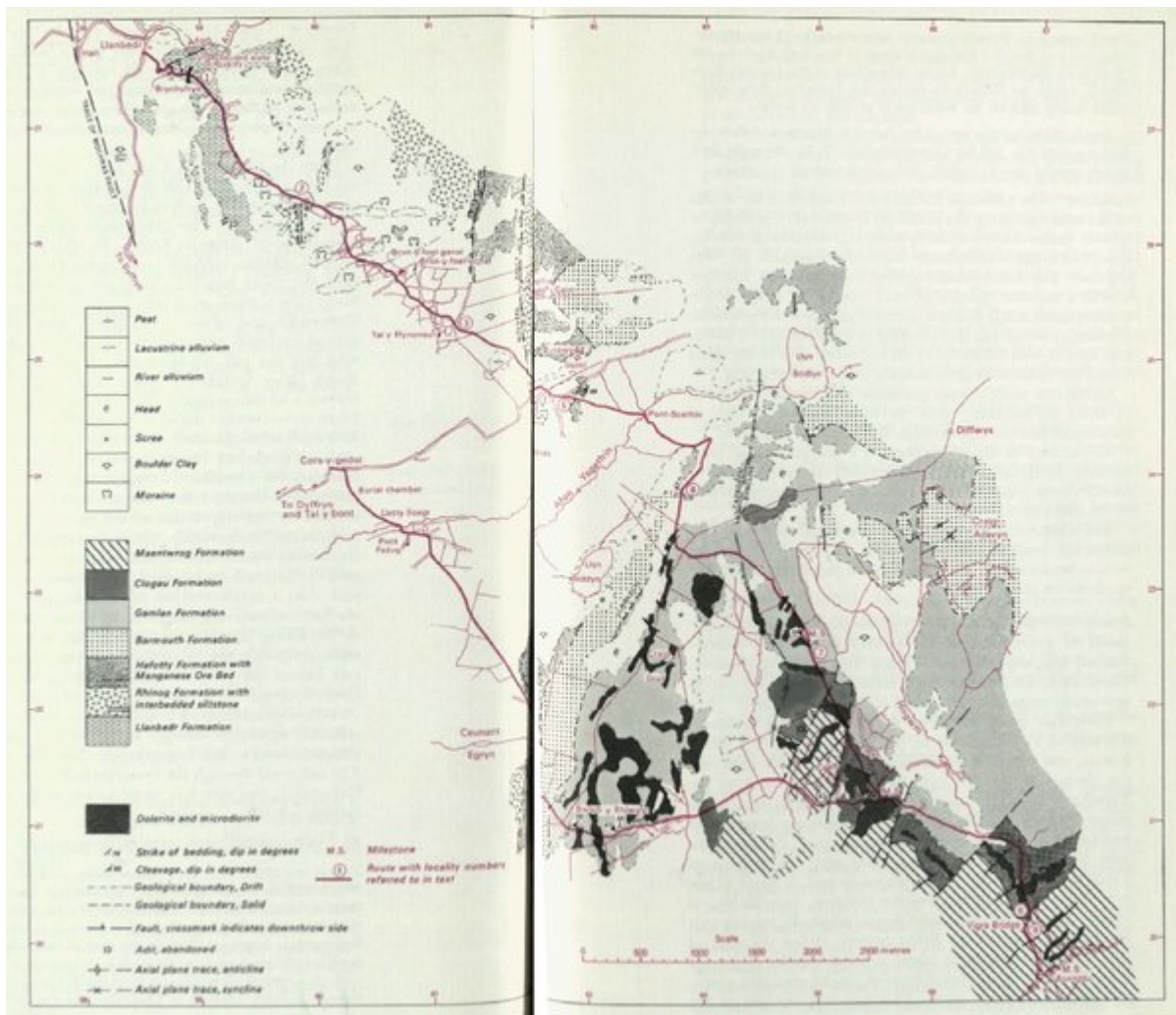
Bontddu Follow the metalled road down the Hirgwm valley to the telephone box near Pont Hirgwm [SH 6673 1977]. Here take the footpath which follows the river down to Bontddu. The workings of the Clogau mine can be seen on the hill to the east. Near the gate the footpath crosses the remains of an old teat which took water from the river near the bridge to drive the West Clogau mill, probably built in about 1862. Only the terraced dressing floors of the mill remain among the trees where the path draws near the river [SH 6676 1960]. About 70 m farther on, new tips and machinery outside the Llechfraith adit reflect recent work to re-open the Clogau workings. Indeed, a substantial gold find from here was reported in 1980.

Locality 8 A small outcrop of very dark grey pyritic mudstone partly covered by head is typical of the Clogau Formation, the basal division of the Mawddach Group. Gold miners in the 19th century discovered that the most productive part of any vein occurred where it intersected this formation (see Excursion 3). About 150 m farther, some beds of black micaceous sandstone up to 30 cm thick, uncommon in this formation, crop out within the mudstone [SH 6683 1922].

Locality 9 [SH 66784 19125] At Vigra Bridge the path crosses the river and the contact between the Clogau and Maentwrog formations. The river runs roughly normal to strike here, crossing a thick succession of thinly interbedded silty mudstone and coarser quartzose siltstone of the Maentwrog Formation. The coarse siltstone beds diminish in frequency upwards, and at the end of the path, in Bontddu, they are uncommon. Numerous sills of dolerite and intermediate rocks are exposed in the river section (see Excursion 3).

On the west of the river at Vigra Bridge are the ruins of the old Vigra Mill which was probably built in the 1840s to process ore from the Vigra copper mine. The mine, situated on the hillside above the mill about 400 m to the west, was possibly worked for copper in the 18th century or earlier. It was most productive from 1825 to 1845. From 1854, when gold was discovered in the St David's Lode, to 1911, the mill at Vigra Bridge was used mainly by the Clogau mine.

[References](#)



(Figure 30) Geology of Llanbedr Bontddu drivers' route (No. 12).



(Figure 31) Sketch of Pont Scethin.



(Figure 32) Sketch of burial chamber near Tal-y-bont.