



(c) Crown copyright and database rights 2013 Ordnance Survey 100019741

## Bryniau a dyffrynnoedd Rheidol ac Ystwyth - Disgrifiad cryno

Dyma dirwedd a'i chyffiniau, y fro rhwng môr a mynydd, sydd â'i hafonydd yn cydgyfarfod ger y dref. O fewn eu taith gymharol fer, mae'r afonydd yn disgyn yn drawiadol o Bumlumon, yn aml mewn ceunentydd coediog serth sydd ymhlith goreuon Cymru. Wrth iddynt gyrraedd llawr gwlad, deuant yn afonydd llawer arafach, gan ymrannu ac ailymuno ar adegau, yn llifo trwy dirwedd o wrychoedd trwchus a thir pori wedi'i wella, cyn cyrraedd y môr yn ddisymwth yn nhueddau Aberystwyth.

Mae cefnennau'n croesi'r ffin rhwng bro a bryniau: rhai ohonynt wedi'u hamgáu, eraill wedi'u coedwigo neu'n foel. O'u copaon gellir gweld ymhell, allan tua'r môr ym Mae Ceredigion.

Mae cyffiniau Aberystwyth yn cynnwys bryniau tonnog llawr gwlad Ceredigion, dyffryn ffrwythlon gwaelodion Ystwyth, a thirweddau'r tir uwch, hefyd: tir moel, ond eto prydferth, dyffryn Rheidol a Phontarfynach, a thirwedd ysbrydoledig, wneuthuredig Thomas Johnes yn yr Hafod. Â Phumlumon tua'r dwyrain, dyma, ar un adeg, un o fröydd mwyngloddio plwm mwyaf y Deyrnas Unedig. Mae'r cloddfeydd yn dawel, bellach: ond mae mentrau hanesyddol lleol yn sicrhau nad anghofir gwaddol y mwynwyr.

Tref brifysgol a gweinyddol yw Aberystwyth. Mae caer Oes yr Haearn, Pen Dinas, sy'n edrych dros y dref, yn ein hatgoffa y bu anheddu a chymdeithasu yma ers cyn cof. Ers diwedd y 19eg ganrif, Mae Aberystwyth wedi tyfu'n ganolfan ddiwylliannol a deallusol o bwys, yn gartref Prifysgol Aberystwyth, y Llyfrgell Genedlaethol, Comisiwn Brenhinol Henebion Cymru, ac yn awr, dau o adrannau Llywodraeth Cymru. Mae Aberystwyth, sy'n enwog am fod "dwy awr o bobman" (neu o leiaf o Gaerdydd, Abertawe, Caernarfon a Chroesoswallt), wedi cadw'i chysylltiad rheilffordd â chanolfannau eraill i'r dwyrain, a thu hwnt, i Loegr.

## Summary description

This is the landscape of Aberystwyth and its hinterland. It is the area between mountains and sea, whose rivers converge near the town. Within their relatively short length, the rivers tumble dramatically from the adjacent Pumlimon massif, often in steep-sided, wooded gorges, being some of the best examples in Wales. They emerge to become gentle, sometimes braiding lowland rivers, flowing through a landscape of thick hedges and improved pastures, before meeting the sea abruptly around Aberystwyth. Intervening ridges straddle the upland-lowland divide, some being enclosed, others afforested or open. Long views are gained from them, out across the sea in Cardigan Bay.

The area around Aberystwyth includes both the gentle hills of lowland Ceredigion and the fertile lower valley of the Ystwyth, and also the upland landscapes, at once stark and picturesque, of the Rheidol valley and of Devil's Bridge and of Thomas Johnes's inspired, designed landscape at Hafod. With the neighbouring parts of the Cambrian Mountains to the east, this was once one of the greatest lead-producing areas of the United Kingdom. Now the mines are silent but local historical initiatives ensure the miners' legacy is not forgotten.

Aberystwyth is a university and an administrative town. The Iron Age hillfort of Pen Dinas, which overlooks the town is a reminder that settlement and society date back much further. Since the late 19th century, Aberystwyth has grown into a major cultural and intellectual centre, the home of the University, of the National Library of Wales, the Royal Commission on the Ancient and Historical Monuments of Wales, and now the location of Welsh Government departments. Aberystwyth, famously 'two hours from everywhere' (or at least from Cardiff, Swansea, Caernarfon and Oswestry), retains its rail link with other centres to the east and beyond in England.

Key Characteristics
<b>Hills and valleys between uplands and the coast</b> - Resistant Silurian grits form a dramatic landscape of hills and valleys that reach up to 400m in altitude on the highest ridges.
<b>Deep, steep-sided, wooded gorges and U-shaped valleys</b> - fringing the uplands in the east
<b>Gentle pastoral lowland landscapes</b>
<b>Abrupt termination at the coast</b> - where cliffs and foreshore show complex structural features.
<b>Tracts of grassy moorland</b> – on high grit ridges, mantled with fine silty brown earth soils
<b>Coniferous plantations</b> – a number of marginal and upland areas have been afforested.
<b>Lush, green pasture and woodland in valley bottoms</b> – on deep silty or clay soils.
<b>Valleys and communication routes</b> - The valleys of the Rheidol and Ystwyth provide major communication routes between the coast and the Cambrian Mountains. Roads climb along valley sides as the heads of valleys are approached.
<b>Archaeology</b> - Iron Age hillforts and encampments occupy commanding positions on ridges and summits where they overlook the surrounding lowlands.
<b>Settlement is confined mostly to the sheltered valleys and lower hillsides</b> - buildings are built in a simple style from local stone with slate roofs.
<b>Aberystwyth a cultural centre</b> - University town and classic Victorian seaside resort, now much expanded with modern development spreading along the adjacent hills and valleys.
<b>Mining heritage</b> - for lead, silver and zinc is evident in the form of mine spoil tips, miners' cottages, processing buildings and leats.
<b>Extensive panoramic views</b> - from high ridges over and along the valleys, and out towards the sea to the west and Cambrian Mountains to the east.
<b>Quite, very rural character</b> - The sense of tranquillity is interrupted only by the major transport routes around Aberystwyth and the occasional military jet aircraft flying overhead.

## Visual and Sensory profile

This is a large scale, dramatic landscape of prominent exposed hill ridges and sheltered valleys. Away from main roads, villages and the town of Aberystwyth, it is a quiet, rural, and tranquil area. It is also a remarkably compact transition landscape, bordering the extensive upland Cambrian Mountains to the east, and the lowland and coastal landscape of Ceredigion to the west. Within as little as 15km, the Rheidol and Ystwyth rivers and their tributaries tumble dramatically from the Cambrian Mountains into deep, wooded gorges, maturing in a relatively short distance into a lazy lowland habit, braiding in places, and running through gentle, lush pasture land, before flowing out into the sea on an open coastline. A journey on the Vale of Rheidol railway takes in the full transition to great effect.

Seen from the hills, the simple, smooth and open landscape of pasture land affords long views across valleys and hills to more distant mountains and sea. Extensive panoramic views can also be gained from high ridges over and along the valleys, for example, from Nantyrarian overlooking the Melindwr valley. In the north, the hills are higher with wind turbines and coniferous plantations in evidence. These smooth hills fold down into more lush, sheltered valley landscapes.

The upper valleys are dramatic in their steepness, with extensive coverings of deciduous woodland, hanging on some near-vertical sides in places. They overlook gorge-like



chasms with cascades and falls, from which the more gentle lowland rivers eventually emerge. The gorges and waterfalls around Devil's Bridge and Ysbyty Ystwyth are particularly dramatic.

Aberystwyth is still relatively small as a settlement, though new suburban development in its satellite villages, as well retail and other expansion and new roads along the floor of the Rheidol to the east, have contrived to make it a much busier and noisier environment of late. At Blaenplwyf, the 150m high radio transmission mast forms a local landmark feature on the skyline and is seen from the adjacent Ceredigion Coast area.



Tumbling down from the adjacent Cambrian Mountains, the precipitous wooded gorges in the upper Rheidol valley. © John Briggs



Farmed land and farm buildings on the 'sunny' side of the valley. © Bronwen Thomas





Open, rounded, ridges between valleys, with tracts of grassy pasture and the sea in the background. The wind farm is on Mynyddgorddu. © John Briggs



The mid Rheidol valley © John Briggs





The lowlands between the hills and coast. © John Briggs



Aberystwyth takes its form from its constrained topographic setting at the mouth, and confluence of, the Rivers Ystwyth and Rheidol. © John Briggs



## Geological Landscape influences

The landscape of Rheidol and Ystwyth Hills and Valleys is dominated by the east to west valleys of the Rheidol and Ystwyth rivers, flanked by rolling hills that reach an altitude of over 400m in the north east of the area. The bedrock geology comprises Lower Silurian (Llandovery Series) sandstones, siltstones and mudstones. The sedimentary sequence is dominated by turbidites, a rock-type consisting of repetitive sequences of sandstones, siltstones and mudstones, in varying proportions. The world-famous Aberystwyth Grits, superbly exposed in the high coastal cliffs north and south of Aberystwyth, provide some of the best examples of this formation. The Ystwyth Fault forms a major topographical feature that is coincident with the deeply-incised valley of the Ystwyth, east of Llanafan, and can be traced west to south west into the adjacent Ceredigion Coast area along the Afon Wyre. The Rheidol and Ystwyth valleys were a major source of lead, silver and zinc.

Most valley floors are filled with morainic drift that include clays, sands and gravels, boulders and cobbles. These have been extensively re-worked by rivers to form a range of river landforms including distinctive flights of elevated floodplain terraces, spectacular meander belts, abandoned channels, and bars of exposed river sediment.

The coastal belt consists of spectacular high cliffs composed of Aberystwyth Grits that supply sediment northwards, via longshore drift, to the beaches of Clarach and Borth. South of Aberystwyth, Traeth Tan y bwlch is an impressive 8m high storm beach that was formerly breached by the Ystwyth, prior to diversion of the river into the harbour during the 18th century. Farther north, smaller storm beaches are also present across the valley mouths at Clarach Bay and Wallog. Sarn Cynfelin, a south-west-trending ridge of glacial moraine extending offshore from Wallog, is thought to represent the southernmost limit of the large glacier that once flowed down the Dyfi valley.

## Landscape Habitats influences

The Rheidol flows through the steep-sided Rheidol gorge, with extensive fringing sessile oak woodlands adorning the valley sides, together with those of the wider, more open, valley of its lower reaches, where a complex series of braided river features has led to interesting and diverse floodplain habitats. The Ystwyth, rising on the slopes of the Cambrian Mountains to the east, follows a similar course, through a steep-sided and oak fringed upper valley, to a more open and agricultural lower valley. In both upper valleys the sessile oak woodland forms a key habitat, and a corridor for species movement between the mountains and the coast. The woodlands are large and extend along both north and south-facing valley sides. The woodlands also support key bird species such as pied flycatcher and wood warbler, as well as diverse and complex lichen communities. There has been additional planting more recently of conifers that have added to the extent of woodland habitat in these valleys. Around the woodlands there are areas of bracken, gorse and scrub on the steep valley slopes while in the upper parts of the valleys, the spoil tips from the lead and silver mines have created very different local habitats, supporting some metal-tolerant plant species.

The intervening ridges provide a more agricultural landscape, open and windswept on impoverished acidic soils on the higher hills, but with a more intimate landscape of small fields and hedges on richer brown earth soils at lower level. These agricultural areas form a mosaic of habitats. In the uplands, less ecologically interesting improved and partially improved upland grasslands are interspersed with more valuable smaller wet flushes and

valley mires, dominated by purple moor grass, many of which are protected. The wetland habitats at Rhos y Fforest provide one of the most northerly locations in Britain for wavy St John's-wort. Upland grasslands around Llyn Mynydd Gorddu support populations of adder's tongue and moonwort. At lower levels this essentially pastoral landscape is interspersed with smaller woodland blocks, especially following the many smaller tributaries of the two main rivers, and often hidden from view, and again with many smaller areas of wetland, in hollows and flushes.

The woodlands and pastures in the upper reaches of these river valleys form one of the key heartland areas for the red kite, where it was able to retain its foothold in Wales during the early part of the 20th century, and the base for recent expansion. The Natural Resources Wales visitor centre at Nantyrarian is a well-known viewing centre for red kites.

There is a small area of coastal habitat within this area, north and south of Aberystwyth, forming sea cliffs of varying height, with a maritime and heath flora, and an interesting and unique cliff scrub of small-leaved lime and sessile oak on the Penderi cliffs just south of the town.

## Historic Landscape influences

Iron Age hill-forts and encampments occupy commanding positions on ridges and summits – Pen Dinas above Aberystwyth, Pant Mawr, and Pen y Felin Wynt. The Romans maintained forts at Trawsgoed and Pen Llewyn, while the main north-south route of Sarn Helen passes through the area. Medieval castles also occur within the area, at Aberystwyth, Tan y Castell, Castell Gwar Cwm, and Castell Gwallter.

The area is essentially defined by the town of Aberystwyth at the mouth of both the Rheidol and Ystwyth rivers. In origin it was a castle and a walled borough of the 13th century, whose early street-plan survives well despite much rebuilding. It later developed as a port, shipping lead from the mines in its hinterland, and also as a Victorian seaside resort and home to the University College of Wales, originally housed in a failed hotel on the sea front. Its later development was sustained by the arrival of the Cambrian Railway in the 1860s, as well as the so-called Manchester and Milford Railway, which reached neither Manchester nor Milford, but connected Aberystwyth with Carmarthen. Routes of the main railways and main roads influenced settlement patterns.

A remarkable feature of the area is the concentration of parks and designed landscapes, many of them spread along the valley of the Ystwyth. Most remarkable of all of these is Thomas Johnes's Picturesque wilderness landscape of Hafod, one of the most important and influential landscapes of late 18th century in Britain.

Lead-mining extends into this area from the Cambrian Mountains to the east, in the Darren area north of Goginan, a major producer of silver, and at Frongoch to the south-west of Devil's Bridge, one of the largest operations in the district, with a recorded output of over 23,000 tons of lead ore concentrate between 1859 and 1876 and of over 50,000 tons of zinc ore between 1879 and 1903. Mining continued into the late 19th and 20th centuries when it reached a peak. A number of well-preserved mines remain at Bronfloyd, Darren, Cwmsymlog, Blaen Cwmsymlog, Llywernog, and Fron Goch. The miners have also left their legacy in patterns of settlement in places like Devil's Bridge, and indirectly in the Vale of Rheidol Railway, which was built in anticipation of lead traffic, but found that tourism would be its mainstay.



A decline in mining and hill farming in the early 20th century was marked by afforestation of the valley sides and a decline in the population of the area. The former gentry mansion at Trawsgoed became a centre for experimental work in grassland improvement. Water power, once exploited to turn mine water-wheels, came to be exploited for public supply, notably when the Rheidol was dammed in 1955 to create a reservoir to serve the Cwmrheidol hydro-electric power station. Today, rural settlement is confined mostly to the sheltered valleys and lower hillsides although a low density of scattered farms occupy higher ground - buildings are built in a simple style from local stone with slate roofs – though historically earth was used at Penrhyncoch, Bow Street and Cnewch Coch.

## Cultural Landscape influences

The landscape of Aberystwyth and its hinterland focus many of the cultural themes which have echoed throughout Welsh history – of conquest and of national rebirth, of an economy that moves over the centuries from farming to industry to tourism and the knowledge-economy, and of the emergence of a democratic civil society from out of the shadows of the old elites.

Dafydd ap Gwilym, the 14th century Welsh bard and lyricist, whom tradition states to have been born within this area, at Penrhyn Coch, describes in the poems 'Trafferth mewn Tafarn' and 'Merched Llanbadarn' a Wales and an Aberystwyth living in an uneasy truce with the English after the conquest, where riot and love-making have succeeded resistance and war as poetic themes. Strongbow's castle at Aberystwyth, refortified by Edward I, fell to Owain Glyndwr only to fall to the future Henry V in 1408. Its ruins stand next to the hotel which became the seat of the University of Wales, Aberystwyth in 1872, the first fully-fledged university institution in Wales and in many ways the most truly national of the once-separate colleges. The establishment of the 'College by the sea' represents a crucial stage in Wales' distinctively Victorian recreation of itself as a nation, along with the National Library, the Royal Commission on the Ancient and Historical Monuments of Wales and other organisations. Their contribution to scholarship is incalculable. Cymdeithas yr Iaith Gymraeg (The Welsh Language Society) held their first protest at Aberystwyth, in 1962.

Aberystwyth's hinterland is associated with the Pryse estate based at Gogerddan (now, appropriately the site of the Institute of Biological, Environmental and Rural Sciences) and the remarkable Picturesque patrician landscape of Hafod, but it was also the landscape of the devout chapel-going lead-miner and the hill-farmer. That the Vale of Rheidol Railway carried little lead ore and found itself depending on tourism, exemplifies an important cultural shift in the 20th century. The main-line railway to Aberystwyth made possible its development as a university town, not only by making travel easier, but through the promotion of the college by David Davies (1818-1890), the railway magnate.



From the edge of Pumlimon, (the road from Nant-y-moch) looking down valleys and ridges across the area. © Bronwen Thomas