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## Arfordir De Penfro – Crynodeb

Mae ardal cymeriad Arfordir De Penfro yn ymestyn o Bentywyn yn y dwyrain i faeau a chlogwyni calchfaen Penrhyn Angle yn y gorllewin. Mae'n ymgorffori nifer o bentrefi a thraethau poblogaidd, ynghyd â thref glan môr hanesyddol enwog Dinbych-y-pysgod. Lleolir yr ardal yn bennaf ym Mharc Cenedlaethol Arfordir Penfro, ac mae hefyd yn cynnwys Tirweddau o Ddiddordeb Hanesyddol Arbennig Maenorbŷr a Stagbwl a meysydd tanio milwrol Castellmartin, Maenorbŷr, Penalun a Phentywyn. Ymhellach, ceir rhannau o Arfordir Treftadaeth.

Tua'r tir, caiff llwyfandir calchfaen â sgarf tonnog a thirffurf dyffryn ei orchuddio gan wrychoedd a chaeau amaethyddol cymysg. Yn y dwyrain ceir nifer o ddyffrynnoedd rhychog coediog, caeedig, bach. At ei gilydd, mae'r dirwedd fewndirol yn dod i ben yn ddisymwth ar ffurf clogwyni ysblennydd gyda phentiroedd a chyda baeau tywodlyd o dro i dro â thwyni'n gefndir iddynt.

Mae dylanwad Canoloesol cryf i'w weld yn glir, gyda systemau caeau agored amlwg o amgylch Maenorbŷr. Gwelir olion mwyngloddio a chwarela (calchfaen, haearn, glo) yn y rhan ddwyreiniol, sy'n cyd-fynd ag ymylon Maes Glo De Cymru. Heddiw, mae'r arfordir yn

ganolbwynt i dwristiaeth a gweithgareddau hamdden, ac mae trefi glan môr atyniadol Dinbych-y-pysgod a Saundersfoot yn hynod boblogaidd. Mewn gwrthgyferbyniad, caiff rhan fawr o'r arfordir ei defnyddio gan y fyddin fel meysydd tanio, ac mae natur anghysbell yr ardaloedd hyn yn parhau.

## Summary

The South Pembrokeshire Coast character area spans from Pendine in the east to the limestone cliffs and bays of the Angle Peninsula in the west. It incorporates numerous popular beaches, villages and the notable historic seaside town of Tenby. Mostly within Pembrokeshire Coast National Park, the area also contains the Manorbier and Stackpole Warren Landscapes of Special Historic Interest and military firing ranges at Castlemartin, Manorbier, Penally and Pendine. There are also sections of Heritage Coast.

Inland, a limestone plateau with gentle rolling scarp and vale landform is covered by mixed agricultural fields and hedgerows. In the east there are numerous small, enclosed, wooded incised valleys. Generally the inland landscape terminates abruptly in spectacular cliffs with headlands and with sandy bays sometimes backed with dunes.

Strong Medieval influences are apparent with prominent open field systems around Manorbier. Mining and quarrying remains (for limestone, iron, coal) are seen in the eastern part, coinciding with the edge of the South Wales Coalfield. Today, the coast forms a focus for tourism and recreation activities and the attractive seaside towns of Tenby and Saundersfoot are very popular. In contrast a large area of coast is used by the military as artillery ranges and retains a sense of remoteness.

Key Characteristics
<b>Rugged coastal landscape</b> – harder rocks stand out as coastal headlands with softer rocks eroded to form bays – in a general east-west geological orientation.
<b>Carboniferous limestone</b> – a plateau defines much of the west and south of the area, terminating abruptly with spectacular cliffs including stacks, natural arches and islands
<b>Sandstone with coal and iron seams</b> - with rich coal and iron seams – marking the edge of the South Wales coalfield – in the eastern part of the area.
<b>Sandy beaches and coves</b> – with wind-blown dunes or shingle storm beaches, exposed from the south-westerly winds, more sheltered when east-facing.
<b>Gentle inland landscape</b> – with ridges (and 'The Ridgeway') and vales, and some narrow enclosed small valleys to the east.
<b>Agricultural land uses</b> - mixed, with dairying, sheep rearing, cereal cropping and rough grazing on cliff tops. Fields are regular in shape, bounded by hedgerows.
<b>Streams and woodlands</b> – water courses are often fringed by stands of mixed and broadleaved woodlands on incised slopes in the east.
<b>Artillery range</b> – a large area of coast by Castlmartin, on the limestone plateau, is used by the military as an artillery range.
<b>Coastal habitats</b> - The coast is home to a variety of cliff-top and maritime habitats, with grasslands supporting rare species such as the early gentian and silver-spotted blue butterfly.
<b>Agricultural and industrial archaeology</b> - prominent Medieval open field systems survive around Manorbier. Remains of the coal/iron industry are evident in the east.
<b>Seaside towns</b> - of Tenby (walled town of architectural interest) and Saundersfoot are the major centres serving the area. Elsewhere, nucleated settlements are dispersed and linked by a network of rural roads.
<b>Caldey Island</b> – scenic rugged island near Tenby with religious settlement.

**Scenic quality** - varied and spectacular coastline (including Heritage Coast) with the greater extent being within the Pembrokeshire Coast National Park. But some tourism-related developments are out of character.

## Visual and Sensory profile

This is a spectacular coastal landscape of rugged cliffs, headlands and golden sandy bays and dunes and forms some of the finest scenery in southern Britain.

The west, especially from St Govan's Head, feels much remoter and more windswept. It is physically remoter from settlement and forms the Angle Peninsula. Sandy bays around Freshwater West include well-developed dunes and wind-sculpted heath. This reflects considerable exposure to prevailing strong south-westerly winds and the good surf attracts surfing activity. The extensive Castlemartin military firing range precludes settlement and there are some particularly sheer and rugged sections of sea cliff with impressive rock features such as the 'Green Bridge of Wales'.

Inland from the coastal edge is a generally peaceful agricultural scarp and vale landscape of rich green fields, hedgerows and small enclosed, often wooded valleys. A major change in coastal orientation east from Tenby and much softer cliffs result in comparatively sheltered landscape with softer, wooded embankments and cliffs.

Nucleated settlements display a colourful range of vernacular styles, which serve to reinforce the area's distinctive sense of place. Tenby is the principle settlement and one of Wales's most historic and best-kept seaside resort towns. Its cliff-top headland location (originally defensive) offers elevated views down to a picturesque harbour and sandy bays in different orientations providing variety and much to explore.

The landscape is dominated by expansive views of the sea and sky, visible from across the area. The area's popularity as a tourism destination is manifested in a variety of features that, in places, erode its rural and peaceful qualities. These include holiday and caravan parks, a shooting range at Telpyn Point, and the motocross centre in the east of the area. The main A478 trunk road and the A4139 that pass through the area contribute to the noise and bustle.

The gently undulating limestone plateau of Angle in the west is framed by views of the industry at Milford Haven and Pembroke Dock to the north. The chimneys from the nearby oil refinery and power station serve as a reminder of the close proximity of these industrial ports. Overall though, this area retains its strongly rural and coastal identity, which is a defining feature of the National Park in which it lies.



Tenby rural inland hinterland from the west, with Carmarthen Bay beyond © John Briggs



Tenby's colourful waterfront © John Briggs



Caldy Island, the only significant one off this character area, seen from the hinterland between Tenby and Manorbier. Much of this landscape is exposed to the prevailing south-westerly winds, and west of Tenby woodland is limited to confined sheltered valleys. © John Briggs



Remote dune landscape and cliffs around Freshwater West, seen from the Angle Peninsula

© Dave MacLaughlan, Pembrokeshire Coast National Park Authority



The 'Green Bridge of Wales'. Steep cliffs form the edge to a flatter landscape between Linney Head and St Govan's Head, much of the inland area being taken up by the Military Training Area.

© Dave MacLaughlan, Pembrokeshire Coast National Park Authority



The coast east from Tenby is more sheltered and this has a significant effect on coastal land cover, with more woodland.

© John Briggs

## Geological Landscape influences

This area is best known for its coastal cliffs and bays. Harder rocks stand out as coastal headlands with softer rocks having been eroded to form bays. This pattern is very clear in coastal geometry, together with an east-west trend. Indented coves and bays have sand and shingle beaches, in places backed by extensive sand dunes of wind-blown, calcareous sand, for example, at Brownslade Burrows. Shingle ridges at valley mouths form barriers to the sea. Two regionally significant faults are the Flimston Fault (which cuts obliquely through the southern limestone plateau) and the Ritec Fault which can be traced from Tenby westwards to Pembroke Dock.

The southern part of the character area is a limestone plateau and a modified remnant of a former marine erosion surface that emerged following tectonic uplift and falling sea level. There are numerous features including stack and arch systems, with famous examples being Devil's Cauldron, Elegug Stacks and the Green Bridge of Wales. Although often cited as resulting from marine erosion, many are remnants of pre-existing karst landforms such as sink-holes, caves and dolines. An outcrop of older, Lower Devonian sandstones and conglomerates occurs at Stackpole. The purple/green sandstones and red silts are visible in the rounded cliffs that lie between Stackpole Quay and Shrinkle Haven. In the Bosherton area, valleys have been modified to form artificial lakes (the 'Lily Ponds') whose level is influenced by groundwater as well as inputs from surface streams.

Carboniferous Limestone forms spectacular cliffs in the area between Tenby and Lydstep and in the northern half of Caldey Island. Caldey Island would have originally formed part of a peninsula, joining the mainland south of Tenby. These areas also have remnants of a former karst landscape. More rounded cliffs occur on the Old Red Sandstone outcrops. Slope-over-wall cliff profiles are present in areas where marine erosion has only partially modified much older valley slopes.

To the north of the limestone plateau the character area includes the eastern and western extremities of an area of ridge and vale scenery, formed by differential erosion of hard and soft rock outcrops and folding. Ordovician shales, Silurian sandstones, Old Red Sandstone, Carboniferous Limestone, shales and sandstones of the Millstone Grit Series are all present in this area. The most prominent landscape feature, extending west from Penally to Pembroke Dock, is The Ridgeway, reaching 90m OD in the character area.

In the east of the area, as far as Pendine, undulating hinterland scarps are dissected by valleys and terminate with unstable cliffs. These are developed in shales, siltstones and sandstones of the Millstone Grit and Coal Measures (the western extent of the South Wales Coalfield). Some of the smaller valleys end abruptly in minor waterfalls cascading onto beaches, indicating marine erosion having occurred since their formation.

During the last ice-age the western coastline and ridges were bevelled and valleys were deepened by passage of ice and substantial flows of meltwater. There is considerable surviving evidence of periglacial slope processes (frost shattering and solifluction), particularly in the coastal zone. Much of the beach sediment has evidently been reworked from glacially-transported materials, much of which had been redistributed by meltwater. At Broad Haven, Freshwater West and on Caldey Island there are remnants of raised beaches when the local sea level was around 5m higher.

Near Saundersfoot, there are numerous examples of the soft coastal cliffs having been worked by open-cast mining and quarrying. Coal, iron-ore and sandstone were taken from the cliffs, and a considerable amount of limestone was removed from Giltar Point and

Lydstep Head. Much of the northern coastline of Caldey Island was also quarried. This activity developed over many centuries (there are records of coal mining in the 13th Century) and reached a peak in the later part of the 19th Century, with only minor working after that time. Limestone is currently being quarried at several inland locations.

## Landscape Habitats influences

The area has calcareous or sandy loams that are largely well drained and supplemented by fertile, alluvial deposits at the mouths of rivers. The rich red soils which lie above the sandstone are particularly distinctive, revealed when fields have been freshly ploughed. A strong regular network of hedged fields is used mainly for dairying, with some sheep rearing and cereal cropping. Pasture fields and rough grazing land often extend right up to the cliff edge. Steep sided streams which cross the area are frequently fringed by stands of mixed and broadleaved woodlands that extend up slopes.

Much of the limestone plateau south of Castlemartin is used as an artillery range, which also contains a rich variety of internationally and nationally valued habitats and species. The greater part of the coastline falls within the Carmarthen Bay and Estuaries SAC in the east, and the Limestone Coast of South Wales SAC in the west. The limestone cliffs and dunes support maritime species-rich grasslands containing nationally rare plants, including the goldilocks aster and the only Welsh population of early gentian. The rare silver-studded blue butterfly and nationally scarce blue-tailed damselfly are also found within these sites.

The freshwater lakes at Bosherton, which occupy three drowned valleys, contain internationally important lichen communities within its fringing carr and secondary woodlands. These lakes form part of a popular National Nature Reserve. The entire coast is an exceptionally important breeding site for seabirds – with the Elegug ('guillemot') Stacks being particularly famous nesting sites.

## Historic Landscape influences

This landscape displays a range of archaeological sites and features relating to the development of settlement, agriculture, religion and industry over thousands of years. Evidence has been found in the area's limestone caves of human activity that dates back to the Palaeolithic period. However, more visible landscape features of prehistoric origin include Neolithic standing stones and Bronze Age burial mounds. The Devil's Quoit standing stone within Stackpole Warren is a prominent example, surrounded by a Bronze Age ritual complex revealed beneath the dunes through recent archaeological excavations. This complex was occupied until the Iron Age/Romano-British period, and contains traces of extensive field systems and plough marks around its perimeter. Other evidence for Iron Age settlement is displayed in a series of promontory forts, such as Old Castle Head near Manorbier, situated along the coast; their strategic position on the cliff tops affording long views out to sea.

The early spread of Christianity is evident through the presence of inscribed stones and crosses throughout the area. The monastic settlement on Caldey Island has its origins in the 6th century and remains an important ecclesiastical centre and home to a Cistercian Order of monks.

The Norman invasion led to the construction of a number of defensive structures, including castles around which settlements developed. Tenby is a fine example of a fortified town – with its town walls, fort at St Catherine's and castle – all remaining key features of today's settlement. Tenby is regarded as one of the best conserved seaside towns in Wales.

The Medieval period saw the transformation of the landscape with the laying out of open strip field systems around settlements. The landscape around Manorbier is strongly defined by long, narrow enclosed strip fields, believed to have been adapted from a large co-axial field system of pre-Norman date.

The rich coal and iron reserves of the eastern part of the area were exploited in the Medieval period, with a reference to mining in Saundersfoot from as early as 1324. During the 16th and 17th centuries production rose rapidly and the area became increasingly noted for the high quality of its coal. In the 19th century, a harbour was constructed at Saundersfoot plus a mineral railway line to serve the surrounding Stepaside district. Evidence of this once thriving industry is still apparent, including at the Grove Colliery. Coastal trading was also very important, with many small ports such as Stackpole Quay expanding during the 18th and 19th centuries.

The settlement pattern of today's landscape is scattered, with small settlements often clustered around Medieval churches and linked by a network of rural roads. The traditional vernacular style is a combination of Old Red Sandstone, limestone or coloured render.

## Cultural Landscape influences

One of the oldest Welsh poems, surviving in the 9th century manuscript Book of Taliesin is 'Etmic Dinbych' ('In Praise of Tenby') 'a fine fortress of revel and tumult' - 'Aduwyn gaer yssyd ae gwna kyman' - a statement which strikingly anticipates the area's present culture of tourism, which has seen Tenby described as the 'new Ibiza'. The culture and economy of this area is now dominated by tourism, which has been a growing sector of its economy since the 18th century. Designated as a coastal National Park in 1952, it nevertheless lies immediately adjacent to a major industrial site and population centre in Milford Haven. The Pembrokeshire Coastal Path is a key recreational route used by thousands of people every year.

The literary tradition of this area expresses itself in Latin and English as well as Welsh. Giraldus Cambrensis – Gerallt Gymro - was born in the area, at Manorbier around 1147, into a Norman-Welsh family. His 'Itinerarium Cambriae' and 'Descriptio Cambriae' provide a detailed picture of Welsh life at a crucial period, and not least in their acute comments on social customs. His works provide a remarkable and telling contrast with the near-contemporary Mabinogion four branches, with their strong links to other parts of Pembrokeshire.

George Owen's account of Pembrokeshire covers the whole county, but his description of the area's coal industry as it was in the late 16th century is a particularly important source of information for its early industrial development. Among the sons of Pembrokeshire who deserve to be better known are Robert Recorde the 16th century mathematician, brought up in Tenby.