

= Brean Down =

Brean Down is a promontory off the coast of Somerset , England , standing 318 feet (97 m) high and extending 1 @. @ 5 miles (2 km) into the Bristol Channel at the eastern end of Bridgwater Bay between Weston @-@ super @-@ Mare and Burnham @-@ on @-@ Sea .

Made of Carboniferous Limestone , it is a continuation of the Mendip Hills . Two further continuations are the small islands of Steep Holm and Flat Holm . The cliffs on the northern and southern flanks of Brean Down have large quantities of fossils laid down in the marine deposits about 320 ? 350 million years ago . The site has been occupied by humans since the late Bronze Age and includes the remains of a Romano @-@ Celtic Temple . At the seaward end is Brean Down Fort which was built in 1865 and then re @-@ armed in the Second World War .

Brean Down is now owned by the National Trust , and is rich in wildlife , history and archaeology . It is a Site of Special Scientific Interest due to both the geology and presence of nationally rare plants including the white rock @-@ rose . It has also been scheduled as an ancient monument .

= = Geology = =

The Mendip Hills , of which Brean Down forms the most westerly part , are the most southerly Carboniferous Limestone upland in Britain . These rock strata were laid down during the early Carboniferous period , about 320 ? 350 million years ago . Subsequently , much of northwestern Europe underwent continental collision throughout the late Paleozoic era , culminating in the final phases of the Variscan orogeny near the end of the Carboniferous period , 300 million years ago . This tectonic activity produced a complex suite of mountain and hill ranges across what is now southern Ireland , south @-@ western England , Brittany , and elsewhere in western Europe . As a result of the Variscan mountain @-@ building , the Mendip area now comprises at least four anticlinal fold structures , with an east @-@ west trend , each with a core of older Devonian sandstone and Silurian volcanic rocks . West of the main Mendip plateau the Carboniferous Limestone continues in Bleadon Hill and Brean Down , and on the islands of Steep Holm and Flat Holm .

Brean Down is just over 2 kilometres (1 @. @ 2 mi) long and runs in an east @-@ west direction near the mouth of the River Axe opposite Uphill Cliff . The flat area on the top of the peninsula may represent a raised bench laid down when the sea level was much higher than it is today , as the highest point of the promontory is approximately 97 metres (318 ft) above sea level . The cliffs on the north and south faces are rich in fossils that include corals , seashells and crinoids , which supports the theory of the marine deposition of the rocks . 13 separate layers have been identified in the ' sand cliff ' on the south side , the lowest five dating to the millennia of the last glaciation .

= = History = =

Human occupation dates back to the Beaker culture of the late Bronze Age . There is also evidence of an Iron Age hill fort and prehistoric barrows and field systems . There is evidence of a shrine dating from pre @-@ Roman times , which was re @-@ established as a Romano @-@ Celtic Temple in the mid @-@ 4th century . According to at least one source , it is extremely likely this was succeeded by a small late @-@ 4th @-@ century Christian oratory . Several Roman finds including gold coins of Augustus , Nero , and Drusus , two silver denarii of Vespasian and a Roman carnelian ring were found at the site during quarrying .

Brean Down Fort was built on the headland between 1864 and 1871 on the recommendations of the 1859 Royal Commission . It was the most southerly of a chain of defences across the Bristol Channel , protecting the access to Bristol and Cardiff . Four acres of land at the end of Brean Down were requisitioned in 1862 , with construction beginning in 1864 and completed in 1871 .

In the 1860s plans were laid for a deep @-@ water harbour on the northern shore of Brean Down . It was intended that this harbour would replace Bristol as a port on embarkation for transatlantic crossings and the export of minerals and agricultural produce from the Mendip Hills and the rest of

Somerset . The foundation stones of the pier were laid , but the project was later abandoned after a large storm destroyed the foundations . In 1897 , following wireless transmissions from Lavernock Point in Wales and Flat Holm , Guglielmo Marconi moved his equipment to Brean Down and set a new distance record of 14 kilometres (8 @. @ 7 mi) for wireless transmission over open sea . In 1912 Brean Down was leased by the Royal Society for the Protection of Birds as a bird sanctuary , acquiring the shooting rights to stop others shooting on the promontory .

On the outbreak of World War II , the fort was rearmed with two 6 @- @ inch (15 @- @ centimetre) ex @- @ naval guns , and machine gun posts were built on the Down . Birnbeck Pier was taken over by the Admiralty in 1941 as an outpost of the Department of Miscellaneous Weapons Development (DMWD) . It was commissioned as HMS Birnbeck , and was used for secret weapons development and storage with testing . The " Bouncing bomb " was tested at the Brean Down Fort on the opposite side of Weston Bay .

In 1954 the former Axbridge Rural District Council gave 59 @, @ 685 hectares (147 @, @ 480 acres) of the down to the National Trust to celebrate the Festival of Britain . The Major Aldermen and Burgesses of the Borough of Weston @- @ Super Mare gave 1 @, @ 494 hectares (3 @, @ 690 acres) in 1963 , and a further 1 @, @ 371 hectares (3 @, @ 390 acres) at Brean Down Cove was acquired from M.D. and M Matthews in 2000 . After restoring the fort , which covers 1 @, @ 606 hectares (3 @, @ 970 acres) , Sedgemoor District Council gave this to the trust as well in 2002 .

Various proposals have been put forward to construct a Severn Barrage for tidal electricity production from Brean Down to Lavernock Point in south Wales . The proposals , which go back over 100 years , have never been successful so far , however Peter Hain and others are still working on further proposals and trying to persuade the government to fund either the barrage or tidal lagoons .

= = Ecology = =

In addition to the geological interest of the site , the range of plants growing on Brean Down has led to it being designated as a Site of Special Scientific Interest . The nationally rare white rock @- @ rose (*Helianthemum appenninum*) is a common species at the site , occurring in abundance on the upper reaches of the grassy south @- @ facing slopes . Some of the broomrapes growing here , which were originally thought to be ox-tongue broomrape (*Orobanchë artemisiae* @- @ *campestris*) , are now no longer believed to be this species , but atypical specimens of ivy broomrape (*Orobanchë hederae*) . Other plants on the southern slopes include the Somerset hair grass , wild thyme , horseshoe vetch and birds @- @ foot @- @ trefoil . The northern side is dominated by bracken , bramble , privet , hawthorn , cowslips and bell heather .

The birds seen on Brean Down include peregrine falcon , jackdaw , kestrel , collared and stock doves , common whitethroat , common linnet , stonechat , dunnoek , rock pipit and ? in 2007 ? Britain 's first and only Atlantic yellow @- @ nosed albatross . There are also several species of butterfly , including chalkhill blue , dark green fritillary , meadow brown , marbled white , small heath , and common blue .