

Location & Access:

Hartland Quay is located in a remote corner of the north Devon coast, accessible from Bideford via the A39 road (Atlantic Highway).

The B3248 road connects to Hartland village, and there are signs to Hartland Quay from here.

Parking is at the (free) upper car park (SS 223 247), or the lower car park by the hotel if using the bar (SS 222 247).



Warren Beach —photo: Paul Berry

Key Geography: High rocky cliffs, wave erosion, caves, wave cut platform, sea arch, folding and faulting, unique geology.

Description:

A short walk from the conveniently placed car park will take you to Hartland Quay. Recently used as a location setting for the 'House of Dragons' prequel to 'Game of Thrones', it has some of the most amazing cliffs in the whole of the United Kingdom.



'Rebecca' boat —photo: Paul Berry

If starting in the upper car park, take a moment to have a look at the boat used in the film 'Rebecca', a 2020 thriller starring Lily James, Kristen Scott Thomas, Keeley Hawes, and Arnie Hammer, and based on the 1938 novel by Daphne Du Maurier. Hartland Quay has been used as a location for a number of other films, including 'Treasure Island' and 'Solomon Kane'.

Now, leave the upper car park and turn left for a short stroll down the road to the quay and the hotel, passing through the lower car park on the way. Follow the path that leads in front of the Hartland Quay Hotel and the 'Wreckers' Retreat' Bar - well worth a visit at the end of your visit.

Just past the hotel can be found the remains of the old quay, which ran from immediately below the hotel to Life Rock. This was once a bustling maritime communication hub that performed an important role in such a remote area not easily accessible overland. Sadly, all that remains now is a scatter of some large sandstone blocks on the old harbour floor, and the tumbled remains of some of the port buildings.

There are no safe havens on the Hartland Peninsula, and in the distant past before the quay was built, a tradition of 'beach work' was the only way that marine trade could be carried out in this remote part of Devon. This involved small sailing craft landing on accessible beaches at high tide, and then having just twelve

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Curiosity Questions:

- # Lundy Island is visible from Hartland Quay. How long is the island from north to south?
- # The South West Coast Path runs through this location. How long is this footpath in total?
- # Nearby Hartland Abbey is the stately home of which family?
- # How many lighthouses are there on Lundy Island?

Further information:

- # <https://wordpress.com/post/devongeography.wordpress.com/8763>
- # <https://hartlandquayhotel.co.uk/>
- # www.hartlandpeninsula.co.uk

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hours to unload their cargo before re-floating on the following tide. This methodology was very much weather dependent, quite hazardous due to the dangerous rocky shores, and extremely hard work. Maritime trade increased towards the middle of the sixteenth century, and in 1566, an Act of Parliament was passed to authorize the quay's construction, sponsored by influential individuals of the time such as Sir Walter Raleigh, Sir Francis Drake, and Sir John Hawkins. Hartland Quay was first recorded as 'Mr Abbot's Quay' in 1602/3, named after William Abbot of Hartland Abbey. It was constructed using a natural rock barrier which connected Warren Beach to Life Rock, and provided a shelter from rough seas for vessels to load and unload, while also providing a haven for small craft during storms. The quay was expensive to build, but proved to be profitable and flourished for over 200 years, operating a lively trade with ports in South Wales and along the Bristol Channel. Coal and limestone were brought in from South Wales (a lime kiln once stood next to the port), and taken up the steep cliff path by donkeys and carts. The main exports included corn and other agricultural products.

Atlantic storms delivered a regular battering to Hartland Quay, and by 1629, severe wave damage left it in need of expensive repair. Further restoration work was necessary in 1729 and 1887. Imagine how difficult it would have been to bring materials to the shore in those days! However, it was improvements in transport that ultimately led to its demise. Roads began to get better, and when the railway came to Bideford in 1855, the writing was on the wall for the port. The old quay customs houses and warehouses were converted into the hotel, the old stable now forms the Wreckers Retreat Bar, while old hay and corn lofts have been converted into en-suite bedrooms.

You might find time to call into the excellent small museum opposite the bar entrance, packed with exhibits and information about the history of this stretch of coastline, telling stories of smugglers and shipwrecks.

Walk down the slipway onto the rocky shore of Warren Beach, where a number of interesting features can be identified. The two major rock types of this location are sedimentary layers of sandstone and mudstone, and these have been folded and contorted to form some of the most spectacular coastal scenery in the UK - evidence of geological events that took place around 300 million years ago in the Variscan Orogeny. However, do be watchful of the tide times before you venture onto the beach.



Warren Beach —photo: Paul Berry

The Variscan orogeny was a period of mountain building that took place in the late Carboniferous / early Permian periods and lasted for around 100 million years. At this time (when the Atlantic Ocean did not exist), plate movements resulted in the northern land mass of Laurasia (containing Europe and North America) colliding with the southern continent of Gondwanaland (containing South America, Africa, Antarctica, Australia, and India). This closed the Rheic Ocean that was located between the two giant land masses, and created a new supercontinent called Pangea.

In the Carboniferous period (290-350 million years ago, and before the plate collision), rivers from South Wales brought sediments into a basin containing a shallow, brackish sea – fine sediments leading to mudstone rocks, and coarser sediments leading to sandstones. As sediments were being laid down in this basin, mountain building was taking place to the south. The later squeezing of the two plates compressed the basin, buckling these layers and raising them high above sea level in the final stages of the Variscan. The exposed cliffs of Hartland are the remaining stumps of folded rock beds, while the top surfaces were eroded away to create the flat, inland plateau. At the coast, the near-vertical rock beds have been eroded by the sea to produce shore platform ridges and gulleys that are exposed at low tide, with numerous fault lines also clearly visible. Saw tooth reefs exist offshore, hidden from view, and a serious danger to passing ships. The sandstone beds tend to be lighter in colour to the darker mudstones, and as they are rather more resistant to wave erosion, tend to stand higher and prouder as ridges while the less-resistant mudstones are worn away faster to produce gulleys. Hartland Quay stands on the flat floor of a former valley dissected by the sea.

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The attached map shows the location of a number of the interesting features you can investigate at Hartland Quay.



Chevron folds on Warren Beach
—photo: Paul Berry

View 1 Rock Folding: Chevron (zig-zag) folding can be easily identified in the 85 metre near-vertical Warren Cliffs in the centre of the bay. The vertical cliffs themselves are modern features created by wave erosion, but the sandstone and mudstone rocks are much older, laid down as horizontal sediments over 300 million years ago, and have since been lifted and twisted into these magnificent shapes. Try picking out a single layer in the cliff face and following its crazy journey through up-folds and down-folds. It is not easy to do! Smaller parasitic folds can also be identified on some of the larger folds. Looking at the top of the cliffline, you can see how the sedimentary rocks terminate abruptly, forming a flat erosional surface cutting straight across the folded beds. Looking northwards across the bay, the tall stack of Bear Rock can be identified.

View 2 Tunnel Rock: This feature is the result of differential erosion of the two main local rock types, the more-resistant sandstone and the less-resistant mudstone. Sandstone is a hard, brittle, and coarse (rough to touch) rock, light grey or rusty brown in colour (due to oxidation), and produces ‘massive’ featureless beds. Mudstone (often known as shale or shillet), is softer (can be scraped with a knife), finer grained (smoother to touch), and darker in colour (grey to black). It produces thinner layered beds. At Tunnel Rock, erosion of an unusually thick bed of less-resistant mudstone has produced an arch - a hole punched right through the large outcrop.



Tunnel Rock —photo: Paul Berry



Tunnel Rock —photo: Paul Berry

View 3 Rock Gulley: Around a 100 metres further along the beach, a 5 metre wide gulley can be seen. This represents a fault line that has been eroded and deepened by the sea. On the quay-side of this feature, rock beds dip steeply to the north (same as on the tunnel slab), while on the north (Warren Beach) side, the rock beds are contorted into chevron folds that continue in the cliffs.

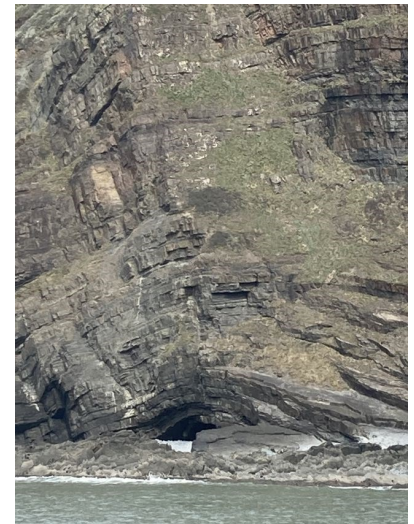
View 4 Unstable Cliffs: If you walk to the cliffs along the fault line, you can pick out the fault in the cliffs. There has been a lot of slumping here, and rock debris is strewn along the cliff base.

View 5 Downfolding: Continue northwards to identify an obvious synform – or extreme downfold – in the cliff. It is amazing how a hard sandstone rock layer can be bent so sharply.

View 6 Cave: At the north end of the beach is a clear antiform – where rock beds have been folded up into pointed arch. As you follow the beds up and over the anticline, you can pick out the confusion of rock layers at the fault in the crest.

View 7 Barrel Cave: 30 metres to the north, you can clamber through a breach in the sandstone rib to find beyond it an open-mouthed barrel cave within a gentle fold in the cliff rocks. Inside the cave, there are lots of quartz veins in the roof and on the floor.

View 8 Beer Garden: Return to the head of the slipway, and turn right to walk through the hotel beer garden to the viewpoint on the headland. From here, there is a great view back to Warren Beach. You can also see Life Rock in the bay, and the pattern of criss-cross faulting in the rock platform below the wall.



Barrel cave —photo: Paul Berry

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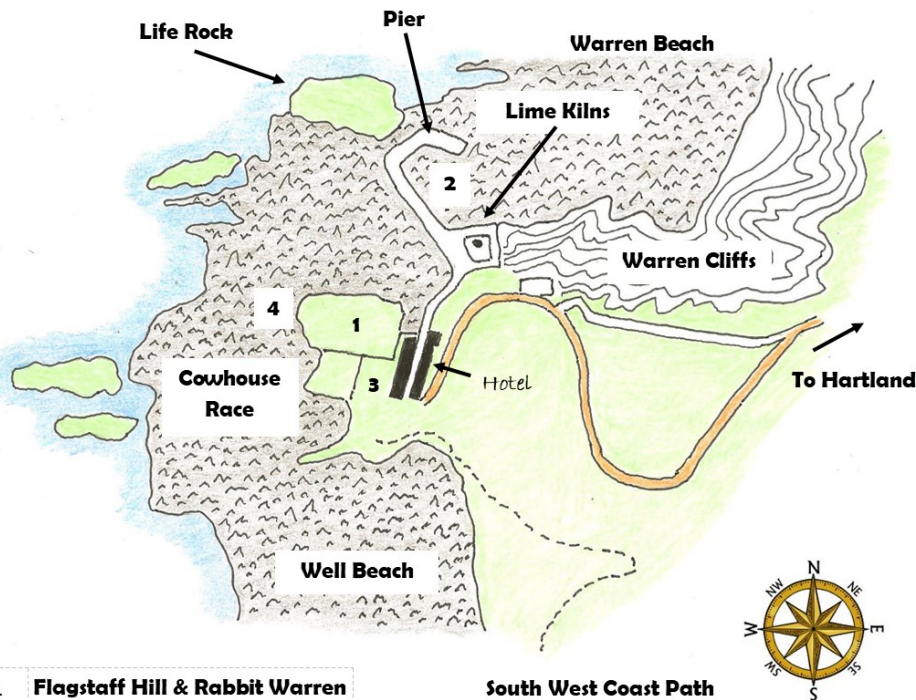
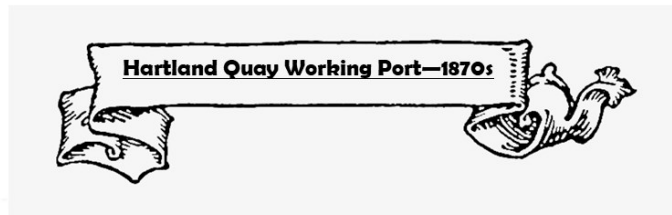


Well Beach —photo: Paul Berry

View 9 Well Beach: Retrace your steps past the bar, museum, and hotel, and walk to the wall at the back of the lower car park. From here, you have a view of the flat wave-cut platform of Well Beach. Folding is also clear here, and a storm beach can be easily identified. To the south is the headland of Screda Point, showing part of the same flat bottomed grassy valley floor that lies beneath Hartland Quay.

You could end your visit with refreshment in the Wreckers' Retreat Bar. There are some really good local guides and books for sale here, and a map on the wall showing all of the shipwrecks that have been recorded in this area. The bar also displays relics from the 'Green Ranger', a ship wrecked at Hartland in 1962. The seven-man crew was safely rescued.

Hartland Quay is a great base for walks along the coast - either north to Hartland Point Lighthouse or south to Spekes Mill Mouth waterfall (and Stoke village). Both walks are described in detail elsewhere on this site.



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|---|--------------------------------|
| 1 | Flagstaff Hill & Rabbit Warren |
| 2 | Quay Pool |
| 3 | Coastguard Cottages |
| 4 | 'Landlord's Leap' |

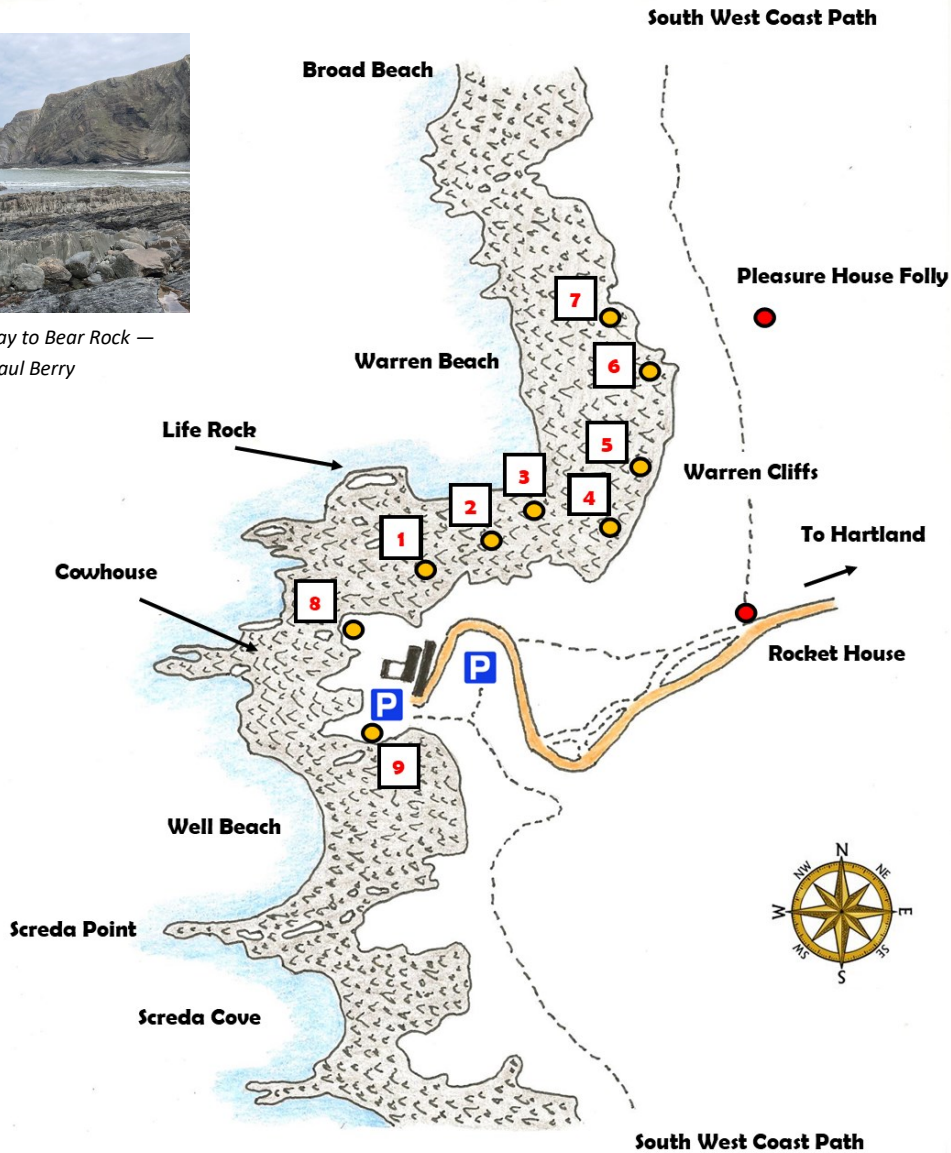
South West Coast Path

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Hartland Quay Geology



View across the bay to Bear Rock —
photo: Paul Berry



Answers to Curiosity Questions:

- # Lundy Island is visible from Hartland Quay. How long is the island from north to south? (3 miles)
- # The South West Coast Path runs through this location. How long is this footpath in total? (630 miles)
- # Nearby Hartland Abbey is the stately home of which family? (The Stucley family)
- # How many lighthouses are there on Lundy Island? (Three—North Light, South Light, and now defunct Old Light)