

# North Arran Walk

This circular walk revisits Arran's industrial history, and explores past environments. Find the footprints of a giant millipede and see the place where James Hutton changed geological thinking for ever.

## 1 Lochranza slate quarry

Look up the hill to the right of the path to see the remains of the old slate quarry. These slates are the oldest rocks on Arran at around 540 million years old. They were quarried for a short time for use as roofing slates. Some samples contain crystals of pyrite, also known as 'fool's gold'.



Slates that were not deemed to be of a high enough quality were dumped by the old quarry.



The famous *Arthropleura* trackway is seen on a sandstone bed near Laggan.

Please do not walk on the tracks or damage them in any way. They are very special and irreplaceable.

## 2 Coal mines and *Arthropleura* trackway

This is the site where Arran's only coal seam was exposed at the surface. You can still see the pits where it was mined. The ruined buildings are the old salt works, where the coal was burned to evaporate seawater.

*Arthropleura*, at up to 2m long, was the largest invertebrate that ever lived on land!



On a sloping sandstone bed in a small inlet next to the salt works, two parallel lines of footprints can be seen. This trackway was left by a giant millipede called *Arthropleura*, which lived around 300 million years ago. By analysing the footprints, palaeontologists have calculated that the animal that made these tracks was 1.6m long! Come and meet a replica in the Lochranza Interpretation Centre.



The trackways are on this sloping sandstone layer next to one of the ruined buildings.

## 3 Desert sandstones

The rocks along this section of the coast belong to a geological unit called the New Red Sandstone. They were deposited in a desert during the Permian around 270 million years ago. Some layers contain fragments of other rocks. These were laid down by flash floods during storms.

Individual sand dunes can still be made out in the Permian sandstones of north Arran.



Ossian's Cave can be found in the sandstone cliffs on the left of the path. Ossian was the great poet of Celtic mythology. The walls of the cave contain carvings, including one of a three-masted ship, that may date to the eighteenth century.

## 4 An Scriodan rockfall

The path winds between boulders of sandstone and conglomerate that fell from the cliffs above as a huge rockfall in the eighteenth century. The noise was reportedly heard on the Isle of Bute and even on the mainland!

## 5 Hutton's Unconformity

James Hutton is considered the father of modern geology. He came across this outcrop in 1787, and noticed that gently sloping sandstones lay right on top of steeply dipping schists. This junction of rocks is known as an 'unconformity'.

This is Hutton's Unconformity at North Newton, near Lochranza. It fundamentally changed the way we think about geological time.



Hutton reasoned that the time taken for geological processes to create this feature must have been immense. In the eighteenth century the Earth was thought to be 6,000 years old, but Hutton knew that an unconformity could not possibly form in that time.

He proposed that the Earth was immeasurably ancient, and introduced the scientific community to the concept of 'deep time'.

