



Itinerary for GeoWorld Travel Shetland 5 days 2025

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Monday 26th May - Friday 30th May

DAY 1 - UNST Monday 26th May

We will begin our tour of Shetland on the most northerly island of Unst. It is an island in two halves - the western half is comprised of Dalradian rocks from the ancient continent of Laurentia while the east is a section of oceanic crust (an ophiolite) thrust onto the continental mass when Iapetus Ocean closed around 420 million years ago.

The tour will start at Norwick beach, where the two halves meet, then we'll take a trip to see the unique Skaw granite and Britain's most northerly house. We'll place a foot on the Moho - the boundary between Earth's crust and the mantle - before we explore what was once the largest chromite quarry in the UK. Our journey through the Shetland ophiolite will take in an expanse of serpentine desert, which is home to Edmondston's Chickweed - a plant found nowhere in the world except Unst.

We'll then take the opportunity to travel up through the ophiolite sequence discovering dunite, wehrlite, pyroxenite and gabbro and end our journey back at the ferry terminal where we discover the ophiolite shear zone.

Morning

Norwick Beach - Continental and oceanic crust meet

Skaw - Skaw granite and turbidite sequence

Hagdale and Hamar - The Moho and lower layers of the ophiolite

Afternoon

Watlee and Sobul - Ophiolite sequence

Belmont quarry - Shear zone



Explore Experience Enjoy 😊



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DAY 2 - NORTH MAINLAND Tuesday 27th May

Day two is an opportunity to get to know the volcanic landscape of the North Mainland. With dramatic rugged hills, sea cliffs and stacks, this is a landscape to remember. We will begin by taking a scenic route north to Mavis Grind – a narrow strip of land with North Sea on one side and the Atlantic Ocean on the other. Between the two, a geowall provides an insight into the complex geology we will witness throughout the day.

Breath-taking views may be enjoyed along the Eshaness coast as we walk through the flank of an ancient volcano and find vivid traces of its explosive past. The landscape remains dynamic today - as one of the highest energy coastlines in the world it is battered by the full force of the North Atlantic.

In the afternoon we will enjoy the beach at Braewick - granite at the eastern end is faulted against Devonian sandstones and volcanics to the west, making for an extraordinary variety of beach pebbles and rocks. We'll also get a chance to hunt for agates at Stennes, which was an important Haaf fishing station in the 18th and 19th centuries.

Morning

Mavis Grind - Geowall

Eshaness – Section through volcano flank

Afternoon

Braewick Beach - Devonian volcanics and sandstones

Stennes Beach - Andesite and (maybe) agates





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DAY 3 - NORTH MAINLAND Wednesday 28th May

On day three we begin with a couple of quarries, close in proximity but very different in character. We will then follow the magnificent Ronas Voe - as close as Shetland gets to a fjord - stopping to visit The Blade. This geomorphological sandy feature is changing year on year, slowly burying traces of a thriving herring station.

In the afternoon we'll take the high road to obtain a (hopefully) clear view of Ronas Hill, Shetland's highest point at 450m. This formed as a granite pluton in the roots of the Caledonian mountains and is now the site of a granite boulder field - the result of freeze thaw action- not to mention arctic alpine plants normally only found in the Arctic Circle.

At our finishing point of Ollaberry we will encounter the Walls Boundary Fault - the best exposure of the Great Glen Fault to be seen anywhere in Scotland. For those who would like a scramble, there are incredible folded rocks to be found on the beach at Back Sand.

Morning

Virdins quarry - Granite and diorite mixing

Haggrister Quarry - Scaopliite veining

Ronas Voe / Heylor - Shetland's 'fjord' and geomorphology

Afternoon

Ronas Hill - Granitic intrusion now Shetland's highest point

Ollaberry - Walls Boundary Fault





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DAY 4 - CENTRAL MAINLAND Thursday 29th May

Today's watchword will be variety! We will make our way through the Central Mainland discovering Shetland's Moine and Dalradian rocks and some interesting intrusions. We'll begin with an overview of the Nesting Fault - one of the reasons behind Shetland's extraordinary geological diversity - and gain a fine view over Shetland's ancient capital of Scalloway. We'll visit Dalradian limestones that tell a story of a snowball earth, a pyroxene rich granite, and the beautiful Valayre Gneiss that forms a boundary between Shetland's Moine and Dalradian rocks. The Laxo Beach allows us to gaze into the heart of the Nesting Fault, giving a real sense of tectonic forces at work, not to mention a look at the striking Graven Granite and some calc-silicate rocks that could be taken for an art installation. Finally at Kirkhouse in Voe we'll discover one of the best bits of boudinage you're ever likely to see...

Morning

Scord of Scalloway - Nesting Fault viewpoint

Strom Ness - Cap carbonates

Tumblin quarry - Monzonite from Aith-Spiggie Intrusive Complex

Grobsness quarry - Moine/Dalradian boundary

Kirkhouse quarry/burn - Dalradian limestones and boudinage

Afternoon

Laxo Beach - Nesting Fault. Dalradian, Moine and Graven Granite

Grutness - Valayre gneiss and glacial features





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Wednesday 14th May - Friday 16th May

DAY 5 - SOUTH MAINLAND Friday 30th May

On our final day we will see some of Shetland's youngest rocks, still nearly 400 million years old! We will start with Devonian alluvial fan deposits in Lerwick before experiencing Shetland's Siccar Point - a nonconformity at Quarff. Braided river deposits may be seen as we take a walk along the Scatness peninsula. Lunch at Sumburgh head in the vicinity of a Stevenson lighthouse will afford views of dramatic cliffs teaming with seabirds including puffins, guillemots, razorbills and fulmars. This site played host to a WW2 radar station that successfully gave early warning of an attack on the British naval fleet stationed at Scapa Flow. The Old Red Sandstone cliffs are also home to *Asterolepis Thule* – a fossil fish found nowhere else in the world.

We will make the connection between geology and archaeology in the afternoon with a visit to a massive sulphide deposit that was mined in the 19th Century and a Viking soapstone quarry.

Morning

Rova Head - Alluvial fan deposits

Wester Quarff - Nonconformity

Scatness peninsula - Braided rivers

Afternoon

Sumburgh Head - Home of *Asterolepis thule*

Garths Ness - Massive sulphide deposit

Catpund - Soapstone quarry

