



Down to Earth

"Earth science learning for all"

Norway's Magma Geopark Home of Moon rock May 4-13 2027



There's no mistaking this as a fjord - fabulous scenery in the Magma Geopark . (Image: Fjord Norway)

A word from your leaders...

We've previously visited Southern Norway, with its Gea Norvegica Geopark in 2019 and again in 2024. Needless to say on both occasions we had a full house and had a great time, with fabulous geology and landscape. This time we're staying in the south of the country, but heading for the Magma UNESCO Geopark which is fairly close to Stavanger, on the stunning coastline. Are we looking forward to it? You bet, we love Norway, its scenery and its people!

Our trip begins in the capital Oslo and then we head west on the scenic railway towards Stavanger. It's a stunning 7-hour trip through the countryside of Norway. We take a direct train from Oslo to Egersund, where we find the Grand Hotel, our comfortable base for the entire trip. The Grand Hotel is a historic wooden building set in a town which features many such buildings from the nineteenth century.

Over the next 7-days we will be accompanied by the geopark's own geologist who has devised a rich and varied, geological, historical and cultural programme for us. We'll see the sites, take in some of the finest geology, mix in some local culture and even manage some gastronomic treats along the way. To top it all, there's even a visit to a whiskey distillery!

Geologically, the Magma Geopark is famous for its anorthosite - the so-called 'moon rock' and also for its amazing layered intrusion. There are historic titanium, tungsten and molybdenum mines as well as working stone quarry at Rekefjord. For those looking for stunning fjord scenery, it's all around us, including Northern Europe's largest scree.

As with our other trips to Norway, this trip would be suitable for anyone who enjoys the natural world and all that it offers, so even if your partner isn't into geology, they would have a great time and be most welcome! We expect this trip to fill up fast, so get in there as soon as you can. This is especially so if you are wanting a single room as these are limited in number.

Chris Darmon & Colin Schofield
Trip Organisers/Leaders

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Getting to Norway

We begin this 9-night trip in Oslo because it offers a choice of flights from several airports in the UK to one of two Oslo airports. Oslo Torp airport is some way out of the capital in the south, but has an easy rail link into the city. It tends to be used by the budget airlines. Airlines to try include SAS, Norwegian, Wideroe and Ryanair. Flights should be quite cheap if booked well in advance. At the end of the trip, you can either take the train back to Oslo and then fly on, or take a flight from Stavanger to Oslo or even Aberdeen for onward travel.

Getting Around in Norway

This trip will be led by a geologist and staff from the Magma Geopark. They will organise transport to get us around the fairly compact geopark area, probably using a dedicated coach. It's possible that we will also make use of the local train and also a ferry boat.

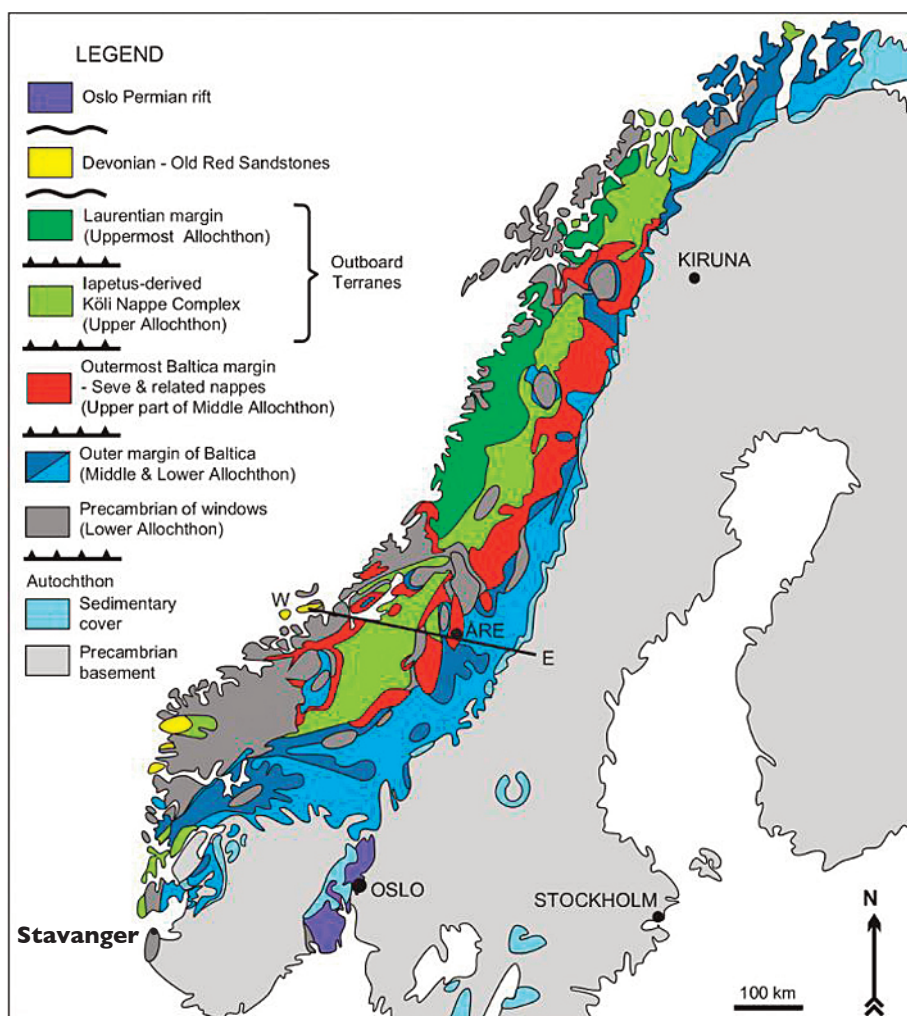
Chris and Colin are responsible for organising the hotels and also getting us from Oslo to Egersund using the direct train from Oslo. It's a comfortable 7-hour journey.

Walking on the rock anorthosite, the rock that's common on the moon.
(Image: Magma Geopark)



Everything therefore should be within the capabilities of all of the party. However, if at any time you wish to 'opt out' that will be fully acceptable and understood. At this time of year, spring will be well underway, but there may still be snow on the ground in places. You are strongly advised to bring all waterproofs, warm clothing and walking boots – particularly as you will be walking over rough ground.

Why Norway?



Most people think of Norway in terms of ancient Precambrian metamorphic rocks and whilst these are present, they don't think that it has a varied Phanerozoic sequences of rocks that span a number of periods.

This comes from the Norwegian Geological Survey:

"Norway's bedrock reflects a long history, that extends nearly 3 billion years. In the rocks, we find traces of ancient mountain ranges that had risen and have eroded down to sediments as Earth has undergone changes and the gradual rise new continents. During the same time, the physical conditions on the Earth have been in constant change. The oxygen rich atmosphere that we have today began about 2.4 billion years ago, and already 5-600 million years ago animal and plant life began to emerge.

Norway is part of the Fennoscandinavian shield that constitutes the precambrian bedrock of Scandinavia. The oldest rocks date back 2,5 billion years and can be found in Finnmark and along the coast in Troms and Vesterålen. Moving south and west the bedrock becomes gradually younger; nevertheless, it dates back more than 900 million years in southern Norway. Above the bedrock lies remnants of the 400-500 million-year-old Caledonian mountain range, which is a distinct belt along the Western Scandinavia.

The youngest rocks to be found in Norway, on land, are in the Oslo Rift and provide evidence of volcanic activity 250-300 million years ago. This knowledge is the basis for understanding how the

rocks and landscapes have changed through time and in line with the changes in tectonic conditions (continental drift), the climate and the evolution of the Earth's life forms."

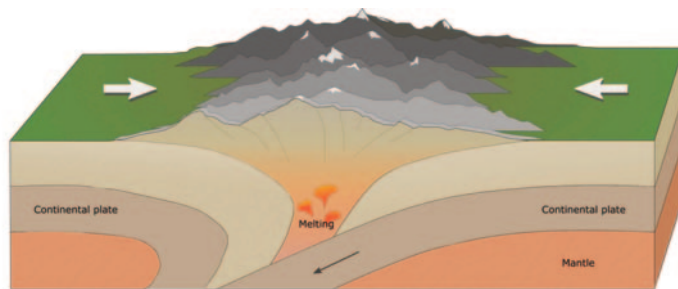
All of this, plus an element of economic geology and more than a fair slice of glaciation leading to the formation of some very special landscapes including the famous fjords. In short, Norway is a spectacular country with lots to offer the geotourist.

From this general look at the general geology of Norway, what has the Magma UNESCO Geopark got to interest us? The quick answer is 'an awful lot' - as we will explore now. Most famously there's lots of anorthosite - as found on the Moon - and also layered intrusions.

The Magma Geopark - in their own words...

In the far south of Rogaland, you will find an area with such unique geology that we have been recognized by UNESCO. Nowhere on Earth will you get closer to a real lunar landscape than in Magma UNESCO Global Geopark.

The area that constitutes Magma Geopark was located about 20 km below the Earth's surface over 1 billion years ago, beneath mountain ranges the size of the Himalayas, called the Sveconorwegian mountain range. It formed during the creation of the supercontinent Rodinia as a result of collisions between continents, as shown.



During the collision, enormous pressure and high temperatures occurred, which initially led to deformation of the subsoil and the formation of rocks such as gneiss. Eventually, parts of the Earth's crust began to melt. The magma (molten rock) moved upwards and collected in large magma chambers. Eventually, the magma cooled down when the pressure and temperature calmed down, and it began to crystallise into new rocks, such as anorthosite. This is the same rock as the bright areas on the moon. You could therefore say that in Magma Geopark you can find out what it's like to walk on the moon!

One of the reasons why Magma Geopark is so unique is precisely these magma chambers. 10 million years after the anorthosite was formed, new magma intruded from the depths into the anorthosite, resulting in what is seen today as layered intrusions.

Eventually, the region's crust was stretched as a result of the break-up of the supercontinent Rodinia, with smaller continents breaking away due to plate tectonics. This led to upwelling of magma in weak zones in the subsurface, which penetrated upwards through other existing rocks, such as the anorthosite. Today, this can be seen as diabolist.



The massive mountain ranges that once covered the Magma Geopark were gradually worn down (eroded) over hundreds of millions of years by various natural processes, resulting in the magma chamber now being exposed on the surface. Glaciers have played a central role in this erosion process. The last ice age was about 10,000 years ago, and both the ice and its meltwater have characterised the landscape considerably. Today, the region bears clear traces of the ice age, such as skuringsstriper and potholes. This gives visitors a unique opportunity to explore this unique lunar landscape that is rich in exciting geological history.

After the Ice Age, the Stone Age brought people across the ice from Denmark, who settled at the edge of the ice front and lived by hunting. Later, in the Bronze Age, people began to settle more permanently, building homes and cultivating the land. In Magma Geopark, we find traces of human

life from the Stone Age, Bronze Age, Iron Age, Viking Age, Medieval times, modern history, and the World Wars. Clear evidence shows how these different periods and events have influenced the area in various ways. In Magma Geopark, you can come and hear fascinating stories about how human and geological processes have shaped and impacted the nature and landscape we see today.

Itinerary for our field days

At this stage, this is meant to be indicative of the likely trip content. Final details will be worked out in accordance with the wishes of our partners in the geopark and the prevailing weather conditions.

- Presentation of the Magma Geopark at our hotel
- Trip to Varberg the mountain above Egersund - amazing rocks and scenery
- Gloppealsura Northern Europe's largest rock scree
- Molybdenum and tungsten mines at Hovland - cultural history and geology
- Trip to Eigeroy Lighthouse and a 'walk on the moon' and we see magma chambers close up
- A visit to Berentsen Distillery and whiskey tour
- Visit the Jessingfjord Science Museum - the geopark museum
- A guided tour of the Blafjell mines - historic titanium mines
- A guided tour of Sogndalstrand an old trading port followed by dinner
- Trip to Hagasen on the island of Hidra by ferry boat - very variable geology and fjord scenery
- Visit Flekkefjord and the old Dutch Quarter
- A walk to Trollpikken - a famous formation from the Quaternary ice age
- A visit to the old ilmenite mines at Ankerhus
- Visit to a working stone quarry at Rekefjord



Accommodation & Food

Let's be up front and honest, Norway is an expensive country, especially for alcohol, but it's nowhere near as bad as Iceland. The Norwegian Kroner, has even gone down against the pound sterling in recent years. Norwegians have good appetites and know how to look after their guests. Good food and a comfortable night's rest are important elements to our trips and we have selected good accommodation with all en-suite rooms. Single rooms are limited and subject to a fairly modest extra charge. We are happy to help anyone looking for someone to share a twin bedded room – simply indicate on the booking form.

For our first night we will be staying in the Four-Star Comfort Hotel which is located in the Grand Central Station building in Oslo making it really easy for us to catch the direct train to Egersund at 09.25 (current timetable). An evening meal and breakfast will be taken at the Oslo Hotel.

For this first night, it would help a lot if people who otherwise are wanting a single room were willing to share, as single rooms are very expensive indeed.



For the next 8-nights we will be staying at the historic Grand Hotel in Egersund. All rooms are en-suite and we will be having a breakfast buffet each day. On some days we will have an evening meal in the hotel restaurant, whilst a couple of evenings the meal will be taken elsewhere in local restaurants.

Lunch time food will be provided for each field day, but not on the train journey from Oslo

Cost

For 2 people sharing a double or twin room, the cost of this 9-night tour will be £2595.00 per person; for single occupancy, the cost will be £2995.00 per person. Single rooms are limited to a maximum of 6 and are subject to availability. A couple of superior double/twin rooms are on offer at the Grand Hotel Egersund for an additional £150.00 per person.

When calculating the cost of this trip there were 13.00 Norwegian Kroner to the £. Should this rate drop below 12 we reserve the right to increase the price by not more than 5%.

What's included in the cost?

- The services of our local geologist and guides, together with Chris Darmon and Colin Schofield as tutors, who will be available to you at all reasonable times
- Accommodation and meals as specified in the brochure
- Use of hired transport and driver, train and boat fares (as applicable)
- Admission charges to any museum or attraction included in the programme

What's excluded from the cost?

- The cost of travel between your home and Norway and return from Egersund
- Airport transfers
- Lunch on the train day (buffet car available)
- Travel insurance
- Incidental expenses

Insurance

Everyone booking a place and paying a deposit is required to take out holiday insurance.

This can cover you against loss of money in the event of cancellation etc. Cover is often included in with your credit card or bank account.



Booking

Please fill in and return a completed booking form.. Your booking will be confirmed upon receipt of either a deposit of £500.00 per person or the full payment. The balance of the brochure price will be due by January 31st. 2027.

This trip will run provided a minimum of 20 people have booked by October 31st. 2026. Leave airline bookings until we confirm.

Your money...

Upon receipt, all monies paid for these trips are placed in a specific 'client trust account' where it cannot be drawn by us until after completion of the tour. This is in accordance with EU Directives and ensures that your money is safe in the unlikely event of corporate failure by Geo Supplies.

If you have any questions or queries - contact Chris Darmon as follows:-

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