

Magma Geopark is a unique geological area in southwest Norway comprising five municipalities: Bjerkreim, Eigersund, Lund and Sokndal. Here you will find over 40 sites that present exciting geological and cultural features ready to be explored by everyone!

Magma Geopark is part of UNESCO Global Geoparks, a network of more than 127 geoparks (in 2017) from around the world. A UNESCO Global Geopark is a well defined geographical area where the landscape is of international geological importance and which is run for conservation, education and sustainable development. Such an area helps raise awareness and understanding of the geological heritage and its history, geohazards, natural resources and climate change, as well as gender equality and local knowledge.



In Magma Geopark the main rock type is the same as the lighter-coloured parts of the surface of the moon - anorthosite. Anorthosite in the geopark crystallised in large magma chambers about 950 million years ago. It developed in the root zone of a mountain range similar to the modern Himalayas. When the ice retreated for the last time, the anorthosite became exposed and is waiting for your footprints.



**GEOBIKE**

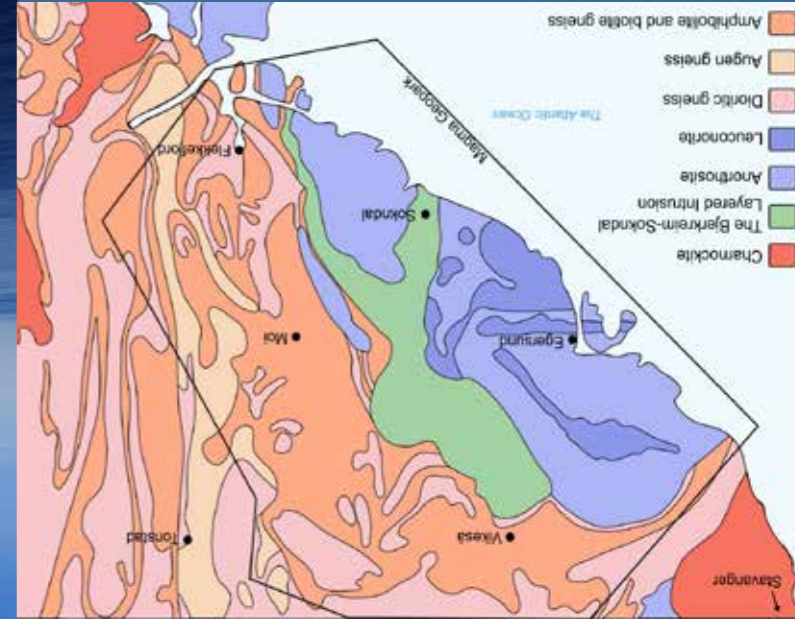
Sokndal - Nesvåg - (Blåfjell) - Sokndal

28 km  
+ 13 km

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Localities No. 20

Forente Nasjoner UNESCO  
Organisasjon for Utdanning, Vitenskap og Kultur  
Magma UNESCO Global Geopark

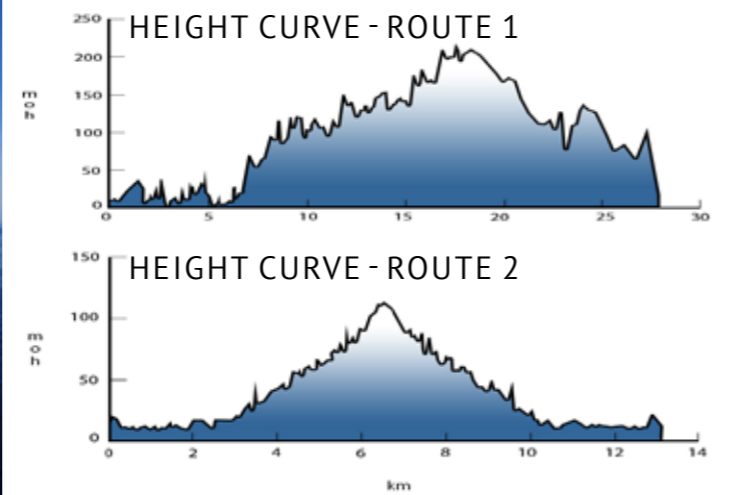


## INTRODUCTION

A dramatic war story and a forgotten Viking hero and combined with a vibrant coastal culture and spectacular nature. Great experiences follow each other in this tour of discovery through Sokndal.

Sokndal is Rogaland's southernmost municipality and is a place where the sea and geology have always been crucial for the population. The Icelandic sagas tell that the characteristic mountain Hådyr was a famous landmark for sailors during the Viking era. The sagas also record that the Viking hero Orvar Odd was born in this area. At Rosslund there are traces of pre-Christian worship and at Blåfjell there are well preserved traces of an earlier mining industry.

The tour takes you through the varied landscape along winding gravel and paved roads full of natural and cultural experiences. You appreciate how the geology of the area has influenced cultural history. You will experience vibrant coastal activity and a beautiful cultural landscape, with old boathouses, barns for the storage of peat and cowsheds.



### START & END: SOKNDAL

The cycle ride starts and ends in the parking lot at Eigersundsveien in Sokndal (see map: start and end). Route 1 is approximately 28 km long, but to get to Hådyr the bicycle must be parked and you have to walk. There is also an extra bike trip (route 2) to Blåfjell. Route 2 starts and ends at the same place as the main route and is about 13 km long.

### ROUTE 2: EXTRA (PRUPLE)

#### STOP 1: SOKNDAL CHURCH

Sokndal church was built in 1803 and is located in the centre of Hauge in Dalane. It has been estimated that there has been a church in Sokndal since the beginning of the 1300s. This is based on archaeological discoveries that have revealed traces of older churches here, indicating that this has been a place of worship for centuries.

#### STOP 2: EIKESTEINEN

Eikesteinen (Oakstone) is a stone with 1000 year old rock carvings found at Eik Cemetery which used to be located next to a bridge. On the stone it says:



"For the sake of God, Sakse built this bridge for his mother, Turid." He built a bridge in memory of his deceased mother and carved this into the rock. The stone was found in many fragments but is today almost complete. This stone with rock carving is one of only two such discoveries in Norway. Today there is a copy of the stone in the town hall at Soknatun; the original is exhibited in the Archaeological Museum in Stavanger.

#### STOP 3: RUGGESTEINEN - A ROCKING STONE

Here you can visit Norway's first protected geological item (1923). This large boulder weighs 74 tons and can be rocked back and forth – if you push at the right place! It is northern Europe's largest rocking stone.

#### STOP 4: THE OLD RAILWAY

The railway is 8.5 km long and was used to carry ilmenite ore from the Blåfjell mines to Rekefjord from where it was transported by ship. Work on the track started in 1864 and in 1879 it became the first completed railroad in western Norway. The first steam locomotive was used here in 1873.



### STOP 5: BLÅFJELL ( BLUE MOUNTAIN ) MINES

The remains of several old mines are preserved along the course of the abandoned railway line. The mining of ilmenite at Blåfjell was most active from 1863 to 1875. There were about 20 large and small mines here. The English company "The Norwegian Titanic Iron Company Ltd" started mining operations here which lasted for 12 years. Up to 200 people were employed at Blåfjell mine. Several attempts were made to reopen the mines at Blåfjell, but not since the 1920's.

The ilmenite (iron titanium oxide) ore at Blåfjell is found in conjunction with a very coarse-grained noritic pegmatite. Norite is a rock that consists mostly of two minerals: plagioclase feldspar and orthopyroxene. Pegmatite means coarse grained rock. The norite pegmatite formed when molten rock (magma) penetrated the already existing anorthosite. It formed what is known as the Blåfjell-Måkevatne intrusion. This intrusion locally contains large concentrations of ilmenite that were mined in the Blåfjell area. Blåfjell mines and Ruggesteinen are Geopark location 37.



# ROUTE 1: MAIN ROUTE (BLUE)

Hådyr (stop 7)



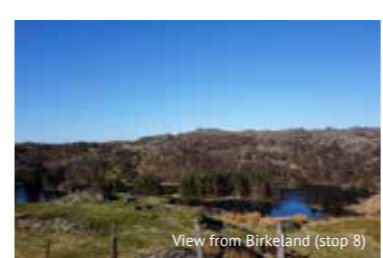
Vågan bridge (stop 4)



Boathouses in Nesvåg (stop 5)



Outcrop of anorthosite (stop 1)



View from Birkeland (stop 8)



View point at Hådyr (stop 7)



Øvre Saurdal (stop 11)



Hay barns at Åvendal (stop 9)



Haugen at Rosland (stop 12)



Altar at Rosland (stop 12)



Erratic boulder at stop 10

### STOP 1: ANORTHOSITE

Here you can observe the same rock type that forms the light parts of the moon - anorthosite. Anorthosite consists almost entirely of just one mineral - plagioclase feldspar. This mineral sometimes gives the rock a play of colours in blue tones.

### STOP 2: REKEFJORD

Rekefjord was formed largely by the action of ice. Glaciers eroded a deep U-shaped valley in the terrain. The valley became filled by the sea when the ice melted after the last ice age about 10.000 years ago to form a deep fjord.

The rocks around Rekefjord are igneous which means that they have crystallized from magma. The Eia-Rekefjord intrusion extends from Rekefjord in the south to Eia in the north. It consists of a fairly coarse grained rock type called jotunite - a name that comes from Jotunheim in Norway.

There are open mines on both sides at the mouth of the fjord. Pale grey anorthosite is extracted to the west and dark grey jotunite (which the quarry owners call "norit") to the east. The aggregate from the anorthosite is used for concrete, asphalt and much more.

### STOP 3: ODVAR ODD

The Viking hero Orvar Odd is known from Icelandic sagas that state that he was born in Sokndal. Odvar Odd raged across large parts of Europe with his three magic arrows that always hit their target and returned to the owner. The football club "Odd" has its name from the same Viking. According to the sagas, Odvar Odd was buried on a mountain top nearby.

### STOP 4: VÅGAN

Vågan is a naturally sheltered harbour, with archaeological traces back to the Stone Age. Here there is a memorial sign that marks the first shot fired against Norway during World War II. The shot was a warning from the British warship HMS Intrepid to the German cargo ship Altmark. The boarding of the Altmark in Jøssingfjord became known as the "Altmark affair".

At Engelsholmen there have been a number of ancient findings that date back to the Iron Age. There is also a local story reporting that the crew of a ship from England buried their unfortunate colleagues who had died of plague in Engelsholmen. The burial site contains 7 or 8 graves.

Vågan bridge (from 1932) is 21.4 m long and 3.5 m wide. It is the last arched bridge that was built of non-reinforced concrete and natural stones in Rogaland.

### STOP 5: NESVÅG BOATHOUSES

Nesvåg is located between mountains, which makes it a sheltered harbour. Fishing has taken place from here for many generations and there are old boathouses and seaside stalls at the very heart of the harbour. Nine boathouses in a row were built during the last part of the 19th century. Here you can visit the Nesvåg Maritime and Motor Museum - a restored fishing village from 1883. There is an exhibition of old boat engines, fishing gear and maritime objects.

### STOP 6: LØYNINGÅSEN

During the Iron Age there was probably a farm here. There are several graves and remains of other farms of the same age in the area. To the east is a farm called Berglyd where, according to the sagas, Orvar Odd grew up.

### STOP 7: HÅDYR

The bikes should be parked and the hike made by foot. Hådyr is a beautiful scenic spot with a good view of the sea. The mountain top is painted white because it was used as a landmark for sailors for centuries. The mountain is mentioned in the Icelandic sagas about Vikings in the area. To the northwest you can see Eigerøy island in the distance and to the southeast is the plain of Lista.

### STOP 8: VIEW FROM BIRKELAND

The anorthosite landscape extends from Jæren in the northwest to Flekkefjord in the southeast. The landscape is characterized by rounded, bare rocky surfaces. The anorthosite is poor in fertile components (like magnesium and phosphorus) so there is very little vegetation on the rocky surfaces. It is described as a lunar landscape.

### STOP 9: HØYLØE ÅVENDAL

At Åvendal there are what appears to be small houses - but they lack a sidewall. These are hay barns that were built around 1870-1880. They were built of un-cemented stones with tiles on the roof. Hay was dried in these buildings in olden times.

### STOP 10: GLACIAL ERRATICS

These are boulders or stones that have been transported and deposited by a glacier. The erratics are usually "foreign" since they consist of different rock types than the bedrock beneath. It is sometimes possible to identify the source by the special geological nature of the boulder. Angular boulders have generally not travelled very far - as is the case here.

### STOP 11: OLD FARM AT ØVRE SAURDAL

The building at Øvre Saurdal is approximately 100m from the main road (road 44) on a gravel road. Based on its style it is difficult to determine when it was built. The walls are made of stones and it has a tile roof.

### STOP 12: THE ROSSLAND GOD

At Haugen there is an altar together with the old Rosland God and two stone bowls. The Rosland God, a human-like head made of the local rock, is 0.61 m high and was found below the altar, together with one of the bowls carved out of rock. The head figure is the only one of its kind found in Norway. The altar is a large square stone block that is supported by 4 smaller stones. The stone bowls may have been used for sacrificial rites. The altar, Rosland God and the stone bowls are linked to the fertility cult - the fertility god Frøy. This is believed to be a sacrificial site from the Iron Age (500 BC - 550 AD). Rosland is Geopark locality 36.

NO.	LOCALITIES	DESCRIPTION
P	Start and end	Park at the carpark on the left of Eigersundsveien near Krossen. 2.3 km from the start (at Stølevik) there is anorthosite on the right.
1	Anortositt	Rekefjord can be seen 50 m from stop 1.
2	Rekefjord	Rekefjord can be seen 50 m from stop 1.
3	Orvar Odd	2 km further you pass Odds fjell.
4	Vågan	About 1.5 km from stop 3 you reach Vågan bay. Vågan bridge is ca. 200 m further on.
5	Nesvåg	After 0.9 km you reach Nesvåg.
6	Løyningåsen	You cycle past Løyningåsen.
7	Hådyr	Follow the road up from Nesvåg for about 3 km. The trip to Hådyr takes just under an hour (2.5 km). Park your bicycles here. The walk starts on a tractor path at Vatland. The path crosses to a red-marked trail through unspoiled countryside, including marshes and fields. Remember good footwear!
8	Birkeland viewpoint	1 km further; viewpoint.
9	Høyløe	2 km further on are the hay barns at Åvendal.
10	Glacial erratic	Follow the road and you will come to road 44. About 3.5 km from stop 9 the erratic boulder can be seen on the right.
11	Old fram at Øvre Saurdal	Stop 11 is 3 km from stop 10, 100 m from the main road on the right.
12	Rosland	Follow road 44 to sign "Rosland" (about 4 km from stop 11). Park the bikes and walk up the hill. From road 44, follow the hill until you are back at the carpark - about 4 km from stop 12. The church is on the left about 0.8 km from the carpark.
13	Chruch	800 meters further on is the square where Eiksteinen (the Oakstone) was found.
14	Eiksteinen	800 meters further on is the square where Eiksteinen (the Oakstone) was found.
15	Ruggesteinen	After 2.1 km you will see Ruggesteinen, the Rocking Rock, on the left.
16	Old railway road	You are now cycling along the old railway track.
17	Blåfjell mines	2.5 km from Ruggesteinen you reach stop 17. Follow the same road back to the carpark.

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### MAGMA GEOPARK

Free GPS-based game and smartphone guide. Take your family on a guided tour through Magma Geopark sites and learn more about this unique area!



Apple Android

Join TURFHUNT! Players find different GPS coordinates in the game and answer questions. Suitable for the whole family!

