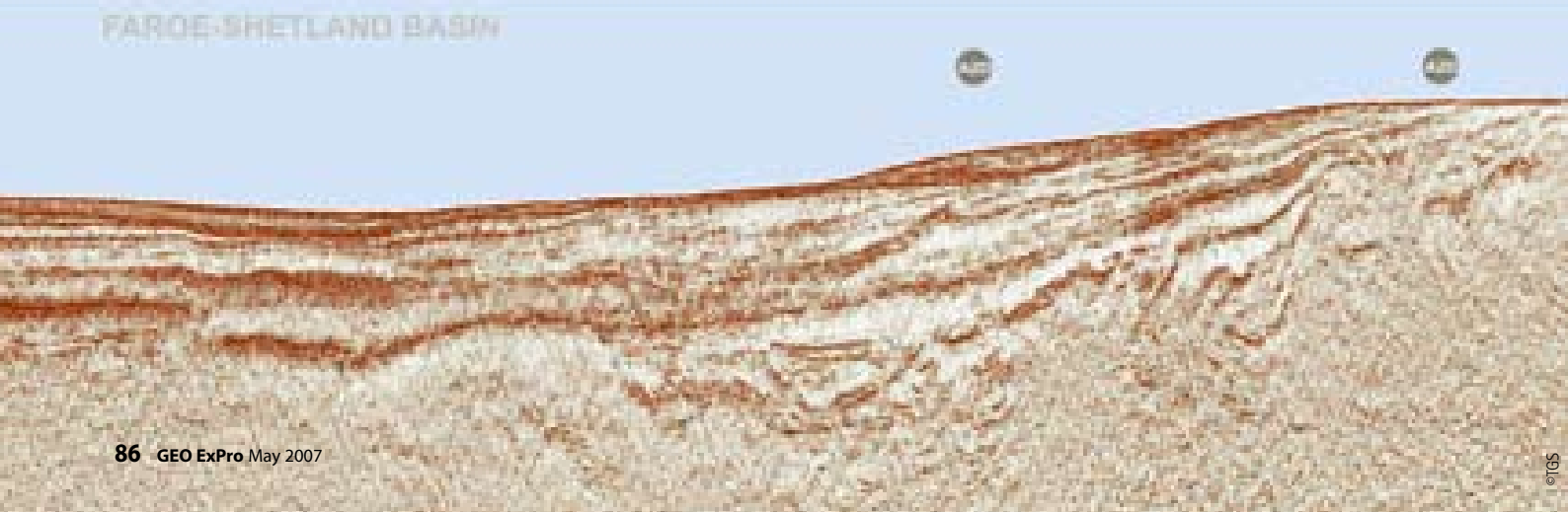
European Geoparks – Your Geological Heritage

Photo: Halfdan Carstens



The main objective of the European Geoparks is the promotion of sustainable development of their territories in Europe. In addition they serve the purpose of protecting geological heritage for the benefit of the next generations.

An online map with all the European Geoparks can be found here: www.geoxpro.com/geoparks. By a click you can access their websites.

The less than 10 million year old Cabo de Gata volcanic province is Andalucia's largest protected coastal area. The area is one of Spain's more important tourist destinations because of its unique geological features and landscape. The mountain range is Spain's largest volcanic rock formation with sharp peaks and crags. It falls steeply to the sea creating jagged cliffs, which are riven by gullies leading to hidden coves with white sandy beaches. Offshore are numerous tiny rocky islands and, underwater, extensive coral reefs. The park has over 20 marked footpaths. ▶

Halfdan Carstens

If you are in doubt what to do during the summer vacation this year, then visit this site: www.geoexpro.com/geoparks. Here you will find 31 destinations around Europe that will increase your geological understanding while at the same time give you a different way of experiencing the natural wonders. These destinations all belong to the network named European Geoparks that comprises geological sites of "particular importance in terms of their scientific quality, rarity, aesthetic appeal or educational value".

Many people when asked about geological heritage think of places such as the Grand Canyon (**GEO ExPro No. 2, 2004**), the White Cliffs of Dover (**GEO ExPro No. 3, 2004**), the Mid Atlantic Ridge (**GEO ExPro, No 1, 2005**), the Dinosaur Provincial Park (**GEO ExPro No. 1, 2006**), the Jurassic Coast (**GEO ExPro No. 6, 2006**), Pompeii (**GEO ExPro 2007, No 2**), and the Giants Causeway (compare front page this edition). But there is a lot more to it, and in every country you will find places that are worthwhile to visit if interested in geology – of which some are blessed with a European Geopark.

"However there is more to geological heritage than these special, often exceptional outcrops. Across Europe there are examples of landscapes and rocks that provide key evidence of a particular moment in Earth history and they too are part of our geological heritage," according to the European Geoparks website (www.eurpeangeoparks.org).

"Geological heritage is also a recognition, or acceptance, of Man's role to provide an economically sustainable future for the development of society as a whole, as well as our responsibility to share, but also to safeguard, that heritage. In many ways the geological heritage of Europe is as diverse and interesting and dynamic as the multicultural heritage of Europe's many regions."

There are currently 31 European Geoparks around Europe. They are found only in eleven countries. Germany has the most with altogether six parks. The latest to enter this group of parks is Geo Norvegica Geopark in Norway, the first in Scandinavia. You will also find the parks here: www.geoexpro.com/geoparks. This is in fact the only quality-map produced in which you can find the parks web-sites just by a click on the map. It is sad to observe that the most of the european geoparks do not have web-sites that are attractive. Most of them are of poor quality in which crucial information is difficult to access.

A European Geopark differs markedly from a *National Park* as we know them from the United States and other countries. The purpose is to "protect their geological heritage" while at the same time secure their "integrated and sustainable development". The European Geoparks are therefore not a protected area with limited access. Rather, it is an area where people live and work and where tourists are always welcome.

Photo: Halfdan Carstens

What is a European Geopark?

A European Geopark is **a territory** that includes a particular geological heritage and a sustainable territorial development strategy supported by a European program to promote development. It must have clearly defined boundaries and sufficient surface area for true territorial economic development.

A European Geopark must comprise a certain number of geological sites of particular importance in terms of their scientific quality, rarity, aesthetic appeal or educational value. The majority of sites present on the territory of a European Geopark must be part of the **geological heritage**, but their interest may also be archaeological, ecological, historical or cultural.

It is also stated that a European Geopark has an active role in the economic development of its territory through enhancement of a general image linked to the geological heritage and the development of **Geotourism**.

A European Geopark has direct impact on the territory by influencing its inhabitants' living conditions and environment. The objective is to enable the **inhabitants** to reappropriate the values of the territory's heritage and actively participate in the territory's cultural revitalization as a whole.

A European Geopark develops, **experiments** with and enhances methods for preserving the geological heritage

A European Geopark must work within the European Geopark Network to further the network's development and cohesion. It must work with **local enterprises** to promote and support the creation of new by-products linked with the geological heritage in a complimentary spirit with the other European Geoparks Network members.

Source: www.europeangeoparks.org

Cabo de Gata is a Miocene volcanic province in southeastern Spain. A series of volcanic eruptions took place in the Miocene between 14 and 17.5 million years ago. Note the white rocks "flowing" into the sea - Vela Blanca - white tuff some 12 million years old. Such white patches are quite common and give a spectacular scenery.

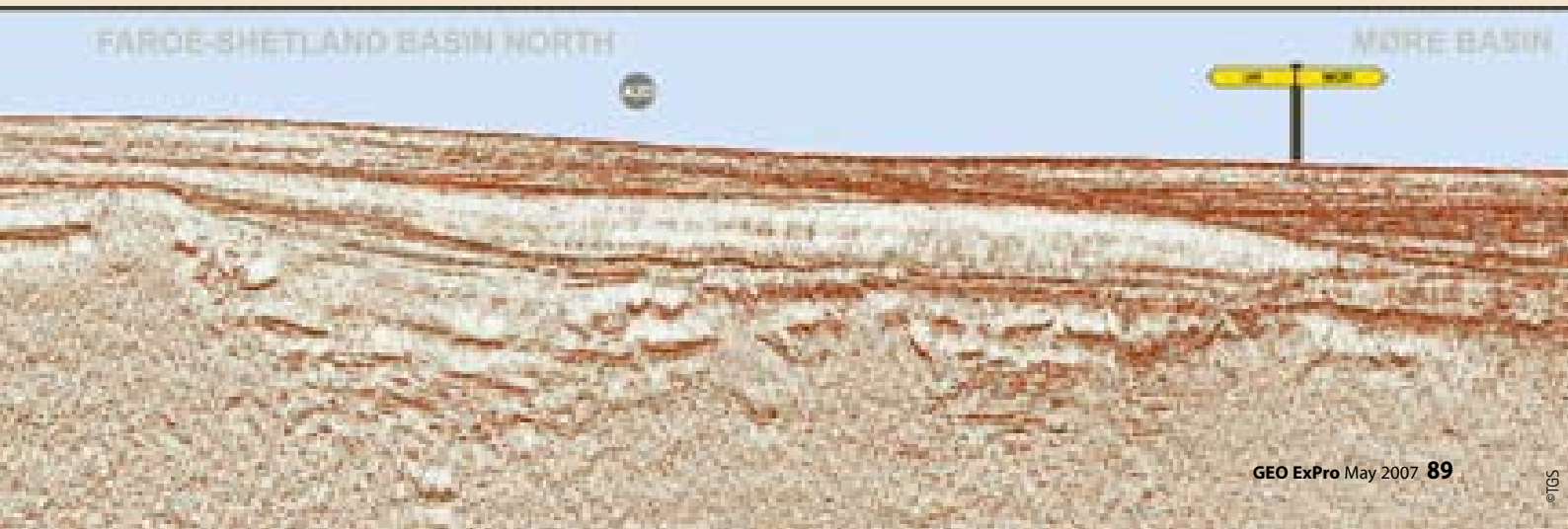
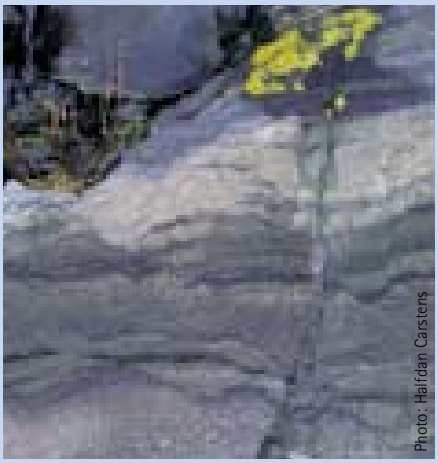



Photo: Halfdan Carstens

The geological formations within the new European Geopark two hours drive southwest of Oslo is not known for its hydrocarbon potential. However, there is a tiny fossil oilfield within the Lower Paleozoic sedimentary rocks. The three geologists are all standing on top of it.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This is not a seismic section from the North Sea. What you see here is small-scale fault tectonics within sedimentary rocks of Permian age.

Geo Norvegica Geopark

The latest European Geopark to be inscribed is the Gea Norvegica Geopark in Norway. Highly different geological terranes, both with respect to ages and in modes of origin (volcanic and sedimentary), occur within a relatively small area. The oldest rocks formed more than 1500 million years ago, but the rocks depict the geological history through a large part of the Phanerozoic.

There is no visitor centre in the Gea Norvegica Geopark. The Geopark consist of a network of localities within the defined geopark area that encompasses both urban and rural areas.


Photo: Halfdan Carstens

The boulders are the remains of a moraine that was laid down in the later part of the last ice-age some 10,000 years ago.