



United Nations  
Educational, Scientific and  
Cultural Organization

Den norske  
UNESCO-  
kommisjonen

**NGU**

Norges geologiske undersøkelse  
Geological Survey of Norway



# Global Geoparks Network, National Geoparks, The National Norwegian Committee for Geoheritage and Geoparks and Magma Geopark under the auspices of UNESCO.



Geologist Pål Thjømøe  
Director Magma Geopark AS  
Coordinator Norwegian National Committee  
for geohertiage and geoparks



- What is a Global Geopark?
  - Is Geopark only about geology?
- Network of Geoparks
  - Where are the Geoparks?
  - National Geopark Networks
  - Norwegian committee for Geoheritage and Geoparks
- Geoparks and..
  - Education, Science, Culture, Sustainable development and How to join the GGN?
  - UNESCO
- Magma Geopark





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# What is a Global Geopark?

A Global Geopark is a unified area with geological heritage of international significance.

Geoparks use that heritage to promote awareness of key issues facing society in the context of the dynamic planet we all live on. Many Geoparks promote awareness of geological hazards, including volcanoes, earthquakes and tsunamis.



**Is a Geopark only about geology?**

No! While a geopark must demonstrate geological heritage of international significance, the purpose of a geopark is to explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural and intangible heritages.



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# What is the Global Geoparks Network?

The Global Geoparks Network (GGN) is a voluntary network of Global Geoparks supported by UNESCO. The GGN is a dynamic network where members are committed to work together and exchange ideas of best practice and join in common projects to raise the quality standards of all products and practices of a Global Geopark.



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THE GGN **CONTINUES** TO EXPAND  
**DRAWING**  
IN NEW EXPERTISE  
AND KNOWLEDGE **FROM ALL**  
**PARTS OF THE WORLD AND**  
**DIFFERENT CULTURES**

## LATEST NEWS




**Itoigawa Geopark  
Revalidation  
Commemorat..**

 Dec 16, 2013



**Knowledge Sharing  
Workshop for Asian Geo..**

 Dec 05, 2013

- 37th UNESCO General Conference
- Itoigawa Schools' Geopark Studies Confer

## DOCUMENTS

- GGN Guidelines
- Form-Part A
- Form-Part B

## EVENTS



**6th International Unesco  
Conference on G..**

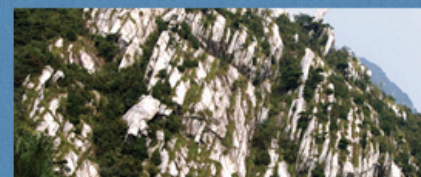
The dates for 6th International

UNESCO Conference on Global Geoparks

## NEWS LETTER

### GGN Newsletter 2012 Issue 01

Inside this issue: 04- Partnership activities between Hong Kong Geopark and Itoigawa Geopark 10- Yanqing Geopark March..

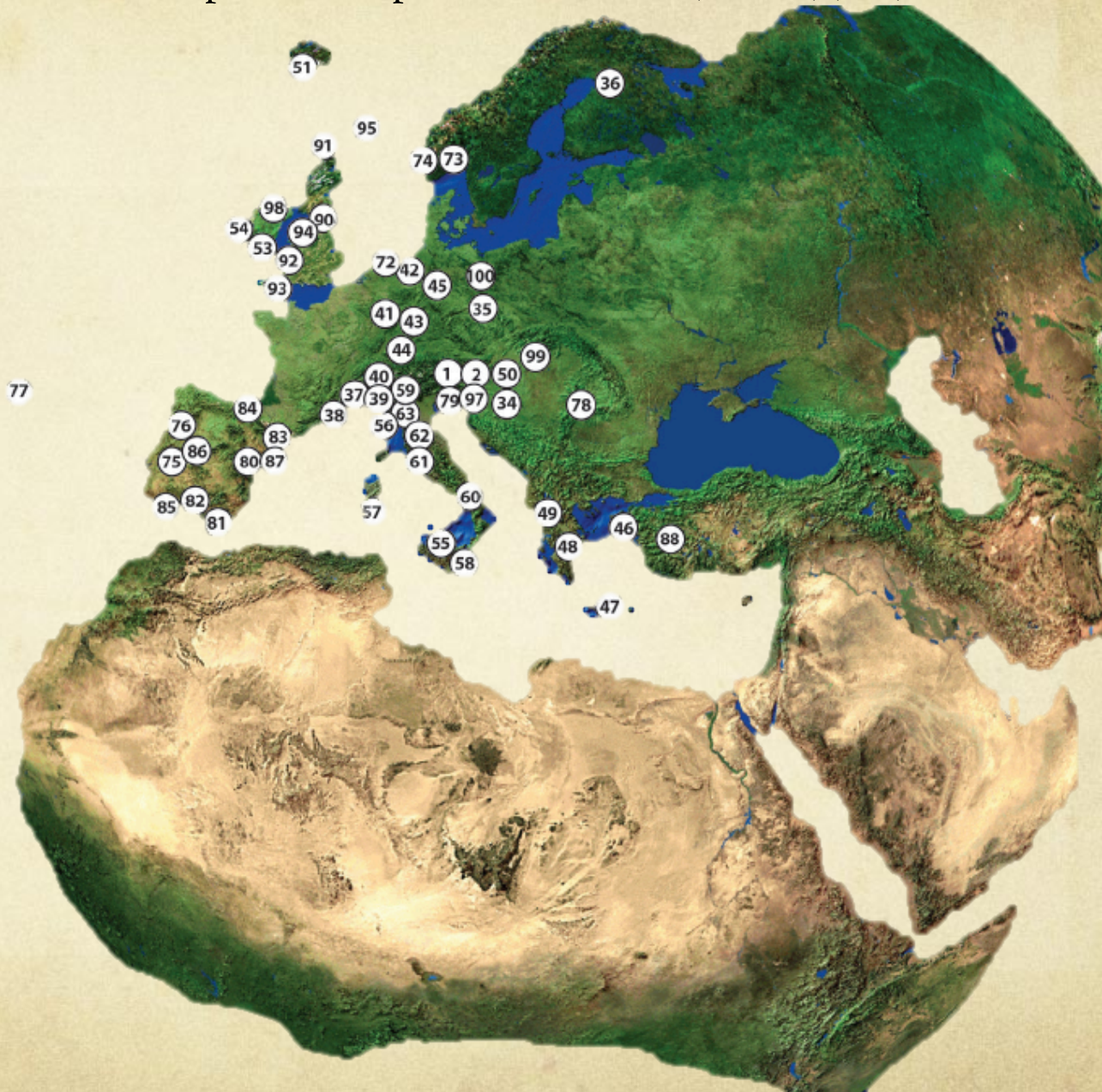


- GGN Newsletter 2010 Issue 02



Where are the  
Global Geoparks?  
March 2014, there  
are 100 Global  
Geoparks spread  
across 30  
countries.

*European Geoparks Network (EGN)(58)*



*African and Arabian Geoparks Network (AGN)(0)*





AGN

Executive Committee

Activities



## About AGN

The African Geoparks Network "AGN" was created by the African Association of Women in Geosciences "AAWG, [www.aawg.org](http://www.aawg.org)" during the pre-congress of its fifth conference held in Abidjan, Ivory Coast in May 2009. The AGN aims to identify, promote, and advise on the importance and preservation of geological sites in Africa in collaboration with other stakeholders. This initiative has got the support of IUGS, GSAf and many other national organizations. In that Framework, the AAWG and the AGN in collaboration with UNESCO Cairo Office organized the First International Conference on African and Arabian Geoparks which was held in El Jadida (Morocco) from the 20th to the 28<sup>th</sup> November, 2011.

This First International Conference on African and Arabian Geoparks was attended by 100 participants from 31 countries and had received 87 abstracts from 39 countries representing the five continents. The pre-conference course was attended by 38 participants from 19 countries and its related post-conference field trip was attended by 42 participants from 16 countries.

### AGN Activities

The 1st ICGAME (Morocco)

The 2nd ICGAME (Senegal)

Other Activities

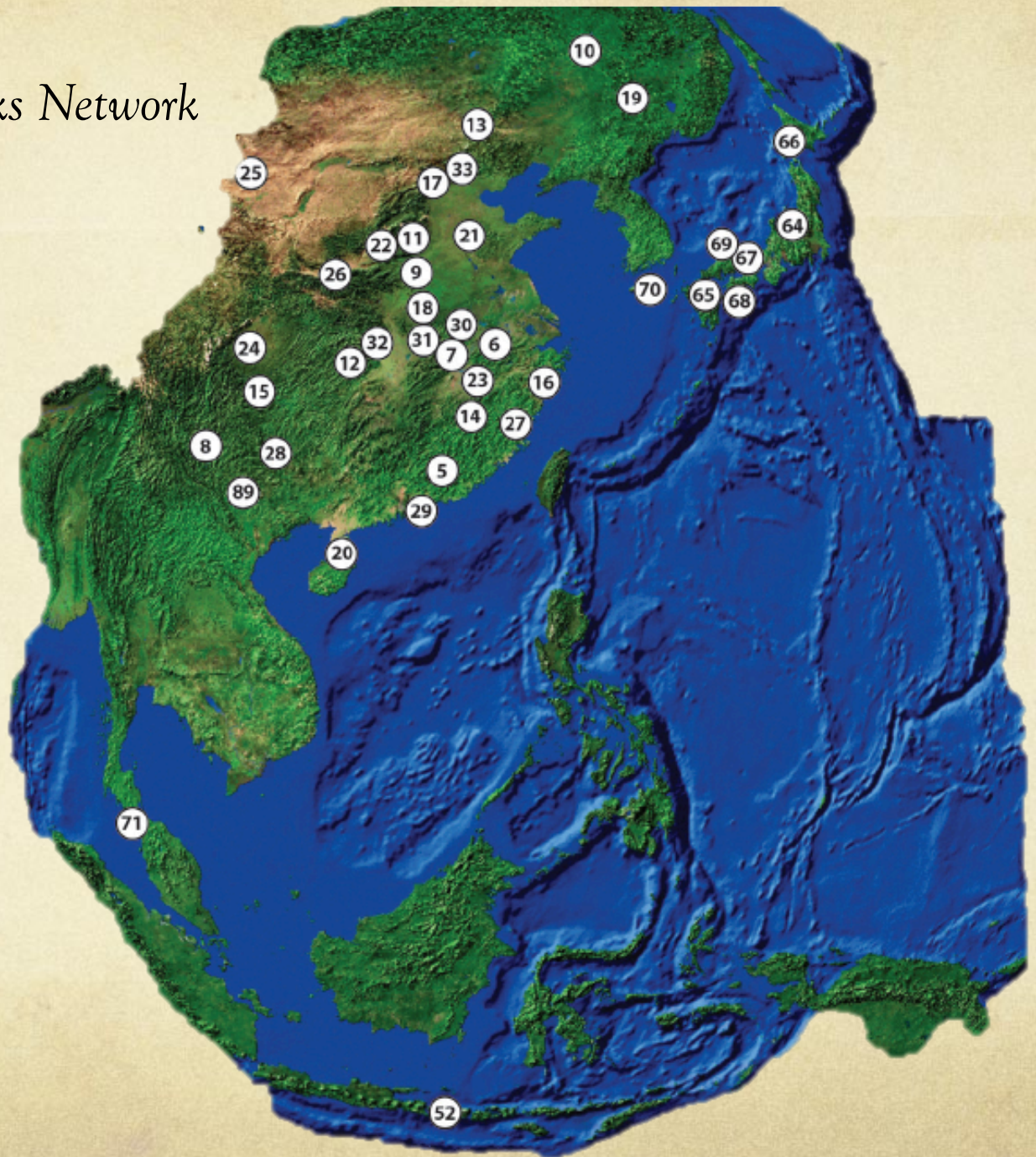


Join us on facebook






*Asian Pacific Geoparks Network  
(APGN)(39)*







*North America Geoparks Network (NAGN)(1)*

*South America and Caribbean Geoparks Network  
(SACGN)(2)*



**Austria**

1 Eisenwurzen

2 Carnic Alps

**Brazil**

3 Araripe

**Canada**

4 Stonehammer

**China**

5 Danxiashan

6 Huangshan

7 Lushan

8 Shilin

9 Songshan

10 Wudalianchi

11 Yuntaishan

12 Zhangjiajie

13 Hexigten

14 Taining

15 Xingwen

16 Yandangshan

17 Fangshan

18 Funiushan

19 Jingpohu

20 Leiqiong

21 Taishan

22 Wangwushan-Daimeishan

23 Longhushan

24 Zigong

25 Alxa Desert

26 Qinling-Zhongnashan

27 Ningde

28 Leye Fengshan

29 Hong Kong

30 Tianzhushan

31 Sanqingshan

32 Shennongjia

33 Yanqing

**Croatia**

34 Papuk

**Czech Republic**

35 Bohemian Paradise

**Finland**

36 Rokua

**France**

37 Réserve Géologique de Haute-Provence

38 Parc naturel régional du Lubéron

39 Massif des Bauges

40 Chablais

**Germany**

41 Vulkaneifel

42 Nature- and Geopark TERRA.vita

43 Bergstrasse-Odenwald

44 Swabian Albs

45 Harz Braunschweiger Land Ostfalen

**Greece**

46 Petrified Forest of Lesvos

47 Psiloritis Natural Park

48 Chelmos Vouraikos

49 Vikos Aoos

**Hungary**

50 Bakony-Balaton

**Iceland**

51 Katla

**Indonesia**

52 Batur

**Ireland**

53 Copper Coast

54 Burren and the Cliffs of Moher

**Italy**

55 Parco delle Madonie

56 Parco del Beigua

57 Geological and Mining Park of Sardinia

58 Rocca di Cerere

59 Adamello Brenta

60 Cilento e Vallo di Diano National Park

61 Tuscan Mining Park

62 Apuan Alps

63 Sesia - Val Grande

**Japan**

64 Itoigawa

65 Unzen

66 Toya Usu

67 San'in Kaigan

68 Muroto

69 Oki Islands

**Korea (Republic Of)**

70 Jeju

**Malaysia**

71 Langkawi

**Netherlands**

72 Hondsrug

**Norway**

73 Gea Norvegica

74 Magma

**Portugal**

75 Naturtejo

76 Arouca

77 Azores

**Romania**

78 Hateg

**Slovenia**

79 Idrija

**Spain**

80 Maestrazgo Cultural Park

81 Cabo de Gata-Níjar

82 Sierras Subbéticas

83 Sobrarbe

84 Basque Coast

85 Sierra Norte de Sevilla

86 Villuercas Ibores Jara

87 Central Catalonia

**Turkey**

88 Kula Volcanic Geopark

**Viet Nam**

89 Dong Van Karst Plateau

**United Kingdom**

90 North Pennines A.O.N.B.

91 North-West Highlands

92 Fforest Fawr

93 English Riviera

94 Geo Môn

95 Shetland

**Uruguay**

96 Grutas del Palacio

**Austria/Slovenia**

97 Karawanken/Karavanke

**Ireland/United Kingdom**

98 Marble Arch Caves Global Geopark

**Hungary/Slovakia**

99 Novohrad - Nógrád

**Germany/Poland**

100 Muskau Arch

# 100 geoparks in 30 countries



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**Geo-Naturpark Bergstraße Odenwald** Irreführen Sie eine besondere Region, die mit bis 500 Millionen Jahre Erdgeschichte, einer ursprünglichen Natur und einer faszinierenden Kultur in sich vereint. Unten: GeoPark-Rangir bieten Exkursionen, Familienführungen, gemeinsame Aktionen sowie "Geo- und Genuss"-Wanderungen.  
www.geopark-net



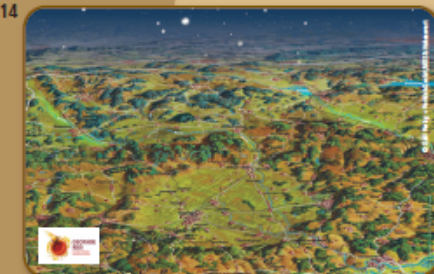
**GeoPark Eiszeitland am Odenrand** Westfälische Moorterrassen, die das geologische Kerngebiet des Nationalen GeoParks Eiszeitland am Odenrand.  
www.eiszeitland-am-odenrand.de



**Nationaler GeoPark GrenzWelten** Die "Korbacher Spalte" ist neben dem UNESCO-Welterbestätte "Grube Messer" das bedeutendste Bodendenkmal Hessens und zentraler Anlaufpunkt des GeoParks "GrenzWelten".  
www.geopark-waldack-frankenberg.de



**GeoPark Harz - Braunschweiger Land - Ostfalen** Die Teufelsmauer bei Wiedersheim südlich Quedlinburg, ein sagenumwobenes, im Zuge des Harzrückbaus stoff ausgerichteten Sandstein Schichtpaket aus der Oberkreidezeit.  
www.geopark-harz.de



**GeoPark Ried** Erdgeschichte live erleben! Die Geschichte des GeoParks Ried beginnt vor 14,5 Millionen Jahren mit einer beeindruckenden Katastrophe: Dem Einschlag eines Meteoriten! Erhöhen Sie den lebendigen Krater mit seinen Deutschersteinen aus Gestein, Natur und Bevölkerungsgeschichte, z. B. dem im Ried entdeckten Impaktkrater. Sauer.  
www.geopark-ried.de



**GeoPark Ruhrgebiet** schreien! Im fließenden Oberkanal mit Wäldern, Böden, Steinbruch, Bäumen, Wäldern - www.geopark-ruhrgebiet.de



**GeoPark Schwäbische Alb** Wandern im Eichenburger Tal auf der Ostalb - www.geopark-alb.de



**GeoPark Triasland** - 250 Millionen Jahre Erdgeschichte, erschlossen auf 2000 km² durch insgesamt 10 geologische und kulturelle Aufschlüsse in einer naturnahen, alten Kulturlandschaft mit den Flüssen Saale, Unstrut, Elbe, und Wörlitz. Thien.  
www.triasland.de



中国国家地质公园分布示意图

241 (incl. 184 approved sites & 57 pre-approved sites, as at January 9, 2014)

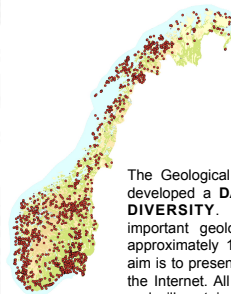




# Geoparks, geopark projects and geotourism in Norway

A **Geopark** is a unified area with geological heritage of international significance. Geoparks point out the links between geological processes and society and promote respect for the environment. Geoparks stand for education and popularization of science, geoscience, cultural aspects and communication.

UNESCO has approved two geoparks in Norway – Magma Geopark and Gea Norvegica. Similar projects are being planned in the other parts of Norway. We would like to present some of them.



The Geological Survey of Norway (NGU) has developed a **DATABASE FOR GEOLOGICAL DIVERSITY**. The database will contain important geological sites in Norway. Today approximately 1,500 areas are registered. Our aim is to present it in a web mapping server on the Internet. All sites will be shown on a map and will contain fact sheets and photos.

[http://geotest.ngu.no/kart/naturarv\\_94/](http://geotest.ngu.no/kart/naturarv_94/)

**TROLLFJELL GEOPARK** is located on a common strandflat along the Norwegian Helgeland coast - from Lekja to Vega. The strandflat landscape consists of flat belts of coastal land and similarly shallow shelves below sea level. The most important attractions are Lekja, Brenneøy and Vega. Lekja is Norway's Geological National Monument that offers a journey to the Earth's interior, from mantle to sea floor. Brenneøy is most famous for Torghatten - "the hole in the mountain", which is one of the most visited attractions in Norway. Vega Archipelago World Heritage Area is a unique cultural landscape and strandflat on UNESCO's World Heritage List.

**RONDANE GEOPARK** is located in the middle of Norway, in the counties of Oppland and Hedmark. The area shows a landscape with a numerous marks from the Ice Age, which help to understand how this type of landscape was shaped. Numerous of trails to study geology (e.g. with result of glacial melting after the last Ice Age), culture and nature could be found here. The largest canyon in North Europe - Jutulhogget's Canyon is one of the most famous attractions. A trip into a sulfide mine and courses in gold panning and polishing stones are just some other examples of activities in Rondane.

**THE HAFS REGION** is located at the western coast of Norway, by the mouth of Sognefjord, the world's largest fjord. The acronym refers to the first letters of the name of the municipalities. The area bears evidence of the rise and fall of a mountain chain. Currently, emphasis is put on explaining the spectacular geology of the area visible and understandable for local inhabitants and tourists. A long-term aim is to provide the foundation for a geopark.

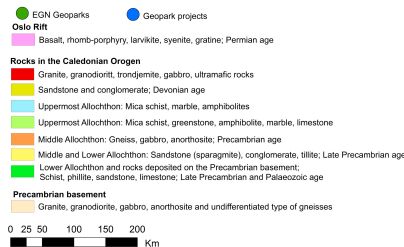
**MAGMA GEOPARK** is located in southwestern Norway, in the counties of Rogaland and Vest-Agder. In 2010, it became a member of the European and International Geoparks Network as a second geopark in Norway. Here one can find anorthosite – a rock type that is more common on the moon than on the Earth. Some of the attractions are a glacial ridge, old mines, anorthosite landscape with huge blocks and caves and a magma chamber in a coastal landscape ([www.magmageopark.com](http://www.magmageopark.com) [www.geoparks.biz](http://www.geoparks.biz)).

**GEA NORVEGICA** is located in southeastern Norway, in the counties of Vestfold and Telemark, and is the first European Geopark (UNESCO) in Scandinavia. The area is located where the old Scandinavian geology meets the younger geology of the continental Europe. The diversity of landscapes results from the great variations in bedrock and deposits. One can find here numerous remains from the last Quaternary glaciation and the world's type locality for carbonatitic magmatic rocks. The area also has a rich industrial history from Norway's oldest iron mine to Larvikite quarrying ([www.geoparken.no](http://www.geoparken.no)).

**GEOPARK NORD** is an initiative in the high North Ofoten district in Nordland county. The landscape is characterized by diversity with alpine mountains and narrow fjords, as well as open valleys and tundra. The National mountain of Norway - Stetinden is just one spectacular place. Ice-ages, glaciations, rich history of mining and quarrying and among the oldest rocks in Northern Europe are disciplines which could be studied here. The project will connect rock art from the stone age to integrate art, history, mythology and ecology.

**SALTDALE** area was a part of the Northern Environmental Education Development project (GeoNEED). The GeoNEED is a cooperation project between Finland, Norway, Iceland and Ireland that developed education tools improving the educational use of geo-scientific knowledge. The work of the NEED project in Norway was placed to areas of Junkerdal and Saltfjellet - Svartisen national parks. The area is known for its limestone, and the high density of limestone caves. Nordland national park center is an important visitors centre that offers knowledge about nature and geology.

## Legend



**THE MJØSA REGION** is located in the central part of South-eastern Norway. The area is defined as the catchment area of Mjøsa, the largest lake of Norway. The area has been subject to geo-scientific investigations for a long time. Evidence of early life, snowball Earth as well as evidence of old mountain-forming processes is visible here. The area is also an important study area for understanding the end of the Ice age. In addition, the area covers some of the findings of remnants of mammoth teeth in Norway. A geopark is a long-term aim.

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# Geoparks of the World

- 100 Global Geoparks

- More than 303+ National and Global Geoparks

(Iran+ Indonesia+ 184 Chinese+10 German+ Morocco+ Australia+ Brazil+ Japan+ Bulgaria+ Scotland)

- More than 429+ Aspiring + projects, national and Global Geoparks

(8 AAGN + 10 SACGN + 12 NAGN + 72 APGN + 24 EGN)



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# Norwegian committee for Geoheritage and Geoparks

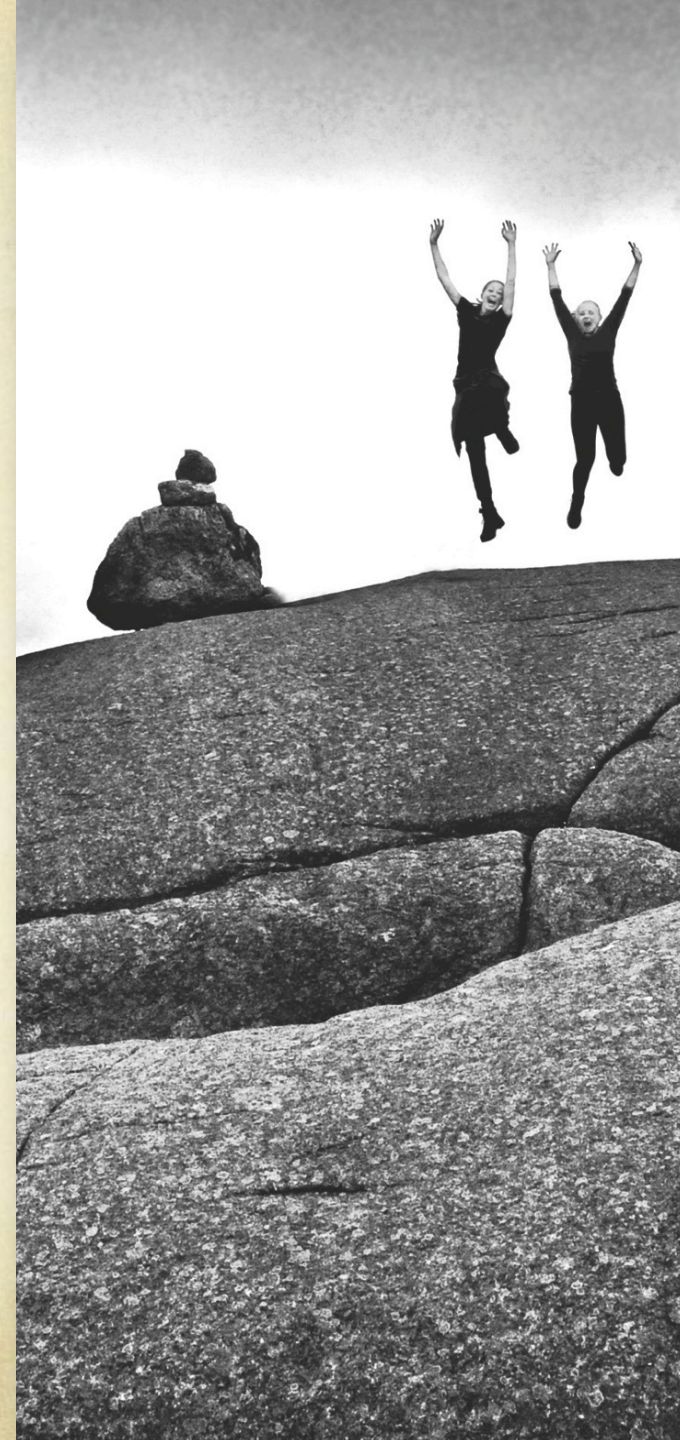
**31<sup>st</sup> October 2013:** First meeting in the committee.

Steering group: Geological Survey of Norway (NGU), Norwegian Geological Society (NGF), PROGEO, Natural science Museum Oslo University, Norwegian UNESCO commission, Ministry of climate and environment and GGN Geoparks Magma and Gea Norvegica.

**16-17<sup>th</sup> June 2014:** Workshop aspiring Geoparks at NGU focusing on geoheritage, application to EGN/GGN and evaluations of geoparks.



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# Geoparks and education

All Global Geoparks develop and operate educational programmes at a range of levels to spread awareness of our geological heritage and its links to other aspects of our natural, cultural and intangible heritages.



# Geoparks and science

Global Geoparks are thus encouraged to work with academic institutions to engage in active scientific research in the Earth Sciences, and other disciplines as appropriate, to advance our knowledge about the Earth and its processes.



# Geoparks and culture

The motto of the Global Geoparks Network is “Celebrating Earth Heritage, Sustaining Local Communities.”



# Geoparks and sustainable development

Even if an area has outstanding, world-famous geological heritage of outstanding universal value it cannot be a Global Geopark unless the area also has a plan for the sustainable development of the people who live there. This development may take the form of sustainable tourism.



# How to join the Global Geoparks Network?

The Global Geoparks Network (GGN) has a rigorous and independent application procedure which involves the submission of a detailed **application dossier** followed by an **evaluation mission**. There is a clear timetable for submitting applications and all dossiers must follow the same, specific format.



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# UNESCO and Global Geoparks Network 10 years anniversary!

- 2004: EGN and Chinese geoparks invited by UNESCO to form the new network

Division of Earth Sciences of UNESCO was invited to pursue the general objective ‘**Education in Earth Sciences**’, by promoting Geopark initiatives as an inter- and multidisciplinary activity, providing UNESCO’s support to national initiatives on an **ad hoc** basis as requested by Member States

# A growing network and closer cooperation with UNESCO

- UNESCO Global Geoparks: UNESCO Program? Too big budgetary implications?
- UNESCO initiative? Legal implications?
- UNESCO under an already existing umbrella? IGCP (International Geoscience Program)



# 2013/2014

- Director General: Working group on geoparks
  - Three meetings, a fourth meeting in June 2014
- Challenges:
  - Financial situation
  - Legal personality for GGN
  - Structure of UNESCO Global Geoparks
  - All existing geoparks will become UNESCO Global Geoparks?

# GGN:

- Agreed that each Geopark pay **1000 US\$** annual fee for supporting the network. Administered by relevant UNESCO secretariat.
- Legal Personality: **Three models** will be discussed later this month by EGN
- Structure: **Two different** models under the umbrella of the IGCP will be discussed
- The revalidation processes will continue, all geoparks will be evaluated repeatedly every 4th year, in order to keep the high standard



# Way forward:

- April 2014: CC-EGN meeting
- April 2014: Executive Board (ExB) meeting – progress report
- June 2014: Working group meeting
- September 2014: CC EGN meeting and General Assembly of GGN (Canada)
- September 2014: ExB meeting – decision on working group results
- April 2015: ExB meeting – final decision
- October 2015: UNESCO General Conference - UNESCO *Global Geoparks* ???



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- ◆ UNESCO
- ◆ Magma Geopark, Norway







# Magma Geopark

## 挪威岩浆地质公园

Image © 2007 Magma  
Image © 2007 Magma



**MAGMA**  
**GEOPARK**  
norway

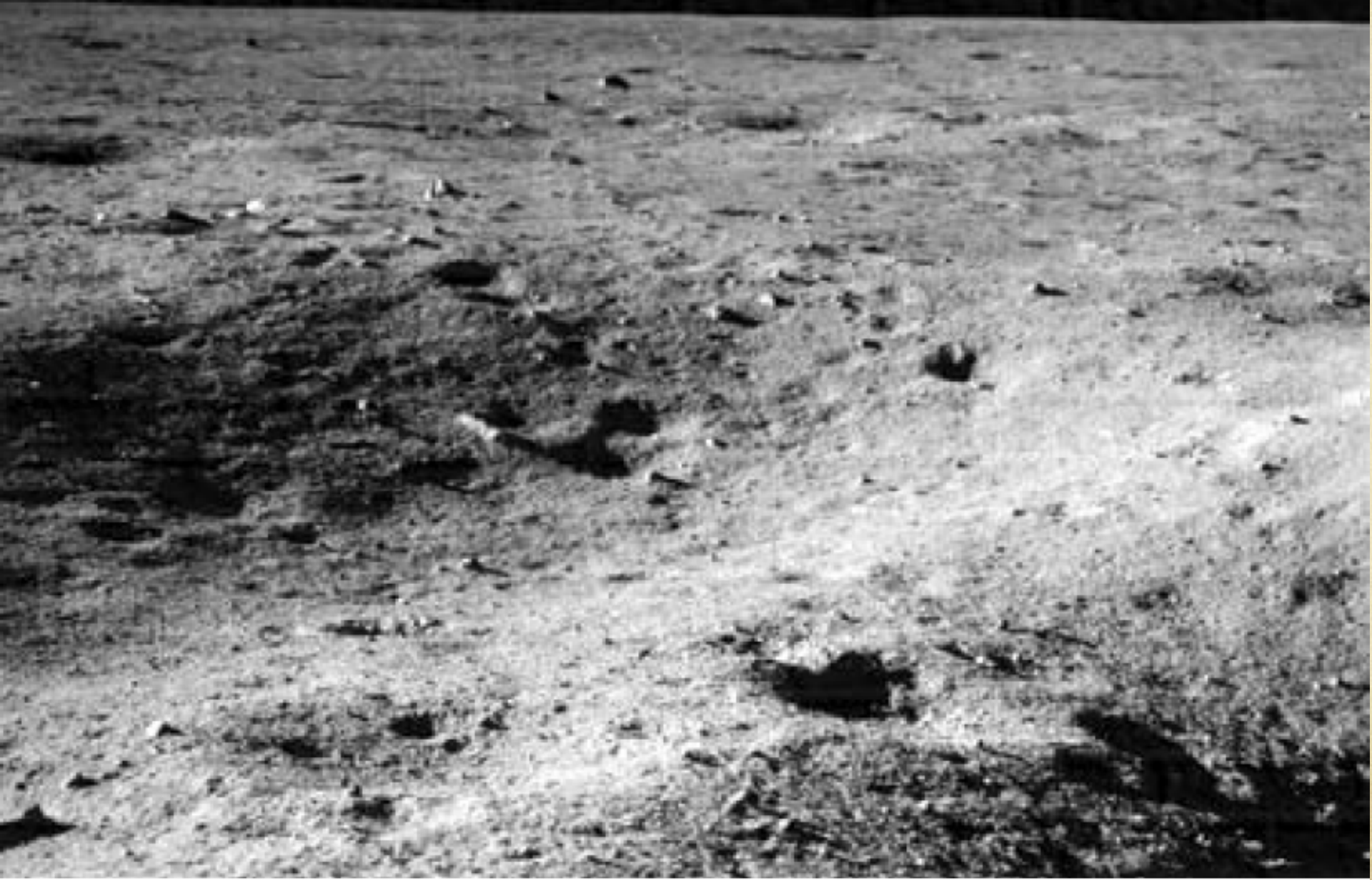
Member of the  
Global Geoparks Network  
under the auspice/with the support of UNESCO







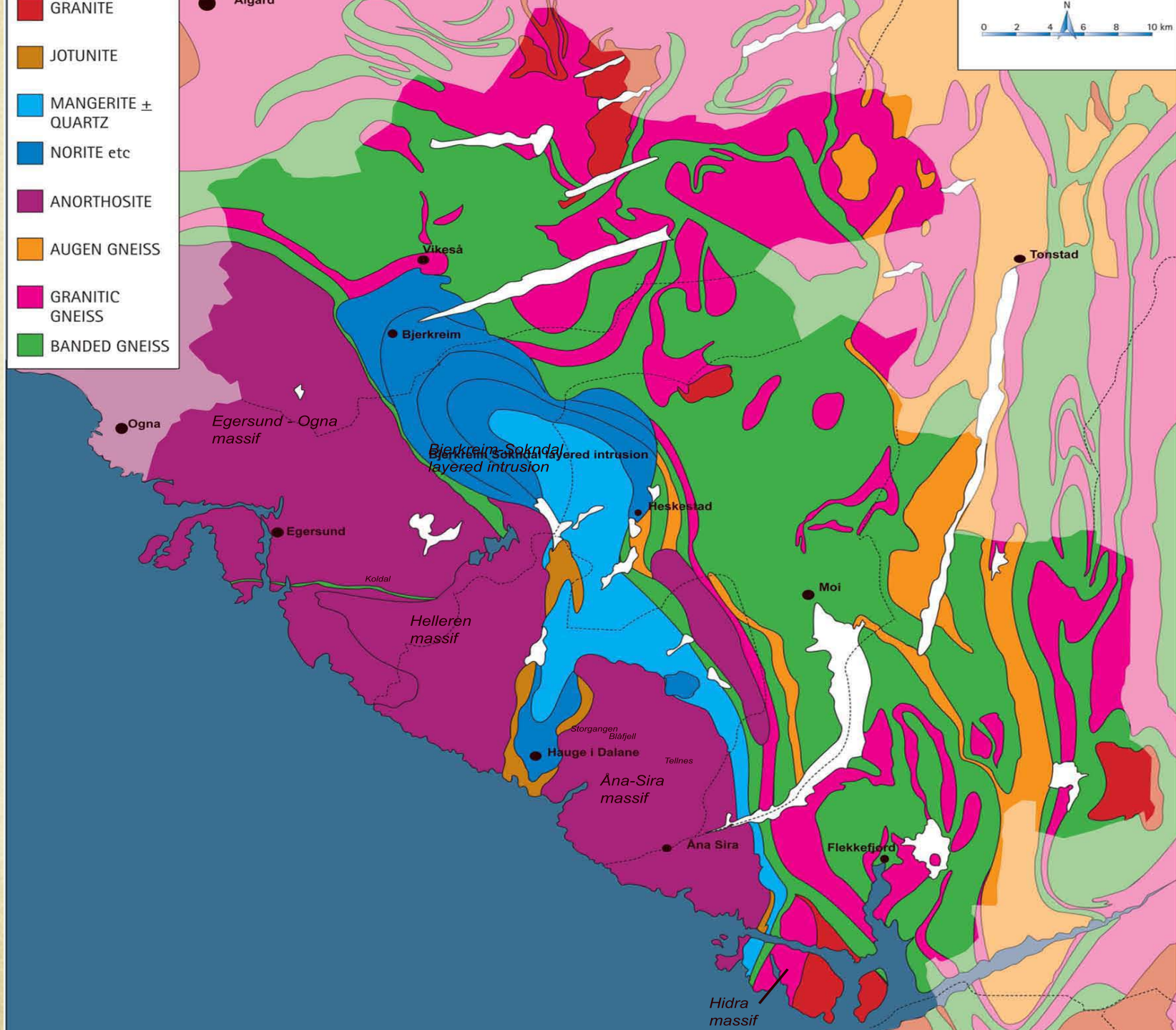
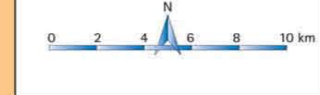
# ANORTHOSITE ON THE MOON



# ANORTHOSITE IN MAGMA GEOPARK









Magma Geoparks  
information panels  
make tourists and  
locals discovering the  
geological, natural and  
cultural heritage





# Available activities in Magma Geopark

- Hiking
- Cycling
- Paddling
- Climbing
- Boattrips
- Fishing





# Packed tours and activities

## Northern Georoutes Members

1. **Magma Geopark (NORA)**
2. **Shetland Geopark**
3. **Stonehammer Geopark**
4. **Katla Geopark (NORA)**
5. **Locatify (NORA)**
6. **Blue Ice Explorer (NORA)**
7. **Tora Tourist Traffic (NORA)**



# GEO PARK

ark Naturtejo

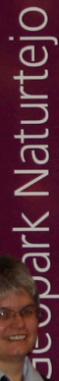
RRA. vita

na Geopark

Millionen Jahre erleben  
millions of years, once in a lifetime experience







Million  
millions



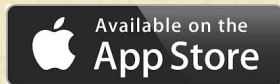
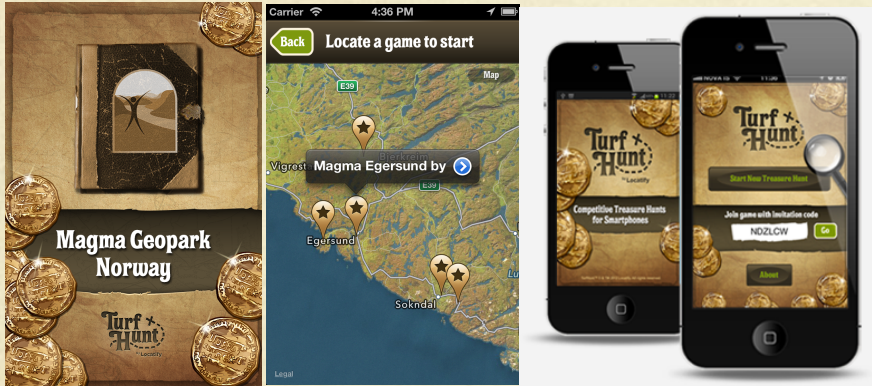


# Download Magma Geopark app

<http://locatify.com/magma/>

Magma Geopark app for Iphone og/and Android.

Noen TurfHunts å velge mellom/Some TurfHunt to choose from;  
Eigerøy fyr, Egersund, Solbjørnnpa, Gullbergtuva, Tronåsen, Jibbeheia, Blåfjell,  
Hellersheia, Li gård, Flekkefjordbanen m.fl/and more.







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• UNESCO-  
• kommisjonen



# Entering the virtual world

Supported by the Norwegian UNESCO commission with the aims to promote and valorizae the geological, natural and cultural heritage through sustainable practices.



# THANK YOU FOR YOUR ATTENTION!

PÅL THJØMØE  
POST@MAGMAGEOPARK.COM

[www.magmageopark.com](http://www.magmageopark.com)



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