



# NEWS



*Project group meeting in hot-water basin Blue lagoon studying geothermal diversity, Reykjavik. Photo instructed by Annika Jansson.*



## **Geodiversity in Nordic Nature Conservation**

The new project Geodiversity in Nordic Nature Conservation has the purpose to introduce the concept 'Geodiversity' to Nature Conservation work in theory and practice. It will take another two years.

'Geodiversity' means the variation of the bedrock, quaternary cover, the landforms and related processes influencing nature and landscape. It can be related to

different scales: within a site or area ('internal geodiversity') as well as 'external', i.e., sites and areas related to corresponding ones in a region, a continental shield, a continent, or the world. The project will convey and clarify the meaning of 'Geodiversity' with regard to important geological and morphological features in the Nordic countries. The basic importance of geodiversity to biodiversity will be elucidated. The use of 'Geodiversity' should be as broad as that of 'Biodiversity'.

The project will state criteria to select and delimit regions, areas and sites of great importance for geodiversity ('type areas') and give illustrating examples of such ones in the European parts of Norden.



*George as president of ProGEO opening a information system of geological reserves in the Oslo field during the meetings in Norway 1990 (photo: Ulrike Pistotnik).*

**A**t the end of August we lost our first president, George Black. He had been fighting cancer for some months, but died quite suddenly of a heart attack. He was losing the battle with cancer so this could be seen as a release from a long and awful disease. George was my first boss in the Nature Conservancy in Britain. His greatest achievement was to build up a team of Earth scientists to develop geoconservation in Britain, and then to undertake the Geological Conservation Review - a complete analysis of the key sites of Britain.

He was Mr Geoconservation in Britain. He created geoconservation, devising most of the methods and activities still in existence, and nothing much that has come since that could be said to be new. When he resigned in the mid-1980s, I took over from him in running the GCR project, having been his deputy.

He was a hard act to follow. George was a big man, in stature and achievement, in every sense a major presence in conservation. In Britain it could be said that it is a case of pygmies following in the footsteps of a giant. In ProGEO there is a gap in the membership which we cannot fill.

George left a thriving research career to take on the conservation job, having been at the forefront on Tertiary igneous studies, having worked under the famous Arthur Holmes. He was a formidable chemist and petrologist, and had a string of research students before he left Edinburgh University to move south to live amongst the foreign English.

George was ProGEO's first president. He was a logical and automatic choice for the original founder members. We all respected George and relied much on his judgement. George was a fiery as the rest of us when it came to obstacles and problem people, but he always used his many skills to keep the lid on and find a way through difficulties. He was a wily negotiator. George could not make it to Rome, because of business commitments, but those at the Sigtuna meeting will have some good memories of George's last conference with us.

George was a friend and mentor to many. ProGEO will miss him and his wise council.

W.A.P. Wimbledon

### Target groups and results

The results are to be published so as to give guidance for planners, nature managers and decision-makers when planning and handling matters concerning the use of natural resources, and also when making 'Environmental Impact Analyses' of undertakings and their influence on landscapes, geotopes and

biotopes. The publications should also be available and useful to universities, high-schools and the public.

The previous Nordic divisions of physical geographical regions and terrain types (1984) gives models and partly bases for the performance. Three reports are planned:

*(continued page 13)*



## Intermittent sources in Slovenia

The intermittent sources are not regarded as a particularly rare natural phenomenon. The period and the system of their recess do differ, though. A well-known source of this kind in Slovenia exists in the valley of the Savinja river not far away from the beautiful glacial valley Logarska dolina. Surmounting the source there is a pointed rock leaning against the slope at one place and right underneath there is a narrow crevice. It appears like a needle with an eye, that is why it was given the name of Iгла - Slovene word for needle. The traffic regulation, i.e., the road, passing by the very source deeply affects the periods of its intermittence.

Another example of this phenomenon is to be found in the hills above Cerkno, western part of Slovenia. This is the so called Zaganjalka intermittent source. The Slovene verb «zaganjati» means something like to start, to spring or to push forward. This interesting folk expression being very evocative, there is a tendency to introduce this name for all the intermittent sources in Slovenia. Unfortunately the Zaganjalka source has also been affected by the renovation of the nearby forest road.

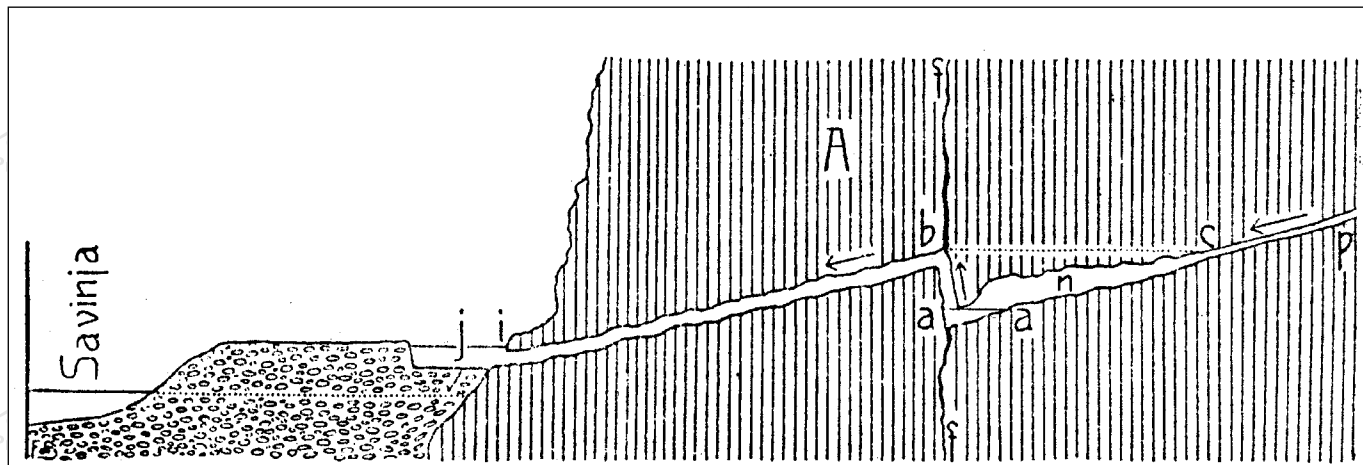
Lintvern is the name of another intermittent source at Vrhnika, near Ljubljana. Today its water is being used for the water supply. Therefore, its performance is not normal anymore. The water springs out from a karstic cave. Before the water came out, it used to roar in the depth of the cave and then the water



*Iгла, with an intermittent source underneath, location - the Savinja river valley.*

flow appeared. It is supposed to have brought out the cave amphibia *Proteus anguinus* Laurenti 1768, curiosity of the Dinaric karst. People were convinced that they were the dragon young ones coming out. Moreover, the roar of the dragon was to be heard beneath. That is why this intermittent source is called Lintvern, which is a popular deformation of the German word Lindwurm = dragon.

A very interesting explanation of the activity of such sources is to be found in the book of Ferdinand Seidl, geologist and seismologist (1907/1908) where he describes the



*Explanation of the intermittent source performance (according to F. Seidl).*



## President's square

Dear ProGEO Friends:

The first words I would like to say as a New elected ProGEO President are: Thank you very much to all of you for the credit you gave me. Please do not have any doubt that I will do my best to be an active President. The standard set by our last President truly reached a high level by his hard work for the Association. Together with the other members of the Executive Committee I will try to maintain this standard for the best of ProGEO.

ProGEO is one of the leading organisations concerning selection and conservation of the Geological Heritage in Europe. There is already interest in our Association from countries from other continents too. I hope that ProGEO soon will be able to extend its influence out over the borders of Europe. Especially we must try to implement ProGEO ideas into the preparation of not only the National and Regional List of Geological Heritage, but also the Representative IUGS/UNESCO List of the World Geological Heritage Sites. We can do that and I believe that we will realise this necessity, as well as ProGEO and its Working Groups must go into several other Projects as well in our work to promote geoconservation.

Further, I would like to thank very much our Estonian friends who organised very well the ProGEO'97 meeting in their nice country this June. Many thank to our friends from Sweden and Norway also, for their financial support of the Meeting and for the publishing of ProGEO News. I would like to believe they will not

forget us in the future so our association will be given the opportunities to develop and extend.

This autumn we have received the sad news that our first President, George Black is dead. We all knew that George was fighting illness, but, like himself, were optimistic about final success of his medical treatment and the natural resistance of his long trained and strong body and spirit. Unfortunately, this never happened. I want to express my profound sympathy and support to his relatives and his best personal friends. Let us remember him as we continue to push his work of geoconservation and ProGEO forward now and during the years to come after him.

In the end I would like to inform you that as a ProGEO President I already have had the chance to take part in two very interesting Symposiums - the International Symposium «Engineering Geology and Environment» (Athens, 23-27 June 1997) and 2nd International Symposium «Natural Monuments and Geological Heritage» (Molyvos, Lesvos, June 30 - July 2 1997). Thanks a lot to our Greek friends for their invitation, but much more for their excellent achievements within Geological Heritage Conservation. They gallop very quickly and deserve praise!

Good luck to all ProGEO members and ProGEO News Readers! I hope to meet all of you on the ProGEO News pages and next year in Sofia during ProGEO'98 Meeting. Why not?

Sincerely Yours, Todor

geological structure of the Slovene mountain chain Kamnische Alpe. Under the surface there is a system of crevices, collectors of water. When this underground reservoir fills up, its water overflows and appears on the surface. Then follow another new filling and another emptying, etc.

There are other intermittent sources in Slovenia. As geotopes they would, nowadays, surely enjoy greater protection than it used to be the case in the past when they suffered from various activities carried out in their vicinity.



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## Minutes of ProGEO council meeting, June 2 1997, Tallinn

Attending: A. Serjani, W. Krieg, U. Pistotnik, V. Vinokurov, T. Todorov, (I. Zagorchev guest), S. Andersen, R. Raudsep, T. Kananoja, V. Suominen, I. Theodossiou-Drandaki, F. Zarlenga, G. Gonggrijp, I. Federe, J. Satkunas, S. Klincarov, L. Erikstad, Z. Alexandrowicz, J. Urban, (Andreasanu guest), A. Lapo, (Y. Sysra guest), D. Mijovic, B. Hlad, C.E. Johansson, L. Karis, B. Sturm, N. Gerasimenko, W. Wimbledon.

Apologies received from L. Marjanac, O. Radai, R. Masolli-Novelli, A. Grube, E. Look, G.P. Black, D. Norman, C. Cleal.

The president welcomed the council, particularly those attending their first meeting as country representatives, and thanked the organisers, especially Dr Rein Raudsep, for organising the meeting, and in such historic surroundings. The agenda already circulated was agreed (items 14-16 and 20 were deferred)

- 1) Executive committee reports (President and secretary) had been circulated to the membership: these were taken as read and accepted.
- 2) Short reports were given by Zofia Alexandrowicz and Ivan Zagorchev on work in the central and SE regional groups. Zofia spoke of plans for the meeting in Krakow in October '97. Steen Andersen and the President related that there had been several meetings of the Northern regional group. A meeting of the Eastern (Russian) regional group was being planned for November organised by Andrei Lapo.
- 3) In the absence of the Treasurer, the chairman of the finance committee, Lars Karis, spoke briefly on the need to seek sources of funding, commercial and otherwise. There was short discussion on the challenge of funding meetings.
- 4) The secretary spoke on the growth of members, around 50 since the Rome meeting, and related that in Tallinn he had been given member application forms that would give a significant further increase.
- 5) There was short discussion on representation. On the need to promote ProGEO in all the countries, successfully and fully,

forming networks as well as had occurred in some, e.g. Ukraine, and now Russia. It was necessary to advertise activity under the ProGEO name involving all necessary individuals and organisations in each country, and have an elected representative to represent the association nationally and as a whole. The secretary related that there had been significant growth in numbers in some countries, but in others members were being complacent and not recruiting actively.

- 6) There had been a prolonged discussion at the executive committee meeting on the subject of the frequency of future annual meetings. The secretary related the possibilities and the proposition that ProGEO meetings should be every second year, not yearly, because of the drain on time and money. The matter was fully debated, but there was quite a fast decision: that every second year was the best frequency, so that in intervening years regional initiatives and workshops could occur. So meetings should ideally coincide with a general assembly, and every fourth year was thought the best interval for larger open meetings such as the Rome symposium. It was decided to put the decision to the General Assembly for discussion.
- 8) The election committee would oversee the elections. The revised guidelines for elections were in operation. The Council had no problems with or observations on the agreed methods. Council welcomed the new procedures.
- 9) The projects officer outlined plans to publish the manual through IBN-DLO as a guaranteed publication, but less sizable, in terms of print run. This was greeted as good news. Volume to be edited after the summer. Progress on Geotrip had been less than comprehensive. All were urged to promote the event, but few had so far indicated their plans.
- 10) The president commented favourably on the success of ProGEO News. Lars Erikstad was heartily congratulated, and Dr Ola Skauge was thanked for the financial support which makes publication possible.
- 11) Members were asked to contribute to the Web Homepage. There was some discussion on national homepages, an exciting possibility for all to use. The secretary urged all to make use of this facility as well as the newsletter. Lars Karis said he could help those with problems with the technology. He was congratulated on the success of the Homepage.



- 12) Manual, dealt with under 9 above.
- 13) Francesco Zarlenga related that the the Rome proceedings were at the final stage, and printing was imminent. henthanded those of the editorial committee. A 500-page volume was anticipated in the Memoires of the Geological Service of Italy. Lars Karis reported that the Sigtuna proceedings, despite a rough ride and a large backlog in SGU publications, was expected by the end of the year. Both were thanked for all their enormous works, at the meetings and in the publication phase.
- 17) Geosite of the Year had been started. There were three candidates this year: the winner to be announced at the banquet that evening. The award would be a polished block of unique composition from Norway. It was suggested during discussion that several awards might be possible in future. The criteria were explained by Lars Erikstad, and some discussion ocured on making these more objective. Further work was needed and this would follow, under the guidance of the President.
- 18) The secretary announced that the executive committee had discussed the matter of public relations and the job of the press officer. This role had in fact been performed by numerous people running meetings, arranging projects and events: in any case through the newsletter and the Internet things had moved on, and we had the capacity to advertise worldwide. It had been decided not to fill the post of Press Officer, a role that had in fact never functioned, and to continue to promote projects and activites as we do now, singly and collectively. This was agreed by Council.
- 19) Steen Andersen related that the publication of the Weichselian ice-limit project was imminent . This collaborative project between the Nordic countries to identify the geosites which best exemplify the ice limits was an excellent template for such collaborative initiatives.
- 21) There was no other business.

The final act of the Council meeting was to cast votes for a new executive committee. The meeting was closed so that the election committee could count the votes cast, plus postal votes carried by the secretary. Drs Johansson, Kreig and Satkunas witnessed the counting of ballot papers and countersigned the resulting totals.

Votes were as follows:

Irene Drandaki Theodossiou 22 Ernst R. Look 22 Dusan Mijovic 22 Lars Erikstad 23 Gerard P. Gonggrijp 23 Alf T. Grube 23 Lars O. Karis 22 Rein Raudsep 22 Francesco Zarlenga 22 W.A.P. Wimbledon 23

Two postal votes were spoilt, because they were sent in an envelope marked «President's election» (which was no opened until the general assembly)

The result of the executive committee election was announced at the reception immediately following.

### **General Assembly Lahemaa National Park:**

Election of a new President for ProGEO

The meeting was chaired by Dr Ola Skauge. The main business was the election of a President. Twenty-three postal votes had been received and counted by the elction committee. (One was delivered on the day by hand, but not in a sealed envelope, so this vote was void). A show of hands was counted and thirty-one recoded. Dr Skauge announced that the sole candidate Prof Todor Todorov was elected by 54 votes. Dr Carl Erik Johansson, the outgoing President , congratulated him. Prof Todorov vowed to work for the Association, and to do his best in all possible ways to further its aims, which we all shared. He thanked all who had placed their faith in him by voting, and those in the committee who had pledged their support.

General Assembly Debate The General assembly accepted the officers reports. There was little debate of the election methods which were found effective and democratic. The secretary said they were time consuming and hard work, but worth the time and effort just to show a proper method was in use by ProGEO. There was a short discussion of the use of the logo.

The General Assembly discussed and approved the Council's decision to fix ProGEO meetings to a gathering on every second year, abolishing the annual meeting. Major conferences might be linked to a biennial meeting, but the frequency for larger meetings was agreed to be once in four years



## ProGEO Italia

I have just returned from Italy. I was privileged to attend the inaugural meeting of ProGEO Italia. Following the momentum started by the Second International Symposium on the Conservation of the Geological Heritage, discussions have been going on in Italy concerning the formalisation of geoconservation activity in the country and Italy's part in a southern Europe/Mediterranean regional working group, and projects such as Geosites. The meeting, chaired by Dr Francesco Zarlenga, was supported by government agencies, universities, regional government, societies such as SIGEA, and freelance professionals.

Congratulations to Dr Maurizio Burlando as the secretary and contact point for the new network.

W.A.P. Wimbledon



## The birth of ProGEO Italia - the Italian geoconservation network

On 8th September 1997 the first Italian ProGEO members meeting took place in Rome, hosted by the National Geological Survey. It was organized by Francesco Zarlenga (ProGEO Executive Committee member) to meet Italian colleagues engaged in Geoconservation and to constitute a national Working Group on geosites selection criteria, inventories guidelines, management, etc.

The meeting - with the presence of ProGEO Executive Secretary Bill Wimbledon - was attended by representatives from several scientific organizations: Dr G.Gisotti (SIGEA - Italian Society for Environmental Geology President - National Geological Survey), Prof. R.Massoli-Novelli (SIGEA - Dep. of Environmental Sciences Univ. of L'Aquila), Dr M.Burlando (SIGEA), Dr G.Poli (SIGEA - Emilia Romagna Regional Administration), Prof. M.Panizza (IAG International Association of Geomorphologists Vice-President - Dep. of

Earth Sciences Univ. of Modena), Prof. G.Pavia (Dep. of Earth Sciences Univ. of Torino), Dr E.Costantini (ISSSDS Experimental Institute for Soil Research and Conservation).

After a brief introduction by B.Wimbledon about ProGEO objectives and activities, F.Zarlenga explained the aims of the meeting. Many arguments were discussed and especially: the state of the art of geosites inventories in Italy; the possibility to connect with European projects; the role of the Geological Heritage in land planning and environmental protection.

All the colleagues agreed upon some objectives:

- to form a national Working Group (ProGEO Italia - the Italian geoconservation network)
- to involve all Italian Earth Sciences specialists exchanging informations and ideas in a national geoconservation network, linked with European projects and organizations
- to set up common guidelines about geosites selection criteria and methodologies
- to find out grants opportunities and financial supports by the European Communities and Italian public administrations for geosites inventories
- to carry out, as soon as possible, official national and regional geosites inventories
- to plan long and short period strategies to promote the conservation of Italy's Geological Heritage as cultural priority
- to enhance social awareness including decision makers, public administrations and even professionals in Earth Sciences.

The assembly elected M. Burlando as ProGEO Italia secretary and delegate F. Zarlenga to maintain relations with ProGEO Executive Committee.

In the next meeting - probably in January 1998 - the strategy concepts are to be discussed as well as the creation of a Promoting Committee and a Scientific Committee.

Maurizio Burlando



## Geosite of the year

**G**eosite of the year is a competition launched by ProGEO NEWS. The idea has been tested for one year, and the North Estonian Clint was the winner this year and got the title «Geosite of the year 1997». During discussions on ProGEO meeting this year, it was shown a clear need to define this competition, its aim and rules. As a part of this process I will here present a suggestion, and I will ask of comments and good improvements, so «Geosite of the year» can develop into a competition improving and inspiring the work of ProGEO.

- 1) The name: «Geosite of the year» is a name that may cause confusion if understood to be directly linked to the GEOSITE project or to official designation of national protected areas. May be the name should be changed to «Geotope of the year»?
- 2) The aim: To contribute to the aim of ProGEO in increasing information about geoconservation within Europe, by showing examples, inspire workers within this field, promote discussions about methods, criteria and management strategies and give support to important geoconservation projects.
- 3) How to contribute: Candidates are nominated by writing a presentation for ProGEO NEWS. The presentation should include an abstract (about 100 words), a presentation of the geotope geology and importance, a presentation of management efforts, strategy or possibilities, relevant references if possible, and 1-3 illustrations (map, photographs and/or sketches). The presentation should fill about 1-3 pages in ProGEO NEWS and will normally be presented here in full. It should be sent to the editor as a normal contribution to ProGEO NEWS under the specific label «Geosite of the year». If in periods, space in the newsletter is limited the abstract and selected illustrations will be presented as a minimum. Full presentations will always be presented in our Internet edition.
- 4) Criteria: The geotope selected should be selected because it is:
  - a very important geotope important to recognise as a part of



*Geosite of the year 1997 was the North Estonian Clint. The prize is a partly raw, partly polished Thulite (from Fossheim Stone centre, Lom, Norway) resting on European walnut wood.*

the geological heritage on a national or international level; - an example of good local geotopes important as a part of local geological heritage and local pride, education and tourism; -a successful managed geotope with a management history that others can learn and be inspired from or -a threatened geotope that need more attention to support local or national geoconservation efforts. The presentation itself and its ability to inform and inspire a wider public will additionally be used as a criterion.

- 5) The jury: Consists of ProGEO president, the editor of ProGEO NEWS and one representative appointed by the executive committee of ProGEO.
- 6) The prize: A polished/raw rock with text suitable for exhibition in a local information centre, museum or in the public area of management authorities. All good candidates will get recognition by being presented in ProGEO NEWS and in receiving a diploma.
- 7) The period: The competition period will normally be between general assembly meetings of ProGEO. The jury may depart from this rule according to the amount of candidates received.

Lars Erikstad





# NEWS



## Geosite of the year 1997

On the ProGEO 97 meetings in Tallinn the winner of the 1997 «Geosite of the year» competition was announced. The winner was the North Estonian Clint, a geotope that over a very long distance exposes a variety of landforms, geological strata and fossils. The area was presented in ProGEO NEWS no 4 - 1996, and can be accessed on internet ([http://www.sgu.se:80/progeo/news/96\\_4f/index.shtml](http://www.sgu.se:80/progeo/news/96_4f/index.shtml)). Diplomas were also given to the two other candidates (Potocka zijalka - Important cultural and natural monument in Slovenia - ProGEO NEWS no 3 - 1996 and The Jostedalsbreen Glacier - ProGEO NEWS no 1-1997) for very good contributions. Congratulations!



## ProGEO's new President

On the general assembly in June Dr. Todor A. Todorov was elected president in ProGEO. Todor is Associate Professor in the Geological Institute of the Bulgarian Academy of Sciences. He is educated as, Geological Engineer - Explorer (Economic Geologist) from the Mining and Geology University in Sofia and has a PhD from the same University with a thesis on mineralogy and geochemistry of veined copper deposits in Bourgas region.

Todor has conducted research in the fields of mineralogy and geochemistry of rare and trace elements in ore deposits for over 25 years. The research covers the ore deposits in Bulgaria and the concentration of these elements in all the types of ore deposits in Bulgaria. Recently he has been working on the primary gold deposits as well as on the gold-



*Todor in discussions in the subregional (Balkan) ProGEO group.*

bearing and other ore deposits in the country. He has also studied the fluorite, baryte, antimony and mercury deposits and has obtained a considerable amount of information about the concentration of rare and trace elements and precious metals in their primary deposits and in the deposits of lead and base metals in Bulgaria. He has also conducted scientific research on the ecogeological (environmental geology) problems in connection with the mining, the processing and the metallurgy of the ores in Bulgaria as well as on the monitoring of non-recoverable natural resources (mineral raw materials).

Todor's interest in the world of geological heritage dates since the 70s. In 1991 he was accepted in the Working Group and later in ProGEO whose activ



Standing fossilized tree trunk (lower Miocene) exposed by natural erosion of the volcanic rocks. Petrified Forest park «Pali Alonia», Lesvos. Photo: K. Sykas



## Natural monuments and geological heritage

The second symposium on Natural Monuments and the Geological Heritage, took place from 29.6 to 2.7.97, in Lesvos island, Aegean Sea, just after the big and very successful International Congress of Engineering Geology that took place in Athens.

Organised by the Museum of the Natural History of the Lesvos Petrified Forest and the Institute of Geology and Mineral Exploration of Greece, it was under the auspices of Unesco, financed by the Ministries of Culture, Aegean Sea, the General Secretary of Research and Technology, the Greek tourism organisation, local authorities, the French Embassy and other sponsors. The Symposium had a great

success and according to the Greek magazine press: 'it was a meeting that opened new perspectives in the promotion of the Geological Heritage and a new scientific activity with significant social, cultural and developmental dimension'.

The symposium was opened by the Minister of Aegean Sea, Mrs Elisabeth Papazoi, who referred to the interest of the Aegean Sea not only as the nest of an ancient civilisation that gave birth to the arts, sciences and the philosophy but also as a unique geological laboratory. The Lesvos petrified forest and the island of Santorini with its impressive caldera is two outstanding examples of this laboratory.

Messages and wishes for success were sent by the Minister of Environment, the Minister of Culture and other politicians. The symposium honoured with their presence



institutions and organisations representatives, Greek and foreign scientists, NGO's representatives and great number of environmental education teachers with great interest to geoconservation. Participants and contributors were also Dr Wolfgang EDER, Director of Earth Sciences of Unesco, Dr Todor TODOROV, President of ProGeo, Dr Gerard GONGGRIJP, member of ProGeo Executive Committee.

The scientific programme of the Symposium was divided into the following, seven thematic units:

1. General geoconservation aspects and perspectives
2. Greek Geological Monuments
3. Geotopes Network: Greek and international experience
4. Protection, Management
5. Natural and Cultural Heritage
6. Geotourism
7. Geoconservation and Environmental Education

with a number of 50 contributions approximately and a special meeting-discussion upon European Union, Natural Environment-Geoconservation all along the two days of the Symposium that is from 30.6 to 1.7.97. The third day, 2.7.97 was dedicated to the excursion and the visit of the petrified forest.

The forest extends in the NW part of the island. The main occurrences of the fossil trees extend in the areas of Porto Sigri, Antissa, Eressos where various species of tropical, subtropical plants appear, as well as a great number of Coniferous. The study of the fossil tree trunks and the other plant remains, such as leaves and seeds, give useful data for the knowledge of the paleoflora, the climate, the paleogeography etc, of the area. The fossilised trunks or the leafprints belong to a forest of Oligocene-lower, middle Miocene age (20-15 million years), when a volcanic activity took place and covered the forest with volcanic ejecta (now volcanic tuffs and breccioconglomerates). It is protected by a 1985 presidential decree and it is proposed to be included in the Unesco's world heritage catalogue.



## Journées Régionales Nord Pas-de-Calais du Patrimoine Géologique

sous le Haut Patronage de Madame la Présidente, du Conseil Régional, du Nord-Pas de Calais  
du 20 au 23 Novembre 1997, LILLE

Les Journées Régionales Nord Pas-de-Calais du Patrimoine Géologique sont organisées par: la Société Géologique du Nord, le Musée d'Histoire Naturelle de Lille, le Conservatoire des sites Naturels, du Nord et du Pas-de-Calais.

Avec la collaboration : de l'Association des Professeurs de Biologie Géologie, du Centre Historique Minier de Lewarde, de la Mairie de Lille, de la Maison du Marbre et de la Géologie de Rinxent, du Rectorat de Lille.

Comité Scientifique; Alain Blicq - Université Lille I, Denise Brice-Présidente de la Société Géologique du Nord, Hervé Chamley - URA 719 du CNRS, J.-Pierre Colbeaux-Conseil Scientifique de l'Environnement

J.-François Deconinck - Groupe Français du Jurassique, J.-Marie Degardin-Président du Groupe Français du Paléozoïque, François Fröhlich -Muséum National d'Histoire Naturelle (Paris), Eric Groessens - Service Géologique de Belgique, J.-Pierre Laveine - URA 1365 du CNRS, Bruno Mistiaen - Université Catholique de Lille, Francis Robaszynski - Faculté Polytechnique de Mons (B)

Comité d'Organisation: Denise Brice - Présidente de la Société Géologique du Nord, Olivier Averbuch - Secrétaire de la Société Géologique du Nord, Sophie Beckary-Conservateur au Musée d'Histoire Naturelle de Lille, Paule Corsin - Directrice Publication Société Géologique du Nord, Norbert Crampon Société Géologique du Nord, Michel Debuyser-Ass. des Professeurs de Biologie Géologie - S.G.N., J.-Marie Degardin -Trésorier de la Société Géologique du Nord, Philippe Gayot - Professeur de Sciences Naturelles, Pierre Goubet - Conservatoire des Sites Naturels du NPdC, Stéphane Junique - Conservatoire des Sites Naturels du NPdC, Bruno Mistiaen - Université Catholique de Lille - S.G.N.

Avec le soutien de : Ministère de l'Environnement, Service Géologique National, Conseil Régional du Nord-Pas-Calais



## INFORMATIONS

Dates: du 20 au 23 novembre 1997

Lieux: 20 et 23 à Lille,

21 à Lewarde (59) et environs

22 dans le Boulonnais (62)

Contact: Denise Brice

Tél: 03 20 30 83 14 - Fax : 03 20 14 32 78

## PROGRAMME

Jeudi 20

- Accueil et présentation des objectifs par les organisateurs
- Allocution d'ouverture par Madame la Présidente du Conseil Régional du Nord Pas-de-Calais.
- Histoire de l'évolution des connaissances en géologie régionale par Michel Waterlot, Université de Lille I.
- Recherches géologiques et développement économique par Francis Meilliez, Université de Lille I.
- Utilité des collections géologiques par Jacques Thierry, Université des Sciences de Bourgogne.
- Nécessité de protection du patrimoine géologique : exemple des sites paléontologiques par Marie-Thérèse Peyré, Présidente de l'Association Paléontologique Française.
- Présentation de posters
- Etat de l'inventaire et de la protection des sites géologiques en France et dans le monde par Guy Martini, Directeur du Centre Géologique de Digne-les-Bains (Réserve Géologique de Haute-Provence).
- Stratégie de préservation et de mise en valeur dans le Nord-Pas de Calais par Pierre Goubet, Conservatoire des Sites Naturels du Nord et du Pas-de-Calais et Philippe Gayot, Professeur en Sciences Naturelles.
- Exemples de réalisations par Jean-Pierre Geib (Espace Naturel Régional), Bruno Mistiaen (Université Catholique de Lille) et Jean-Pierre Vidier.
- Table ronde et débats avec des représentants de l'Administration, des Collectivités et des professionnels.
- Présentation de posters

Vendredi 21

- Visite guidée du Centre Historique Miinier de Lewarde et sortie commentée sur un terriil.

Samedi 22

- Visite guidée de la Maison du Marbre et de la Géologie à Rinxent (62). Sorties commentées : coupe de référence dans le Jurassique du Boulonnais et panorama du chantier marbrier des carrières du Boulonnais.

Dimanche 23

- Visite guidée du Musée d'Histoire Naturelle de Lille, suivie d'une sortie en ville sur le thème : architecture et géologie régionale.

Bulletin d'inscription

Aux Journées Régionales Nord Pas-de-Calais du Patrimoine Géologique 20-23 Novembre 1997

A renvoyer avant le 31 Octobre 1997 à : Denise Brice, 13 rue de Toul - 59046 Lille Cédex

Nom et prénom :

Organisme :

Adresse :

Tél :

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e-mail :

### Inscription avant le 31 Octobre 1997

à l'ensemble des journées et aux Actes 100 F - oui - non  
aux visites (du 21 au 23) seulement 75 F - oui - non  
à la journée du 20 et aux Actes 75 F - oui - non  
Je joins un chèque du montant de l'inscription à l'ordre de la Société Géologique du Nord. Je souhaite présenter un poster dont le titre provisoire est :

Date:

Signature

Vous recevrez une deuxième circulaire après votre inscription.

A Bientôt !



Excursion group discussing and observing internal and external geodiversity at Fossvogur, Reykjavik. Glacially sculptured lava rock (*roche moutonné*) is covered by tillite-resembling till and glaciomarine sediments. These ice-margin deposits are heated by a hanging holocene lava flow.  
Photo: Carl E. Johansson.

*(continued from page 2)*

- PiA 'Geodiversity in Norden: Nature types and Regions' (working report).
- B 'Geodiversity in Norden. Examples'.
- C 'The importance of Geodiversity for landscapes, nature and natural resources in Norden' (tentative title).

The reports will contain Summaries in English. If successful, the concluding report C may be followed by a 'smashing' book.

The project is performed by a working group in 1997 - 1999. The participants are Steen Andersen (Denmark), Markus Alapassi and Veli Suominen (Finland), Kristjan Geirsson (Iceland), Lars Erikstad (Norway), Annika Jansson and Carl Erik Johansson (Sweden). Johansson is project leader and Jansson secretary. At the second meeting in Iceland in August 1997 the group discussed

synopses/product descriptions, draft divisions of regions and types (bedrock, quaternary cover, landforms), example areas and descriptions, and report texts, figures and maps. Definitions of central terms were discussed.

To give an idea what it is all about, some key concepts can be mentioned: geodiversity, geoenvironment and geothemes, geodiversity and biodiversity, landscapes and landscape elements, geotopes and geosites, levels and scales of diversity, Nordic responsibility areas (exemplified in a Nordic Council of Ministers report 1995), and example sites. Many such ones were seen and discussed in Iceland.

### **Iceland - a country of great geodiversity**

In an excursion a row of areas and sites were seen and visited, observed, photographed and discussed, for instance volcanoes, tephra and lava formations of



*Thingvellir with rift cleft Allmannagjá, its columnar basalt walls and downfaulted basalt slope Lagberget. This is the site where the Parliament of Iceland met from the 10th Century to 1798. Here the republic of Iceland was proclaimed 1944. Thingvellir is a World Heritage candidate for historical, as well as geological reasons. Photo: Carl E. Johansson, June 17, 1994.*

different age and most varying shape. The recent ones appear in the mid-Atlantic rift zone with recent earth-crust movements, faults, hot springs and volcanism. We saw high coastal lava cliffs, shore barriers, black sand beaches and eolian dunes. The Icelandic rivers have different origin and varying sediment load, from springs and groundwater rivulets and waterfalls with clear water to very turbid rivers from melting glaciers of different size and shape. There are ice-marginal formations of different age, moraines and outwash deposits.

The land-shaping and land-forming processes are constructive, destructive, and instructive.

A number of Example areas and Geosite candidates were inspected and discussed, such as Reykjarnes in the central recent rift zone, Snæfellsness with the famous glacier-capped volcano Snæfell, the volcano cone Grabrókargigar with surrounding lava flows, the

clearwater falls Hraunfossar into the canyon Barnafoss excavated by the turbid river Hvitá, and historic WH candidate Thingvellir are just a few of them that we saw.

Iceland has very much to show. There are prehistoric, historic and recent events, (very well-recorded ones), processes of diverse kinds, and resulting geological and morphological features. We experienced and learned much of geodiversity, and geosites.

Carl Erik Johansson and Annika Jansson

## References

Naturgeografisk regionindelning i Norden. Nordiska ministerrådet 1994.  
 Terrängformer i Norden. Nordiska ministerrådet 1994.  
 Nature Conservation - Possibilities and Problems. Tema NORD 1995:501 (in Swedish, with Finnish and English summaries)



Protection of historical and cultural heritage had a prominent place in the symposium. Excursions to Acropolis was included showing problems and achievements in conservation of the monuments and geological contributions in this work. Photo: S. Smith-Meyer.



## ENGEO 97 - Athens Engineering Geology and the Environment

The symposium was arranged by the «Engineering Geology Committee of the Geological Society of Greece» supported by The international Association of Engineering Geology, International Association of Hydrogeologists and Cogeoenvironment (IUGS) and UNESCO.

The conference had the following main themes: Engineering geology and geomorphological processes, Natural and man-made hazards, Geological environment in urban and regional planning and management, Engineering Geology and hydrogeology for environmental health - waste disposal, Impact from the exploitation of mines and quarries, Environmental aspects of the design and construction of large engineering works and schemes, Protection of geological and geographical heritage, Protection of historical and architectural heritage, Strategies and legislation related to geological conditions, processes and hazards affecting the environment and

Environmental courses in geological and geotechnical education.

The event was indeed very big, proceedings were handed out at the start of the conference. It filled three volumes and 3353 pages where every contribution filled about 6 pages. Two extra volumes with invited speeches, discussions and reports from the different sessions will come later. The proceedings are issued by BALKEMA (Marinos, Koukis, Tsiambaos & Stournaras (red) 1997. Engineering Geology and the Environment. Balkema. Rotterdam).

Naturally traditional questions within engineering geology such as natural hazards (earth quakes, volcanic activity, earth slides and the like), man made hazards (man made instabilities, changes in hydrological regimes, geochemical pollution and similar issues), together with general issues linked to pollution and waste disposal management dominated the sessions. For ProGEO issues under the sessions «natural and man-made hazards», «protection of geological and geographical heritage» and «protection of historical and cultural heritage» was of main interest.

### «natural and man-made hazards»

It is important to notice that even if issues as mentioned above dominated the perspective was much wider. As one delegate formulated it: seismic activity as well as geotechnical stability is important fields that get much general attention, more important quantitatively speaking is however general pollution as well as impact of general human land use. A systematic understanding of biological and ecological risks is integrated in such studies even if this fact did not reflect through many contributions in the conference. Man-made impact on the geological heritage was, however, not brought to attention by most authors.

### «protection of geological and geographical heritage»

This session was of special interest for ProGEO members and several members of ProGEO joined the session some with papers who make the proceedings' volume 3 an important one for geoconservation. For the information of ProGEO NEWS readers all the contributions in this session are listed below:

- Chiotis, E.D. A new centre of Paleolithic settlement at Gythion, Peloponnese, Greece: A case study on the contribution of the Archaeological Geology.
- Dermitzakis, M. D. et al. Gerakis Gulf, Greece: A natural park and a geological monument.
- Erikstad, L. Geological heritage and environmental impact assessment: Can quality and quantity be merged?
- Gonera, M. Can we stay on the lines of Agenda 21 working at paleontology?
- Gonggrijp, G. P. Nature development: Biologist's experimental garden! Geologist's future sand box?
- Gonggrijp, G. P. Unknown, unloved: Education, the basis for protection.
- Gonggrijp, G. P. Geotope motivation and selection: A way of objectifying the subjective.
- Hose, T. A. Geotourism - Selling the earth to Europe.
- Shuán, J. & Jiang, P. The geological heritage sites and national parks in China.

Klincarov, S. L'influence des processus et recherches de la géologie de l'ingénieur sur certaines régions Protégées.

Komoo, I. Conservation geology: A case for the ecotourism industry of Malaysia.

Lebedeva, C. V. The creation of Jugjurian natural park for protecting the unique geomorphological landscapes of the Western Okhotsk region, Russia.

Lin, J-C. & Brumsden, D. Conservation of geomorphological heritage of Taiwan.

Lindsay, P. & Bell, F. G. Environmental management and protection of the St. Lucia Wetlands, KwaZulu-Natal, South Africa.

Papamarinopoulos, S. et al. Geophysical studies within a cave at Kouklesi village in Northern Greece.

Papatolios, K. T. et al. Hydrogeological assessment of river marginal wetlands in north Devon, UK.

Shibakova, V. S. et al. Kungur Ice Cave - Case history of utilization and rehabilitation.

Drandaki, I. T. & Foundou, C. Geoconservation within the framework of the nature conservation in Greece.

Drandaki, I. T. et al. Geological geomorphological heritage - Geotopes.

Todorov, T. Conservation of the geological heritage in Bulgaria: Present state and future initiatives.

Tronfimova, V. Protected caves in Irkutsk Region, Russia.

Velitzelos, E. & Zouros, N. The Petrified forest of Lesvos - Protected Natural Monument.

Yamaguchi, H. Environmental report on Yakushima island for World Natural Heritage.

ProGeo president prof. Todorov led the session where dr. Eder from UNESCO was invited speaker.

### «protection of historical and cultural heritage»

This is a big field with strong links towards general conservation and thus also geoconservation. Moreover multi-disciplinary approaches seem to be increasingly important and with clear opportunities for positive interactions this field should be studied with interest.

Lars Erikstad





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**ProGEO-98**

The next ProGEO-98 Meeting will be organised by the Bulgarian National ProGEO Group during June 1998. Full information will be distributed by the end of October

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