



A section of kerbing, the first 'named' stone at the Scottish Parliament (under construction in the background), which will be set in place sometime in 2004. BGS image. IPR/46-32C British Geological Survey. © NERC. All rights reserved.

'Rock On' Scotland

Between the 13th and 28th of September 2003, 'Rock On' – 2003, the fourth Scottish Geology Festival took place. Aimed at bringing geology to the people of Scotland and further afield, this biennial event, formerly called 'Scottish Geology Week', involved over eight thousand people in events across the length and breadth of Scotland.

With 2003 being the centenary of the Scottish National Antarctic Expedition led by William Bruce, 'Rock On' had an 'ice' theme and was launched at Our Dynamic Earth in Edinburgh by Rhona Martin and Debbie Knox, two of Scotland's Olympic curling Champions.

When organising 'Rock On' the aim is to make geology, and Earth science in general, available to everyone. We'd like to be able to further the knowledge of those already interested, but more importantly, it's our aspiration to capture the interest of those who have little or no knowledge of the subject. Comprising 100 individual events organised and run by individual geology enthusiasts, geologists in industry and various groups, societies and museums, 'Rock On' - 2003 was intended to be fun, informal and for all ages. Events included: mine and quarry visits; geological rambles; guided walks to examine ice sculpted landscapes; lectures and talks; gold and silver panning; rock 'surgeries'; building stones walks; and new for this year a drystone walling demonstration and a guided tour of Historic Scotland's stone conservation studios.



Scottish Olympic curling champions, Rhona Martin and Debbie Knox with Stuart Monro of Dynamic Earth at the launch of 'Rock On' – 2003 at Our Dynamic Earth, Edinburgh.

The now traditional 'Rock On' geo-orientated art work competition for school children was run again for 2003, with separate competitions for Primary and Secondary schools. The competitions were designed to stimulate pupil curiosity about landscape formation during the last Ice Age (secondary school competition) and the life that may be around during a future ice age (primary school competition). The prize-giving for the winners took place on the 27th of September at the British Geological Survey Open Day at Murchison House in Edinburgh. The Open Day has become the traditional end point of the Festival.

Although Scottish Natural Heritage coordinates the organisation of 'Rock On', the geology festival is very much a partnership effort, bringing together those in Scotland in the field of communicating geology to the public, namely: National Museums of Scotland; Our Dynamic Earth; British Geological Survey; Hunterian Museum; the Scottish Earth Science Education Forum; and the Open University, Glasgow and Edinburgh Geological societies.

The Organising Committee is grateful to Quarry Products Association Scotland and ScotRail for their support of 'Rock On' - 2003.

The launch of www.scottishgeology.com

At Our Dynamic Earth on the 13th of September 2003, an hour before the launch of 'Rock On', the www.scottishgeology.com website was officially launched by Dr Stuart Monro, assisted by an early 20th century Antarctic explorer (actually an actor in period costume!).

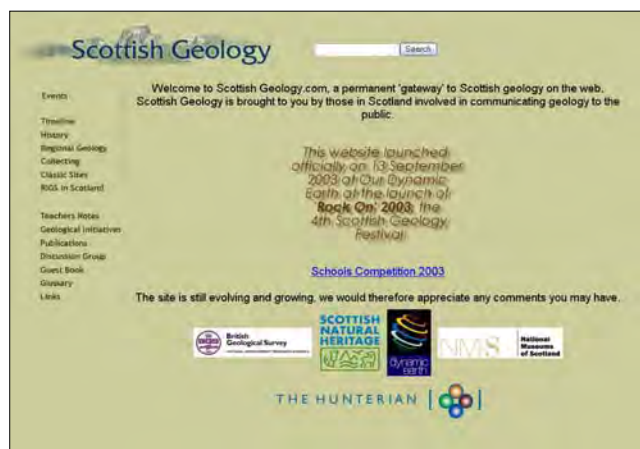
The website which was originally used as a vehicle for listing events during 'Rock On' – 2001, has been expanded to become a gateway to Scottish geology which is continually being added to. The most recently posted information concerns RIGS in Scotland and on new initiatives such as the 'Naming Stones' project (see other panel on this page).

Naming Scotland's Building Stones

Following the 'Naming Stones' event that took place as part of 'Rock On' – 2001, when a Caithness Flagstone at the Royal Mile in Edinburgh was engraved with details of its name, age and origin, the Organising Committee of 'Rock On' co-ordinated the 'naming' of another two stones in Edinburgh to coincide with 'Rock On'-2003, this time at the new Scottish Parliament. Intended to stimulate the public imagination about geology within the cityscape and to help restore the links between the natural and built heritage, the planning for this latest phase of the 'Naming Stones' project began in late 2002!

Watson Stonecraft, who are building stone contractors at the Parliament site, generously supported and facilitated the engraving work which was undertaken by Edinburgh sculptress Graciela Ainsworth and her team. Dolerite kerbstones from Caldercruix in Scotland's central belt and Kemnay Granite from Aberdeen, are the Parliament stones being 'named'.

Colin MacFadyen



A screen grab from the website. Image provided by SNH with assistance from Norman Arnold, Hunterian Museum.

Establishment of the Hellenic sedimentological society

(Press release)

Sedimentology, despite its paramount importance in environmental and earth sciences has not received appropriate attention in Greek academic and research institutions. Due to a general trend towards the study of igneous and metamorphic rocks, it was only in the last decade that Sedimentology started to be recognized in Greece as a sine qua non dynamic geoscience, that may approach the geological problems through a different methodology and philosophy.

Strong efforts flourished in the 90's, by the formal introduction of Sedimentology in the academic programs, including the study of clastic and non-clastic sedimentary formations. Nowadays, a significant number of Master's and PhD students perform interesting sedimentological research. In that period, sedimentologists started to expand the platform of their thinking by facing the sedimentary formations as the result of myriads interacting processes.

Having traversed a long active but lonely way and under an urgent need of sharing knowledge and experiences between themselves and the international community, Greek sedimentologists have decided to be formally represented in the Greek scientific society, as well as in the international community.

By the start of the new millennium, conditions changed, new perspectives have arisen and urgent problems have asked our contribution. Among them are the enormous environmental problems of our planet. Undoubtedly, there is need to bridge academic research with industry.

Under these circumstances, on 15th of November 2003, the 1st Assembly of the formally established Hellenic Sedimentological Society (HSS) was held in the Geological Department of the University of Athens. A board of directors was elected and the National Representative was appointed.

Members of our Society are not only sedimentologists *sensu stricto*. Since Sedimentology is a multidisciplinary science, we have accepted as members not only stratigraphers and micropaleontologists, but ecologists, biologists, geochemists, oceanographers, geographers and climatologists as well, to list just a few of the principal disciplines involved in the last years in the sedimentological research. In the first two months the HSS had a membership of more than

70 but we expect that in the near future our Society will become even stronger.

Recognizing the significant service that the European Association for the Conservation of the Geological Heritage provides to the scientific community, the members of our society have decided to develop strong links with it. Members of ProGEO are welcome as members of our society. We are interested in becoming strong not only in numbers but in quality, as well.

The Hellenic Sedimentological Society will target the restoration and promotion of the position of Sedimentology, both as a speciality as well as an applied sector in Research and Industry. Moreover, the HSS will foster enhanced cooperation and participation with respective International Associations and establish firm relationships worldwide.

On behalf of the Board

Fotini Pomoni

Contributions to ProGEO NEWS

When sending contributions to ProGEO NEWS, please do it simple! Today's fancy possibilities in creating complex and documents with nice layout, produce good results, but do only create more work when the contribution are going to be edited into a new text like this newsletter.

Therefore the best way of doing it is as follows:

Text:

A simple file (MS WORD or TEXT) without any formatting. Please attach name, address and e-mail address for all authors.

Photos:

Separate files in jpg or TIFF format. Choose a resolution of 150 dpi for a photo 18 cm wide (a full page).

Line art:

As a photo, or as a separate WORD or EXCEL file.

If you have any questions, take contact with the editor for advice and testing!!

The editor

The first steps in adopting tried and tested means of good geological heritage interpretation in Slovenia, with help from some Scots

Communication has always played an important role when governments have been successful in implementing their environmental policies. It can help increase knowledge, raise awareness and change attitudes and/or behaviour. In the broader sense it is not referring to the day to day flow of information. Rather it is about knowing the target group with which we are wishing to stimulate change and designing the best means and messages to bring about that change.

Interpretation is communication. It is about telling a story and it is a vital part of how people experience the places they visit (<http://www.snh.org.uk/www/Interpretation/default.html>). Good geological interpretation will leave visitors feeling connected, inspired and alive with curiosity. They will better understand the landscape, site or centre and enjoy themselves more and are probably likely to return (or at least tell their friends and family to visit). Interpretation is a way of imparting messages to visitors in a memorable way. Some describe it as information with an explanation. Interpretation aims to improve visitors understanding and enjoyment through provoking their interest, relating to their everyday experience and revealing something new.

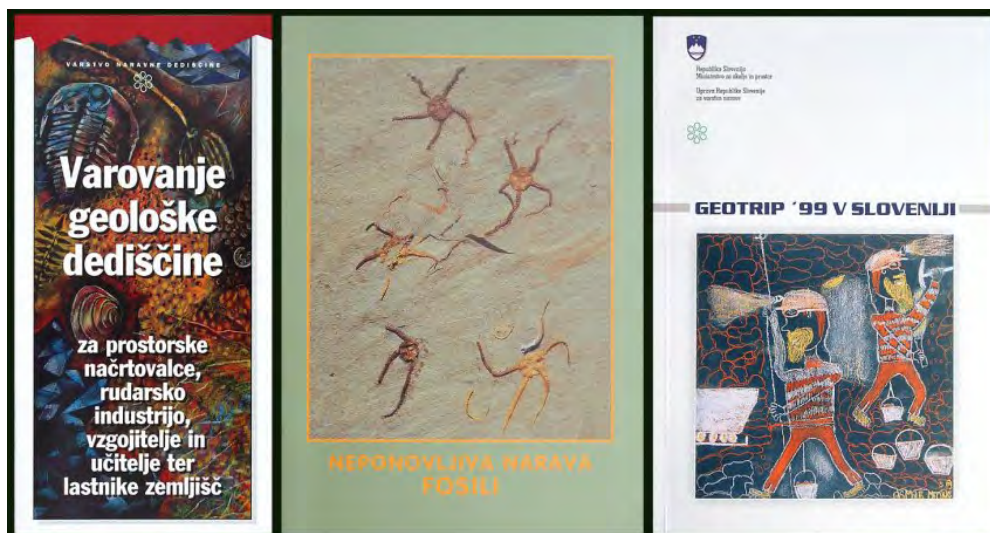
Why do we need geological heritage interpretation? Firstly, our geological heritage is important in underpinning the famous landscapes and biodiversity that

we have. Despite this fact, the geological heritage is further from the hearts and minds of the population than other more easily identifiable aspects of the natural heritage, such as the flora and fauna. However, in similarity with the biodiversity, the geological heritage is vulnerable to the activities of mankind which may damage it. Therefore, only those people and local communities who know their geological heritage and can both identify with it and relate to it, can contribute to its conservation and sustainable development.

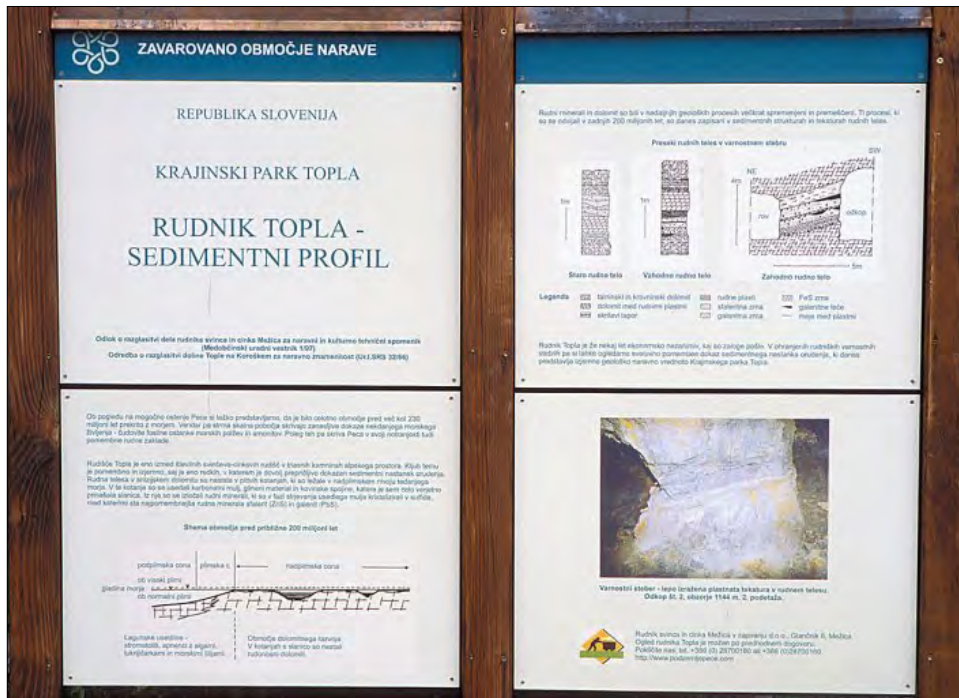
Geological heritage interpretation has a clear role in establishing the real links between the bio- and geo-diversity and the need to conserve them both equally. The second reason for the requirement of geological interpretation, is the opportunity the geodiversity offers in touristic efforts at local or national level. Good geological interpretation will enhance the visitor experience and help boost geotourism. There are already 'European Geoparks' across Europe, which represent examples of geotourism as an opportunity for local economies. In these areas sustainable tourism involving geoconservation, sustainable development and environmental education, are being practised.

Slovenia is a country extremely rich in biodiversity, which is underpinned by a diversity of geology and landscape, but the question is how can we successfully interpret our natural heritage. Public awareness raising is one of the traditional nature conservation communication activities in Slovenia. This is provided mainly by different types of publications such as leaflets, brochures and posters.

In addition to publications, the most common approach is to provide information panels, followed by third type of information and/or interpretation means,



Examples of publications in geological heritage field



Example of an information board that ought to be revised using modern interpretive principles

such as nature trails and information centres. Occasionally campaigns and theme days are used to strengthen the awareness raising activities.

Since 1995 Geotrip has been the most important awareness campaign in the field of geological and other inanimate natural heritage. Its aims are to make the public aware of the meaning of geology and need for conservation of the geological heritage as well as highlighting the links with other nature conservation issues and sustainable development. Raising awareness and creating understanding is only one element of education for sustainable development. Even the most thorough understanding is unimportant unless it is followed by action.

In producing information and interpretation outputs, we have reached the level we have to ask ourselves:

- how effective our products are;
- are they relevant for target groups;
- what do people remember and take from the products;
- what additional and follow-up information do they need; and other such questions.

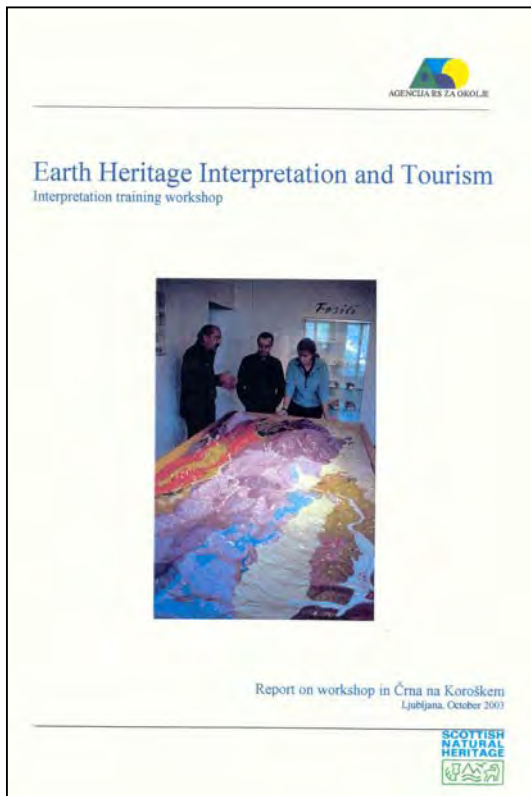
It is not enough to create and introduce interesting and exciting programs. It is crucial for us to understand what motivates target groups to participate and how best to apply our communication skills and procedures used in adult education. It is of key importance to grab the visitors' attention and feed their desire to remember the interpretative message, to carry it home with them. If we fail, the visitor may

choose not to participate, or may quickly forget all that was "learned". Understanding the psychology of the visitor is essential to developing successful interpretive plans.

Knowledge and skill in effective interpretation are essential. It is first step in communicating any nature conservation concept demanding clear messages to target groups and focusing on presenting the subject in understandable way to them. The crucial considerations should be how:

- to avoid complicated text, filled with technical jargon?
- to produce attractively designed interpretation outputs?
- to avoid attempting to tell everything even on a small panel?
- to engineer the ideal team to work on relevant interpretation strategy, messages etc.?
- to overcome lack of management obstacles and financial constraints?
- to get partners when implementing the interpretation strategy?

The questions like those mentioned above triggered Slovene nature conservation experts to find the way to work with excellent experts in geological heritage interpretation, Dr Colin MacFadyen and Ms Jan Brackenrige from Scottish Natural Heritage (SNH) who accepted the challenge to visit Slovenia and to share their experience ,results and successes in interpretation. The SNH approach and achievements to date with respect to geological education and in-



The report on the workshop has the role of a manual

interpretation was illustrated with reference to various educational and interpretive projects, such as:

- Scottish Geology Festival;
- The Knockan Visitor Centre
- Information panels for geological sites across Scotland
- Earth Heritage Magazine;
- Scottish Geology Website; and
- Landscape Fashioned by Geology series

Our mutual interest resulted in a very successful workshop on geological heritage interpretation under the title 'Earth Heritage Interpretation and Tourism', held in Črna na Koroškem in October 2003. The aims of the interpretation and tourism workshop were focussed on learning how to help people's understanding and appreciation of the geological heritage through good interpretation, with particular emphasis on geotourism. The workshop was carried out also as a response to the lack of appropriate training for geoconservationists and others working in the growing subject of geological heritage interpretation and geotourism in Slovenia. Interpretation is an art and as such requires a systematic approach and adequate training. The need to provide geoconservationists with additional knowledge about interpretation princi-

ples and approach and skills to use them in their interpretation projects is obvious in Slovenia too. Based on Scottish Natural Heritage knowledge and experience in successful interpretation, particularly what interpretive principles work and what constitutes good interpretive practice, the workshop also provided an insight into the methodology, planning, management and importance of forging partnerships, in the provision of interpretation projects.

Primary target groups invited to the workshop were Slovene nature conservation branches and protected areas management staff. Finally those participated at the workshop were very multidisciplinary structured group of:

- nature conservation levels (ministerial, environmental agency and nature conservation institute),
- geologists,
- university,
- museum curators,
- interpreters and guides,
- local communities.

The participants, trainers and organisers were very happy with the results of the workshop. It was a great success, but the question is what is next. Certainly this kind of beginnings need follow up and anchoring the knowledge and skills. Having this in mind we will take efforts to organise similar workshop this year.

Branka Hlad & Colin MacFadyen



Participants during fieldwork – sedimentary outcrop Helena valley

CD Rom “GEOSITES”: Earth Heritage for conservation

The purpose of this CD Rom (written in Italian/English) is to provide a better understanding of our “geological heritage”, explaining to geology amateurs and students, but to a wider audience too, the importance and the meaning of landforms and geological landscapes. It is very important to try to establish a link between familiar countryside landscapes and their geological components.

The CD Rom presents astonishing images and simple explanations of 120 important geosites from around the world, 60 worldwide and 60 in Italy. They are presented in order of geographical area, from North to South. Selecting 120 geological sites of particular interest among the many thousands spread out over the Earth crust, has not been an easy task: the geosite types are many and different. Each geosite has his own evolutionary history, but they all have a common factor: they are important parts of our Geological Heritage and marvellous treasures to be maintained for future generations.

About Italy, few countries around the world possess its geodiversity. Helped by its unique climate, from the Dolomites to Etna, from the coasts of Sardinia to the Abruzzo mountains, Italy truly represents a geological “open book”. Visitors appreciate and admire Italy geological treasures but it still has much to do to promote their understanding, management and conservation.

Ten “walks” are featured , five from around the world (Alaska, West USA, Galapagos, Sahara, Cappadocia) and five in Italy (Dolomites, Umbria-Marche Apennines, Abruzzo, Sardinia, Sicily). A detailed reference list, a geological glossary and a geological scale can be found at the end of the CD.

The price of the CD Rom is € 18,00 (€ 15,50 for ProGeo and Sigea members). It can be ordered from: RUSSI SOFTWARE S.r.l., Via Verona, 22 (Veronastraße, 22), I – 39100 BOLZANO – BOZEN. E-mail: info@russissoftware.it

Raniero Massoli-Novelli



Site description example from the CD

International Conference: Geological heritage concept, conservation and protection policy in central Europe, Cracow, Poland, October 3-4, 2003.

The Conference was organised by the Polish Geological Institute, Centre of Excellence Research on Abiotic Environment – REA and Polish Academy of Sciences, Institute of Nature Conservation in agreement with ProGEO. It was the second meeting dealing with problems of the geoconservation in Central Europe. About 70 geologists from several countries participated in this Conference. Members of the Central Europe Working Group 2 of ProGEO have taken a particular part in the conference.

The leadership in ProGEO represented by the general Secretary – dr. W.A.P. Wimbledon and past president prof. T. Todorov – was represented. It is noteworthy that the first meeting of the Working Group 2 was organised by the Institute of Nature Conservation of the Polish Academy of Sciences and the Polish Geological Institute in 1997 also in Cracow.

The preliminary attempt to establish a geosites network for Central Europe was presented during this first meeting, identifying data and descriptions of scientific primary interest, published in the Polish

Geological Institute Special Papers 2 (Z. Alexandrowicz – ed. 1999). The GEOSITES IUGS project supported by ProGEO is of a fundamental importance for all frameworks for geoconservation development in particular countries.

Numerous new propositions for the protection of the most important geosites and geoparks as well as the creation of databases, was referred during the second conference in 3rd October 2003. The conference ended with a geological excursion in the Western Carpathians. It was dedicated to the memory of Professor Marian Książkiewicz. Results of his geological investigations are of outstanding importance for the recognition of the Carpathians. Important sites was demonstrated by geologists from the Jagiellonian University, Polish Geological Institute, Polish Academy of Arts and Sciences and Academy of Mining and Metallurgy:

- The landscape reflected the geological structures of flysch nappes between the Lanckorona Hill and Kalwaria Zebrzydowska town – the famous religious area introduced on the list of World Heritage UNESCO.
- The Rzyczanka (Wieprzówka) Stream Valley near Andrychów – protected standard profile of the Silesian Nappe representing the very well exposed sequence of flysch sediments of Cretaceous age (photo).
- Two outcrops (one protected) of calcareous rocks called “Andrychów Klippen” situated within the flysch deposits as olistoliths originating from ancient cordillera.



The standard sequence of the Cretaceous flysch cropped in Rzyczanka (Wieprzówka) Stream Valley near Andrychów (Polish Western Carpathians). Protected outcrop – the black siliceous shales (Aptian – Lower Albian) gently folded, intercalated by thin and very thin-bedded laminated siltstones and very fine-grained cross-laminated sandstones with trace fossils. Photo by Z. Alexandrowicz.

A volume with abstracts of lectures and the description of the field trip was prepared for the Conference. The full material will be published during the year 2004 in the same issue as papers from the first meeting.

Each meeting of ProGEO members inspires and mobilises the creation of European geosites network and promotes new concepts and methods of geoconservation. These experiences should be adapted to national and international programmes, but unfortunately they have no effectively national support and social understanding. Therefore the progress of selection and protection of the most important geosites in particular countries are on a different level. It appeared clearly during both meetings in Cracow. About 130 single geosites and set-sites concentrated in very interesting geological regions of Central Europe have been presented during the first meeting WG 2 ad 1997. After the second meeting in 2003 this list was enlarged up to 280 objects and areas. A considerable part of them are situated and protected in Poland. Especially the compactness of networks in trans-boundary regions should be the matter of supplementing works.

The results of the Conference lead to following conclusions:

- The Conference gave the opportunity to present numerous new proposals supplementing the networks of most representative geosites in Central Europe.
- The database of geosites prepared according to the format accessible by internet will facilitate the linking of national networks to compare and select on the level of Europe.
- Directives obligate for authorities of particular countries are necessary to create the network of European significance.
- Frameworks of geosites need clearly defined relations to other proecological programmes in aim to integrate the protection of geo- and biodiversity.
- The promotion of GEOPARKS as a new international category of proecological activities should be addressed to boards of landscape parks and other large protected areas rich in geosites.
- National and international programmes of geoconservation should be promoted and supported by governmental policy as well as by actions of environment-oriented non-governmental and public organisations.

*Zofia Alexandrowicz
Vice-chairman of the Conference*

ProGEO communications

We feel that there is so much more out there, among you that could be shared, that we want to know about. We know that there are so many members that know so much, that are doing so much. Some of this finds its way to our newsletter. Still, we know there could be a lot more contributions. In order to engage more members in telling the rest of us about the small and big things in Europe, we have a proposal and would like to know what you think about it.

Besides that everyone always is encouraged to write for ProGEO News, there could also be a system of "hosting" for each issue. This could be arranged so that one country is the host, is responsible, for producing at least one contribution to a certain issue. It does not have to be a fancy article about very important national projects or anything of that kind. It is totally up to the writer (as always!) to choose. A photo is also good enough, it should not be difficult to come up with a few or some (many?) contributions. A presentation of the members could be given instalment for each country. The next issue will have, besides that everyone always is welcome to write, another country as a host. In this way a kind of host tour starts, that travels from country to country.

We could also have a list of proposed non-ProGEO guest writers that could be invited to write something from their point of view, still relevant. Another idea is to have certain themes that could be either discussed or just the inspiration to write about something specific. Important meetings, policy decisions etc. should also be put in the spotlight for discussion.

This bring us to another side of the newsletter; our web site. A lively discussion is hard to maintain in a quarterly newsletter – a web site is on the other hand tailor-made for that. It would be good to have a forum for discussion on the site and we hope that you are interested too. Other old and new suggestions for the web site include a presentation of the executive committee members, to regroup different headlines and decrease the amount of text on the opening page and to have a map of Europe in relief with interactive buttons for countries (this preferably linked to national web sites). We could also invite institutional members to appear on the web site – it is good advertisement both for ProGEO and hopefully for the institutions.

Let us know your ideas about all this.

Lars Erikstad, Lars Karis, Sven Lundqvist & Gunnel Ransed.

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NEWS

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