

## ACTUAL DEVELOPMENT OF GEOETHICS

### Introduction

In **October 1992** the first official meeting on geoethics took place at Příbram. Only a small group of specialists took part at that time – nevertheless with an international representation of five countries: Czechoslovakia (L. Němcová, V. Němec), France (J. Bussac), Germany (F. L. Wilke), Poland (A. S. Trembecki) and Russia (L. P. Ryzhova). **In October 2009 the geoethicists have already their 10-th meeting in the frame of the Mining Příbram Symposia.** (Three “unofficial” meetings of organising character on geoethics took place in Prague in 1993, 1995 and 1997 - at the occasion of separate sessions of the international section on Mathematical Methods in Geology.)

The actual development of the world gives **objective conditions for the further development of geoethics**. The growing number and intensity of natural disasters, insufficient availability of mineral resources, global warming, environmental problems, inappropriate behaviour and education of people, and many other problems related with these phenomena of the present time – that all represents a very important challenge for geoethics.

All leaders of the world – in the course of their decision making in the areas of policy, economics, social and environmental problems – have to take into consideration objective information concerning the development of historical perspectives. Such information in many cases exclusively depends on points of view of the earth sciences.

Ethical professional approach needs to be cultivated among geoscientists themselves – the real development of progressive ideas never depends on decisions of a “democratic majority”.

### Growing interest for geoethics

Many very actual ideas were presented and discussed in our previous meetings at Příbram. The growing interest can be seen also in the increasing number of countries represented by authors of the published contributions. (In this way four new countries can be added to the “historical” list: Argentina, Azerbaijan, Italy and Spain.)

#### *Published documents on geoethics in the Mining Příbram Symposia Proceedings*

Year	1992	1994	1996	1998	1999*	2001	2003	2005	2007	2009
Number of countries	5	7	13	7	9	9	11	10	10	12
Cumulative number	5	9	15	16	16	18	18	20	21	25
Published papers/abstracts	9	33	38	24	27	30	25	26	27	19**
Cumulative number	9	42	80	104	131	161	186	212	239	258

\* In 1999 the meeting took place in Prague

\*\* Situation on August 25, 2009

*Countries represented by authors of published papers and abstracts  
in the Mining Příbram Symposia Proceedings*

**America:** Argentina, Canada, Mexico, USA

**Asia:** Azerbaijan, Ceylon, China, India, Japan, Kazakhstan

**Europe:** Belgium, Bulgaria, Czech Republic, France, Germany, Italy, Netherlands, Poland, Portugal, Russia, Slovakia, Spain, United Kingdom, Ukraine, Yugoslavia

The latest **International Geological Congress** in Oslo (2008) has also proved the continuing establishment of the relatively new discipline – for the first time the whole day of August 11 was disposable for colleagues interested in geoethics (including a stronger liaison of geoethics with the Association of Geoscientists for the International Development – AGID).

*Geoethics as published and presented at the International Geological Congresses*

Nr.	Year	City	Published abstracts on geoethics	Oral pre- tations	Special symp. on geoethics*
29	1992	Kyoto	3	2	none
30	1996	Beijing	5	3+1	21.3.1
31	2000	Rio de Janeiro	10	4+2	26.1
32	2004	Florence	24	7	8.03 + 8.04
33	2008	Oslo	18	9	IEE-07&08

\* Evidence numbers of respective symposia on geoethics (2 symposia on geoethics organized in 2004 and 2008)

Individual lectures and articles on geoethics are being arranged at different occasions. Let us mention – as an example connected with our previous meeting at Příbram in 2007 – the introduction of geoethics arranged by Jean Varet in the BRGM's journal for a sustainable Earth *GEOSCIENCES* (April 2009).

Traditional meeting on geoethics in **Moscow** as part (section No. 30) of the 9-th International Conference "*New Ideas in the Earth Sciences*" (April 14 – 17, 2009) resulted also in a growing interest. Altogether 19 abstracts have been published in the Conference Proceedings (mostly in the Russian language) by authors from Russia, Belarus, Czech Republic, Italy and Ukraine. The section was prepared by L. P. Ryzhova, corresponding member of the International Academy of Mineral Resources. Altogether 22 persons from 4 countries attended the meeting, almost all of them presenting papers.

A new success can be reported from Italy where at the 7-th Italian Forum on Earth Sciences **GEOITALIA 2009 at Rimini** altogether 11 contributions have been received for a new symposium U 1 - GEOETHICS: *Reflections on the cultural and social responsibility of the geologist in the third millennium* (convenors: G. Di Capua; S. Peppoloni and S. Piacente).

A liaison of geoethics with the **International Year of the Planet Earth (IYPE)** – by the way visible at Příbram – exists as well. Ten broad and socially relevant themes - identified for the IYPE - reflect both present & future priority global problems of the human kind in material needs (resources, groundwater, soils), safeguarding (hazards, climate), specific newly arising tasks (earth and health, earth and life, megacities) and orientations for geo-scientists (deep earth, ocean). All these themes could and should be examined also from such points of view as ethics, responsibility, risk, sustainability - in one appropriate expression: *geoethics*.

When browsing on web pages one can be surprised by a very large number appearing on a demand of "geoethics". This fact cannot be interpreted only as a growing interest for our discipline. As already explained 2 years ago several authors and their followers started to develop **under the term "geoethics" various concepts differing** from those developed in the sense of our meetings at Příbram and in the frame of the International Geological Congresses since 1992. Our historical priority of the term "geoethics" should be respected and our further development should take into consideration also the necessity of avoiding and excluding any confusion.

## **Actual tasks**

**The authority of geoethics should be promoted by all means.** Every person working in the field of earth sciences at any level should be interested in an ethical way of thinking – the system of education needs to incorporate appropriate lessons (not forgetting personal example of teachers!). Every person in this field should serve also to transmit knowledge and ethics of his discipline to the public and administration representatives at the appropriate levels.

The **social global impact of geoethics** should be expected. Promotion of objective ideas and (geo)ethical behaviour will be finally reflected by an increased confidence and solidarity all over the world.

Moral obligations and challenge of geoethicists are to be reflected in **visions for a longer period ahead.**

Some sort of a **geoethical audit** may be introduced and presented by a new index classifying the achieved level of prevention and protective measures facing natural disasters at local – national – regional – global scale.

The ethical obligation of Earth scientists consists also in continuing in their **efforts of deciphering the laws of the Nature** to improve needed monitoring and forecasting systems for dangerous events.

**Further promotion and development** of geoethics should include also publishing special articles in various geological magazines all over the world as well as monographs or textbooks on geoethics. Also popularisation articles and lectures about geoethics for larger public circles are needed.

The **institutionalization of geoethics** has been established in 2004 by forming a *working group for geoethics* under the umbrella of the *Association of Geoscientists for International Development (AGID)*. It is an informal body and exactly our regular meetings at Příbram give a good opportunity to freely and openly discuss all problems concerning the further development of geoethics. Therefore **anybody present at these sessions is invited to take an active part** in all discussions.

**Geoethics News** in the electronic version – edited and distributed by the author of this article actually to about 250 addresses all over the world - with hypertexts of some messages make it possible to reach easily very important articles or information. There will be no problem to increase the intensity and content – this all depends on how much all partisans of geoethics themselves will support and help us by sending their own messages, comments and ideas for publication.

Various new suggestions concerning our further steps are given in the following presentations and many others will arise in the discussion. All of them should be highly appreciated and submitted to further decisions about our future work (although in absence of several authors).

New levels in developing and promoting geoethics are expected. More concrete actions are needed. Let us have in mind what our colleague Karel Pazlar from Canada has expressed in his contribution (GD 2): *Unless we start an action in this direction, we will keep getting together in future symposiums, listen to presentations, talk about geoethics but nothing will really change. People will ask “Geoethics, who needs this? What is it good for?” “Oh, it is just a hobby of a group of intellectuals”.*

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