

GEOETHICS NEWS

2007 + 2008 re-edited

Introduction

Dear Colleagues,

It appears as useful to re-edit previous editions (started in 2007) with keeping only all information of permanent interest including useful hypertext references.

We hope this re-edition will serve to further promotion and development of geoethics. Any your own personal help (including further distribution to colleagues who may be interested) will be highly appreciated as well.

Sincerely yours,

Václav Němec, AGID vice-president

Lidmila Němcová

Convenors:

International Section GEOETHICS, the Mining Příbram Symposium,
General Symposium GEOETHICS, 33rd IGC, Oslo

Content:

	page:
March 2007: Obituaries – Prof. A. S. Trembecki	2
Prof. G. S. Gold	3
June 2007: GEOETHICS - MOSCOW 2007	3
ABOUT GEOETHICS	4
OTHER CONCEPTS OF GEOETHICS	5
December 2007: THE MINING PRIBRAM SYMPOSIUM 2007 -	
The international section on GEOETHICS	6
FROM THE FINAL REPORT	7
DECLARATION to the use of the term "geoethics"	9
July and November 2008: THE 33rd INTERNATIONAL GEOLOGICAL	
CONGRESS (August 6- 4, 2008; Oslo, Norway)	13
Report from the conveners of the symposium IEE-07 (Geoethics I)	14
List of contributions of Geoethics I and Geoethics II	15
Some comments of participants	16
December 2008: Geoethical points of view	18
Other news	19
Contacts	20

March 2007

Obituaries:

Professor Adam S. Trembecki +

Prof. Dr. Ing. Adam Stefan Trembecki (born October 29, 1921) **died in Cracow March 25, 2007**. Originally engaged more in the mining industry, since 1961 exclusively working in academic circles in various universities in Poland; professor emeritus of the School of Mines and Metallurgy in Cracow, recently rector of the High School of Management in Legnica (Poland).



His scientific activities were extremely large: economic geology, mining technology, economics of production processes, regional planning, application of mathematical methods in earth sciences, ecology. His book "Quality Management of the Mining Production - Stabilisation of the Exploitation Process" (in Polish - ISBN 83-7164-244-X) published in 2004 includes references to his 210 scientific papers and books written or co-authored in the period 1951 - 2001. But this is not at all the final and complete bibliography.

It was just in the symposium organised by the Cracow School of Mines and Metallurgy in 1991 to honour the 70-th birthday of Professor Trembecki where Vaclav Nemec presented for the first time his ideas about necessity to develop a new field of geoethics. Professor Trembecki immediately joined these ideas and took part in the first special session dedicated to problems of geoethics in 1992 at the Mining Příbram Symposium where he later - with one exception only - took part in all sessions of the regular international section on geoethics until 2005. He always came with some new views, in many situations with some quantifying mathematically expressed aspects. He promoted geoethics also elsewhere in Poland as well as abroad. Recently he prepared a new paper for the 2007 Příbram session and - as reported by his daughter Justyna - it was his wish that this paper would be presented at this forum.

Therefore the last scientific presentation of Professor Trembecki will take place in October 2007 at Příbram.

Professor G. S. Gold +

Professor Grigorii Solomonovich Gold (born July 12, 1932) **died March 19, 2007**; as doctor of economic sciences he was a highly qualified specialist in mineral resources economics who spent his professional career in various research institutes - finally in the All-Russia Institute of Mineral Economy and Subsoil use (VIEMS) in Moscow as section chief working mostly on social economic problems of the mineral resources complex.



Because several other colleagues from VIEMS headed by their Director Professor M. A. Komarov took part in the early international meeting about geoethics at Příbram (in 1994) he became acquainted with the new discipline and became one of its most active promoters. He presented his ideas at Příbram regularly (1996 - 2005) as well as at the International Geological Congresses in Beijing (1996) and in Rio de Janeiro (2000). In his Russian book "Mineral Resources: Social Challenge of the present Time" (ISBN 5-86655-015-6) he wrote a whole chapter about moral and geoethical problems. He was prepared to present his new ideas to this topic at the coming 2007 events both in Moscow and at Příbram. His activities for geoethics will not be forgotten.

June 2007

GEOETHICS - MOSCOW 2007:

The traditional section No. 30 on **GEOETHICS** has been finally included into the program of the **VIII-th INTERNATIONAL CONFERENCE "New Ideas in Earth Sciences"** organised in **Moscow - April 10 - 13, 2007** - by the Russian State Geological Exploration University. Altogether 11 papers or abstracts have been published in the Volume 8 of the Conference Proceedings (pp. 405-433 - mostly in the Russian language) by authors from Russia (9 papers), Ukraine (1 paper) and the Czech Republic (1 paper). The section was prepared by **L. P. Ryzhova**, corresponding member of the International Academy of Mineral Resources. Six papers were presented. At the beginning of the session **V. Němec** remembered the recent death of two outstanding partisans of geoethics - Professor A. S. Trembecki from Poland and Professor Gregory S. Gold from Moscow. The paper prepared by Prof. Gold for this conference will be presented in October at Příbram as well as the paper written by Prof. Trembecki for Příbram a few weeks before his death.

ABOUT GEOETHICS

The following text has been published (p. 158) in the Russian language in:
GLOBALISTIKA - ISBN-5-89674-020-4; it should appear also in the English version:
GLOBAL STUDIES - International Encyclopaedic Dictionary
edited by I. I. Mazur and A. N. Chumakov
ELIMA Publishers, PITER Publishers - Moscow - St. Petersburg - New York

GEOETHICS (from the Greek *gé* - *Earth* and *éthos* - *morality*) - a set of moral standards which are to be used when utilizing the geosphere. Geoethics was established as an independent scientific field in 1992 when in the Czech town *Příbram* an international meeting of representatives from five countries took place under the aegis of the symposium "The Mining Příbram in science and technique". The Czech scientist *Václav Němec* is author of the term "geoethics" as well as founder of this scientific field.

Geoethics - born at the junction of ethics (science about morality and moral standards) and geology (science about the Earth and its resources) - has been accepted by scientific society (both earth and social sciences) because any correct use of natural wealth is inconceivable without a proper ethical attitude to it and to the whole geosphere. Geoethics - accordingly to V. Němec - is to be developed with regard to all specificities of Earth sciences as well as to social responsibility of their representatives.

At the initial period of developing geoethics as a new scientific field the notion of geoethics had to be defined. E.g. M.A. Komarov (with his co-authors) considers geoethics as "the attitude of the man and the society to the geological environment in various aspects of its appearance". In the view of G.S. Gold geoethics is a field studying "possibilities of applying ethical principles and standards in activities" concerning the field of mineral resources. From the point of view of present global problems the conception of geoethics has been formulated by N. Shilin. Taking into consideration the works of V. I. Vernadsky - founder of the *noosphere* (i.e. the brain sphere) as a new Earth (or, rather, planetary) sphere - the author explains that the noospherical way of thinking makes it possible to realise geological and ethical role of the mankind in transforming all other Earth spheres. In such a context geoethics - accordingly to Shilin - unites the complex of ethical problems connected not only as a whole with both geological science and its practical applications but also in particular with the use of mineral resources. In any case all investigators agree that geoethics incorporate moral principles with special regard to the Earth as a geological body as well as a social and economic object in all varieties.

The development of geoethics follows differentiated principal ways: theoretical aspects (G. Gold, N. Grigoryev, M. Komarov, L. Němcová, V. Němec, G. Timčák, A. Trembecki and others), applied geoethics (V. Babaev, L. Němcová, L. Ryzhova, I. Stočes and many other authors), social and ecological geoethics (N. Grigoryev, G. Senatskaya and others), methodological, educational, moral and religious, cultural and also economic and other aspects of geoethics (A. Haydyn, G. Gold, V. Gur, L. Němcová, V. Němec, G. Senatskaya and others). The danger of exhausting the Earth resources (and especially mineral reserves) is among the most important global problems of the mankind. From the point of view of the problem of how to use natural wealth - and in particular how to exploit the non renewable mineral resources - the role of geoethics is of substantial importance. E.g. when evaluating mineral reserves in individual deposits the geologists use the so-called resources index (in years), i.e. they show for how many years the explored reserves will be available to the users in given exploitation volumes. And here an ethical (geoethical) problem arises: how, when and how many mineral raw materials are to be exploited in order to assure the use of Earth resources not only for those presently living but also for all future generations because finally these resources belong to the whole of mankind. When limiting the solution of this problem only by economic and ecological approaches then - accordingly to N. Grigoryev - the freedom of choice for future generations is also being limited, but that is contradictory to moral principles. Geoethics can serve as means of influence over consciousness of people: as a stimulating

motivation to create technologies that take into consideration economy of resources; ecological aspects and sustainable development all over the planet; to a complex and reasonable use of resources; to search for alternative (renewable!) sources of raw materials and energy; and to prevent critical ecological situations. Methods applied by geoethics are the same as in other fields of knowledge: education, cultivation and culture that lead substantially to forming harmonically developed personalities able to find responsible solutions and to make responsible decisions based on priorities of spiritual and moral values common to all mankind.

V. Němec, G. S. Senatskaya

OTHER CONCEPTS OF GEOETHICS

The term "geoethics" has been used in the course of last years by several authors and by their followers in various concepts differing from those developed in the above given sense. On May 14, 2007 the following e-mail was sent to those authors.

Dear Colleagues,

I take the liberty to inform you about the historical roots of the discipline as well as of the term GEOETHICS I had the pleasure to introduce to the Earth sciences community. Let me go back to the very beginning steps:

In **1991 in Cracow** I proclaimed for the first time some ideas concerning ethical principles of mining activities including the suggestion to initiate an internationally organised development of ethical mining. (My paper "Technical and ethical problems with computerized modelling of exploitation in open pits" was published in the Symposium volume nr. 4, pp. 99 - 104; ISBN 83-900110-1-8). I repeated this idea in **August 1992 in Kyoto** at the International Geological Congress in the section II-24-1 "New ideas and techniques in geological education" - paper O-6 "Ethical Geology in the Education Process". I had the opportunity to organise the first international meeting to this subject in **October 1992** as part of the **Mining Příbram Symposium** at Příbram (then Czechoslovakia; the symposium has been organised annually since early 60-ies with several international sections); in 1992 it was a subsection "Ethics in geology, mining and energy". Gradually the idea of an independent discipline has been generally accepted by the international community of Earth scientists and other specialists under the term of GEOETHICS. (I used this new term at the beginning "unofficially" having in mind difficulties with an automated control of computerised texts suggesting to replace "geoethics" by "genetics", "geotechnics" and similar different terms. The first "official" use of the term "geoethics" goes back to the International Conference on Geoscience Education and Training in **Southampton, April 1993** - in my published abstract "Ethical aspects for teaching Earth sciences" the used word appears written as "geo ethical" - apparently because of above mentioned problems. In that period also Professor W.S.Fyfe - then President of the International Union of Geological Sciences - was personally engaged in helping us to promote the new discipline.)

Regular meetings on GEOETHICS have been organized in the frame of the Mining Příbram symposium since 1994 (actually in preparation the meeting for October 2007) as well as - since 1996 - a part of the International Geological Congresses (presently in preparation for Oslo - 2008) and elsewhere (regularly in Moscow, ad hoc in many other places). The institutionalisation of geoethics has been completed by forming a *working group for geoethics* under the umbrella of the *Association of Geoscientists for International Development (AGID)*.

Some more detailed information and references are given in the two enclosed documents:*

1) *Geoethics* - excerpt from the International Encyclopedic Dictionary GLOBAL STUDIES (where among more than 2000 other terms: *bioethics, global bioethics, global ethics, ecological ethics, ethics, discourse ethics (K.O.Appel; J.Habermas), Land ethics (Aldo Leopold), global ethos, etc. have been defined*).

2) *Geoethics News* (March 2007): also reporting access to several appropriate web pages.

Recently - thanks to the article of J. Cascio (January 2007) - I started to register various streams and movements using the same term "geoethics" for different purposes. Without any doubt many new ideas have to be promoted - on the other hand it should be useful to find an appropriate ethical issue for clearly delimiting the areas of different interest and excluding any confusion. In my opinion a good solution can be found in a scientific discourse as part of the meeting on Geoethics at Příbram (Czech Republic, 60 km SW from Prague) in October 2007 (see *Geoethics News*).

I am convinced that you belong to the most qualified specialists whose presence would be very useful for the suggested discourse. You are free to address this invitation to other colleagues who might be interested. I shall be pleased to receive from you or from your colleagues (who might be able to present your ideas) preliminary registration forms and abstracts of potential presentations for the Příbram meeting as well as any other suggestions - if possible prior to May 31. If any special question, do not hesitate to contact me.

Best regards from Prague,

Vaclav Nemec, Vice President, AGID ; convenor of the international section "Geoethics", the Mining Příbram Symposium ; convenor of the general symposium "Geoethics", the 33rd International Geological Congress

* As to the documents, the first one is included in the text presented above (*About geoethics*), the second was distributed in March 2007 (*Geoethics News*).

Let us hope that some response will be finally obtained and - as emphasised in the above presented text - that it will be possible to find an appropriate ethical issue for clearly delimiting the areas of different interest excluding any confusion and respecting also our "historical" priority of the term "geoethics".

December 2007

THE MINING PRIBRAM SYMPOSIUM 2007

The international section on GEOETHICS

(jointly with the official meeting of the **Working Group on Geoethics**

of the Association of Geoscientists for the International Development - **AGID**)

Příbram, Czech Republic; October 15-18, 2007

FROM THE FINAL REPORT

History

The international section on **GEOETHICS** was organised at **Příbram** - the Czech town 60 km SW from Prague in a region with long famous mining activities (recently stopped) going back to the 13-th century. Since early 1960s' regular annual symposia have been organised in Příbram dealing with various problems of not only mining activities but also with specialised sections on geology of mineral deposits and many other disciplines. Since 1968 until 1999 altogether 19 international meetings on mathematical methods in geology were organised - mostly under the umbrella of the International Association for Mathematical Geology; in 1969 Vaclav Nemec started a long activity (until 1999) as the chief convenor of this international section. Therefore many top specialists from abroad knew Příbram symposia as participants of the meetings dedicated to the mathematical geology. Regular meetings on geoethics take place here usually every second year since 1992 (*see Table 1 in the further text*). - The 2007 meeting was for the second time organised jointly with the meeting of the **Working Group for Geoethics** established by **AGID** in 2004.

Statistics

At the beginning of the year 2007 a good response was obtained from 13 states and in early September about 35 people from abroad were expected to arrive. For various reasons a part of them (including several authors of papers and other specialists already registered and in some cases with the prepaid registration fee) for various reasons had to cancel their arrival to Příbram. Finally 21 colleagues from 7 countries of Europe and Asia were present (France, India, Kazakhstan, Poland, Russia, Ukraine and the Czech Republic) - 7 newcomers among them (fortunately mostly representing the young generation).

Altogether 27 papers have been published in the Proceedings volume of the section (including also papers authored by colleagues from Bulgaria, UK and USA). Twenty-two contributions had oral presentations followed by high level discussions. The total number of all contributions to geoethics at Příbram in the course of last 15 years - written by authors from 21 countries - has reached the number 239 (*see table 1 in the further text*).

In the course of sessions all participants were asked to shortly present themselves. Also the possibility was given to attend the inauguration plenary session of the Symposium, to see a spectacular defilé of students of the local Higher School of Mining as well as take part in two social evenings organized for the Symposium participants.

Content

A very large spectrum of problems and aspects is to be appreciated in the presentations and discussions; both theoretical backgrounds and practical applications of geoethics - going from a local scale up to regional, global and even universal scale - covered problems of exploration and exploitation, ecology, economics, climate changes, etc. The presented and discussed problems of geological education and outreach, international law, contacts with religions, media, etc. seem to be of special value for the further development of geoethics anywhere all over the world. Despite the fact that it was difficult for some authors to find for

their presentations a needed equilibrium between explaining facts and analysing the appropriate geoethical dilemma - the section in this year has been among the best meetings to this subject in the series of last 15 years. *The **list of papers** is given below in the further text.*

Working Group for Geoethics

Two special sessions of the WORKING GROUP FOR GEOETHICS under the umbrella of the ASSOCIATION OF GEOSCIENTISTS FOR INTERNATIONAL DEVELOPMENT (AGID) have made it possible to deeply discuss various regards and to formulate appropriate comments and recommendations also to following matters:

a) The preparation of the **General Symposium on GEOETHICS** at the **33rd INTERNATIONAL GEOLOGICAL CONGRESS**: *see the **special chapter** in the further text.*

b) As to the **further promotion of geoethics** everybody should be encouraged to his own active personal contributions to the development of this discipline; various articles, textbooks etc. should be written and published anywhere in the world in local languages in order to inform about both national and international activities in the field of geoethics, to incorporate this discipline into curricula of local (national) education at all levels etc.

c) **The existing structures** as established at the **Mining Pribram Symposium** and at the Working Group for Geoethics under the umbrella of **AGID** should be used; more visibility is needed what can be solved by regular refreshment of AGID website www.bgs.ac.uk/agid/ including regular publication of the existing GEOETHICS NEWS (Dr. Nemec will continue to publish them at least twice in the year or in any case when for some special circumstances such a need will arise).

d) Geoethical aspects can be promoted also by appointing (through **IUGS**, **UNESCO** or even the **United Nations**) some new organs like an **international commission** or **intergovernmental panel on geoethics** or **on world mineral resources** (in some analogy with the Intergovernmental Panel on Climate Change); the respective suggestions can be arranged by the AGID and its working group on geoethics - also as the result of **negotiations at the coming International Geological Congress**. Dr. Nemec will take care of it asking support of other AGID top representatives.

e) Various ideas have been discussed as to the possibility given by the French law (*Association loi 1901*) to found a new Association (for Geoethics) which does not demand to solve any special juridical problem; this possibility reported by J. Varet and strongly supported by A. Drozdovskaya (including the personal tasks for V. Nemec in such a new liaison) might be acceptable only under the condition that any further progress of geoethics in the frame of already existing (sub c) and possible new structures (sub d) would appear as impossible; any new international structure would be ineffective without being recognised by the IUGS. *The conclusion from the further correspondence with J. Varet is to discuss further steps in Oslo.*

International Year of Planet Earth

Several presentations at the sessions had a direct link to the International Year of Planet Earth (IYPE) with a corresponding personal liaison of the presenters to the IYPE structures (Professor Ahluwalia as member of the US National Committee, Veronika Stedra in charge of the Czech preparatory committee). Many geoethical aspects - including those of geo-education and outreach - are identical with the main goals of the IYPE. Some closer co-operation of geo-ethicists with the IYPE structures will be of help for both partners.

Position Statement on Government's Role in Energy and Mineral Resources (comments to the draft of the Geological Society of America)

The draft of the **Geological Society of America** "Position Statement on Government's Role in Energy and Mineral Resources" was submitted to a large discussion. Geoethical principles including international solidarity should be incorporated to the draft which might be extended also to other problems like natural disasters, climate changes etc. E.g. more attention of Earth scientists should be given to problems of warming and cooling of the Earth by studying their long term cyclic character caused by natural forces and deciphering it in the Earth crust. Dr. Nemec as AGID vice-president is authorised to formulate the comments and recommendations and to send them directly to the chairperson of the GSA Panel on Energy and Mineral Resources Jon Price (jprice@unr.edu).

See the special document in the further text.

To the use of the term "geoethics" in other concepts

*See the special **declaration** in the further text.*

Conclusion

The meeting was successful and a new wave of interest for geoethics is expected in connection with the coming International Geological Congress as well as with the International Year of Planet Earth. The next international section Geoethics at Pribram will be organised in October 2009. All potential participants are asked to pay attention - when preparing their papers as case studies in geoethics - to formulate the appropriate geoethical dilemma maintaining the needed equilibrium between explaining facts and analysing the given dilemma.

AGID - Working Group on Geoethics:

DECLARATION to the use of the term "geoethics"

The Working Group on Geoethics of the Association of Geoscientists for the International Development (AGID) at his meeting at Pribram, Czech Republic, October 15-18, 2007 (jointly with the international section on GEOETHICS organised as part of THE MINING PRIBRAM SYMPOSIUM 2007) was informed about the development of geoethics as a new discipline since 1991 as well as about some new different concepts that started to use the

same term of "geoethics" later - usually far behind the Earth sciences problems. After the discussion Dr. Vaclav Nemec has been authorised to prepare and distribute the appropriate declaration to the use of the term "geoethics".

Table 1

Published documents on geoethics in the Mining Příbram Symposia Proceedings

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

* In 1999 the meeting took place in Prague

The discipline GEOETHICS started to be developed in the regular meetings on geoethics at the forum of the Mining Příbram Symposia (see Table 1) and at the International Geological Congresses since 1992 (see Table 2) **with the world priority of using the term "geoethics".¹⁾**

Table 2

Geoethics as published and presented at the International Geological Congresses

Nr. IGC	Year	City	Published abstracts on geoethics	Oral presentations	Symposium on geoethics
29	1992	Kyoto	3	2	none
30	1996	Beijing	5	3+1	21.3.1 ²⁾
31	2000	Rio de Janeiro	10	4+2	26.1
32	2004	Florence	24	7	8.03 + 8.04
33	2008	Oslo	in preparation		IEE-07

Remarks:

¹⁾ Already in September 1991 in Cracow (at the symposium dedicated to the 70-th anniversary of Professor A. S. Trembecki) Dr. Vaclav Nemec proclaimed for the first time publicly some ideas concerning ethical principles of mining activities including the suggestion to initiate an internationally organised development of ethical mining (his paper *"Technical and ethical problems with computerized modelling of exploitation in open pits"* was published in the Symposium volume nr.4, pp. 99 - 104; ISBN 83-900110-1-8).

²⁾ The results of the special subsection 21.3.1 on geoethics were presented in the General Proceedings of the Congress (p.90): *It was agreed that the people, companies, states and international organizations had the social responsibility to protect the mineral resources and the environment and geoscientists had special tasks in this aspect. An interdisciplinary study of geoethics should be carried out in close combination with geological education.*

³⁾ Some more detailed information about geoethics corresponding to the original idea is given in the International Encyclopedic Dictionary published (p. 158) in the Russian language in **GLOBALISTIKA** - edited by I. I. Mazur and A. N. Chumakov; ELIMA Publishers, PITER Publishers - Moscow - St. Petersburg - New York (ISBN-5-89674-020-4). The same text should appear also in the published English version of the International Encyclopaedic Dictionary: GLOBAL STUDIES. - In the Dictionary among more than 2000 other terms also the following terms have been defined and explained: bioethics, discourse ethics (K. O. Appel; J. Habermas), ecological ethics, ethics, global bioethics, global ethics, global ethos, Land ethics (Aldo Leopold), etc.

It is evident that the term **geoethics** - based on the analogy: **biology - bioethics, geology - geoethics** - covers ethical problems in the Earth sciences and that it expresses in the optimum way the framework for the further development of the discipline of geoethics.³⁾

In order to avoid any confusion the various new concepts - that started later to use the same term "geoethics" for disciplines and approaches usually far away from and never in the unique sense of Earth sciences - should use some other more appropriate terms (e.g. planetary or global ethics); sometimes the adjective "geoethical" can be simply replaced by "ethical".

On the other hand any future co-operation with the representatives of other concepts - whenever problems of Earth sciences will be concerned - will be appreciated.

Vaclav Nemec,

Vice-President of AGID, chairman of the Working Group for Geoethics

Prague, October 24, 2007

Comments and suggestions to the draft of the Geological Society of America (EXCERPTS): Position Statement on Government's Role in Energy and Mineral Resources *sent directly to the chairperson of the GSA Panel on Energy and Mineral Resources Jon Price (jprice@unr.edu)*

Comments

- 1) All mineral resources, energy and environment problems should be considered also from an ethical point of view.
- 2) Moral obligation of Earth scientists should be emphasised by incorporating ethical values and principles transmitted by geoethics for Earth sciences at any level of activities and responsibilities (e.g. precautionary principle, geoethical audit, corporate social responsibility etc.).
- 3) Principles of international solidarity and justice have to be incorporated to the statement in liaison with the global distribution of mineral resources.

Further Suggestions

Taking into consideration all problems with the actual situation in geoeducation at the university level the focus of the energy and mineral resources should be extended also to other problems like natural disasters, climate changes etc. E.g. more attention of Earth scientists should be given to problems of warming and cooling of the Earth by studying their long term cyclic character caused by natural forces and by deciphering it in the Earth crust; the results can help to improve climatic changes forecasts where anthropogenic explanations need to be considered in an equilibrium with independent natural processes. - Maybe such activities can be covered by another parallel GSA statement (another Panel?).

Conclusion

From the point of view of geoethics any strengthening and improving of contacts between Earth scientists and policy makers at any level is to be appreciated. Geoscientists in many respects have a non-substitutable role and they should be well prepared for it.

* * *

July and November 2008

THE 33rd INTERNATIONAL GEOLOGICAL CONGRESS
August 6 - 14, 2008; Oslo, Norway

All needed actualized information can be seen on <http://www.33igc.org>

Two symposia concern GEOETHICS. The first one (IEE-07) continues in accordance with the development of this discipline at previous congresses whereas for the second one (IEE-08) – initiated by Professor P. Reitan – we have suggested the additional indication as Geoethics II. Following characteristics can be read at the IGC web pages:


IEE-07 Geoethics I *Convenors: Vaclav Nemec, Lidmila Nemcova (AGID)*

GEOETHICS - born in 1991 at the junction of ethics and geology - has been accepted by both earth and social sciences because the necessity of an appropriate ethical attitude to the whole geosphere and of a critical analysis of geoethical dilemmas and finding ways how to solve them. It is to be developed with regard to all specificities of Earth sciences as well as to social responsibility of their representatives. Geoethics can serve as means of influence over consciousness of people: as a stimulating motivation to create technologies that take into consideration economy of resources, ecological aspects and sustainable development all over the planet; to a complex and reasonable use of resources; to search for alternative (renewable!) sources of raw materials and energy; to prevent critical ecological situations (monitoring seismic and volcanic activities etc.); also usual problems of professional ethics can be discussed. Methods applied by geoethics are the same as in other fields of knowledge: education, cultivation and culture that lead substantially to find responsible solutions and to make responsible decisions based on priorities of spiritual and moral values common to all mankind incl. all future generations. Regular symposia on Geoethics have been organised at the IGC since 1996 (2 sessions in 2004), more frequent regular international meetings take place at Pribram (Czech Republic) since 1992. Working Group for Geoethics under the umbrella of AGID since 2005.

IEE-08 Geoethics II: Earth sciences and the ethics of sustainable world cultures *Convenors: Paul H. Reitan, Allison R. Palmer, Kirsten Halsnaes*

The Earth Sciences inform us of emerging and worsening problems that threaten a successfully sustainable future for human societies and the Earth systems upon which our societies depend. Problems arise from population growth, per capita demand for increased affluence (thus exponential growth in resource consumption), and abuse of land and sea. A sustainable future, including equity, justice, and peace, will be found only if our societies transform their present dominant and expanding culture to one whose practices and ethics, along with its accepted rules of behaviour and reward systems, are consistent with sustainability. The challenges are enormous – including the science to discover and define threats, the technologies and societal changes needed to respond, and the ethical framework(s) of a culture or cultures that will pursue sustainable life ways. This will continue and broaden efforts within the Earth Sciences to encourage all the scientific community to consider long-term implications of a sustainable future and to include serious consideration of the ethical implications of all scientific endeavours. Earlier, I (PHR) led a well attended symposium at the 2007 Annual Meeting of the American Association for the Advancement of Science (AAAS) titled “The Science and Ethics of a Culture of Sustainability”.

HAPPY REMEMBRANCE OF THE 33rd IGC



33RD IGC INTERNATIONAL GEOLOGICAL CONGRESS
AUGUST 11 - HORDAROOM

GEOETHICS DAY

08:00-09:45 IEE-08 GEOETHICS II – Earth sciences and the ethics of sustainable world cultures (Paul Reitan et al.)

10:30-12:00 IEE-07 GEOETHICS I (V.Němec, L.Němcová)

14:00-15:30 IEE-07 GEOETHICS I (V.Němec, L.Němcová)

16:00-18:00 OPEN FINAL DISCUSSION – organized for participants of GEOETHICS I and GEOETHICS II and for all who are interested in the further development of GEOETHICS as **BM-87 Working Group on Geoethics (AGID)**

Visit also posters of the IEE-07 Geoethics I

33IGC – Symposium report from the conveners

Code and title of the symposium **IEE-07 Geoethics I**

Conveners: Vaclav Nemec, The Mining Příbram Symposium, Czech Republic

Lidmila Nemcova, The Mining Příbram Symposium, Czech Republic

Number of presentations:

Oral presentations: realised: 7; no-shows: 1; altogether 8 (suggested as oral) + orally presented posters: 2 (i.e. **total 9 oral presentations**).

Poster presentations: **realised: 5**; no-shows: 1; altogether 6.

Symposium summary:

GEOETHICS - born in 1991 at the junction of ethics and geology - has been accepted by both earth and social sciences because the necessity of an appropriate ethical attitude to the whole geosphere and of a critical analysis of geoethical dilemmas with finding ways how to solve them. The symposium Geoethics I - also in liaison with the symposium IEE-08 Geoethics II – has given a possibility to redefine actual tasks of this discipline and to present a large spectrum of both theoretically oriented ideas and practical case studies covering problems of a complex and reasonable use of resources and a deep research and monitoring of processes with the aim to prevent critical ecological situations. A necessity appears to look after sources of geoethics which could be found also in various religious cultures (e. g. Christian denominations, Buddhism or Islamism). Responsible decisions at any level (from a personal to the global one) should be based on priorities of spiritual and moral values and principles common to all mankind incl. future generations. - All specificities of Earth sciences as well as the social responsibility of their representatives are to be taken into consideration and an interdisciplinary approach is to be applied: both in actual cases and in strategic trajectories: geoethical solutions presume also an economic and social analysis before recommending and influencing final political decisions. No general recipes can be elaborated – any case should be examined individually taking into consideration the basic principles of the common good and sustainable development. Geoethics as means of influence over consciousness of people presumes to be supported by and cultivated in any education process starting already at primary schools. - The closing discussion was realised at the Business Meeting 87 of the Working Group for Geoethics under the umbrella of the Association of Geoscientists for International Development. This WG will be responsible for the further development and promoting of geoethics.

General comments: All oral presentations and posters had the expected qualitative level, also the broad international spectrum of presenters (from all parts of Europe, Asia and America) and of attending people should be emphasized. The number of people present in the room during the whole day was among 15 - 45 persons, the total number reached around 75 people. About 20 additional people - unable to attend because of other obligations at the Congress - expressed their interest for geoethics. The whole time was completely consumed by presentations (incl. 2 orally presented posters) and lively discussions.

Announcements: Regular international sessions on geoethics will continue at Pribram (Czech Republic, October 12-16, 2009) but also in Moscow (perhaps April 2009) and newly in Italy (Rimini, September 2009). Plans for publishing results are under discussion.

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List of contributions to symposia on geoethics

IEE-07 Geoethics I

[About the role of the state in development of market of the venture capital in sphere of subsoil use](#)

Ilya Nikitin

[Actual tasks for geoethics](#)

Vaclav Nemec

[Aggressive earth and environment outreach: Geoethical way to harness full potential of geosciences for society](#)

Arun Ahluwalia

[Cereal subsidies, increased landsliding, and agricultural land degradation: A case history from the Southern Apennines with EU policy and ethical significance](#)

Janusz Wasowski, Caterina Lamanna, Domenico Casarano, Paul Gostelow

[Earth ethics: Reaches how far?](#)

Paul Reitan

[Ethical aspects on the geological properties evaluation](#)

Alicja Byrska-Rapala

[Geoethical problems in exploration and production wells drilling under complex conditions](#)

Valery Chistyakov

[Geoethics in the family of geosciences](#)

Vaclav Nemec, Lidmila Nemcova

[Global approach to geoethics: A first attempt for validation](#)

Jacques Varet

[Importance of geoethical view points for the revision of systematics in petrology](#)

Niichi Nishiwaki

[Internationalisation of mineral resources: Ethical dilemmas and possible principles](#)

Nataliya Nikitina

[Philosophical and epistemological debate in Italy within an ethical perspective of Earth sciences](#)

Sandra Piacente, Silvia Peppoloni, Carlo Bosi

[Reflections of the Christian social teaching in geoethics](#)

Lidmila Nemcova

[The social responsibility of mining business in public consciousness](#)

Sergey Nikitin, Nikita Nikitin

IEE-08 Geoethics II –

Earth sciences and the ethics of sustainable world cultures

[Earth systems and humans: Is our future sustainable?](#)

Paul Reitan

[How should we think about long term consequences?](#)

Olav Gjelsvik

[Sustainable Development - a framework for global climate change collaboration](#)

Kirsten Halsnaes

[The 'Lomborg case' on sustainable development and scientific dishonesty](#)

Jens Morten Hansen

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Some comments of participants:

Professor Paul Reitan (convener of the Symposium IEE-08 – Geoethics II):

Hello all: It was a pleasure for me to meet you in Oslo. I might mention an initiative - not quite exclusively "Geoethics" but related.

At the February 2009 meetings in Chicago of the American Association for the Advancement of Science (AAAS) I have organized a symposium along with Prof. Mary Evelyn Tucker of Yale University (she is a professor of religion and very involved in world religions and ecology). The title of our symposium is "Toward the science and ethics of a culture of sustainability". Six invited speakers were designated when we proposed the symposium to AAAS. It represents my interest in bridging the separation between the sciences and ethics (there should be no gap; ethics should be a part of all sciences automatically).

An ocean and more separates us, and that is a barrier to frequent personal contacts, but if you have a chance to come to Chicago for the meetings of the AAAS, please let me know so that I can tell you of the exact time and place of the symposium (it has not yet been determined).

With regards to all of you, Paul

Dear Vaclav and Lidmila:

It was a pleasure to get to know you at least a little bit in Oslo. I hope the geological community will continue to become more explicitly conscious of ethics and the role we can play in the successful future of the world's societies. Keep up the good work! I wish that you might be able to attend the AAAS symposium that I have organized with Professor Mary Evelyn Tucker of Yale University (a professor of religion); our title is "Toward the science and ethics of a culture of sustainability". The AAAS meetings will be in February 2009.

We mentioned the possibility of a book for geologists, maybe especially teachers, about ethics in the Earth sciences. If you begin this project, please know that I would be delighted to help in any way that I can. I think it would be very worthwhile.

Regards, Paul

Silvia Peppoloni and Giuseppe Di Capua:

Dear Colleagues,

we wish to thank you for the excellent organization of the session and for your friendly involvement of the participants. We are returned to Rome with a great desire to start working. Please, inform us about all the initiatives concerning Geoethics. We will be happy to contribute. We hope to meet you on the occasion of the next planned events (Moscow, April 2009; Rimini, September 2009; Pribram, October 2009).

Best regards

Silvia Peppoloni and Giuseppe Di Capua

December 2008

From the Science Programme Coordinator Dr. B. Sundquist to the convenors of the Symposium IEE-07:

Dear Vaclav and Lidmila,

Many thanks for your report. It looks fine. Yes, the congress was great – also thanks to you and all other conveners and coordinators, whose engagement was impressive. It would have been nice to see you at the venue, but unfortunately, I was unable to attend most of the symposia programme, being heavily occupied every day by producing programme updates for the next day. Hope that your collaboration with IEE-08 developed well.

The "Proceedings Volume" will be published in 2009 and available in pdf at <http://www.33igc.org>

Regards,

Björn

Dr. Björn Sundquist - Science Programme Coordinator, 33rd IGC Science Committee Secretariat, Dept. of Earth Sciences, Uppsala University

GEOETHICAL POINT OF VIEW

Jacques Varet as the Chief Editor of **Géosciences** (BRGM's journal for a sustainable Earth) has prepared the recent issue **No. 9** (AN ACTIVE EARTH – AN EARTH IN MOTION: MONITORING SYSTEMS FOR A DYNAMIC PLANET). This issue intends to demonstrate how geological Earth is indeed active and an integral part of a dynamic force that is essential to life in general and particularly to mankind. In a special section "Points of view" the same question is posed to three people in positions of responsibility (industrialists, elected officials, association representatives, etc.) on a common issue. Jacques Varet has asked Vaclav Nemec to present his own "geoethical point of view" in answer to:

"What would you suggest to improve management of Planet Earth?"

Ten broad and socially relevant themes have been identified for the International Year of the Planet Earth. They reflect both present & future 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 should be examined also from such points of view as ethics, responsibility, risk, sustainability - in one appropriate expression: geoethics. From the Greek géo – Earth - and éthos - morality – geoethics is a set of moral standards which are to be applied when utilizing the geosphere. It was proposed as an independent scientific field in 1992 by the author during an international meeting at Příbram. At the junction of ethics and geology, it has been accepted by both earth and social sciences.

The believers are convinced that the God has given the Earth with its own dynamic development and resources to the whole human kind demanding to obey basic moral and natural laws without excluding or preferring anybody. The non-believers recognise at least the existence of natural laws governing the development of our planet. Many geological processes still remain to be deciphered (e. g. hierarchical periodicities in space and in time). Without their knowledge and appropriate measures one day our fragile planet may appear as a danger to mankind. (How to resist floods appearing once in 10,000 years, sinking sea shores or orogenetic movements?) Because of a too short human history invaluable records in the Earth crust are to be used for predicting many potential dangers that will appear in the future. The objective to prevent them has to mobilise and support various needed activities (further fundamental research as well as improved monitoring and protection systems).

All efforts of geo-scientists, managers, politicians and statesmen at any level should respect principles of geoethics and their responsibility for the destiny of our planet and of its inhabitants.

More information at www.bgs.ac.uk/agid/

Dr. Vaclav Nemec

Vice President for Europe, Association of Geoscientists for International Development

Convenor of regular sections on Geoethics, the Mining Příbram Symposium

Member of the Business Ethics Society, Czech Republic

lidmila.nemcova@quick.cz

OTHER NEWS

Best wishes from Larry D. Woodfork:

Dear Lidmila,

Thank you for including me in your list to receive the GEOETHICS NEWS. I have long been interested in Professional Ethics in the Geosciences and have given a number of lectures over the years to various audiences on that topic.

Please keep up your important work. It is increasingly important in today's world where I am afraid far too many things put forward as "scientific truth" are in reality driven more by an ideological/political view/slant/agenda rather than based on sound, unbiased, rigorous, rational scientific research and fact. Unfortunately the lay public is not capable of sorting out such things and is thus often misled by reports in the popular media resulting in inaccurate conclusions, unenlightened public perception and poor public policy decisions. Such a situation is in no one's long term best interest.

Best wishes,

Larry

Larry D. Woodfork, Chairman, Board of Directors and Officers,
Corporation of the INTERNATIONAL YEAR OF PLANET EARTH

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About geoethics in Malta:

At the seminar "Climate Change and Employment" organised on 23-25 October 2008 at Qawra (Malta) by the Academy for the Development of a Democratic Environment & the European Centre for Workers' Questions (EZA) with the support of the European Commission Dr. Vaclav Nemec presented a paper on

CLIMATE CHANGES from local and global views

- *Recent and historical experience in Middle Europe (Czech Republic)*
- *Strategy adopted by the Czech government and its impact on the CSR and population behaviour*
- *Climate Change: Past, Present, Future (as discussed at the recent International Geological Congress in Oslo)*
- ***Predicting natural hazards - geoethical issues and social impact.***

This was a possibility to promote ideas of geoethics.

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All useful information, suggestions, comments etc. from you and your colleagues will be highly appreciated and – if necessary – incorporated into the next issues of GEOETHICS NEWS.

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Lidmila Nemcova and Vaclav Nemec in Florence, 2004