



### INTERNATIONAL UNION OF GEOLOGICAL SCIENCES (IUGS)

# **Reporting Form for IUGS Affiliated Organizations 2017**

Name of Affiliated Organization

#### IAPG – INTERNATIONAL ASSOCIATION FOR PROMOTING GEOETHICS

http://www.geoethics.org/ Contact: Secretary General: silvia.peppoloni@ingv.it



The IAPG was legally recognized as a not-for-profit organization through a public notarial deed on 21<sup>st</sup> December 2012, repertoire no. 16255, collection no. 8340, Italian Republic.

Head Office c/o: Istituto Nazionale di Geofisica e Vulcanologia via di Vigna Murata, 605 00143 Rome, Italy

The IAPG is an affiliated organization of the International Union of Geological Sciences (IUGS), an International Associate Organization of the American Geosciences Institute (AGI), an Associate Society of the Geological Society of America (GSA), an Associate Society of the Geological Society of London (GSL), an Associate Organisation of the Geoscience Information in Africa - Network (GIRAF), a member organisation of the International Council for Philosophy and Human Sciences (ICPHS) and a Global Partner of the International Year of Global Understanding (IYGU).



















The IAPG has agreements of collaboration with: EuroGeoSurveys (EGS), European Federation of Geologists (EFG), American Geophysical Union (AGU), International Association for Engineering Geology and the Environment (IAEG), International Association of Hydrogeologists (IAH), Association of Environmental & Engineering Geologists (AEG), International Geoscience Education Organisation (IGEO), African Association of Women in Geosciences (AAWG), Initiative on Forensic Geology (IUGS-IFG), Geology for Global Development (GfGD), Peruvian Geological Society (SGP), GEVAS Red Argentina, and African Network for Geo-Education (ANGE). Finally, IAPG is a Technical Partner of the IUGS Conference Resource for Future Generation - RFG2018.





























# **Overall objectives**

The IAPG is a multidisciplinary, scientific network for widening the discussion and creating consciousness about problems of Ethics applied to the Geosciences, in particular on the ethical, social and cultural implications of Earth sciences education, research and practice. Its overall objectives are:

- developing the discussion on ethical implications in research and practice of geosciences among geoscientists and into society, making Geoethics an essential point of reference for any action on land, waters and atmosphere usage that all stake-holders and decision-makers must take into proper account;
- increasing the base research on Geoethics and strengthening it from the scientific point of view;
- promoting Geoethics values and principles through international cooperation, encouraging the involvement of geoscientists belonging to low income countries;
- fostering the dissemination of Geoethics through websites and social networks, the publication of scientific papers, the organization of meetings and sessions/symposia on Geoethics within national and international scientific events;
- encouraging the establishment of both regional and specialty groups; and
- cooperating with national and international organizations whose aims are complementary to those of the IAPG.

The achievement of the IAPG objectives will lead to the:

• identification of methods for a more effective application of geoethical principles in geological practice and research;





- reflection on the role that geoscientists can have in society and the identification of suitable forms, positions, means and actions to be adopted by them;
- growth of awareness about our responsibility, both as geoscientists and as members of civil society;
- involvement of the community in the idea of a common and shared "geo-heritage", to be considered as a cultural, educational and scientific value, as well as an economic resource;
- cultural renewal in the way we perceive and relate to our planet; and
- the sensitization towards the defense of life and the richness of the Earth.

# Relate goals to overall IUGS scientific objectives

The IAPG goals are strongly related to the IUGS's aims. This is evident by comparing the IUGS and IAPG Constitutions. The IAPG activities aim to develop thoughts and to find best practice solutions regarding global issues (like geohazards, Earth resources, climate change, geoscience communication and geoeducation) with a goal to sustain Earth's natural environment, to use all natural resources wisely and to mitigate the impacts of geohazards for the benefit of society in the attainment of their economic, cultural and social goals. Moreover, the IAPG is involved in promoting geo-education in the widest sense, facilitating interactions among geoscientists from all parts of the world, encouraging international cooperation, and fostering the dissemination of Geoethics themes in society.

## Structure and organization

All the IAPG members, including officers, are volunteers.

The bodies of the Association are the:

- 1) Executive Council;
- 2) General Assembly.

The Executive Council (<a href="http://www.geoethics.org/executive-council">http://www.geoethics.org/executive-council</a>) consists of:

- a) one President (Prof. Stefano Tinti);
- b) two Vice-Presidents (Prof. Susan Kieffer; Dr. Shrikant Limaye)
- c) one Secretary General (Prof. Silvia Peppoloni);
- d) one Treasurer (Dr. Giuseppe Di Capua);
- e) six Continental Coordinators (Dr. Peter Bobrowsky, Prof. Roberto Greco, Dr. Nic Bilham, Prof. Ezzoura Errami, Dr. Meng Wang, Dr. Margaret Brocx).

The **General Assembly** (<a href="http://www.geoethics.org/ga">http://www.geoethics.org/ga</a>) is composed of all the members of the IAPG. Currently the IAPG network comprises 1816 members from 123 countries on 5 continents.

**IAPG** The is also present in 28 countries with national (http://www.geoethics.org/sections) (coordinators in brackets): Argentina (Elizabeth I. Rovere and Roberto A. Violante), Bangladesh (Ershadul Haque and Jahangir Alam), Brazil (Eduardo Marone), Cameroon (Ndzishepngong Kelvin Ngwang), Canada (Jan Boon), Cuba (Yurisley Valdes Mariño), Democratic Republic of Congo (Jean-Robert Mweze), Egypt (Kholoud M. Abdelmaksoud), Greece (Gerassimos A. Papadopoulos), India (Surya Gupta Parkash), Iraq (Nawrass N. Ameen and Ameer Hayder Khalid), Iran (Vahid Ahadnejad and Sedigheh Seifilaleh),





Italy (Silvia Peppoloni), Jordan (Mamoon Allan), Malawi (Hilton Banda Eneya), Mexico (Miguel Rangel Medina), Nepal (Shree Prasad Vista) Nigeria (Arinze Harrison Ikwumelezeh), Pakistan (Muhammad Yaseen and Emad Ullah Khan), Paraguay (Moisés Alejandro Gadea Villalba) Peru (Sandra Paula Villacorta Chambi), Portugal (Clara M. da Silva de Vasconcelos and Paulo Emanuel Talhadas Ferreira da Fonseca), Romania (Antoneta Seghedi and Ilies Dorina Camelia), Spain (Emilia H. Lopera Pareja and Domingo A. Martín Sánchez), Ukraine (Yuriy Kostyuchenko), United Kingdom (David Craig Ovadia), USA (Vincent S. Cronin and Cindy M. Palinkas), Uruguay (Leda Sánchez Bettucci).

In 2017, the IAPG enlarged its **Board of Experts - BE** (<a href="http://www.geoethics.org/experts">http://www.geoethics.org/experts</a>) on specific issues related to geoethics. The BE has the important cultural function of stimulating our community with papers or news. The BE is interested in Earth sciences and humanities and in promoting issues on Geoethics and the IAPG. Currently the board includes 12 experts: Martin Bohle, Belgium (topic: **Interdisciplinary explorations for main-streaming interest in Earth sciences topics**); Elizabeth Silva, Portugal (topic: **Geoethics and Geoparks**); Robert Frodeman, USA (topic: **Geoethics and Philosophy**); Madhumita Das, India (topic: **Geoethical aspects in low income countries**); Christine McEntee, USA (topic: **Harassment and Discrimination in Geosciences**); Iain Stewart, United Kingdom (topic: **Risk communication**); Edmund Nickless, United Kingdom (topic: **Geoethics for Society**); David Mogk, USA (topic: **Geo-education and Teaching Geoethics**); Luis González de Vallejo, Spain (topic: **Geoethics in Engineering Geology**); Manuel João Florentino Gomes Abrunhosa, Portugal (topic: **Geoethics in Groundwater Management**), Tony Mayer, Singapore (topic: **Research Integrity**); Ciro Manzo, Italy (topic: **Geoethics and young geoscientists**).

In 2015, the IAPG created the **Young Scientists Club - YSC** (<a href="http://www.geoethics.org/young-club">http://www.geoethics.org/young-club</a>). The YSC is the interface between the IAPG and young geoscientists' organizations and groups, in order to promote Geoethics and the IAPG among the youngest colleagues more effectively. Members of the YSC have to be members of the IAPG and less than 35 years old. Dr. **Marie Charrière**, from Switzerland, is the YSC Chair. The board of the YSC was nominated in December 2015 after a public call and consists of the YSC chair and 5 members: **Ndivhuwo Cecilia Mukosi** (South Africa), **Francesco De Pascale** (Italy), **Craig O'Brien** (Ireland), **Jonathan Gomez Cantero** (Spain), **Tharwat Hassan** (Egypt). In 2018, the YSC will be renewed.

On 8 May 2017, the IAPG created the **Task Group on Responsible Mining** – **TGRM** (<a href="http://www.geoethics.org/tgrm">http://www.geoethics.org/tgrm</a>), formed by Nikolaos Arvanitidis (Sweden), Jan Boon (Canada), Pekka Nurmi (Finland), Giuseppe Di Capua (Italy). The goal of the Task Group has been to draft a document on "Responsible Mining", on values and concepts that must be considered including their importance for future generations in the perspective of a sustainable development of our societies. On 1 December 2017, the IAPG Executive Council approved the "White Paper on Responsible Mining" (<a href="http://www.geoethics.org/wp-responsible-mining">http://www.geoethics.org/wp-responsible-mining</a>), prepared by the Task Group following a review by an International Panel of Experts formed by Vitor Correia (Portugal), Roberto Lencina (Argentina), David Ovadia (United Kingdom), Mark Rachovides (Canada), Ian Thomson (Canada).

#### **Interaction with other International organizations and projects**

The IAPG collaborates with the following organizations:

- African Association of Women in Geosciences (AAWG);
- African Geoparks Network (AGN);





- African Network for Geo-Education (ANGE);
- American Geophysical Union (AGU);
- American Geosciences Institute (AGI);
- Association of Environmental & Engineering Geologists (AEG);
- EuroGeoSurveys (EGS);
- European Association for the Conservation of Geological Heritage (ProGEO);
- European Federation of Geologists (EFG);
- European Geosciences Union (EGU);
- Geological Society of America (GSA);
- Geological Society of London (GSL);
- Geological Society of Peru (SGP Sociedad Geológica del Perú);
- Geology for Global Development (GfGD);
- Geology in the Public Interest (GPI):
- Geoscience Information in Africa Network (GIRAF):
- GEVAS Red Argentina;
- Global Geoscience Professionalism Task Group (IUGS-TGGGP);
- Initiative on Forensic Geology of the IUGS (IUGS-IFG).
- International Association for Engineering Geology and the Environment (IAEG);
- International Association for Geoscience Diversity (IAGD);
- International Association of Hydrogeologists (IAH);
- International Council for Philosophy and Human Sciences (ICPHS);
- International Geoscience Education Organisation (IGEO);
- International River Foundation (IRF);
- International Union of Geological Sciences (IUGS);
- International Year of Global Understanding (IYGU).
- Italian Geological Society (SGI-Società Geologica Italiana);
- Resources for Future Generations Conference (RFG 2018);
- Science Education Resource Center (SERC);
- Young Earth-Scientists (YES) Network;
- World Conferences on Research Integrity (WCRI).

# **Chief products**

#### Volumes

- Special volume: Peppoloni S., Di Capua G., Bobrowsky P., Cronin V. (Eds). *Geoethics at the heart of all geoscience*. Annals of Geophysics, Vol 60, Fast Track 7 (2017), http://www.annalsofgeophysics.eu/index.php/annals/issue/view/537.
- Book: Gundersen Linda C. (Ed.). *Scientific Integrity and Ethics in the Geosciences*, (2017), p. 336, American Geophysical Union, Wiley, ISBN 978-1-119-06778-8, <a href="http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1119067782.html">http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1119067782.html</a>.
- Book: Peppoloni S. and Di Capua G. (Eds.). *Geoethics: the Role and Responsibility of Geoscientists*. Geological Society, London, Special Publications, (2015), 419, ISBN 978-1-86239-726-2, http://sp.lyellcollection.org/content/419/1.
- Book: Wyss M. & Peppoloni S. (Eds.). Geoethics: Ethical Challenges and Case Studies in Earth Sciences. 450 p. Elsevier (2014), <a href="http://store.elsevier.com/Geoethics/isbn-9780127999357/">http://store.elsevier.com/Geoethics/isbn-9780127999357/</a>.





- Book: Lollino G., Arattano M., Giardino M., Oliveira R., Peppoloni S. (Eds.). *Engineering Geology for Society and Territory Volume 7: Education, Professional Ethics and Public Recognition of Engineering Geology*. XVII, 274 p. 103 illus., 86 illus. in color, Springer (2014), <a href="http://www.springer.com/earth+sciences+and+geography/environmental+science+%26+engineering/book/978-3-319-09302-4">http://www.springer.com/earth+sciences+and+geography/environmental+science+%26+engineering/book/978-3-319-09302-4</a>.
- Special volume: Peppoloni S. and Di Capua G. (Eds.). *Geoethics and geological culture. Reflections from the Geoitalia Conference 2011*. Annals of Geophysics, Vol. 55, No 3 (2012). <a href="http://www.annalsofgeophysics.eu/index.php/annals/issue/view/482">http://www.annalsofgeophysics.eu/index.php/annals/issue/view/482</a>.

## Videos, interviews and articles for newspapers and magazines

- 9 videos uploaded on the YouTube channel of the IAPG: http://www.youtube.com/user/iapgeoethics
- Articles on geoethical issues for the Italian newspapers "Corriere della Sera" and "Il Sole24Ore", and for the Italian Magazines "112 Emergencies" and "MicroMega, La Mela di Newton" (by Silvia Peppoloni, IAPG Secretary General);
- 6 interviews with the IAPG President, Secretary General and IAPG members for the:
  - Swiss Radio Network 2, subject: "Prevention and Geoethics", by Matteo Martelli;
  - Austrian Radio (ORF1) program on Geoethics: "Dimensionen die Welt der Wissenschaft: Was soll ich tun global gesehen? Die Ethik in den Geowissenschaften" ("Dimensions the world of science: What should I do a global perspective? The Ethics in the geosciences"), by Wolfgang Däuble: <a href="http://oe1.orf.at/programm/404157">http://oe1.orf.at/programm/404157</a>;
  - German Radio (SWR2), title "Endgültig freigesprochen: Das Erdbeben von L'Aquila und die ethische Verantwortung der Geowissenschaftler. Gespräch mit Silvia Peppoloni, International Association for Promoting Geoethics, Rom. (Finally acquitted: The L'Aquila earthquake and the ethical responsibility of geoscientists. Interview with Silvia Peppoloni, International Association for Promoting Geoethics, Rome). Redaktion / Moderation: Gabor Paal;
  - Italian Radio Television Network (RAI), subject: culture of prevention. The interview begins from 16m 30s: <a href="http://www.raiscuola.rai.it/articoli/nautilus-seguendo-il-tempo/26025/default.aspx">http://www.raiscuola.rai.it/articoli/nautilus-seguendo-il-tempo/26025/default.aspx</a>;
  - Italian Radio Television Network (RAI), Radio3 Scienza, subject: Natural risks;
  - Science Festival in Genoa (Italy):
    Part 1 <a href="https://www.youtube.com/watch?v=Xt0\_Z6mAGeI&list=UUP-Fngse1pu9sFvyBgN3AzQ">https://www.youtube.com/watch?v=Xt0\_Z6mAGeI&list=UUP-Fngse1pu9sFvyBgN3AzQ</a>
    Part 2 <a href="https://www.youtube.com/watch?v=M2aYspo0p5Y&feature=youtu.be">https://www.youtube.com/watch?v=M2aYspo0p5Y&feature=youtu.be</a>

<u>Many scientific papers</u> on Geoethics have been included in the books mentioned above. More than 160 papers on Geoethics (with a peer-review process) have been published since 2012.

Oral and Poster presentations in scientific sessions or courses at the EGU General Assembly (2012, 2013, 2014, 2015, 2016, 2017), IGC – International Geological Congress (2016), Congress of the Italian Geological Society (2016), Geoitalia conference (2013), IAEG Congress (2014), GSA Annual Meeting (2014, 2015), AGU Fall Meeting (2014, 2015, 2016, 2017), WCRI (2013, 2015), AGU-GAC-MAC-CGU Joint Assembly (2015), Argentine Geological Congress (2017), Geological Congress of Spain (2016), Peruvian Congress of Geology (2016), CAAWG - Conference of the African Association of Women in Geosciences (2016), EADI NORDIC Conference (2017), EFG Workshop (2014), EFG-UNECE Conference (2017), Foro Internacional sobre Gestión del Riesgo Geológico - International Forum on Geological Risks Management (2015), Future Earth international symposium in Japan (2017), International Conference of the Institute of African





Research and Studies – IARS in Egypt (2016), Colloquium on Geoethics in Peru (2015), Conference of the African Association of Women in Geosciences Nigeria (2015), OTC Conference in Houston (2014), SERC workshop in Montana (2014), AEG course in Texas (2014), Geological Society of London, Regional Group – Lecture (2017), CNG course in Italy (2014), Science Festival in Genoa, Italy (2013, 2014), Meeting: nANO meets water VII meeting in Germany (2016), South Texas Geological Society meeting (2016), Ocean Sciences Meeting – OSM in New Orleans (2016), CoV-9: Cities on Volcanoes in Chile (2016), Workshop on Geoethics in Nigeria (2016), Colombian Conference of Geology (2015), International Conference of Underground Construction (2015), Geological Conference of Central America (2015), National Congress of the Italian Environment Fund – FAI (2017), WISE Multiplier Event (2017).

#### Website and social networks

- Official Website: http://www.geoethics.org
- Blog: <a href="http://iapgeoethics.blogspot.com">http://iapgeoethics.blogspot.com</a>
- Linkedin Group "Geoethics and Culture of Geosciences" (1548 members): https://www.linkedin.com/groups/4615518
- Facebook Page: https://www.facebook.com/iapg.geoethics/
- Twitter Page (@IAPGeoethics) (1688 followers): https://twitter.com/IAPGeoethics
- Global Ethics Network: http://www.globalethicsnetwork.org/group/iapgeoethics
- Other IAPG national sections webpages at: <a href="http://www.geoethics.org/sections.html">http://www.geoethics.org/sections.html</a>
- Photo gallery on Flickr: https://www.flickr.com/photos/125283529@N05/sets/

Thousands of posts have been released on the IAPG website, regarding articles, news, call for abstracts, meetings-conferences, seminars, events and other kind of information on Geoethics.

### Webinar and Video-Lectures

- Video-Lesson by Silvia Peppoloni (IAPG Secretary General) on "Geoethics in Disaster Risk Reduction" in the online course (MOOC): "A Resilient Future: Science and Technology for Disaster Risk Reduction" (Discover how science and technology help us reduce disaster risk and increase resilience). This free online course has been organized by the École Polytechnique Fédérale de Lausanne (Switzerland). The video is included in the Chapter 7: Science and Technology for Resilience and Sustainable Development Ethics in Disaster Risk Reduction. Video: <a href="https://www.youtube.com/watch?v=jCVkuaKAqK8&t=43s">https://www.youtube.com/watch?v=jCVkuaKAqK8&t=43s</a>.
- Video-Lecture on "Geoethics and Georisks Reduction" at the conference organized by the Italian Embassy in Norway, in collaboration with the University of Oslo, in the framework of the initiative "Under the Sign of Excellence".
- Video-Lecture on Geoethics at the First National Conference of the African Association of Women in Geosciences Nigeria - AAWGN, June 2015). Video: <a href="https://www.youtube.com/watch?v=f-ki8cwP8bk">https://www.youtube.com/watch?v=f-ki8cwP8bk</a>.
- Organization of a webinar on Geoethics at the EGU General Assembly 2013. Video: <a href="http://www.egu2013.eu/nh9\_8\_video.html">http://www.egu2013.eu/nh9\_8\_video.html</a>. In collaboration with YES-Network and AGI American Geological Institute.

#### Newsletter

IAPG releases its Newsletter from May 2015. Up to now, 17 numbers have been published and are available at: http://www.geoethics.org/newsletter.html.





# Chief accomplishments 2017 and plans for 2018

# Chief accomplishments 2017

### January 2017

- Invited talk by Silvia Peppoloni (IAPG Secretary General) entitled "The prevention from natural risks: a (geo)ethical and cultural matter" at the XXI National Congress of the Italian Environment Fund FAI.
- IAPG Peru solicits the Peruvian Geological Society (SGP) for intervening officially in the case of a paleontological fraud with the result to contribute to stop an important case of research misconduct in Peru.
- Peter Bobrowsky (IAPG Continental Coordinator for North America) gave a talk to the Geological Survey of Canada entitled "Geoethics Good for Science and the Public".

# February 2017

- IAPG members of the Board of Experts (Martin Bohle and Edmund Nickless) take part in the panel session on "Socio-economic and environmental drivers for natural resources development and management" at the EFG/UNECE conference.
- Silvia Peppoloni (IAPG Secretary General) presented the "Cape Town Statement on Geoethics" at the 71st IUGS Executive Council Meeting, held at UNESCO, Paris, France.
- IAPG attends and supports the FutureEarth symposium on "Decision Science for Future Earth How can we transform our society to a better future" at Kyushu University, Japan.
- IAPG attends and supports a volunteers' conference in Japan for the anniversary of the 2016 Kumamoto earthquake. Megumi. IAPG member in Japan delivers a speech on geoethics and its meaning in supporting disaster areas and disaster prevention activities in order to mitigate effects of future earthquakes. The conference gets a favorable coverage in 4 medias.
- A video lesson by Silvia Peppoloni, IAPG Secretary General, on "Geoethics in disaster risk reduction" is officially released. The video is part of the online course (MOOC): "A Resilient Future: Science and Technology for Disaster Risk Reduction" (Discover how science and technology help us reduce disaster risk and increase resilience). This free online course is organized by the École Polytechnique Fédérale de Lausanne (Switzerland). The video is included in the Chapter 7: Science and Technology for Resilience and Sustainable Development Ethics in Disaster Risk Reduction. IAPG is partner of the MOOC for the Chapter 7.
- Publication of the book: "Vincent S. Cronin (editor) and Dennis Tasa (illustrator), 2017, Laboratory Manual in Physical Geology: New York, New York, Pearson Education Inc., www.pearsonhighered.com, ISBN 10: 0-13-444660-7, ISBN 13: 978-0-13-444660-8, 426 p."; An awareness of geoethics is a recurring theme in this new edition of the manual. Vincent Cronin is co-coordinator of IAPG-USA.
- Silvia Peppoloni (IAPG Secretary General) is included in the Ethical Advisory Board of the European Research Infrastructure ICOS ERIC Integrated Carbon Observation System.

### March 2017

- IUGS endorses the "Cape Town Statement on Geoethics" by IAPG.
- Open Letter by IAPG-Peru concerning "the recent climatic events in Peru and the resulting damages".
- Opening of the section IAPG-Pakistan; Muhammad Yaseen and Abdul Wali Khan appointed as co-coordinators.





- Thanks to IAPG Cuba, coordinated by Yurisley Valdes Mariño, geoethics is included among the topics of CINAREM '17 IX International Conference on "The Better use of Mineral Resources", Cuba, 14-16 November 2017.
- Publication of the IAPGeoethics Newsletter issue #1 − 2017.

### April 2017

- Agreement for cooperation between IAPG and IAH International Association of Hydrogeologists.
- Nic Bilham (IAPG Continental Coordinator for Europe) gives a talk at the GSL (Geological Society of London) Western Regional Group, entitled "Geoethics, professionalism and me social and ethical responsibilities of the 21st century geoscientist".
- Agreement for cooperation between IAPG and Initiative on Forensic Geology of the IUGS International Union of Geological Sciences (IUGS-IFG).
- IAPG Session EOS14 "Geoethics: ethical, social and cultural implications of geoscience knowledge, education, research and practice" at the EGU General Assembly 2017: 12 Orals and 21 Posters.
- IAPG Business Meeting at EGU 2018 in Vienna.

### May 2017

- IAPG Pakistan officially presented at the Department of Geology, Abdul Wali Khan University Mardan, Pakistan, in the one-day seminar entitled "Earth-Science - Opportunities for Geoscientists".
- Presentation and publication of the results of the survey "What do you know about ethics in geosciences?". The questionnaire to analyse ethical and social issues in relation to the Research Infrastructures' activity was developed by IAPG members within the European Project "ENVRI Plus". The deliverable with the analysis of the results was included in the mid-term report of the project for the European Commission.
- Memorandum of Agreement between IAPG and GfGD Geology for Global Development.
- 1st Business Meeting of IAPG Pakistan, at the Department of Geology, Abdul Wali Khan University Mardan.
- The IAPG Task Group on Responsible Mining TGRM is established; members: Nikolaos Arvanitidis (Sweden), Jan Boon (Canada), Pekka Nurmi (Finland), Giuseppe Di Capua (Italy).

#### June 2017

- SGI Società Geologica Italiana (Italian Geological Society) endorses the "Cape Town Statement on Geoethics".
- GfGD Geology for Global Development includes the "Cape Town Statement on Geoethics" at the heart of its strategy 2017-2021.
- Publication of the book: "Africa and Mineral Wealth" by Kholoud Mohamed Abdelmaksoud (IAPG-Egypt coordinator); what is geoethics, the Geoethical Promise, the Cape Town Statement on Geoethics and a description on the role of geoethics in natural resources management are reported in the last book chapter.
- IAPG Ukraine (coordinator: Yuriy Kostyuchenko) organizes an educational event for children in Yaremche, Carpathian National Park (Ukraine), aimed to introduce some geoethical concepts to children.
- IAPG is partner of the International Congress on Climate Change and its Impacts ICCCI 2017 in Peru.





• Publication of the IAPGeoethics Newsletter issue #2 - 2017.

# July 2017

- Agreement for cooperation between IAPG and SGP Sociedad Geológica del Perù (Peruvian Geological Society).
- 1st International Summer University organized by the UNESCO Chair on Geoparks, Sustainable Regional Development and Healthy lifestyles in Portugal, at the University of Trás-os-Montes e Alto Douro. A special module of the course by Elizabeth Silva (member of the IAPG Board of experts) focuses on geoethics and geoparks.
- SGP Sociedad Geológica del Perù (Peruvian Geological Society) endorses the "Cape Town Statement on Geoethics".
- Opening of the section IAPG-Uruguay; Leda Sánchez Bettucci appointed as coordinator.

## August 2017

- IAPG launches the call for abstracts in 5 sessions on different issues of interest for geoethics at the Resources for Future Generations (RFG 2018) Conference in Vancouver Canada to be held in June 2018 (http://www.geoethics.org/rfg2018):
  - Session RS13: Geoethics and Environmental and Social Responsibility: Doing the Right Thing to Develop Resources for Future Generations;
  - Session RS10: Geoethics in geoscience education, communication and citizen science: experiences, approaches, and concepts;
  - Session RS9: Geoethics in georisks management for a safer and more resilient society;
  - Session RS8: Geoethics and the Responsible Conduct of Scientists;
  - Session RS12: Forensic Geology: Ethics, Communication, Regulation and Opportunities
- IAPG-Argentina co-organizes with GEVAS-Red Argentina the Symposium "Geological Hazard and Geoethics" (Peligro geológico y geoética) at the XX Argentine Geological Congress "Geology, Present and Future" in Tucumán, Argentina, from 7 to 11 August 2017. IAPG members give two presentations on geoethics.
- IAH International Association of Hydrogeologists officially supports the "Cape Town Statement on Geoethics".
- IAPG becomes member organisation of the ICPHS International Council for Philosophy and Human Sciences, during the ICPHS General Assembly in Liège (Belgium). Martin Bohle, member of the IAPG Board of Experts, represents IAPG in the ICPHS General Assembly (held at the World Humanities Conference in Liège) and gave a presentation about IAPG. ICPHS is a non-governmental organization within UNESCO and is member of the ICSS International Social Science Council.
- Silvia Peppoloni, IAPG Secretary General, becomes member of the Executive Committee of the ICPHS International Council for Philosophy and Human Sciences.
- IAPG is added as partner for a training course on "Ocean Governance, Sciences, Geoethics" organized by the International Ocean Institute (IOI) Training Centre for Latin America and the Caribbean.
- Silvia Peppoloni, in her capacity of IAPG Secretary General, sends comments and a proposal for changes to the "Zero Draft of the Ministerial Outcome Document of the 2017 UN Environment Assembly" entitled "Towards a Pollution-Free" after a request of the ICPHS - International Council for Philosophy and Human Sciences.





# September 2017

- Online publication of the first 5 articles in the IAPG Special Issue on geoethics of the international journal "Annals of Geophysics", entitled "Geoethics at the heart of all geoscience" (Annals of Geophysics, 2017, Vol. 60, Fast Track 7, <a href="http://www.annalsofgeophysics.eu/index.php/annals/issue/view/537">http://www.annalsofgeophysics.eu/index.php/annals/issue/view/537</a>), and edited by Silvia Peppoloni, Giuseppe Di Capua, Peter T. Bobrowsky, Vincent S. Cronin.
- IAPG Pakistan holds a one-day workshop entitled "IAPG Pakistan section: role and responsibility", at the Department of Geology, Abdul Wali Khan University Mardan.
- Publication of the IAPGeoethics Newsletter issue #3 2017.

### October 2017

- IAPG officially launches the first International Geoethics Day (http://www.geoethics.org/geoethics-day) during the Earth Science Week 2017.
- IAPG officially launches the Geoethics Medal 2018 (<a href="http://www.geoethics.org/geoethics-medal">http://www.geoethics.org/geoethics-medal</a>) during the Global Ethics Day organized by the Carnegie Council.
- IAPG DR Congo, in collaboration with CREGEM (Centre Régional d'Études Géologiques, Environnementales et Minières), University of Bukavu/Department of Geology, AGECO (Association des Géologues du Congo), the Geological Society of London and Young Earth Sciences DR Congo, organizes the first edition of the Earth Science Week celebration in Bukavu (Democratic Republic of Congo).
- Opening of the section IAPG Bangladesh; Ershadul Haque and Jahangir Alam appointed as co-coordinators.
- Vincent Cronin (IAPG USA co-coordinator) represents IAPG at the joint AGI/GSA Societies Meeting at the Geological Society of America (GSA) Annual Meeting 2017 in Seattle (USA).

### November 2017

- Opening of the section IAPG United Kingdom; David Craig Ovadia appointed as coordinator.
- Martin Bohle (IAPG Board of Experts) gives a web-seminar at the Ronin Institute entitled "Geoethics, Human Niche, and Citizen-Science".
- IAPG Peru organizes the 3rd edition of MinerLima, International Exhibition of Minerals (Feria Internacional de Minerales) and the 2nd Round Table on Geoethics in Peru entitled "Geoethics: General Aspects and Case Studies" in Lima.
- IAPG sends general and detailed comments to the International Seabed Authority on the Draft Regulations on Exploitation of Mineral Resources in the Area (ISA Draft Exploitation Regulation ISBA/23/LTC/CRP.3\*), regarding deep-sea mining activities.
- Jan Boon (member of the IAPG Task Group on Responsible Mining) is appointed as new coordinator of IAPG Canada.
- IAPG is one of the official signatory organizations of the AGI Guidelines for Ethical Professional Conduct.
- IAPG is a partner of the International Congress on Climate Change and its Impacts ICCCI 2017, held in Huaraz City (Peru).

## December 2017

- Publication of the book: "Gundersen, L. (ed.). Scientific Integrity and Ethics in the Geosciences. 2017, 336 pages, American Geophysical Union, Wiley, ISBN 978-1-119-06778-8".
- Giuseppe Di Capua (IAPG Treasurer) and Iain Stewart (IAPG Board of Experts on Geoscience Education and Communication) give invited lectures respectively on "Geoethics: Promoting





Sustainability" and "Geocommunication and Sustainability" at the WISE Multiplier Event organized by Clara Vasconcelos (co-coordinator of IAPG - Portugal), held at the University of Porto (Portugal). WISE is an European Project: "Widening Interdisciplinary Sustainability Education" and Clara Vasconcelos is responsible for an overview report on "Ecosystem Services, Geoethics and Biodiversity".

- Susan Kieffer (IAPG Vice-President) gives an invited speech entitled "The International Association for Promoting Geoethics: Mission, Organization, and Activities" at AGU Fall Meeting 2017 in the Union session U14A entitled "How Do We Ensure Research and Scientific Integrity? A Diverse Panel Discusses the Critical Components and Challenges of Crafting and Implementing Effective Scientific Integrity Policies.", and convened by representatives of AGU American Geophysical Union, GSA Geological Society of America, and AGI American Geosciences Institute.
- Publication of the "White Paper on Responsible Mining" (<a href="http://www.geoethics.org/wp-responsible-mining">http://www.geoethics.org/wp-responsible-mining</a>) drafted by the IAPG Task Group on Responsible Mining and approved by the IAPG Executive Council on 1<sup>st</sup> December 2017.
- Publication of the IAPGeoethics Newsletter issue #4 2017.
- Business meeting of IAPG Canada (discussion about new activities of the section and request to IAPG Secretary General to appoint a co-coordinator); creation of the LinkedIn Group of IAPG - Canada.
- Manuel João Florentino Gomes Abrunhosa is appointed a member of the Board of Experts on "Geoethics and Groundwater Management".
- Business meeting between representatives of IAPG Italy and IAPG Pakistan in Rome (Italy), at the INGV Istituto Nazionale di Geofisica e Vulcanologia.

#### Plans for 2018

### • Editorial projects with peer-review process:

- Book: Bohle M., Bilham N., Di Capua G., Marone E., Peppoloni S. - From Geoethics to geo-Humanities: Exploring the societal context, implications and obligations of the geosciences, Palgrave Macmillan (in preparation).

# • International conferences/meetings:

- IAPG will attend the 72<sup>nd</sup> Executive Committee meeting of the IUGS International Union of Geological Sciences in Potsdam (Germany) and present its 2017 activities report (January).
- IAPG members will co-organize the Theme 9 "Geoethics" at the Congress "Earth Sciences for Society" in El Jadida/Marrakech (Morocco) (March 2018).
- IAPG will organize a session at the EGU General Assembly 2017 in Vienna (Austria): EOS4 "Geoethics: ethical, social and cultural implications of geoscience knowledge, education, communication, research and practice". IAPG will assign 1 grant to cover the Abstract Processing Charge of young geoscientists (under 35 years old) belonging to low-income countries (April 2018).
- IAPG will organize session(s) on geoethics at the Resources for Future Generations (RFG 2018) Conference in Vancouver (Canada). IAPG will provide 2 grants to cover the Abstract Processing Charge of young geoscientists (under 35 years old) belonging to low-income countries (June 2018).
- IAPG is partner of the eighth edition of the Quadrennial Conference of the International Geoscience Education Organization IGEO (8th GeoSciEd) and eighth National Symposium





- of Earth Sciences Teaching and History (8th EnsinoGEO) (July 2018).
- IAPG is among the ten international geoscience organizations supporting the "Summit: Geoscience and Society Bridges to Global Health, Resilience, and Sustainability", to be held in Fairmont Southampton in Hamilton, Bermuda, United Kingdom (September 2018).
- IAPG Italy proposes a session on "Geoethics and history of geosciences: the right way for social responsibility" at the 89th Congress of the Italian Geological Society in Catania (Italy) (September 2018).
- IAPG cooperates in the organization of the session "Seismology and Society" at the 36th General Assembly of the European Seismological Commission, to be held in Malta (September 2018).
- IAPG cooperates in the organization of the session on Volcanic Multihazards and Risk Reduction at the Conference CoV 10 Cities on Volcanoes: "Millennia of Stratification between Human Life and Volcanoes: strategies for coexistence", that will be held in Naples, Italy (September 2018).

#### • Other activities:

- IAPG will publish the translation of the "Cape Town Statement on Geoethics" in more than 30 different languages (February 2018).
- IAPG will celebrate the second edition of International Geoethics Day on 18 October 2018.
- IAPG will assign the first edition of the Geoethics Medal.
- IAPG will launch an international survey, through an online questionnaire, to investigate the level of awareness of geoscientists about the ethical implications of their activities.
- IAPG Italy, in cooperation with the Italian Geological Society (SGI), will introduce the Geoethical Promise as official declaration during the ceremony for the geological master degree in Italian Universities. The introduction of the geoethical promise was approved in a joint meeting between SGI and IAPG, on December 2017.
- IAPG is partner of the GeoDay, the first Geo-activity in Egypt, to be held in January 2018.
- IAPG Peru will organize the 4th Edition of MINERLIMA "Feria Internacional de Minerales y Fósiles en el Perú" (International Exhibition of Minerals and Fossils in Peru).
- IAPG is partner for a training course on "Ocean Governance, Sciences, Geoethics" organized by the International Ocean Institute (IOI) - Training Centre for Latin America and the Caribbean. This course will be held in Valparaiso (Chile) from 8 January to 2 February 2018, and hosted by the Universidad de Playa Ancha - UPLA, at the Centro De Estudios Avanzados of UPLA. IAPG-Brazil (coordinator: Eduardo Marone) is in charge of preparing the module on geoethics.
- IAPG Canada, IAPG Italy, IAPG USA will continue to work for building a course on geoethics that will help the geoscience education community to bring ethics education into the college curriculum for student geoscientists.
- IAPG Canada, IAPG Italy, IAPG Ukraine, IAPG USA, IAPG Pakistan, IAPG Peru will give talks on geoethics in seminars and courses for students, professional geologists and researchers.
- IAPG Ukraine will continue to focus its activities on support of capacity building and open data projects.
- IAPG will promote the "White Paper on Responsible Mining" within the geoscience community, industry, and society.
- IAPG will continue activities on geoethics into the EU Project ENVRI-Plus "Common Operations of Environmental Research Infrastructures".
- An IAPG member will start activities as a member of the International Advisory Board of the





European Project "RIA Smart Exploration" for the ethical aspects related to the exploration of mineral resources by utilizing new exploration technologies.

- IAPG will establish new Task Groups on geoethical issues.
- IAPG will continue to enlarge its network by opening new national sections.
- IAPG will continue to spread news, and information about contents, activities and initiatives on geoethics through its webpages and newsletter.

# Name, address and e-mail of person preparing this report

Silvia Peppoloni, INGV - Istituto Nazionale di Geofisica Vulcanologia, via di Vigna Murata 605 – 00143 Rome (Italy), <u>silvia.peppoloni@ingv.it</u>