





# **Annual Report for the IUGS**

Chief Accomplishments 2020 and Plans 2021

(web version)

January 2021





## **Summary**

1.	Name of Affiliated Organization	3
2.	Overall objectives	6
3.	Relate goals to overall IUGS scientific objectives	7
4.	How has the organization been actively involved with IUGS related activities	7
5.	Structure and organization	8
6.	Interaction with other International organizations and projects	12
7.	Chief products	14
8.	Chief accomplishments 2020 and plans for 2021	24
	Chief accomplishments 2020	24
	Plans for 2021	33
Nar	Name, address and e-mail of person preparing this report	





#### INTERNATIONAL UNION OF GEOLOGICAL SCIENCES (IUGS)

#### **Reporting Form for IUGS Affiliated Organizations 2020**

#### 1. Name of Affiliated Organization

#### IAPG - INTERNATIONAL ASSOCIATION FOR PROMOTING GEOETHICS

https://www.geoethics.org/

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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), a member organisation of the International Council for Philosophy and Human Sciences (CIPSH), an Associate Organisation of the Geoscience Information in Africa - Network (GIRAF), an Observer Organization of the Canadian Federation of Earth Sciences (CFES).



















The IAPG has agreements of cooperation with: European Federation of Geologists (EFG), EuroGeoSurveys (EGS), American Geophysical Union (AGU), International Association of Hydrogeologists (IAH), International Association of Geomorphologists (IAG/AIG), Initiative on Forensic Geology (IUGS-IFG), African Association of Women in Geosciences (AAWG), International Association for Engineering Geology and the Environment (IAEG), Geological Society of Africa (GSAf), Geoscientists Canada (GC), Berufsverband Deutscher Geowissenschaftler e.V. (BDG), Associação Portuguesa de Geólogos (APG), Sociedad Geológica de Chile (SGCh), The National and Kapodistrian University of Athens - Applied Philosophy Research Laboratory (NKUA-APRL), Geology for Global Development (GfGD), Maden Jeologiari Derneği - Turkish Association of Economic Geologists (MJD), The Turkish Chamber of Geological Engineers - Jeoloji Mühendisleri Odası (JMO), Association of Environmental & Engineering Geologists (AEG), International Network of Young and Early-Career Geoscientists (YES), International Geoscience Education Organisation (IGEO), Forum for Climate Engineering Assessment (FCEA), Sociedad Geológica del Perù (SGP), Instituto de Geociencias Y Medio Ambiente, Arequipa-Perù (I-GEMA), African Network for Geo-Education (ANGE), and GEVAS Red Argentina.























































The IAPG was Global Partner of the International Year of Global Understanding (IYGU), Technical Partner of the IUGS Conference Resource for Future Generation - RFG2018, and Summit Partner of the Geoscience & Society Summit 2019.







of Finally, the **IAPG** is the **AGU Ethics** & **Equity** Center partner (https://ethicsandequitycenter.org/), supporting partner of the Equality, Diversity, and Inclusion in Geoscience (EDIG) project by iCRAG (https://www.icrag-centre.org/edig/), and media partner of the UNESCO Lecture Series "Earth Materials for a Sustainable and Thriving Society", coorganized by iCRAG and IUGS (https://www.icrag-centre.org/news-and-media/conferences-andevents/earthmaterialssustainability.html).











## 2. Overall objectives

The IAPG is a multidisciplinary, scientific network for widening discussion and creating consciousness regarding problems of ethics applied to the geosciences, in particular on the ethical, social and cultural implications of geoscience knowledge, research, practice, education and communication. 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 with a scientific perspective;
- promoting geoethics values and principles through international cooperation, encouraging the involvement of geoscientists worldwide, with a special attention to those in 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 values and principles in geoscience 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 individual, professional, social, and environmental responsibility, both as geoscientists and as members of civil society;
- involvement of the societal communities 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 humans perceive and relate to the planet; and
- the sensitization towards the defense of life and the richness of the Earth.

The IAPG works to develop theoretical and practical activities covering a wide range of contents comprising: philosophy of geosciences and history of geosciences thinking; research integrity and professionalism in geosciences; working climate issues and related aspects; geoethics in georisk and disaster risk reduction; responsible georesources management; ethical and social aspects in geoeducation and geosciences communication; geoethics applied to different geoscience fields including economic geology, paleontology, forensic geology and medical geology; ethical and societal relevance of geoheritage and geodiversity; sociological aspects in geosciences and geosciences-society-policy interface; geosciences for sustainable and responsible development; geoethical implications in global and local changes of socio-ecological systems; ethics in geoengineering; ethical issues in climate change and ocean science studies; ethical implications in geosciences data life cycle and big data; and ethical and social matters in the international geoscience cooperation.

## 3. 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. IAPG activities aim to develop thoughts and to find best practice solutions regarding global issues (such as geohazards, Earth resources, climate change, geoscience communication and geo-education) with the 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.

## 4. How has the organization been actively involved with IUGS related activities

- The IAPG is a media partner of the UNESCO Lecture Series "Earth Materials for a Sustainable and Thriving Society", co-organized by iCRAG and IUGS.





- The IAPG proposed the Symposium: "1.7 Geoethics: Ethical, Social and Cultural Aspects in Geosciences" at the 36<sup>th</sup> IGC International Geological Congress (Delhi, India, 2020). The call for abstracts was successful: 43 abstracts on different issues of interest for geoethics were received and accepted. For the same congress, the IAPG proposed a Short Course entitled: "Foundations and Perspectives of Geoethics" focused on the following themes: "From Ethics to Geoethics: Definition, Values, Tools", "Responsible Conduct of Research and Professionalism", "Foundations & Examples, how to tackle (Geo)ethical Dilemmas", "Geoethics for Society: Sustainable Development and Responsible Mining", "Geoethics in Natural Hazards and Risks", "Geoethics in Geoscience Communication". Unfortunately, due to the SARS-CoV-2 pandemic this congress was deleted.
- The IAPG is cooperating with the IUGS-Initiative on Forensic Geology (IFG), within a joint Task Group, to prepare a White Paper on Geoethics in Forensic Geology.
- The IAPG is collaborating with numerous geoscience organizations affiliated to the IUGS, as previously indicated in the list of agreements for cooperation (<a href="https://www.geoethics.org/affiliations-agreements">https://www.geoethics.org/affiliations-agreements</a>).

## 5. 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 (https://www.geoethics.org/executive-council) consists of:

- a) a President (Prof. Stefano Tinti);
- b) two Vice-Presidents (Prof. Susan Kieffer; Dr. Shrikant Limaye)
- c) a Secretary General (Prof. Silvia Peppoloni);
- d) a 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** (<u>https://www.geoethics.org/ga</u>) consists of all the IAPG members. The 1<sup>st</sup> General Assembly was held in Cape Town (South Africa) at the 35<sup>th</sup> IGC (31 August 2016). The 2<sup>nd</sup>





General Assembly was to be held in Delhi (India) at the 36<sup>th</sup> IGC. Unfortunately it has been postponed due to the SARS-CoV-2 pandemic.

The membership to the IAPG is free. Applicants need to complete the online form at <a href="https://www.geoethics.org/membership">https://www.geoethics.org/membership</a>, or send their data via email to the IAPG Secretariat. Currently the IAPG network comprises 2630 members from 130 countries on 5 continents.

The **IAPG** is also represented in 32 countries through national sections (https://www.geoethics.org/sections) (coordinators in brackets): Argentina (Elizabeth I. Rovere and Roberto A. Violante), Bangladesh (Abdul Baquee Khan Majlis and and Jahangir Alam), Brazil (Eduardo Marone), Cameroon (Njilah Isaac Konfor and Ndzishepngong Kelvin Ngwang), Canada (Shona van Zijll de Jong), Chile (Luisa Pinto Lincoñir), Cuba (Yurisley Valdes Mariño), Democratic Republic of Congo (Jean-Robert Mweze), Egypt (Kholoud M. Abdelmaksoud), France (Michèle Barbier and David Crookall), Greece (Gerassimos A. Papadopoulos and Maria V. Triantaphyllou), India (Surya Gupta Parkash), Iraq (Nawrass N. Ameen and Ameer Hayder Khalid), Iran (Nima Nezafati), Italy (Silvia Peppoloni), Jordan (Mamoon Allan), Lebanon (Soumaya Ayadi-Maasri), Malawi (Hilton Banda Eneya), Mexico (Miguel Rangel Medina), Nepal (Shree Prasad Vista and Ranjan Kumar Dahal) Nigeria (Arinze Harrison Ikwumelezeh), Pakistan (Muhammad Yaseen and Emad Ullah Khan), Paraguay (Moisés Alejandro Gadea Villalba) Peru (Carlos Toledo Gutierrez), Portugal (Clara M. da Silva de Vasconcelos and Paulo Emanuel Talhadas Ferreira da Fonseca), Romania (Antoneta Seghedi and Ilies Dorina Camelia), Spain (Domingo A. Martín Sánchez), Turkey (Yüksel Örgün Tutay and Dündar Çağlan), Ukraine (Yuriy Kostyuchenko), United Kingdom (Antony Benham), USA (Vincent S. Cronin and Cindy M. Palinkas), and Uruguay (Leda Sánchez Bettucci).

IAPG-Chile was established in 2020.

The IAPG relies on a **Board of Experts** (**BE**) (<a href="https://www.geoethics.org/experts">https://www.geoethics.org/experts</a>) on specific issues related to geoethics. The BE has the important cultural function of suggesting to our community themes, articles, and initiatives. The BE is interested in Earth sciences and humanities and in promoting issues on geoethics and the IAPG. Currently the board includes **14 experts**: Martin Bohle, Germany (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); Juan Carlos Gutierrez-Marco (topic: Geoethics in Paleontology), Christine McEntee, USA (topic: Harassment and Discrimination in United Geosciences): Iain Stewart. Kingdom (topic: Geoscience **Education** Communication); Edmund Nickless, United Kingdom (topic: Geoethics for Society); David Mogk, USA (topic: Geo-education and Teaching Geoethics); Ruth Allington, United Kingdom (topic: Geoscience Professionalism), Luis González de Vallejo, Spain (topic: Geoethics in Engineering Geology); Manuel João Florentino Gomes Abrunhosa, Portugal (topic: Geoethics in Groundwater Management), Tony Mayer, United Kingdom (topic: Research Integrity); and Ciro Manzo, Italy (topic: Geoethics and young geoscientists).



IAPG-ECST logo

In 2020, the IAPG established the **Early Career Scientists Team** (**ECST**) (<a href="https://www.geoethics.org/ecst">https://www.geoethics.org/ecst</a>), that replaced the **Young Scientists Club (YSC)**, that was active from 2015 to 2019. The ECST has the following goals:

- 1. Promoting geoethics and the IAPG, with a special target focused on younger and early career scientists/professionals;
- 2. Working as the interface between IAPG and young/early career scientists' organizations and groups.
- 3. Starting to self-train a group of geoscientists that would be able to bring the reins of the IAPG into the future and capable to continue to develop geoethical thinking, by following multi- and transdisciplinary approaches.

The IAPG considers the ESCT as its outpost and one of its greater strengths. The IAPG believes that early career and young scientists can indicate needs and expectations on the future of geosciences. They can help to give a perspective that is updated and adheres to the new challenges that geoscientists have to face. They can also report new instances from society, identifying the potential innovative contributions that geosciences can provide to society.

The 8 members of the ECST Board are early career scientists/professionals and members of the IAPG: **Daniel DeMiguel**, Spain (Spokeperson); **Ndivhuwo Cecilia Mukosi**, South Africa; **Cristina Toma**, Romania; **Sebastian Handl**, Austria; **César Oboni**, Canada; **Bárbara Zambelli**, Brazil; **Alexandra Cardoso**, Portugal; and **Jonathan Rizzi**, Italy/Norway.





On 4 June 2020, **Vitor Correia** (Portugal) was appointed **IAPG Delegate** for Relationships with European Organizations (<a href="https://www.geoethics.org/delegates">https://www.geoethics.org/delegates</a>). Delegates are IAPG key-officers, whose aim is to create opportunities for the IAPG in order to facilitate, in specific contexts, projects, initiatives, activities, agreements with other organizations, that have the development and promotion of geoethics as their main focus.

On 8 May 2017, the IAPG nominated the **Task Group on Responsible Mining** – **TGRM** (https://www.geoethics.org/tgrm), formed by Nikolaos Arvanitidis (Sweden), Jan Boon (Canada), Pekka Nurmi (Finland), and Giuseppe Di Capua (Italy). The goal of the Task Group has been to draft a document on "Responsible Mining", on values and concepts that should be considered in mining, including their importance for future generations in the perspective of a sustainable development of our societies. On 1<sup>st</sup> December 2017, the IAPG Executive Council approved the "White Paper on Responsible Mining" (https://www.geoethics.org/wp-responsible-mining), prepared by the Task Group following a review by an International Panel of Experts comprising Vitor Correia (Portugal), Roberto Lencina (Argentina), David Ovadia (United Kingdom), Mark Rachovides (Canada), and Ian Thomson (Canada). Unfortunately in 2020 Jan Boon, one of the members of the Task Group and co-author of the White Paper, passed away. Moreover another member, Pekka Nurmi, decided to leave the Task Group after his retirement. On 22 December 2020, the TGRM was renewed and 6 members were appointed: **Marita Ahumada**, Argentina; **Estelle Levin-Nally**, United Kingdom; **Vitor Correia**, Portugal; **Roberto Lencina**, Argentina; **Nikolaos Arvanitidis**, Sweden; and **Giuseppe Di Capua**, Italy.

On 26 October 2020, the IAPG has established the **Task Group on Geoethics and Geoheritage** - **TGGG** (<a href="https://www.geoethics.org/tggg">https://www.geoethics.org/tggg</a>), comprising 4 members: **José Brilha**, Portugal; **David W. Mogk**, USA; **Silvia Peppoloni**, Italy; and **Giuseppe Di Capua**, Italy. The goal of the Task Group is to draft a document on "Geoethics and Geoheritage", on values and concepts to be considered within geoscience community and society as a whole, related to geoheritage, geodiversity, geoparks, and geotourism, accordingly to principles of responsibility and dignity, in the perspective of a human responsible development and nature conservation.

On 5 October 2018, the IAPG, jointly with the IFG – Initiative on Forensic Geology of the IUGS, and established the **Task Group on Geoethics in Forensic Geology - TGGFG** 





(<a href="https://www.geoethics.org/tggfg">https://www.geoethics.org/tggfg</a>), comprising 3 members: Lorna Dawson, United Kingdom; Silvia Peppoloni, Italy; and Rosa Maria Di Maggio, Italy. The goal of the Task Group is to draft a White Paper on "Geoethics in Forensic Geology", in order to define ethical values in the applications and best practices of Forensic Geology across the world.

On 20 July 2019, the **School on Geoethics and Natural Issues** (named "Schola": <a href="https://www.geoethics.org/geoethics-school">https://www.geoethics.org/geoethics-school</a>) was officially founded by **Peter Bobrowsky** (Canada), **Giuseppe Di Capua** (Italy), and **Silvia Peppoloni** (Director of the "Schola", Italy), with the aim to provide excellent education in geoethics.

## 6. Interaction with other International organizations and projects

The IAPG cooperates with the following <u>organizations</u> (<u>https://www.geoethics.org/links</u>):

- 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);
- Associação Portuguesa de Geólogos (APG);
- Association of Environmental & Engineering Geologists (AEG);
- Berufsverband Deutscher Geowissenschaftler e.V. (BDG);
- Canadian Federation of Earth Sciences (CFES);
- EuroGeoSurveys (EGS);
- European Association for the Conservation of Geological Heritage (ProGEO);
- European Federation of Geologists (EFG);
- European Geosciences Union (EGU);
- Forum for Climate Engineering Assessment (FCEA);
- GSAf Geological Society of Africa (GSAf)
- Geological Society of America (GSA);
- Geological Society of Chile (SGCh-Sociedad Geológica de Chile)
- 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);
- Geoscientists Canada/Géoscientifiques Canada (GC);
- GEVAS Red Argentina;
- Global Geoscience Professionalism Task Group (IUGS-TGGGP);
- Initiative on Forensic Geology of the IUGS (IUGS-IFG).
- Instituto de Geociencias Y Medio Ambiente, Arequipa-Perù (I-GEMA);
- International Association for Engineering Geology and the Environment (IAEG);
- International Association for Geoscience Diversity (IAGD);
- International Association of Geomorphologists (IAG/AIG);
- International Association of Hydrogeologists (IAH);
- International Council for Philosophy and Human Sciences (CIPSH);
- 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);
- South Asian Association of Women Geoscientists (SAAWG);
- The Turkish Chamber of Geological Engineers (JMO-Jeoloji Mühendisleri Odası);
- The National and Kapodistrian University of Athens Applied Philosophy Research Laboratory (NKUA-APRL);
- Turkish Association of Economic Geologists (MJD-Maden Jeologları Derneği)
- Young Earth-Scientists (YES) Network;
- World Conferences on Research Integrity (WCRI).

The IAPG collaborates with the following <u>international projects</u>:

 GOAL - Geoethics Outcomes and Awareness Learning: IAPG is partner of the project (website: https://goal-erasmus.eu/).





- **INTERMIN** - International Network of Raw Materials Training Centres: IAPG is member of the International Advisory Board of the project (website: <a href="http://interminproject.org/">http://interminproject.org/</a>).

The IAPG doesn't receive funds from the project GOAL. The IAPG representative in the project INTERMIN receives only a reimbursement for participation in the project meetings.

## 7. Chief products

#### SCHOOL ON GEOETHICS AND NATURAL ISSUES

The School on Geoethics (the "Schola") was founded on **20 July 2019**. The founding members are Peter Bobrowsky, Giuseppe Di Capua, and Silvia Peppoloni (Director of the "Schola"). The "Schola" is a place for teaching and learning of the principles and values of geoethics in the light of the philosophy and history of Earth sciences. The intent is to provide background knowledge and the evaluation skills necessary to understand the complex relationship between human action on ecosystems and the decisions geoscientists make in the discipline that impact society, including improving the awareness of professionals, students, decision-makers, media operators, and the public on an accountable and ecologically sustainable development. The "Schola" aims to provide excellent education in geoethics, thus promoting the development of a scientific and critical attitude to the knowledge of the Earth and its constituent systems, by fostering a growth of awareness and responsibility towards the planet, education in the values and actions underlying a respect for ecosystems, including responsible use of resources, management of natural risks, reduction of pollution and its repercussions on human health and climate, adaptation to environmental changes, in view of an accountable and ecologically sustainable development. More information and online educational resources are available at https://www.geoethics.org/geoethics-school.

#### SPRINGERBRIEFS SERIES IN GEOETHICS

SpringerBriefs in Geoethics (<a href="https://www.geoethics.org/springerbriefs-geoethics">https://www.geoethics.org/springerbriefs-geoethics</a>) was launched on 14 June 2019. It envisions a series of publications that aim to discuss ethical, social, and cultural implications of geosciences knowledge, education, research, practice and communication. The intention is to present concise summaries of cutting-edge theoretical aspects, research, practical applications, case-studies across a wide spectrum. SpringerBriefs in Geoethics are seen as complementing monographs and journal articles, or developing innovative perspectives with compact volumes of 50 to 125 pages, covering a wide range of contents on geoethics. This Series in





Geoethics was initiated and supervised by Silvia Peppoloni (editor-in-chief, Italy) and an editorial board consisting of Nic Bilham (United Kingdome), Peter Bobrowsky (Canada), Vincent S. Cronin (USA), Giuseppe Di Capua (Italy), Rika Preiser (South Africa), Artur Agostinho de Abreu e Sá (Portugal), and Iain Stewart (United Kingdom).

#### **BOOKS AND SPECIAL ISSUES**

- Book: Abrunhosa M., Chambel A., Peppoloni S., and Chaminé H.I. (2021) (Eds.). Advances in Geoethics and Groundwater Management: Theory and Practice for a Sustainable Development Proceedings of the 1st Congress on Geoethics and Groundwater Management (GEOETH&GWM'20), Porto, Portugal 2020. Springer International Publishing, pp. XXXI + 715. ISBN 978-3030593193. doi: 10.1007/978-3-030-59320-9. https://www.springer.com/gp/book/9783030593193.
- Book: Di Capua G., Bobrowsky P.T., Kieffer S.W., and Palinkas C. (2020) (Eds.). *Geoethics:* Status and Future Perspectives. Geological Society, Special Publication 508, London, <a href="https://sp.lyellcollection.org/online-first/508">https://sp.lyellcollection.org/online-first/508</a>.
- Book: Vasconcelos C., Schneider-Voß S., and Peppoloni S. (2020) (Eds.). *Teaching Geoethics Resources for higher education*. U.Porto Edições, 207 pp., ISBN 978-9897462542. https://doi.org/10.24840/978-989-746-254-2.
- Book: Boon J. (2020) Relationships and the Course of Social Events During Mineral Exploration An Applied Sociology Approach. SpringerBriefs in Geoethics, Springer International Publishing, pp. XIX + 125. ISBN 978-3030379254, doi: 10.1007/978-3-030-37926-1.
- Book: Bohle M. (2019) (Ed.). *Exploring Geoethics: Ethical Implications, Societal Contexts, and Professional Obligations of the Geosciences*. Authors: M. Bohle, S. Peppoloni, G. Di Capua, N. Bilham, E. Marone, R. Preiser. Palgrave Pivot, Cham, XIV + 214, ISBN 978-3-030-12009-2, <a href="https://link.springer.com/book/10.1007/978-3-030-12010-8">https://link.springer.com/book/10.1007/978-3-030-12010-8</a>.
- Special volume: Peppoloni S., Di Capua G., Bobrowsky P., and Cronin V. (2017) (Eds). *Geoethics at the heart of all geoscience*. Annals of Geophysics, Vol 60, Fast Track 7, http://www.annalsofgeophysics.eu/index.php/annals/issue/view/537.
- Book: Gundersen L.C. (2017) (Ed.). *Scientific Integrity and Ethics in the Geosciences*., 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. (2015) (Eds.). *Geoethics: the Role and Responsibility of Geoscientists*, Geological Society, London, Special Publications, 419, ISBN 978-1-86239-726-2, <a href="http://sp.lyellcollection.org/content/419/1">http://sp.lyellcollection.org/content/419/1</a>.
- Book: Wyss M. and Peppoloni S. (2014) (Eds.). *Geoethics: Ethical Challenges and Case Studies in Earth Sciences*, 450 p. Elsevier <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., and Peppoloni S. (2014) (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
  - http://www.springer.com/earth+sciences+and+geography/environmental+science+%26+enginee ring/book/978-3-319-09302-4.
- Special volume: Peppoloni S. and Di Capua G. (2012) (Eds.). *Geoethics and geological culture*. *Reflections from the Geoitalia Conference 2011*, Annals of Geophysics, Vol. 55, No 3. http://www.annalsofgeophysics.eu/index.php/annals/issue/view/482.

#### REFERENCE DOCUMENTS

- Cape Town Statement on Geoethics: <a href="https://www.geoethics.org/ctsg">https://www.geoethics.org/ctsg</a>.

Supported by 27 geoscience organizations (International Union of Geological Sciences - IUGS, European Federation of Geologists - EFG, International Association of Geomorphologists -IAG/AIG, African Association of Women in Geosciences - AAWG, Geological Society of Africa – GSAf, Young Earth Scientists Network - YES Network, International Geoscience Education Organisation - IGEO, Geology in the Public Interest - GPI, International Association for Geoscience Diversity - IAGD, EuroGeoSurveys - EGS, American Geophysical Union -AGU, American Geosciences Institute - AGI, Geological Society of America - GSA, Società Italiana-Italian Geological Society SGI, Berufsverband Geologica Deutscher Geowissenschaftler e.V. - BDG, Sociedad Geológica del Perù-Geological Society of Peru -SGP, Instituto Geológico, Minero y Metalúrgico, Peru - INGEMMET, International Association of Hydrogeologists - IAH, Sociedad Geológica de Chile-Geological Society of Chile - SGCh, Turkish Association of Economic Geologists-Maden Jeologları Derneği – MJD, The Turkish Chamber of Geological Engineers-Jeoloji Mühendisleri Odası (JMO), Geology for Global Development - GfGD, International Association for Engineering Geology and the Environment -





IAEG, Associação Portuguesa de Geólogos-Portuguese Association of Geologists – APG, South Asian Association of Women Geoscientists - SAAWG, Instituto de Geociencias Y Medio Ambiente, Arequipa-Perù - I-GEMA, and African Network for Geo-Education – ANGE. Available in 35 languages: Afrikaans, Albanian, Arabic, Armenian, Belarusian, Bengali, Czech,

Avanable in 33 languages: Affikaans, Albaman, Arabic, Affileman, Belarusian, Bengan, Czech, Danish, Dutch, English, French, Georgian, German, Greek, Hindi, Hungarian, Italian, Japanese, Korean, Mandarin Chinese, Nepali, Norwegian, Persian, Portuguese, Romanian, Russian, Sepedi, Serbian, Slovenian, Spanish, Swahili, Tamil, Turkish, Ukrainian, and Urdu.

- Geoethical Promise: <a href="https://www.geoethics.org/geopromise">https://www.geoethics.org/geopromise</a>.
   Supported by 27 geoscience organizations and available in 35 languages (see above).
- White Paper on Responsible Mining: <a href="https://www.geoethics.org/wp-responsible-mining">https://www.geoethics.org/wp-responsible-mining</a>.

  Available in 3 languages: English, Greek, and Swedish.

#### INTERNATIONAL SURVEY ON GEOETHICS: ONLINE QUESTIONNAIRE

International survey geoscience, partially funded by the IUGS – International Union of Geological Sciences, on the community's perception and awareness on the importance of the ethical and social aspects of geoscience research and practice. The questionnaire covers the following topics: Research integrity and professionalism in conducting geoscience activities; Respect towards colleagues and appropriate behaviours in the working environment; Conflicts of interest; Awareness of geoscientists' responsibilities towards society in the dissemination of scientific results, in geoscience communication and geo-education activities; Roles and responsibilities of geoscientists in the decision-making process; Relationship between the geoscience community and stakeholders; Responsibilities of geoscientists towards the Earth system.

413 questionnaires were received by 31 December 2020.

Link: https://form.jotformeu.com/93223788145362.

#### VIDEOS, INTERVIEWS AND ARTICLES FOR NEWSPAPERS AND MAGAZINES

- 25 videos uploaded on the YouTube channel of the IAPG:
   <a href="https://www.youtube.com/user/iapgeoethics/videos">https://www.youtube.com/user/iapgeoethics/videos</a>
- Articles on geoethical issues for the Italian newspapers "Corriere della Sera" and "Il Sole24Ore", for the Italian Magazines "112 Emergencies" and "MicroMega, La Mela di Newton", and for the blog "Storie di Gea" (by Silvia Peppoloni, IAPG Secretary General);
- 6 radio and video 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: http://oe1.orf.at/programm/404157;
- 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 minute 16:30: <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">https://www.youtube.com/watch?v=Xt0</a> Z6mAGeI&list=UUP-Fngse1pu9sFvyBgN3AzQ
   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/CHAPTERS</u> on geoethics have been included in the books mentioned above. About 250 papers/chapters on geoethics (with a peer-review process) have been published since 2012.

ORAL AND POSTER PRESENTATIONS in scientific sessions, courses, meetings: EGU General Assembly (2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020), IGC – International Geological Congress (2012, 2016), Geoethics & Groundwater Management Congress in Porto (2020), 1st International (Virtual) Symposium on Geoethics (2020), Congress of the Italian Geological Society (2016, 2018), Geoitalia conference (2013), IAEG Congress (2014), GSA Annual Meeting (2014, 2015), AGU Fall Meeting (2014, 2015, 2016, 2017, 2018), Resources for Future Generations Conference – RFG (2018), WCRI (2013, 2015), AGU-GAC-MAC-CGU Joint Assembly (2015), AGU Geoscience and Society Summit (2019), International Congress of the Geological Society of Greece (2019), 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, 2018), Nigeria Geoethics Conference (2018), Simposio de Paleontologia del Perù (2018), Jornadas Centíficas sobre Geología del Paraguay y Ciencias Afines





(2018), EADI NORDIC Conference (2017), GeoSciEd (2018), EnsinoGEO (2018), General Assembly of the European Seismological Commission – ESC (2018), GfGD Annual Conference (2018), Earth System Governance Conference (2018), AAAS meeting (2019), Geoconvention, Canada (2019), EFG Workshop (2014), 6<sup>th</sup> Meggen Raw material days (2020), 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), Bioethics Festival, Italy (2019), Mercator Research Institute on Global Commons and Climate Change – MCC meeting (2019), Meeting: nANO meets water VII meeting in Germany (2016), South Texas Geological Society meeting (2016), Ocean Sciences Meeting - OSM (2016, 2018), 45th IAH Congress (2018), CoV-9: Cities on Volcanoes in Chile (2016, 2018), Workshop on Geoethics in Nigeria (2016), XV Chilean Geological Congress (2018), Colombian Conference of Geology (2015), International Conference of Underground Construction (2015), Geological Conference of Central America (2015), Salzburg Global Seminar (2018), FORAM 18 pilot event on raw materials governance (2018), National Congress of the Italian Environment Fund - FAI (2017), GOAL workshop/meeting (2018, 2019, 2020), INTERMIN Meeting (2018, 2019), and WISE Multiplier Event (2017).

#### **MINERLIMA**

International Exhibition of Minerals (Feria Internacional de Minerales) in Peru, conceived and organized by IAPG-Peru from 2015, in cooperation with numerous Peruvian organizations and institutions. Events planned: short courses, conferences and workshops (for children and the general public), showcase (exhibition-sale of mineral samples), geological excursions and guided tours. In 2020, it was held the 6<sup>th</sup> edition.

Website: <a href="https://feriamineraleslima.wixsite.com/minerlima">https://feriamineraleslima.wixsite.com/minerlima</a>

#### WEBSITE AND SOCIAL NETWORKS

• Official Website: https://www.geoethics.org

• **Blog**: <a href="http://iapgeoethics.blogspot.com">http://iapgeoethics.blogspot.com</a>





- Linkedin Group "Geoethics and Culture of Geosciences" (2329 members): https://www.linkedin.com/groups/4615518
- Facebook Page: https://www.facebook.com/iapg.geoethics/ (8357 followers)
- Twitter Page (@IAPGeoethics): https://twitter.com/IAPGeoethics (2912 followers)
- YouTube channel: <a href="https://www.youtube.com/user/iapgeoethics/videos">https://www.youtube.com/user/iapgeoethics/videos</a> (101 registered followers)
- Photo gallery on Flickr: https://www.flickr.com/photos/125283529@N05/sets/
- Other IAPG national sections webpages at: https://www.geoethics.org/sections.html

From 2012, thousands of posts have been published on the IAPG website, blog, and social networks regarding articles, news, call for abstracts, meetings-conferences, seminars, events and other kind of information on geoethics.

#### WEBINAR AND VIDEO-LECTURES/SEMINARS

- Video-Lecture by John Geissman (Geoethics Medalist 2020) entitled "Geoethics Integrity and
  Ethics in Science in Higher Education" at the University of Potsdam (Germany):
  https://youtu.be/GANbLvJ6bms (Germany, 4 January 2021).
- Invited-Talk by Daniel DeMiguel (IAPG-ECST Spokeperson) entitled "Geoethical issues in Palaeontology at a glance" at the Virtual Workshop "Palaeoethics from the Field, to the Museum, and to Publication", organized by The Palaeontological Association and hosted by the Oxford University Museum of Natural History (United Kingdom, 15 December 2020).
- Online-Talk by Luisa Pinto Lincoñir (IAPG-Chile coordinator) entitled "Geosciences,
   Professional Ethics, and Sustainability" at the University of Chile: <a href="https://youtu.be/XRNMFkK1wBE">https://youtu.be/XRNMFkK1wBE</a> (Chile, 9 December 2020).
- Invited-Speech by Silvia Peppoloni (IAPG Secretary General) entitled "A White paper on Ethics in Forensic Geology" at the one day (virtual) meeting on "Forensic Geophysics and Geology", organized by the Geological Society of London (2 December).
- Invited-Speech by Silvia Peppoloni (IAPG Secretary General) entitled "Pandemic and Social Inequalities" to celebrate the World Philosophy Day of UNESCO: <a href="https://youtu.be/81XL4eBFizY?list=PLWuYED1WVJIOyGKNfOeS9fXTPcxyVmEKm">https://youtu.be/81XL4eBFizY?list=PLWuYED1WVJIOyGKNfOeS9fXTPcxyVmEKm</a> (20 November 2020).





- Webinar on Geoethics organized by the Early Career Scientists Team (ECST) of the IAPG to celebrate the International Geoethics Day 2020. Speakers: officers of the IAPG and members of the ECST: https://youtu.be/QV-qgAJPAAQ (19 October 2020).
- Online-Talk by Francesc Bellaubi (IAPG member) entitled "The role of Geoethics in georesources management and governance: some case studies" at the ZEF Center for Development Research, University of Bonn (Germany, 8 October 2020).
- Online-Seminar by Martin Bohle (IAPG Board of Experts) entitled "Foundations & Examples for how to tackle (Geo)ethical Dilemmas" at the Ronin Institute (USA, 16 September 2020).
- Invited Talk by Giuseppe Di Capua (IAPG Treasurer) entitled "Geoethics Why bother?" at the Virtual Symposium "Exploring the Convergence of Professional Geoscience, Public Policy, Regulatory Requirements, Standards and Protection of the Public", organized by PGO Professional Geoscientists Ontario (Canada, 7 July 2020).
- Online-Seminar by Silvia Peppoloni (IAPG Secretary General) entitled "Geoethics and Georisks: definitions, concepts and values", organized by Ezzoura Errami (Dean Faculté Polydisciplinaire de Safi, Morocco, President of the AAWG African Association of Women in Geosciences, and IAPG Continental Coordinator for Africa) (Morocco, 7 July 2020).
- Invited Talks by Giuseppe Di Capua (IAPG Treasurer) and Silvia Peppoloni (IAPG Secretary General) entitled respectively "Promoting Geoethics worldwide: the IAPG network" and "From Ethics to Geoethics: definitions, values, and tools", organized by Surya Parkash (IAPG-India Coordinator) at the School of Earth and Environmental Science, Amity University Haryana (India, 14 June 2020).
- Opening Speech by Manuel Abrunhosa (IAPG Board of Experts) of the Geoethics & Groundwater Management (Virtual) Congress, co-organized by IAPG and IAH – International Association of Hydrogeologists: <a href="https://youtu.be/oun00bG-ABE">https://youtu.be/oun00bG-ABE</a> (Portugal, 18 May 2020).
- Invited Speech by Silvia Peppoloni (IAPG Secretary General) for the Opening Ceremony of the Geoethics & Groundwater Management (Virtual) Congress, co-organized by IAPG and IAH – International Association of Hydrogeologists: <a href="https://youtu.be/uyLpdTBJk98">https://youtu.be/uyLpdTBJk98</a> (Portugal, 18 May 2020).
- Online-Keynote by Silvia Peppoloni (IAPG Secretary General) entitled "Geoscientists as social and political actors" at the Union Symposium 1 (US1) EGU 2020: Sharing Geoscience Online: <a href="https://www.youtube.com/watch?v=KYH9MNMQs3c">https://www.youtube.com/watch?v=KYH9MNMQs3c</a> (from minute 37:23) (4 May 2020);





- Video-Pills developed by the European project "GOAL Geoethics Outcomes and Awareness Learning", in cooperation with the IAPG:
  - "Introduction to geoethics: definition, concepts, and application" (by Silvia Peppoloni, IAPG Secretary General): <a href="https://youtu.be/NX7Gii5adKk">https://youtu.be/NX7Gii5adKk</a> (March 2019);
  - "Geoethics and responsible use of geo-resources" (by Giuseppe Di Capua, IAPG Treasurer): <a href="https://youtu.be/23nwwu79sSA">https://youtu.be/23nwwu79sSA</a> (July 2019);
  - "Geoethical Issues and Geoethical Dilemmas" (by Silvia Peppoloni, IAPG Secretary General): https://youtu.be/gZ8Y56-yrDM (August 2019);
  - "Geoethics and Geological Risks" (by Silvia Peppoloni, IAPG Secretary General): <a href="https://youtu.be/rZSjzOxiGUk">https://youtu.be/rZSjzOxiGUk</a> (December 2019).
- Video-Lesson by Stefano Tinti (IAPG President) on "Geoethical issues in prediction and prevention of potentially catastrophic natural events" at the workshop organized by the AAAS American Association for the Advancement of Science, entitled: "Acutely Ethical: Principles and Guidelines on the Use of Location-Based Data in Crisis Situations": <a href="https://youtu.be/aHdZBp0cJbc">https://youtu.be/aHdZBp0cJbc</a> (March 2019).
- Video-Lesson by Silvia Peppoloni (IAPG Secretary General) entitled "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): <a href="https://www.youtube.com/watch?v=jCVkuaKAqK8&t=43s">https://www.youtube.com/watch?v=jCVkuaKAqK8&t=43s</a>. This 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.
- Webinar by David Mogk (IAPG Board of Experts) entitled "Professionalism and Geoethics:
   Creating a Workplace Environment Where Everyone Can Succeed" for the GOLI –

   Geoscience Online Learning Initiative by AGI American Geosciences Institute:
   https://goli.americangeosciences.org/courses/course-v1:AIPG+AIPG009+2018/about (June 2018).
- 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 "Geoethics and the IAPG network" at the First National Conference of the African Association of Women in Geosciences Nigeria - AAWGN, June 2015): <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:
 <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 has released its Newsletter since May 2015. 27 issues have been published and are available at: <a href="https://www.geoethics.org/newsletter.html">https://www.geoethics.org/newsletter.html</a>.

#### **INTERNATIONAL EVENTS**

International Geoethics Day. Officially launched in 2017, is held every year during the Earth Science Week: <a href="https://www.geoethics.org/geoethics-day">https://www.geoethics.org/geoethics-day</a>. On 15 October 2020, the IAPG community celebrated the 4<sup>th</sup> edition, entitled "Make a... Geoethical Promise". The IAPG-ECST celebrated the International Geoethics Day 2020 organizing a webinar on 19 October 2020: <a href="https://youtu.be/QV-qgAJPAAQ">https://youtu.be/QV-qgAJPAAQ</a>. The 1<sup>st</sup> edition was celebrated on 12 October 2017 (entitled: "Take your photo"), the 2<sup>nd</sup> edition on 18 October 2018 (entitled: "Geoethics is....."), and the 3<sup>rd</sup> edition on 17 October 2019 (entitled "Seed Today... for the future").

#### **AWARDS**

Geoethics Medal was conceived in April 2016 during the IAPG Council Meeting held during the EGU General Assembly in Vienna, and unanimously approved by the first IAPG General Assembly held during the 35<sup>th</sup> IGC – International Geological Congress in Cape Town, on 31 August 2016. The Geoethics Medal is bestowed annually. The first edition of the Geoethics Medal (2018) was launched on 18 October 2017, during the Global Ethics Day 2017 of the Carnegie Council for Ethics in International Affairs: <a href="http://www.geoethics.org/geoethics-medal">http://www.geoethics.org/geoethics-medal</a>. The Geoethics Medal 2020 was awarded to John Geissman (University of Texas at Dallas) in October 2020. The Geoethics Medal 2019 went to Linda C. Gundersen (U.S. Geological Survey, retired) in July 2019; the Geoethics Medal 2018 went to Chris King (IUGS-COGE and EGU Committee on Education) in September 2018.





## 8. Chief accomplishments 2020 and plans for 2021

#### **CHIEF ACCOMPLISHMENTS 2020**

#### January 2020

- IAPG Annual Report 2020 for the IUGS released on the IAPG website: <a href="https://www.geoethics.org/annual-reports">https://www.geoethics.org/annual-reports</a> (3 January).
- IAPG attended the 4<sup>th</sup> workshop of the European project Erasmus+ GOAL "Geoethics Outcomes and Awareness Learning", held in Rehovot (Israel). IAPG, partner of the project GOAL, was represented by Silvia Peppoloni (IAPG Secretary General) and Giuseppe Di Capua (IAPG Treasurer). The workshop was organized by the Israeli team of the project and was focused on "Geoethics in education: from theory to practice" (13-17 January).
- IAPG attended the 74<sup>th</sup> Executive Committee Meeting of the IUGS International Union of Geological Sciences in Busan (South Korea) and was represented by Peter Bobrowsky (IAPG Continental Coordinator for North America), who presented the IAPG Annual Report 2019 (15-16 January).
- New article published in the IAPG Blog: "Political Geosciences for Citizens of the Anthropocene" by Martin Bohle (Germany) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (27 January).
- New paper published in a scientific journal: *Mogk, D.W., and Bruckner, M.Z.*(2020). *Geoethics training in the Earth and environmental sciences. Nature Reviews Earth & Environment, 1, 81–83. https://doi.org/10.1038/s43017-020-0024-3* (30 January).
- Launch of the Call for Nominations for the Geoethics Medal 2020: https://iapgeoethics.blogspot.com/2020/01/geoethics-medal-2020-call-for.html (31 January).

#### February 2020

Publication of the first book in the SpringerBriefs in Geoethics: Boon J. (2020). Relationships and the Course of Social Events During Mineral Exploration - An Applied Sociology Approach. SpringerBriefs in Geoethics, Springer International Publishing, pp. XIX + 125. ISBN 978-3030379254, doi: 10.1007/978-3-030-37926-1 (14 February).

#### March 2020

• IAPG-Peru was legally constituted and registered under Peruvian laws with the Superintendency





- of Public Registry (SUNARP). It was registered as a non-profit organization (NPO) in Peru (certificate of registration number: 14469053). IAPG-Peru is the third section legally registered in its country, after IAPG-Italy and IAPG-Nigeria (4 March).
- Conference by Francesc Bellaubi (IAPG member), entitled "Geoethics: management and governance of natural resources and threatened landscapes", in Blanes (Spain) (6 March).
- IAPG attended the 2020 Spring Geological Society of America (GSA) Associated Societies Virtual Meeting. Cindy Palinkas (IAPG-USA co-coordinator) represented the IAPG (25 March).

#### April 2020

- New article published in the IAPG Blog: "A geoethical approach to the territory: the case of the lower Tordera river and Delta, Catalonia, Spain" by Francesc Bellaubí and Josep M. Mallarach (Spain) (http://www.geoethics.org/articles-from-iapg-blog) (6 April).
- Publication of the IAPGeoethics Newsletter, issue #1–2020: <a href="http://www.geoethics.org/newsletter">http://www.geoethics.org/newsletter</a> (17 April).

#### May 2020

- EGU General Assembly 2020 (Virtual): Keynote speech by Silvia Peppoloni (IAPG Secretary General), entitled "Geoscientists as social and political actors", invited by the EGU President, at the Union Symposium 1 (US1) "Best practices for scientific integrity and scientific freedom in an age of pandemics and beyond", co-organized by EGU, AGI, AGU, AOGS, GSA, GSL, JpGU: <a href="https://iapgeoethics.blogspot.com/2020/04/geoscientists-as-social-and-political.html">https://iapgeoethics.blogspot.com/2020/04/geoscientists-as-social-and-political.html</a>; video: <a href="https://www.youtube.com/watch?v=KYH9MNMQs3c">https://www.youtube.com/watch?v=KYH9MNMQs3c</a> (from minute 37:23) (4 May).
- EGU General Assembly 2020 (Virtual): IAPG Session EOS5.1 "Geoethics: how and why should geosciences serve society?"; Convenership: Silvia Peppoloni, Nic Bilham, Daniel De Miguel, Eduardo Marone, and Susanne Schneider-Voss. 33 online presentations: <a href="https://presentations.copernicus.org/EGU2020/presentations-EOS5.1.zip">https://presentations.copernicus.org/EGU2020/presentations-EOS5.1.zip</a> (7 May).
- New article published in the IAPG Blog: "Situating Geoethics in the Pandemocene, an Opinion" by Martin Bohle (Germany) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (14 May).
- Launch of the IAPG international survey "Geoethics in Geosciences" through an online questionnaire: <a href="https://form.jotformeu.com/93223788145362">https://form.jotformeu.com/93223788145362</a>. This survey has been partially funded by the IUGS (15 May).
- Geoethics & Groundwater Management (Virtual) Congress in Porto (Portugal), co-organized by IAPG





and IAH – International Association of Hydrogeologists: <a href="https://geoeth-gwm2019.wixsite.com/porto">https://geoeth-gwm2019.wixsite.com/porto</a>; e-Book of Abstracts: <a href="https://dcadad62-5380-45bc-99bd-10e901aa75f3.filesusr.com/ugd/ead70f">https://dcadad62-5380-45bc-99bd-10e901aa75f3.filesusr.com/ugd/ead70f</a> 72f82094981b4e0fa2c6feb8f6982ced.pdf; Book of Proceedings published by Springer: <a href="https://www.springer.com/gp/book/9783030593193">https://www.springer.com/gp/book/9783030593193</a> (18-22 May).

New article published in the IAPG Blog: "Geosciences and Geoethics in times of Covid-19 pandemic – an interview to Silvia Peppoloni (IAPG Secretary General)" (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (26 May).

#### June 2020

- Vitor Correia (Secretary-General of the International Raw Materials Observatory and Past-President of the European Federation of Geologists) appointed IAPG Delegate for Relationships with European Organizations: <a href="https://www.geoethics.org/delegates">https://www.geoethics.org/delegates</a> (4 June).
- New article published in the IAPG Blog: "The 'robbery mining': grab the money and run" by Nicola Careddu (Italy) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (9 June).
- 1st International (Virtual) Symposium on Geoethics, organized by IAPG-India and hosted by the School of Earth and Environmental Science, Amity University Haryana (India). Among the speakers, Silvia Peppoloni (IAPG Secretary General), Surya Parkash (IAPG-India Coordinator), and Giuseppe Di Capua (IAPG Treasurer): <a href="https://iapgeoethics.blogspot.com/2020/06/1st-international-virtual-symposium-on.html">https://iapgeoethics.blogspot.com/2020/06/1st-international-virtual-symposium-on.html</a> (14 June).

#### July 2020

- IAPG supported the International Declaration of the Significance of Geoscience Expertise to Meet Global Societal Challenges, promoted by EGU, AGU, AOGS, GSA, JpGU, GSL, and released during the EGU General Assembly 2020: https://iapgeoethics.blogspot.com/2020/07/iapg-supports-international-declaration.html (3 July).
- IAPG, as official project partner, attended the Portuguese Closing Conference of the Erasmus+ Project
   "GOAL Geoethics Outcomes and Awareness LearningProject". The IAPG was represented by Silvia Peppoloni (IAPG Secretary General) (7 July).
- Publication of the e-Book: Vasconcelos C., Schneider-Voß S., and Peppoloni S. (Eds.). Teaching Geoethics - Resources for higher education. 2020, U.Porto Edições, 207 pp., ISBN 978-9897462542. <a href="https://doi.org/10.24840/978-989-746-254-2">https://doi.org/10.24840/978-989-746-254-2</a> (7 July).
- Silvia Peppoloni (IAPG Secretary General) gave an invited speech, entitled "Geoethics and





Georisks: definitions, concepts and values", at the webinar organized by Ezzoura Errami (Dean Faculté Polydisciplinaire de Safi, Morocco, President of the AAWG, IAPG-Continental Coordinator for Africa) (7 July).

- Giuseppe Di Capua (IAPG Treasurer) gave an invited speech, entitled "Geoethics Why bother?" at the Virtual Symposium "Exploring the Convergence of Professional Geoscience, Public Policy, Regulatory Requirements, Standards and Protection of the Public", organized by organized by PGO - Professional Geoscientists Ontario, Canada (7 July).
- The IAPG Early Career Scientists Team (ECST) was appointed. Its board is formed by 8 members: Daniel De Miguel (Spain) Spokesperson; Ndivhuwo Cecilia Mukosi (South Africa); Sebastian Handl (Austria); Cristina Toma (Romania); Cesar Oboni (Canada); Bárbara Zambelli (Brazil); Jonathan Rizzi (Italy/Norway); and Alexandra Cardoso (Portugal): <a href="http://www.geoethics.org/ecst">http://www.geoethics.org/ecst</a> (8 July).
- IAPG-Peru held the first part of MinerLima 2020 (6<sup>th</sup> edition) (9, 18, 25 July).
- IAPG, as official project partner, attended the final virtual meeting of the project "GOAL Geoethics Outcomes and Awareness Learning". Project products were presented: <a href="https://iapgeoethics.blogspot.com/2020/07/final-virtual-meeting-of-project-goal.html">https://iapgeoethics.blogspot.com/2020/07/final-virtual-meeting-of-project-goal.html</a>. The IAPG was represented by Silvia Peppoloni (IAPG Secretary General) (13 July).
- IAPG and APG Associação Portuguesa de Geólogos (Portuguese Association of Geologists) signed an agreement of cooperation: <a href="https://iapgeoethics.blogspot.com/2020/07/iapg-signed-agreement-with-apg-on-13.html">https://iapgeoethics.blogspot.com/2020/07/iapg-signed-agreement-with-apg-on-13.html</a> (13 July).
- IAPG and SGCh Sociedad Geológica de Chile (Geological Society of Chile) signed an agreement for cooperation: <a href="https://iapgeoethics.blogspot.com/2020/07/iapg-signed-agreement-with-sgch-on-15.html">https://iapgeoethics.blogspot.com/2020/07/iapg-signed-agreement-with-sgch-on-15.html</a> (15 July).
- Opening of the section IAPG-Chile, that is recognized also as the Geological Society of Chile-Geoethics Group (see the agreement between IAPG and SGCh). Luisa Pinto Lincoñir (University of Chile) appointed as coordinator: <a href="https://iapgeoethics.blogspot.com/2020/08/the-iapg-section-of-chile-welcome-to.html">https://iapgeoethics.blogspot.com/2020/08/the-iapg-section-of-chile-welcome-to.html</a>. IAPG-Chile is the thirty-second section of the IAPG (15 July).

#### August 2020

• Session on Geoethics at the EASST4S - Society for Social Studies of Science (4S) in Prague (Czech Republic) (20 August).





- New article published in the IAPG Blog: "Geosciences for the Territory and its Ecosystems in a
  New Political Constitution for the Republic of Chile" by José Martín Cabello Lechuga (Chile)
  (http://www.geoethics.org/articles-from-iapg-blog) (24 August).
- New paper published in a scientific journal: Antić A., Peppoloni S., Di Capua G. (2020). Applying the Values of Geoethics for Sustainable Speleotourism Development. Geoheritage, 12(3):73, 1-9, https://doi.org/10.1007/s12371-020-00504-0 (25 August).

#### September 2020

- New paper published in a scientific journal: *Marone E. and Bohle M.* (2020). *Geoethics for Nudging Human Practices in Times of Pandemics*. Sustainability, 12(18), 7271; https://doi.org/10.3390/su12187271 (4 September).
- IAPG was invited to become a partner of Equality, Diversity, and Inclusion in Geoscience (EDIG) project of the iCRAG Irish Centre for Research in Applied Geosciences:
   https://iapgeoethics.blogspot.com/2020/09/iapg-is-supporting-partner-of-edig.html (9 September).
- IAPG attended the 6<sup>th</sup> Meggen Raw material days. David Ovadia (IAPG-UK coordinator) represented the IAPG in this online conference, giving a talk entitled "Do no Harm Ethics in Geoscience", in the theme "Raw Materials, Sustainability and Geologists in Public Perception". In the same theme, Aaron W. Johnson (AIPG, USA) gave a talk entitled "Geoethics and Society: Social and Cultural Considerations for the Ethical Practice of Geology" (16 September).
- Online Seminar by Martin Bohle (IAPG Board of Experts) entitled "Foundations & Examples for how to tackle (Geo)ethical Dilemmas" at the Ronin Institute: <a href="https://iapgeoethics.blogspot.com/2020/09/seminar-foundations-examples-for-how-to.html">https://iapgeoethics.blogspot.com/2020/09/seminar-foundations-examples-for-how-to.html</a> (16 September).
- Michèle Barbier (IAPG-France), as guest co-editor, launched the call for papers for an openaccess article collection on "Ocean Sciences and Ethics" in the scientific journal "Frontiers in Marine Sciences": <a href="https://iapgeoethics.blogspot.com/2020/09/article-collection-in-frontiers-in.html">https://iapgeoethics.blogspot.com/2020/09/article-collection-in-frontiers-in.html</a> (18 September).
- Silvia Peppoloni (IAPG Secretary General) and Giuseppe Di Capua (IAPG Treasurer), as co-editors, launched the call for papers for the special issue "New Advances on Geoethics and Sustainable Development" in the scientific journal "Sustainability": <a href="https://iapgeoethics.blogspot.com/2020/09/special-issue-of-journal-sustainability.html">https://iapgeoethics.blogspot.com/2020/09/special-issue-of-journal-sustainability.html</a> (19 September).
- Michèle Barbier (IAPG-France) organized the "Session 1 Ethics in ocean observation, overview" at





- the 4<sup>th</sup> Evolving and Sustaining Ocean Best Practices Workshop: <a href="https://iapgeoethics.blogspot.com/2020/09/sessions-on-ethics-at-ocean-best.html">https://iapgeoethics.blogspot.com/2020/09/sessions-on-ethics-at-ocean-best.html</a> (21 September).
- New paper published in the proceedings of the XI Congreso Ibérico de Gestión y Planificación del Agua: Bellaubi F., Mallarach J.M., and Sardá R. (2020). A geoethical approach to the governance of social-ecological systems: the case of Delta del Tordera (Cataluna). Actas XI Congreso Ibérico de Gestión y Planificación del Agua. Septiembre 2020, pp. 787-800 (23 September).
- New article published in the Human Futures magazine: *Bohle M., Peppoloni S., and Marone E.* (2020). Viewing Earth and World through the Geoethical Lens. Human Futures, Issue 2, 28-29 (24 September).
- IAPG-Peru held the second part of MinerLima 2020 (6<sup>th</sup> edition) (25-26 September).
- IAPG-Chile and the Geological Society of Chile-Geoethics Group organized an online event entitled "Geoscience for the New Constitution of Chile": <a href="https://iapgeoethics.blogspot.com/2020/09/online-event-by-iapg-chile-and.html">https://iapgeoethics.blogspot.com/2020/09/online-event-by-iapg-chile-and.html</a> (28 September).

#### October 2020

- Francesc Bellaubi (IAPG member) gave an online talk, entitled "The role of Geoethics in georesources management and governance: some case studies" at the ZEF – Center for Development Research of the University of Bonn (Germany) (8 October).
- b John W. Geissman (University of Texas at Dallas) was awarded the Geoethics Medal 2020 with the following motivation: In recognition of career-long dedication to the highest ethical standards and practices of the geoscience profession, John W. Geissman has earned recognition as the IAPG 2020 Geoethics medalist. He has demonstrated this commitment to geoethics in his work with international geoscience professional societies by applying the highest standards of research and publication through his leadership as Editor/Associate Editor of the Geological Society of America Bulletin, Journal of Geophysical Research, Tectonics, and EOS, and as Councilor and Past President of the Geological Society of America. Geissman's contributions to the profession are recognized by his Fellowship in both the Geological Society of America and the American Geophysical Union. He has imparted the importance of geoethics to generations of students as he has played a leading role in incorporating geoethics training for undergraduate students in the geoscience curriculum, and through his mentorship of over 70 graduate students, from the Colorado School of Mines, to the University of New Mexico, to, finally, the University





of Texas at Dallas. His work has extended beyond the geosciences to address issues of contemporary concern such as the teaching of evolution in public schools, and has proactively addressed the importance of conveying the importance of science to society and removing ignorance and fear of science from society. Through his dedication to the highest standards of professional conduct, application of the geosciences in service to society, and concern for the long-term stewardship of Earth, John W. Geissman has lived the ideals defined by the International Association for Promoting Geoethics, and is most deserving of the 2020 Geoethics Medal (6 October).

- Publication of the IAPGeoethics Newsletter, issue #2–2020: <a href="http://www.geoethics.org/newsletter">http://www.geoethics.org/newsletter</a> (13 October).
- IAPG celebrated the 4<sup>th</sup> edition of the International Geoethics Day: <a href="https://iapgeoethics.blogspot.com/2020/10/international-geoethics-day-2020-15.html">https://iapgeoethics.blogspot.com/2020/10/international-geoethics-day-2020-15.html</a> (15 October).
- Webinar on Geoethics organized by IAPG-India, in cooperation with the National Institute for Disasters Management of India and the Amity University, to celebrate the International Geoethics Day 2020. Surya Parkash (IAPG-India coordinator) and Giuseppe Di Capua (IAPG Treasurer) were among speakers (15 October).
- IAPG-ECST organized the Webinar on Geoethics with 8 speakers to celebrate the International Geoethics Day 2020: <a href="https://iapgeoethics.blogspot.com/2020/10/webinar-on-geoethics-19-october-2020.html">https://iapgeoethics.blogspot.com/2020/10/webinar-on-geoethics-19-october-2020.html</a>. Video: <a href="https://youtu.be/QV-qgAJPAAQ">https://youtu.be/QV-qgAJPAAQ</a> (19 October).
- Cindy Palinkas (IAPG-USA co-coordinator) represented the IAPG at the joint American Geosciences Institute (AGI)/Geological Society of America (GSA) Societies Meeting 2020 (21 October).
- IAPG Task Group on Geoethics and Geoheritage (TGGG) officially established and members appointed: José Brilha (Portugal), David W. Mogk (USA), Giuseppe Di Capua (Italy), Silvia Peppoloni (Italy) (26 October).
- IAPG-Bangaldesh assigned a new co-coordinator: Abdul Baquee Khan Majlis (Director, Geological Survey Bangladesh GSB) replaced Ershadul Haque (26 October).
- New article published in the IAPG Blog: "Responsible management of water: a resource that recalls us to dialogue" by Silvia Peppoloni (Italy) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (27 October).
- IAPG-United Kingdom assigned a new coordinator: Antony Benham (SRK ES) replaced David





Ovadia (28 October).

• IAPG attended the (virtual) Extraordinary Session of the IUGS (75<sup>th</sup> Executive Committee Meeting). Giuseppe Di Capua (IAPG Treasurer) represented the IAPG during this 3-day Extraordinary Session (28-30 October).

#### November 2020

- IAPG launched the call for abstracts for 2 sessions at the vEGU21:
  - Session EOS4.2: Geoethics: Geosciences serving Society (Conveners: Silvia Peppoloni and Giuseppe Di Capua):
  - Session EOS3.2: Climate literacy: Learning, education, methods and roadmaps (Conveners: David Crookall, Giuseppe Di Capua, Lydie Lescarmontier, Robin Matthews, and Frank Niepold) Moreover the IAPG proposed the Short Course:
  - SC4.4: Foundations and Perspectives of Geoethics for Earth, Marine and Atmospheric Sciences. In memoriam of Jan Boon (Convenership: Eduardo Marone, Giuseppe Di Capua, Silvia Peppoloni) (3 November).
- IAPG-Peru held the third part of MinerLima 2020 (6<sup>th</sup> edition) (12, 13, 14 November).
- IAPG endorsed the eLearning Course "Practical Geocommunication" by Geologize Ltd. As a
  member of an endorsing association, IAPG members has a 60% discount on the course fee:
  <a href="https://iapgeoethics.blogspot.com/2020/11/iapg-endorses-elearning-course.html">https://iapgeoethics.blogspot.com/2020/11/iapg-endorses-elearning-course.html</a> (19 November).
- IAPG and GSAf Geological Society of Africa signed an agreement for cooperation: <a href="https://iapgeoethics.blogspot.com/2020/11/gsaf-and-iapg-signed-agreement-for.html">https://iapgeoethics.blogspot.com/2020/11/gsaf-and-iapg-signed-agreement-for.html</a> (19 November).
- Open letter by IAPG-Peru on Peruvian Paleontological Heritage: <a href="https://iapgeoethics.blogspot.com/2020/11/open-letter-by-iapg-peru-on-peruvian.html">https://iapgeoethics.blogspot.com/2020/11/open-letter-by-iapg-peru-on-peruvian.html</a> (19 November).
- Silvia Peppoloni (IAPG Secretary General) contributed to the celebration of the World Philosophy Day of UNESCO with a video on "Pandemic and Social Inequalities": <a href="https://youtu.be/81XL4eBFizY?list=PLWuYED1WVJIOyGKNfOeS9fXTPcxyVmEKm">https://youtu.be/81XL4eBFizY?list=PLWuYED1WVJIOyGKNfOeS9fXTPcxyVmEKm</a> (20 November).
- IAPG released the video of the Webinar on Geoethics organized by the IAPG-ECST on 19
   October 2020: <a href="https://youtu.be/QV-qgAJPAAQ">https://youtu.be/QV-qgAJPAAQ</a> (23 November).
- IAPG-Italy was a supporting organization of a Facebook online event in Italy, entitled "Culture sustains territory - how to rewrite this relationship in the light of contemporaneity", organized by ReWriters Magazine and Italia Nostra. Silvia Peppoloni (IAPG Secretary General) was invited to





give a speech (in Italian) (23 November).

- New article published in the IAPG Blog: "Earth first, Mars later" by José Martín Cabello Lechuga (Chile) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (25 November).
- New paper published in the proceedings of the 10<sup>th</sup> The Future of Education International Conference Virtual: *Drąsutė V., Corradi S., Peppoloni S., and Di Capua G.* (2020). Geoethics and New Medias: Sharing Knowledge and Values. In: 10th The Future of Education International Conference Virtual, Conference Proceedings, Filodiritto Editore, Bologna, <a href="https://conference.pixel-online.net/FOE/files/foe/ed0010/FP/6590-SCI4598-FP-FOE10.pdf">https://conference.pixel-online.net/FOE/files/foe/ed0010/FP/6590-SCI4598-FP-FOE10.pdf</a> (25 November).

#### December 2020

- IAPG and MJD Maden Jeologlari Derneği (Turkish Association of Economic Geologists) signed an
  agreement for cooperation: <a href="https://iapgeoethics.blogspot.com/2020/12/mjd-and-iapg-signed-agreement-for.html">https://iapgeoethics.blogspot.com/2020/12/mjd-and-iapg-signed-agreement-for.html</a> (1 December).
- Silvia Peppoloni (IAPG Secretary General) gave an invited-speech, entitled "A White paper on Ethics in Forensic Geology", at the one day (virtual) meeting on "Forensic Geophysics and Geology", organized by the Geological Society of London: <a href="https://iapgeoethics.blogspot.com/2020/12/ethics-inforensic-geophysics-geology.html">https://iapgeoethics.blogspot.com/2020/12/ethics-inforensic-geophysics-geology.html</a> (2 December).
- New article published in the IAPG Blog: "Geoaesthetics: the aesthetic intelligence of the Earth" by Silvia Peppoloni (Italy) (<a href="http://www.geoethics.org/articles-from-iapg-blog">http://www.geoethics.org/articles-from-iapg-blog</a>) (7 December).
- Publication of the IAPGeoethics Newsletter, issue #3–2020: <a href="http://www.geoethics.org/newsletter">http://www.geoethics.org/newsletter</a> (7 December).
- Luisa Pinto Lincoñir (IAPG-Chile coordinator) gave an online talk (in Spanish) at the University of Chile, entitled "Geosciences, Professional Ethics, and Sustainability": https://youtu.be/XRNMFkK1wBE (9 December).
- IAPG was official partner of the EDIG Conference on Equality, Diversity, and Inclusion in Geoscience: <a href="https://iapgeoethics.blogspot.com/2020/11/iapg-is-partner-of-edig-conference-14.html">https://iapgeoethics.blogspot.com/2020/11/iapg-is-partner-of-edig-conference-14.html</a> (14-16 December).
- Daniel DeMiguel (IAPG-ECST Spokesperson) gave an invited talk, entitled "Geoethical issues in Palaeontology at a glance", at the Workshop (virtual) "Palaeoethics from the Field, to the Museum, and to Publication", organized by The Palaeontological Association and hosted by the Oxford University Museum of Natural History (United Kingdom): <a href="https://iapgeoethics.blogspot.com/2020/12/geoethics-">https://iapgeoethics.blogspot.com/2020/12/geoethics-</a>





at-workshop-on-palaeoethics.html (15 December).

- New members of the Task Group on Responsible Mining appointed: Marita Ahumada (Argentina),
   Estelle Levin-Nally (United Kingdom), Vitor Correia (Portugal), Roberto Lencina (Argentina), and
   Nikolaos Arvanitidis (Sweden), Giuseppe Di Capua (Italy):
   <a href="https://iapgeoethics.blogspot.com/2020/12/new-members-for-task-group-on.html">https://iapgeoethics.blogspot.com/2020/12/new-members-for-task-group-on.html</a> (22 December).
- IAPG was a formal signatory of the "Framework for Addressing Racial and Ethnic Equity in Geosciences Professional Societies" by AGI - American Geosciences Institute: <a href="https://iapgeoethics.blogspot.com/2020/12/framework-for-addressing-racial-and.html">https://iapgeoethics.blogspot.com/2020/12/framework-for-addressing-racial-and.html</a> (28 December).
- IAPG was invited to become media partner of the "UNESCO Lecture Series: Earth Materials for a
  Sustainable and Thriving Society" organized by UNESCO, in collaboration with IUGS International
  Union of Geological Sciences and iCRAG Irish Centre for Research in Applied Geosciences:
   <a href="https://iapgeoethics.blogspot.com/2020/12/unesco-lecture-series-earth-materials.html">https://iapgeoethics.blogspot.com/2020/12/unesco-lecture-series-earth-materials.html</a> (29 December).

#### PLANS FOR 2021

- Editorial projects with peer-review process
  - Book: Peppoloni S. e Di Capua G. (2021). *Geoetica: manifesto per un'etica della responsabilità verso la Terra* (Geoethics: manifesto for an ethics of responsbility towards the Earth). Donzelli Editore, Roma, pp. XIV+206, ISBN 978-8855221696 (in publication).
  - Book: Bohle M. and Marone E., eds. (2021). *Geo-Societal Narratives: Contextualising Geosciences*. Palgrave Pivot, Cham (in preparation).
  - Book: Villacorta Chambi S. and Toledo Gutierrez C., eds. (2021). *Geoethics in Peru: A pathway for Latin America*. SpringerBriefs in Geoethics, Springer International Publishing (in preparation).
  - Special Issue: Peppoloni S. and Di Capua G., eds. (2021). *New Advances on Geoethics and Sustainable Development*. Sustainability (in preparation).
  - New book proposals for the SpringerBriefs in Geoethics are expected to be submitted.
- International/National conferences/meetings, lectures, seminars
  - John Geissman, Professor of Geosciences, University of Texas at Dallas, and 2020 Geoethics medalist will give a keynote lecture on geoethics at the Potsdam University (Germany), in the Institute of Geoscience colloquium series (4 January 2020).





- IAPG will support the World Logic Day 2021 (<a href="https://wld.cipsh.international/">https://wld.cipsh.international/</a>), promoted by UNESCO and CIPSH International Council of Philosophy and Human Sciences. Letter of support by IAPG, signed by Silvia Peppoloni (IAPG Secretary General): <a href="https://f420cbad-ec08-4c39-902f">https://f420cbad-ec08-4c39-902f</a>-
  - <u>b0e5afecb44a.filesusr.com/ugd/5195a5\_da74d086945e46fe9ec55763b17c702c.pdf?index=tru</u> e (14 January 2021).
- IAPG will attend the virtual meeting of the international advisory board of the European Project INTERMIN. The IAPG will be represented by Giuseppe Di Capua (IAPG Treasurer) (January 2021).
- IAPG is a media partner of the "UNESCO Lecture Series: Earth Materials for a Sustainable and Thriving Society" (January-March 2021).
- IAPG will attend the 76<sup>th</sup> Executive Committee meeting of the IUGS International Union of Geological Sciences (online) and will present its annual report on 2020 activities and 2021 plans (February 2021).
- Giuseppe Di Capua (IAPG Treasurer) will give an online talk on geoethics at the University of Myitkyina Research Hub (Myanmar) Research Methodology Training Course, entitled "Introduction to Geoethics" (1 February 2021).
- Martin Bohle (IAPG Board of Experts) will give a talk on geoethics at the University of Heidelberg (Geokolloquium), entitled "Geoethics – for Society, Geosciences and Geoscientists" (3 February 2021).
- David W. Mogk (IAPG Board of Experts) and Nic Bilham (IAPG Continental Coordinator for Europe) will give talks respectively entitled "Geoethics: from geoscience professional development to responsible citizenship" and "Geoethics as a framework for responsible production and consumption of mineral resources: roles for geoscientists, stakeholders and citizens" in the web seminar "Geoethics and Georesources", co-organized by organized by the Society of Economic Geologists (SEG)-student chapter at RWTH Aachen (Germany) and IAPG (11 February 2021).
- IAPG will attend the 2021 Spring Geological Society of America (GSA) Associated Societies Meeting (virtual) (7 April 2021).
- IAPG supports 2 sessions at the virtual EGU General Assembly 2021: https://www.geoethics.org/egu2021 (19-30 April 2021):





- Session EOS4.2: Geoethics: Geosciences serving Society (Conveners: Silvia Peppoloni and Giuseppe Di Capua);
- Session EOS3.2: Climate literacy: Learning, education, methods and roadmaps (Conveners: David Crookall, Giuseppe Di Capua, Lydie Lescarmontier, Robin Matthews, and Frank Niepold).

#### • Activities of the School on Geoethics ("Schola")

- SC4.4: Foundations and Perspectives of Geoethics for Earth, Marine and Atmospheric Sciences. In memoriam of Jan Boon (Conveners: Eduardo Marone, Giuseppe Di Capua, and Silvia Peppoloni) at the EGU General Assembly 2021: <a href="https://www.geoethics.org/egu2021">https://www.geoethics.org/egu2021</a>. The short course is co-sponsored by IAPG (April 2021).
- Series of webinars of different issues from a geoethical perspectives.

#### • Other activities (main initiatives by IAPG and its national sections)

- IAPG will continue to develop activities in the International Advisory Board of the European Project INTERMIN "International Network of Raw Materials Training Centres" (January-July 2021).
- IAPG will contribute with articles to the newsletter of the Geological Society of Africa (GSAf) by writing articles (February-December 2021).
- IAPG will assign the Geoethics Medal 2021 (September-October 2021).
- IAPG will celebrate the 5<sup>th</sup> anniversary of the International Geoethics Day. Hashtag of this event: #geoethicsday2021: https://www.geoethics.org/geoethics-day (14 October 2021).
- IAPG-Peru will organize the 7<sup>th</sup> Edition of MinerLima "Feria Internacional de Minerales y Fósiles en el Perú" (International Exhibition of Minerals and Fossils in Peru) (October-November 2021).
- IAPG will release a report with results of the international survey on geoethics through the online questionnaire (December 2021).
- IAPG in cooperation with IFG-Initiative on Forensic Geology, will continue activities to draft the White Paper on Geoethics in Forensic Geology.
- IAPG Task Group on Geoethics and Geoheritage will draft a White Paper.
- 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 website, blog, social networks and newsletter.





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

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