
# IAVCEI *News* 2015 No: 3-4

INTERNATIONAL ASSOCIATION OF VOLCANOLOGY AND CHEMISTRY OF THE EARTH'S INTERIOR


## FROM THE PRESIDENT

Dear Colleagues,

**This is the first issue of IAVCEI NEWS from the new IAVCEI Executive Committee, elected for the period of 2015 – 2019, and it contains valuable information for the operation of IAVCEI in this period.**

*Don Dingwell*
*President of the IAVCEI*

Dear Reader,

As president of IAVCEI I want to thank all who took the time to participate in the electoral process of our Association. I also want to congratulate those who were elected to the offices of the association, **secretary-general** Roberto Sulpizio, **vice-presidents** Patrick Allard and Shan De Silva and **committee members** Eliza Calder, Lizzette Rodriguez, Jan Lindsay and Michael Ort. I further want to thank deeply Juergen Neuberg, José Luis Macias, Karoly Nemeth and Masato Iguchi for standing as candidates. I am sure that we will be able to call on their sage advice in the coming months and years and we welcome it.

What is likely to be the remit of the activities of the International Association of Volcanology and Chemistry of the Earth´s Interior in the period of 2015-2019? Next to what have become *de facto* core activities of our sustained membership (*e.g.* physical volcanology, geochemistry and petrology, geochemical, geophysical and geodetic monitoring of the world´s volcanoes, modelling and experimentation of volcanic processes, characterisation and parameterisation of volcanic materials, volcanic geology, volcanic hazards and risk) there lies a very wide array of allied and associated subjects. Part of the fascination of working with volcanic systems is that no one can predict accurately the range of topics likely to occupy IAVCEI activities in the coming 4 years. What we can however do is to ensure an open mind and a welcoming stance towards the new sorts of "volcanology" that you may well encounter in upcoming meetings, including those of IAVCEI itself: Cities on Volcanoes 2016 (Puerto Varas, Chile) and the General Assembly 2017 (Portland, OR, USA). Please join me then in thinking beyond the box with regard to volcanism.

This leads me to call your attention to the construction of programs for our upcoming meetings. The first circular for the 2016 Cities on Volcanoes meeting at Puerto Varas, Chile should already be with you. You are all called upon to respond to the request for Workshop proposals up to the end of 2015. Let´s ensure the continuity of success of these spectacularly effective meetings with our fullest participation at all levels accessible. Please also pencil in the tentative deadline for abstracts for Cities on Volcanoes 2016 in June 2016 and stay tuned for updates. The meeting itself, from 20-25 November 2016 will take place "within the shadow" of the recent eruptions of a number of volcanoes in Southern Chile including especially (so far!) Calbuco. There will truly be something for everyone. If you have colleagues that are in the social scientific fields relevant to the great goals of the Cities on Volcanoes Meetings please be sure to bring this meeting to their attention. Also of course on the more distant horizon is the next General Assembly of IAVCEI in Portland, OR, USA in August 2017. Preparations are being initiated by our colleagues in that part of the world and more news will be forthcoming in due course. Although these decisions on meeting venues pre-date my presidency I am delighted with both and want to express my deepest thanks to all of those who have already committed time and effort to these vital events.

Membership fees will be reinstated within IAVCEI in order to place the organisation on a more robust footing. Despite the

massive voluntary work upon which the activities of IAVCEI rightfully rest, for many purposes we can only as effective as our financing permits us to be. If I compare IAVCEI to my experiences from other scientific societies I can see that there is significant room for improvement. More information on the membership front will be provided to you by our Secretary General, Prof. Roberto Sulpizio shortly.

Past-President and executive committee member Ray Cas summarizes the status of our deliberations with respect to IAVCEI as follows: "During the IUGG General Assembly in Prague, the IUGG Council voted on proposals submitted by IAVCEI to IUGG to allow individual membership within IUGG associations, to allow all individual members to stand for office and vote in elections for association committees, irrespective of country of origin, and for associations to be able to prepare their own statutes, including those relating to the setting of fees. All proposals were agreed to on a vote of 35 in favour to 7 against. The only exception is that the President of each association must be from an IUGG financial member country. This is great progress and gives IAVCEI the autonomy it sought while remaining an association within IUGG, which has significant benefits. It seems that the case for being democratic and inclusive, the exceptional level of activities IAVCEI supports, the high registered membership numbers and the argument that to remain scientifically active, we needed to be able generate income in addition to that which is provided by IUGG, won over over most Council delegates, in spite of considerable initial reluctance to change. It became clear that IAVCEI is one of the most active associations in IUGG. At the IAVCEI business meeting, IAVCEI members voted to adopt the new Statutes and By-Laws that were circulated to all members before the IUGG meeting. We are now largely in control of our own destiny."

I concur with his analysis. Under these circumstances the role of IAVCEI in IUGG can be as vital as ever. It guarantees the reach of our expertise into international advisory and decision-making committees of a wide variety. Importantly, the experiences and perceptions of the IAVCEI executive committee, new and old, at the IUGG General Assembly in Prague, confirm that IAVCEI will enjoy the rights and freedoms it requires to continue to flourish as the world´s foremost volcanological association. Thus the recommendation of the leadership of IAVCEI today is to continue our relationship within IUGG and to monitor regularly the health of both the IUGG and IAVCEI within it.

The work of the commissions continues to be one of the most visible and most important signs of the health of the Association. IAVCEI has large number of commissions and the majority are quite active especially in contributing to the generation of sessions planning for meetings. Nevertheless, all commissions are in principle ephemeral and the association will continue to review proposals from any member of IAVCEI for creating new commissions as well as recommendations for renaming, merging, splitting or even closing down commissions which currently exist.

The structure and strategy of the Awards program within the association will also be the subject of discussions in the coming months. We will do everything possible to continue to ensure the most prestigious nature of the existing award program and to ensure the highest standards of the Awards processes - looking at the awards both individually and as whole and at how they best serve the interests of the association as well as those they are intended to honour.

At this point it is time to express a great sense of gratitude to a further member of the executive committee, immediate past-president Ray Cas, who has wisely steered IAVCEI to the point we are today and to past-Secretary-General Joan Marti for his great efforts in rationalising the internal organisation of the association and its finances. Like many of you I have known both for many years and I am convinced that it has been their combination of experience, talents and personalities that have served IAVCEI so well. Roberto and I have big shoes to fill.

It has also been pleasure to observe how well Karoly Nemeth has been nurturing this Newsletter and I am delighted to say that he agreed to continue in this role.

In closing let me call upon each and every one of you and invite you to contact me or any other member of the executive committee with any matter of concern, any suggestion and any opinion that you might have regarding the activities and running of IAVCEI. The whole leadership of IAVCEI stands at your disposal to serve as conduits for your input into the decisions, small and large, that face us in the coming years.

***Donald B. Dingwell***,
Munich, 22 October, 2015
President of IAVCEI

## FROM THE IAVCEI SECRETARY GENERAL

**Roberto Sulpizio – IAVCEI Secretary General**

Dear IAVCEI members, colleagues,

I take the occasion of the release of this newsletter for a brief salutation, and listing some going on things about IAVCEI organisation.

First of all I would like to send a warm thank you to previous Secretary General Joan Martì and webmaster Adelina Geyer. They did a great work for IAVCEI in the last 8 years.

Second, I would like to introduce the new webmaster of IAVCEI, Eugenio Nicotra, who will assist me in managing the website and the mailing list.

The website is quite old, and we decide to build up a new one completely. This requires a lot of work, and we think to be ready

by the end of the year. In the meantime, be patient and continue to use the current website, which will be updated only in the news section.

Another important issue is the reintroduction of the membership fee starting from 2016. The IAVCEI have increased its activity in the last years, financing grants for researchers from developing counties, international workshops and schools, and providing financial contributions to COV meetings and IAVCEI scientific assemblies. This activity requires incomes that cannot be guaranteed by only the voluntary contributions from members and from IUGG quotes. Follows the need of membership fees providing regular annual incomes, similarly to other international scientific associations. The donor members, who have paid before the cancellation of the membership fee, will be advised about their balance. Nothing will change for life members. The amount of the new fees will be decided by the Executive Committee soon, and will be communicated via e-mail to all the members.

With best wishes,

***Roberto Sulpizio***
IAVCEI Secretary General

## BULLETIN OF VOLCANOLOGY
## News and Updates

Another (northern hemisphere) summer has now ended, and authors and editors are busy after the break catching up with things, so lots of papers are coming through for publication. The next lull will begin when AGU gets underway, and the last pre-AGU submissions start going out for review.

I will be attending most of the AGU Fall Meeting this December, and will be happy to talk with anyone who has BV questions they'd like to ask in person.

There are more changes at BV since the last newsletter, because in 2011 many new editors joined the Bulletin's editorial board as Associate Editors, and with four years having now passed we are having a period of changeover. The retiring editors have given of their time and expertise to handle the reviews, editing and revision to hundreds of papers, and I and IAVCEI are very grateful for their efforts. Recently retired, or retiring (with asterisks, and still working through some papers in hand) associate editors are listed below.

**Servando De la Cruz-Reyna**
**Sonia Calvari***
**Guido Giordano***
**Agust Gudmundsson***
**Clive Oppenheimer***
**Thorvaldur Thordarson***

I'm very happy to have recently welcomed, with IAVCEI's blessing, new Associate Editors to the board. They will be keeping up the BV tradition of engaged, helpful, and rigorous editing by volcanologists that know well the topics of the papers they handle.

**Vadim Kamenetsky**
**Lucia Capra**
**Laura Sandri**
**Valerio Acocella**
**Patrick Allard**
**Katharine Cashman**
**Andrew Harris**
**Tobias Fischer**

Finally, I would be remiss to not thank those of my "first generation" editors who are so far staying on for yet more work (!). **Steve Self**, who is now busy with research articles while awaiting his last arranged review article, **Karoly Nemeth**, sustaining a vigorous book-review program; **Pierre-Simon Ross, Paul Wallace, Jacopo Taddeucci**, and **Matt Patrick**, all continuing their great work with research articles.

Best regards,

***James White***
Executive Editor, Bulletin of Volcanology

## ADVANCES IN VOLCANOLOGY
## Springer Book Series

Editorial Manager for *Advances in Volcanology* is now fully operational. Book chapters from books accepted to be included in the book series now can be uploaded through the Editorial Manager via the following link:

**http://www.editorialmanager.com/avol**

The first volume of the AiV book series – **Volcanic lakes** – has been published and can be accessed as electronic book or printed volume via the following link:

http://www.springer.com/gp/book/9783642368325

***Karoly Nemeth*** Series Editor – Advances in Volcanology

## CALL FOR PAPERS
### Development and application of volcanic fragility and vulnerability functions

**Journal of Applied Volcanology [Springer]**

**Guest editors**: Natalia Deligne (GNS Science, New Zealand), Susanna Jenkins (University of Bristol, UK), Giulio Zuccaro (Università degli Studi di Napoli Federico II, Italy), and Sungsu Lee (Chungbuk National University, South Korea)

This thematic series focuses on volcanic fragility and vulnerability functions as used in quantitative risk assessments. Such functions link the severity of a hazard to consequences on people, the built environment, primary industries, the economy, and/or society. This is rapidly developing and growing area in

applied volcanology and this thematic series aims to collate and showcase applications of these functions in volcanology.
Topics of interest include:
* Qualitative or quantitative fragility and vulnerability functions for one or multiple volcanic hazards
* Application of volcanic fragility and/or vulnerability functions to research questions
* Case studies of applications of volcanic fragility and/or vulnerability functions in practice
* Use of volcanic fragility and/or vulnerability functions as an educational or outreach tool.

Deadline for submission: abstracts 23 December 2015, manuscripts 30 April 2016
Manuscripts submitted by end of the calendar year (31 December 2015) have an excellent chance of receiving a publication fee waiver - see Graham Leonard's email to VOLCANO listserv on 1 September 2015
For more information please visit http://www.appliedvolc.com/about/update/Volcanic_fragility_and_vulnerability_functions or contact Natalia Deligne (N.Deligne@gns.cri.nz)

***Natalia Deligne***
GNS Sciences, Taupo, New Zealand

## CALL FOR PAPERS
### Volcanic Geoheritage Special Issue

**Geoheritage [Springer]**

**Guest editors**: Karoly Nemeth (Palmerston North, New Zealand), Joan Marti (Barcelona, Spain), Thomas Cassadewall (USGS, USA), and Mohammed Rashad Moufti (Jeddah, Kingdom of Saudi Arabia)

The journal Geoheritage (Springer) [http://link.springer.com/journal/12371] provides a special issue to publish research papers on studies of Volcanic Geoheritage. The Volcanic Geoheritage special issue is supported by the IAVCEI Commission on Volcano Geoheritage and Protected Volcanic Landscapes (https://vhub.org/groups/iavcei_vgpl; https://eos.org/articles/new-commission-aims-to-protect-volcanic-geoheritage). The special issue fundamentally will be dedicated to the VOLCANDPARK2 Conference (http://www.volcandpark2.com/Volcandpark2/Home.html) that will be held in Lanzarote (Spain) between 16 – 20 November, 2015. The Volcanic Geoheritage special issue however will also accept submissions from other authors not intend to attend on the VOLCANDPARK 2 Conference. If you are interested in to contribute to this unique volume your manuscript can be submitted to the Geoheritage editorial manager site (https://www.editorialmanager.com/geoh/default.aspx) after registering. During submission please choose article type; SI. Volcanic Geoheritage. To allow the Guest Editors to manage the issue better, please send the titles and list of authors to the following email address prior uploading your manuscript: k.nemeth@massey.ac.nz
The submission sites will be open until early 2016.

***Karoly Nemeth***
Massey University, New Zealand

## IAVCEI EARLY CAREER RESEARCHERS NETWORK (EC-NET): REPORT OF THE SOCIAL GATHERING AT THE IUGG 2015 PRAGUE ASSEMBLY

On the evening of the 25th of June 2015, a social event was held to gather IAVCEI-affiliated Early-Career Researchers, after the official day program of the IUGG 2015 General Assembly in Prague, Czech Republic. Publicity on the facebook wall of the Network, a VolcanoList message and mouth to mouth publicity during the appreciated beer-accompanied poster sessions ensured no less than 64 enthousiastic early- and less-early career researchers followed us on foot from the congress center to the nearby Potrefa Huset, instantly occupying its basement bar. Just as at the Kagoshima social event in 2013, a vibrant atmosphere took over the room, and even before the first Pilzner was drafted, vivid discussions emerged among the many who attended. As a proof of support from both present and future within IAVCEI, Ray Cas (now IAVCEI's celebrated ex-President), Joan Martí (now IAVCEI's applauded ex-First Secretary) and Don Dingwell (IAVCEI's current President, early-career in his own respect) joined in.
This evening represents yet another milestone in the development of the Network, for several reasons: 1. A new acronym was proposed during the evening: EC-Net, which sounds like a most proper, energetic brand name for the network; 2. Most participants provided their contacts, with the aim to receive updates of the network activities; 3. From this list, at least five people declared their willingness to help develop the network and organize events at next international IAVCEI-sponsored meetings; 4. Participants went home with the feeling the network is alive, and will remain so for the upcoming future. Concerning the latter, first contacts have been made with the organizers of the 2017 IAVCEI Assembly in Portland, USA. In the days after the event, many positive voices could be heard about the evening from the evening participants, and great appreciation for the entire initiative from our more established 'senior' peers demonstrates the broad support among the IAVCEI community.
However, if there is one thing suiting geo-scientists, specifically being early-career, then it must be a critical view upon his peers as well as initiatives taken and accomplishments made. Few footnotes are in order: 1. While researchers in their very early stage of their careers have been effectively reached (Master and PhD students), there was a clear hiatus of 'later-early-career' volcanologists (Postdoc et al.). Many at the conference seemed reluctant to join, not realizing their role is not to be underestimated for the network, and vice versa. On one hand postdoc researchers are thé first source of career-associated experience, thé monitoring network of nowadays career field. On the other hand, the EC-Net could, and should in the opinion of myself and many a postdoc I have spoken with in the past few years, act as a tool for postdoc researchers to further network and consolidate that long-awaited 'fixed' position. 2. A second point is that, while the sweet memories of such a social evening event are there to remain in the minds for long, much more can, and

should, be done to assist early-career researchers along their career path. Desirable initiatives for the future were outlined in the past IAVCEI News. 3. This requires a network of several EC enthousiasts. The network can hardly survive through the effort of one person, exactly why it is promising a group of initiative-taking EC-Netters is brought together now.

The network is there, the initiative is initiated, alea iacta est. It is now the specific hope of your present writer to further develop the network, delegate development tasks to the newly identified EC-enthousiasts, ensure a more equal regional representation (no Central- and South-America, Asia, Africa and the Middle East for now), incorporate all stages of EC-researchers, possibly through the clear definition of the meaning of 'early-career' (up to 8 years after obtaining a PhD?) and start initiatives for a presence at the Cities on Volcanoes Conference to be held in 2016 in Chile, and an overruling presence at the next IAVCEI assembly in Portland, USA, in 2017, possibly with workshops, mentoring sessions etc.

To be continued…

*We are looking for post-doc researchers willing the join the effort. Please contact Sam Poppe. Likewise for people desiring to be updated on the networks activities.

***Sam Poppe***
Brussels, Belgium (sam.poppe@vub.ac.be)

## THE STATUS OF MONITORING ACTIVE VOLCANOES AND HAZARD AND RISK ASSESSMENT AND A REMINDER OF HOW MUCH STILL NEEDS TO BE DONE:

### *A Review of "Global volcanic hazards and risk", edited by S. Loughlin, R.S.J. Sparks, S.K. Brown, S.F. Jenkins and C. Vye-Brown. Cambridge University Press, 389 pp.*

Last year, as President of IAVCEI, I was invited to write a Foreword for the GAR15 Report on Volcanic Hazards and Risks, prepared by The Global Volcano Model Network (GVM) on behalf of GVM and IAVCEI, for the United Nations Office for Disaster Reduction (UNISDR) Global Assessment Report for Risk Reduction 2015 (GAR15 Report). This current article represents most of that Foreword, will act as both a review of the volcanic component of the UNISDR GAR15 Report, which has been released as a book (see above), as well as draw attention to the surprisingly poor state of the international monitoring of active volcanoes, and our preparedness to make informed assessments of potential hazards and risk from future eruptions.

This contribution from the Global Volcano Model Network (GVM) and IAVCEI, on the status of global volcanic hazards and risk assessment capability for the United Nations Office for Disaster Reduction (UNISDR) Global Assessment Report for Risk Reduction 2015 (GAR15 Report), is an extremely timely and important reminder that there is still a huge amount of work to be done. GVM is a collaborative international initiative, involving multiple research and government institutions, in collaboration with IAVCEI, and has as its mandate *"to create a sustainable, accessible information platform on volcanic hazard and risk"*. This task would be difficult for any learned association or institution by itself, and has required funding and logistic support from multiple international sources. [*See the previous issue of IAVCEI NEWS for an article by Sue Loughlin and Steve Sparks, outlining what GVM is and what it does.*]

Over 130 scientists from 86 institutions in nearly 50 countries worldwide have contributed to this work, representing a remarkable collaborative effort of the volcanological community. The World Organisation of Volcano Observatories (WOVO) is a key Commission of IAVCEI and has contributed to profiles of volcanism for the 95 countries or territories with active volcanoes. The book consists of twenty six chapters that cover a broad range of topics, including assessments of volcanic hazards and risk, case studies from several recent eruptions, reviews of the impacts of ash fall, of eruptions on health and on aviation, assessment monitoring and forecasting capacity, consideration of developing effective communication approaches, and a proposal for a new global volcanic hazard index (VHI).

The book provides a state of the art assessment of the preparedness of the global scientific community and government agencies to manage volcanic hazards and risks globally. It demonstrates alarmingly that adequate information to make informed hazard and risk assessment exists for only 349 (about 22%) of the Earth's 1554 "active" volcanoes that are known to have erupted during the Holocene (< 10,000 years). The situation is even more concerning when considering that there are many dormant volcanoes that have not erupted in the Holocene, but could still erupt.

This situation clearly indicates that much more needs to be done by governments world-wide to improve both the monitoring capabilities for all the known active volcanoes, and as importantly, undertake detailed investigations of the geological histories of all known active and dormant volcanoes.

Monitoring provides only a modern snapshot of the level of activity or unrest of volcanoes, which is crucial to assessing if volcanic eruption is imminent. Seismic and geodetic networks are core to such monitoring, as is gas sampling and analysis. Development of modern airborne and ground based remote sensing technologies and data sets are now also enhancing our abilities to assess unrest at volcanoes.

However, even if an eruption is imminent, without a database on the eruption history, the frequency and magnitude of eruptions, and the previous eruption styles of a volcano, trying to predict the most likely hazards and their magnitude, becomes poorly constrained guesswork. *Understanding the geological history of volcanoes is one of the most important tools in modern volcano hazard and risk assessment*. Understanding the previous behavior of a volcano requires a program of careful geological mapping, providing data on the dispersal patterns and stratigraphic occurrence of the spectrum of deposit types and their magnitude. Together with knowledge of the geochemistry and geochemical evolution, and a well-constrained geochronological framework of events, factually based hazard and risk assessment is only then possible.

Sadly, it seems that such basic and essential geological knowledge is lacking for almost 80% of the world's active volcanoes! Is this a function of inadequate funding, or an assumption that geological and stratigraphic fieldwork is old fashioned and no longer relevant, or both? This requires urgent attention.

Undertaking geological mapping of volcanoes need no longer be tedious and require covering every square metre of a volcano. Modern remote sensing data bases such as Aster, radiometrics, aeromagnetics, LiDAR, etc, offer fast, smart ways of producing first order maps of volcanoes, that can then be

ground-truthed in strategic areas to confirm apparent stratigraphic superposition relationships, evaluate deposit types, collect samples for geochemistry and geochronology, and efficiently produce an assessment of the geological history, eruption styles, deposit types, eruption magnitudes, hazards and risks.

Having compiled a geological database through collaboration with the Smithsonian Institute's Global Volcano Program (GVP), GVM has introduced a Volcano Hazard Index (VHI) for each volcano for which there is an adequate geological database. This important new innovation begins to provide an overview of the range of possible hazards for a particular volcano, the likelihood of specific hazards occurring, and their magnitude, based on the previous history of the volcano. Unfortunately, this is only possible for 349 of the known 1554 active volcanoes. I am pleased to note that just this year to emphasise the importance of understanding the geology of volcanoes, Secretary-General of IAVCEI, Joan Marti, organised an international workshop on the theme of "The geology of volcanoes" on the volcanic island of Madeira. A proposal to form a new IAVCEI Research Commission on this theme is now being prepared.

In addition, the Volcano Population Index (VPI) is another important initiative considered in the book, providing an assessment of the magnitude of the populations living around volcanoes that are at risk from volcanic events of varying magnitudes. A significant statistic of the report is that 800 million people live within 100 kms of active volcanoes, 226 live million within 30 kms, and 29 million live within 10 kms. This again highlights the importance of developing a better understanding of volcanic hazards and their impact.

The report also briefly addresses the potential economic impacts of volcanic events, which as global populations increase are just likely to rise. The 2010 Eyjafjallajökull eruption in Iceland was a startling wake-up call on this.

In summary, the GAR15 Report on Global Volcanic Hazards and Risks is a stark reminder that there is still a huge amount of work to be done in understanding the hazards and risks of the world's active volcanoes. Major investments are required not only in acquiring and deploying more monitoring equipment on more volcanoes, but also for undertaking ongoing geological mapping and fieldwork to improve understanding of hazards and risks on all active volcanoes.

On behalf of IAVCEI, I congratulate GVM and everyone who has contributed to the GAR15 Report, most of whom are members of IAVCEI. The GAR15 Report will provide UNISDR, governments, IAVCEI and its members much to consider.

***Ray Cas***,
Past-President of IAVCEI

## REVIEW OF IUGG 2015 POST-CONFERENCE TWO-DAY FIELD TRIP ON MONOGENETIC VOLCANISM IN THE BOHEMIAN PARADISE

It is a great challenge for conference organisers to attract geoscientists to conference field trips. From my own experience at the last three IUGG General Assemblies, including one in which I was in charge of the field trip portfolio, it has been disappointing to see the wide range of field trips originally offered cut back to the select few that actually ran due to low registrations. Admittedly, professional geoscientists are tight for time and field trips are a significant cost on top of already high registration fees. The irony is that field trips can offer the highest impact in terms of our professional development, the transmission and discussion of scientific ideas and development of scientific collaborations.

A

B

Fig. 1 (a) Trosky scoria cone with its two prominent central plugs and (b) their useful vantage point for medieval world.

This year, in making a long-haul journey to Prague for IUGG 2015, I was determined to include a field trip on my conference itinerary. I was disappointed when my first option was cancelled. After consideration of the remaining options I chose a field trip aptly titled Permian, Miocene and Pliocene Mafic Monogenetic Volcanism in the Bohemian Paradise, and I soon learnt that taking a risk into unfamiliar territory can pay off. I'm not sure whether it was the skill of the field trip leader, ***Vladislav Rapprich*** (Czech Geological Survey), in hosting us through the best of Bohemian volcanism; or the mix of gems, excellent outcrops and stunning volcanic landscapes intertwined with Czech castles and stories; or the good Czech country food and beer; or all of the above – in the end I was very pleased I had made the right choice.

Over two days we were led through the Bohemian Paradise

Geopark, a geological diverse region within the Bohemian Massif, including several scoria cones and tuff cones of the Miocene Jičín volcanic field (Trosky, Zebín Hill, Kumburk) and associated Pliocene centres (Prackov, Kozákov), and older Permian subaerial and sublacustrine lavas and phreatomagmatic deposits (Studenec Quarry). Visitors cannot pass through the Bohemian Massif without considering the famous pyrope garnets, so our first stop was the jewellery workshop in Turnov where the genuine Bohemian garnets are cut.

The first volcanic stop was the 16 Ma basanitic twin scoria cones that form the foundation to Trosky Castle, a landmark symbol of the Bohemian Paradise (Figs. 1a and b). Two prominent near-vertical, central conduit plugs draped by steeply-dipping, stratified scoria, are still well-preserved after 16 million years. Various ideas for the process origins of these landforms were offered and discussed by the attendees. Traditional Czech lunch was enjoyed in a restaurant at the foot of Trosky volcano.

A

B

Fig. 2 (a) Columnar jointed Kozákov lavas in the Smrčí Quarry. Vlado (yellow vest) is pointing to (b) an extensive rootless explosion breccia within the lava on the other side of the road.

Scoria cones and lavas were the focus of the afternoon. In the Smrčí Quarry we walked through a valley-filled basanitic lava flow from the c. 5 Ma Kozákov scoria cone featuring classic columnar jointing (Fig. 2b), mantle xenoliths and extensive rootless explosion breccias (Fig. 2b), resulting from the interaction of lava with wet fluvial sediments. The lavas also contained peridotite xenoliths – at that point I was overcome by my desire to find the elusive gem-quality olivine. Not this time, and we had to move on. We also visited the source of the lava flow at Kozákov Hill with a refreshing beer and ice cream stop and a panoramic view of the Bohemian Paradise.

Phreatomagmatism became a dominant theme towards the end of the day. At Prackov scoria cone an early surtseyan phase was evident as an abundance of dense juvenile basanite and country rock lithic clasts, but later transitioned to strombolian activity. Surtseyan activity was a more dominant style at the Zebín Hill tuff cone. A nice evening meal of traditional Czech cuisine and beer was well-earned.

On the morning of day two, we examined the products of Permian (post-Variscan) volcanism at the Studenec Quarry. Here the transition from Hawaiian spatter agglutinates to phreatomagmatic tuffs and lapillistone (Fig. 3), and nearby pillow lavas, represented a change from a subaerial to sublacustrine environment, a consequence of the spatter cone damming a nearby stream. Here we also had an opportunity to hunt for volcanic treasures; this time mineralised fractures and amygdales. I collected a few potential gems, but the best specimens were found at the Nová Paka treasure house to which we adjourned after the quarry, followed by another traditional lunch. Then it was time to consider an analogy to the volcanic processes we had been studying, so we made a very important visit to the Nová Paka Brewery and studied the traditional practice of making Pilsener-type beer (Fig. 4).

Fig. 3 Vlado here is pointing to phreatomagmatic tuffs and lapillistones at the Studenec Quarry, which are overlain by lavas.

Our final stop was Kumburk Castle built upon an exposed 16 Ma basanitic conduit with a radiating pattern of columnar jointing, consistent with a lava lake origin within a funnel-shaped crater.

Fig. 4 Discussing volcanic processes at the Nová Paka Brewery.

University of Graz, Austria

So, I returned knowing a little bit more on Czech volcanic geology and a saw another perspective on monogenetic volcanism. I have a new set of photographs and stories for my lectures and I've made new connections to fellow volcanologists. When you plan your travel to the next IAVCEI or IUGG meeting, I strongly recommend considering one of the many volcanic fields on offer…and if your choice is cancelled, take the risk on another.

***Adrian Pittari***
University of Waikato, Hamilton, New Zealand

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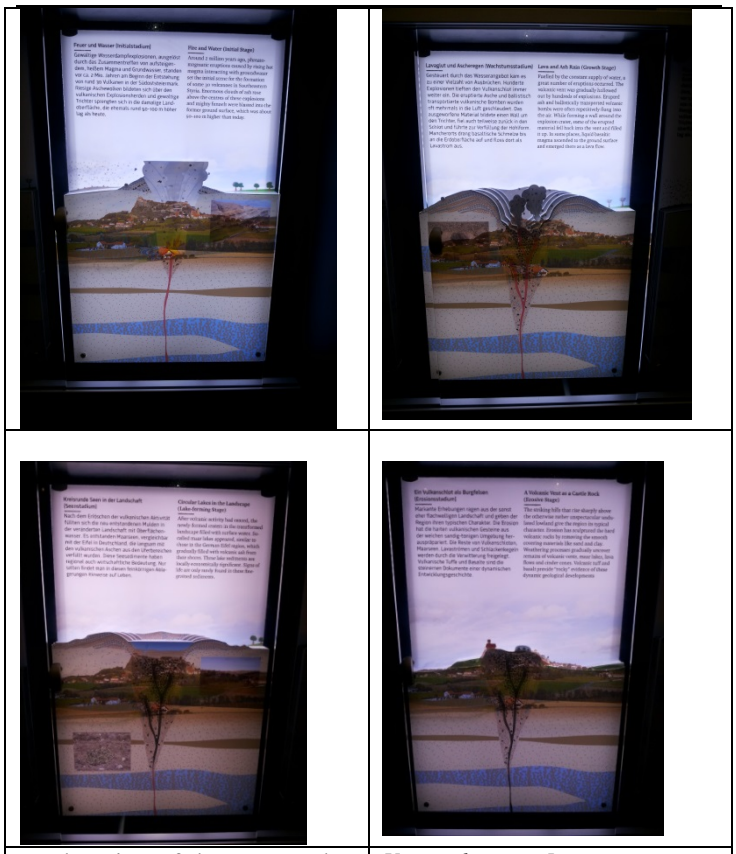
## REPORT ON THE STRATI 2 CONFERENCE
## Graz, Austria – 19-23 July 2015

The historic town of Graz hosted the STRATI 2 conference this year in July. The congress was an official main conference supported by the International Commission on Stratigraphy (ICS) and the International Union of Geological Sciences (IUGS). The congress generally called researchers working on various geological settings and dealing with stratigraphy problems across the globe. In this respect the conference provided an avenue to be a truly interdisciplinary meeting for researchers working from various aspects of stratigraphy. Naturally the program overarched from the Archean to the Holocene providing an insight to the participants to get familiar to various age "slices" and their unique stratigraphy problems.

The conference was a typical medium sized technical meeting with an attendance from large number of countries that made the meeting truly international. Volcanological sciences were represented in a special session dealing with Volcanic Stratigraphy lead by Ingomar Fritz (Universalmuseum Joanneum Graz, Austria) and Karoly Nemeth (Massey University, Palmerston North, New Zealand). The aim of this session was to call participants to present their research specifically dealing with volcanic stratigraphy problems. As it was shown during the IUGG meeting the commission of IAVCEI – Commission on Volcanic Geology – showed that there is a great interest among researchers working on volcanic regions to provide a forum to discuss geological questions relevant to volcanic processes especially in older terrains. The session offered during the STRATI 2 aimed to take this intention further and specifically establish a forum for researchers whom working in various mapping projects in terrains dominated by volcanic rock units or working on problems where volcanic rocks are widely used for lithostraigraphy and/or chronostratigraphy purposes.

The session went well with 8 presentations and associated posters, and initiated few interesting discussions how volcanic rocks need to be treated among other rock formations in the rock records. The session also highlighted the need for similar forums in the future, and seemingly the STRATI workshops are ideal places in the future where volcanologists or researchers working on volcanic rocks in older settings should attend and continue this type of discussions.

Riegersburg diatreme in the Styrian Basin volcanic field, Austria



Explanation of the present day volcanic landscape of the Kapfenstein diatreme at the Styrian Volcanic Field, Austria.

*Universalmuseum Joanneum*
*Sammlungs- und Studienzentrum Natur*
*Geologie & Paläontologie*
*Graz, Austria*
*www.museum-joanneum.at*

The conference session also been associated with a field trip to the region nearby Graz, where an erosional remnant of a Pliocene monogenetic volcancic field provides unique sites to see inside of the diatremes of former volcanoes eroded back to their conduit levels. The Styrian Volcanic Field is not only a natural laboratory for maar-diatreme volcanism, but also provides a unique experience to see eroding high relief Alpine-style landscapes punctured by pyroclast-filled diatremes making this region a good location for geotourism. The local authorities along with experts designed a concept of volcano park, a type of geopark that can provide well-structured geoeducational experiences to visitors to this fantastic landscape

***Karoly Nemeth***
Massey University, Palmerston North, New Zealand

## INVITATION: IAVCEI-CVL9 WORKSHOP, YAOUNDÉ, CAMEROON

***Supported by*** the **IAVCEI Commission on Volcanic Lakes**, the **IAVCEI Commission on Monogenetic Volcanism** and the **IAVCEI Commission on Volcanogenic Sediments**

On behalf of the CVL Steering Committee we are delighted to invite you to participate on the 9th Workshop of the Commission on Volcanic Lakes, CVL9, to be held in March 2016 in Cameroon, Western Africa. Needless to say that the volcanic lakes Nyos and Monoun have played a kickstarting role in the history of volcanic lake researches in our scientific community. The groundbreaking research during the past 30 years at Lake Nyos and Monoun has traced the track many geochemists and limnologist still follow. We will be happy to have our 3-yearly appointment, this time at the shores of the Cameroonian lakes, in early 2016.

"***30 years after the Lake Nyos disaster***"
**Date of the conference**: 14th - 20th March, 2016
**Venue of the conference**: Conference Centre, Yaoundé

**Main focuses of the 9th CVL Workshop**

- Thirty years of Lake Nyos gas disaster: before and after,
- Outcomes of SATREPS-NyMo project (2011-2016): the joint project between Japan and Cameroon will come to an end in 2016. Many outcomes from these 5 years of international collaboration and scientific research will take a central role during CVL9,
- Field work: comparison and knowledge exchange on field methods.

**Scientific themes**

- Theoretical and practical aspects on Nyos-type disaster and degassing,
- Gas-water-rock interactions in volcanic lakes,
- Volcanic lake dynamics and their impact on the human and natural environment,
- Hydrology of volcanic lake catchments,
- Geology of volcanic lake hosting craters,
- Assessment and mitigation of hazards posed by volcanic lakes.

**Workshop fieldtrips**

Participants will visit Lakes Nyos and Monoun.
Post CVL9 excursion will offer field visit to Barombi Mbo, and Mt Cameroon.

**For further information please contact**

***Greg Tanyileke***, CVL Secretary and chief organiser of CVL9: gtanyileke@yahoo.co.uk

***Dmitri Rouwet***, CVL Leader: cvl.dmitri@gmail.com!

## REPORT OM THE 13TH INTERNATIONAL SYMPOSIUM ON GEO-DISASTER REDUCTION

Prague, 9th and 11th August 2015

In this year August Prague was the host city of the 13th ICGDR Symposium. This interdisciplinary congress attracted a moderate number of participants that made the meeting a very friendly and effective forum to share ideas, and make important connections between research groups covering a full range of geo-disasters from extreme weather to tsunamis or volcanic eruptions to landslides. The conference is part of a yearly meeting funded by the ICDGR (International Consortium on Geo-disaster Reduction - http://icgdr.com/) an organization intends to connect researchers and end-users associated with any aspects of geo-disasters. During the workshop in Prague volcanology and volcanic researches were under-represented, in spite the very positive and encouraging call from the ICDGR to have more volcanologists associated with their activity in the future. As a representation for this intention during this meeting a strong expression was given to call volcanology research group officially associated with the works of ICDGR in the future. ICDGR has its own peer-reviewed international journal as a joint venture between ICDGR and Springer titled as Geoenvironmental Disasters (http://www.geoenvironmental-disasters.com/) that works on the Springer Open Access Scheme and would be very happy to host special issues in volcano disaster subjects or just to see more submissions from volcanic related disaster studies. Overall the attendance on the 13th ICDGR Symposium in Prague was a very eye-opening event to see the diversity volcanic researches from a slightly different aspect could fit and to be welcomed in the future. Personally I would highly recommend to anyone who works more on the disaster aspects of volcanic events to check out the activity, the future conference offers and the publication aspects of ICDGR and be involved in their works in the future.

***Karoly Nemeth***
Massey University

## GAME

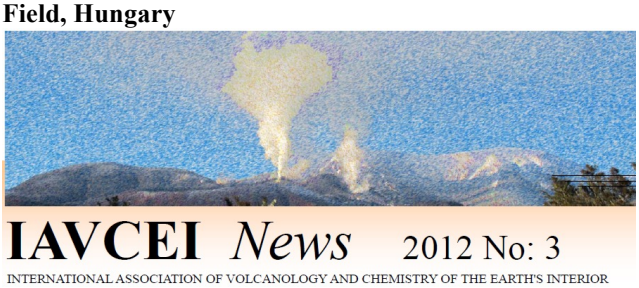
Unfortunately the Game in the last issue of IAVCEI News was too difficult to guess and we don't have any winner. Here now we reveal the locations of the headline images of the past IAVCEI News issues.

**Valley Lake at Mount Gambier, South Australia**

**Rangitoto Island, Auckland Volcanic Field, New Zealand**

**Jabal Al Malsa, Harrat Rahat, Saudi Arabia**

**Szent-Gyorgy-hegy, Bakony- Balaton Highland Volcanic Field, Hungary**



**Te Maari craters, Mount Tongariro, New Zealand**

**Volcan Ollague, Chile**


**Scoria cone from Harrat Rahat, Saudi Arabia**


**Sakurajima volcano, Kyushu, Japan**


**Jabal Bayda tuff ring, Saudi Arabia**


**Jabal Abyad lava dome, Saudi Arabia**


**Bromo, Indonesia**


**Joya Prieta maar, Mexico**


**Fantasy Surtseyan eruption off-shore downtown Auckland City, New Zealand**

***Karoly Nemeth***
Editor-in-Chief of IAVCEI News

## FUTURE EVENTS for IAVCEI member's interest

**2015 Geological Society of America (GSA) Annual Meeting**
31 October – 03 November 2015
**Baltimore, Maryland, United States**
**Web**: http://www.geosociety.org/meetings/2015/

**2nd International Congress on management and awareness in protected volcanic landscapes (VOLCANDPARK)**
**Lanzarote, Spain**
16-20 November 2015
The congress is the main event of the **IAVCEI Commission on Volcanic Geoheritage and Protected Volcanic Landscapes**
**Contact**: Joan Martí Molist joanmartimolist@gmail.com

**2015 AGU Fall Meeting**
**San Francisco, Ca;lifornia, USA**
14 – 18 December 2015
**Web**: http://meetings.agu.org/

**CVL9 Workshop,**
Cameroon
Mid-March 2016.
Contact: Greg Tanyileke
gtanyileke@yahoo.co.uk

**2016 Goldschmidt Conference**
**Yokohama, Japan**
26 Jun 2016 → 01 Jul 2016
**Web:** http://www.geochemsoc.org/programs/goldschmidtconference/

**SCAR 2016 Open Science Conference**
Kuala Lumpur, Malaysia from 22-26 August 2016
***S19. Antarctic volcanism in space & time – magmatic, tectonic and palaeoenvironmental aspects & linkages***
Web: http://www.scar.org/ssg/geosciences/antvolc
Web: http://www.scar2016.com

**Cities on Volcanoes 9**
**Puerto Varas, Chile**
20-25 November 2016
**Web**:
http://www.sernageomin.cl/pdf/cities/Cities%20on%20Volcanoes%209%20(Puerto%20Varas,%20Chile)%20First%20Circular.pdf
The conference is supported by the IAVCEI Commission of Cities and Volcanoes

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**6th International Maar Conference**
**Changchun City, China**
28 July – 6 August 2016 The conference is supported by the **IAVCEI Commissions on Monogenetic Volcanism, Volcanic Lakes and Volcanogenic Sediments**
Web: http://imc.csp.escience.cn/dct/page/1
**Contact**: Jiaqi Liu liujq@mail.iggcas.ac.cn

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**VI Collapse Caldera Workshop**
**Date**: 4-10, September 2016,
**Venue**: Hokkaido Japan
**Web**:
https://staff.aist.go.jp/geshi-nob/CCC/workshops/CCW06/first_circular_ccws6.pdf
**Contacts**:
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**IAVCEI Scientific Assembly - 2017**
**Date**: 14-18 Agust, 2017
**Venue**: Portland, Oregon, USA

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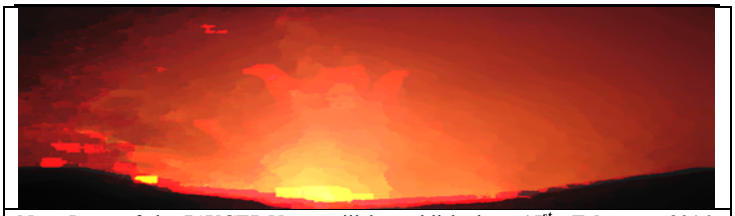
**7th International Maar Conference**
Olot, Spain
2018 (date will be confirmed by end of 2015)
The conference is supported by the **IAVCEI Commissions on Monogenetic Volcanism, Volcanic Lakes and Volcanogenic Sediments**
**Contact**: Joan Martí Molist joanmartimolist@gmail.com



Next Issue of the **IAVCEI News** will be published on **15st February 2016**. Articles, notes, news or any items relevant to the IAVCEI community must be submitted by **31th January 2016** to be published in the next Issue.
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***Károly Németh***
*Massey University, Palmerston North*
*Any correspondence, news items could be sent to:*
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