NEWS No. 3

October 2025

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

IAVCEI

This Newsletter is intended to keep IAVCEI Members and individual scientists informed about the activities of the Association and its bodies, and the actions of the IAVCEI Executive Committee. Past issues are posted on the IAVCEI website. Your comments are welcome. The IAVCEI Newsletter may be forwarded to non-members who may benefit from the information.

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IAVCEI 2025

A Magmatic Week in Geneva!

IAVCEI 2025 Scientific Assembly Highlights a Vibrant, Diverse, and Forward-Looking Community

The entry hall to the IAVCEI 2025 Scientific Assembly at the University of Geneva's "Uni Mail": hot but full of discussion!

From June 30 to July 4, 2025, the University of Geneva welcomed over 1050 delegates from 62 countries to the IAVCEI 2025 Scientific Assembly (see Section 3.1). With 56 % of attendees identifying as Early Career Researchers (ECRs), this gathering marked a significant moment of renewal, collaboration, and shared vision for the global volcanology community. Hosted for the first time in Switzerland and co-organized by four countries (Switzerland, France, Germany, and Italy) the Assembly offered a unique blend of cutting-edge science, community engagement, and global dialogue.

A Scientific Home in the Heart of Diplomacy

Though Geneva may lack active volcanoes, it offered an ideal setting for a meeting aimed at connecting volcanology with global governance. As a center of international cooperation, the city enabled the Assembly to reach beyond disciplinary boundaries and emphasize the societal relevance of volcanological science. The opening ceremony reflected this spirit, featuring distinguished speakers such as:

- Nathalie Bernasconi-Osterwalder (International Institute for Sustainable Development),
- Xavier Castellanos (Under Secretary General of IFRC), and
- Kamal Kishore (UN Secretary-General for Disaster Risk Reduction, and Head UNDRR).

Each speaker underscored the critical role of science in addressing today's global challenges, from climate resilience to sustainable development and disaster preparedness. Throughout the week, this connection between volcanology and societal needs was echoed in numerous sessions that explored the discipline's role in the energy transition, climate adaptation, and risk mitigation. Far more than a traditional scientific meeting, the Assembly positioned volcanology as an essential voice in the evolving landscape of global policy, interdisciplinary science

The main amphitheater at Uni Mail packed to applaud lighting-up the "jet d'eau" red!

and action. As part of this, Wednesday was reserved for a mid-conference excursion to CERN, offering a glimpse into the world of particle physics and interdisciplinary exchange.

In addition, in the week following the Scientific Assembly, the "*Advancing Volcanic Hazards in Early Warnings for All*" workshop was held at the World Meteorological Organization headquarters, bringing together over 100 participants (see Section 2.2). The workshop exemplified the unique opportunity provided by Geneva for the volcanology community to engage directly with international organizations based there, aligning our expertise with the UN's Early Warnings for All (EW4All) initiative (https://www.un.org/en/climatechange/early-warnings-for-all).

A Community-Centered Format

Designed with interaction in mind, the 2025 IAVCEI Scientific Assembly was held in-person to maximize scientific exchange and human connection, with selected talks available for remote viewing. Only five parallel sessions ran at any given time, encouraging focus and accessibility. Each day before lunch break there were two keynote lectures: one by a senior member of the IAVCEI community and one by an ECR, underscoring the Assembly's commitment to intergenerational dialogue and inclusion. Every afternoon also included two hours dedicated exclusively to poster sessions, which were exceptionally well attended, providing early-career and senior scientists alike with time and space for genuine engagement.

The seven thematic sessions showcased the diversity and depth of volcanological research:

1) Production of magma and assembly of volcanic plumbing systems;
2) Pre- and syn-eruptive monitoring;
3) Volcanic processes;
4) Minerals for the energy transition;
5) Geothermal systems and carbon storage;
6) Hazard, Risk and Impact;
7) Communication in Volcanology.

An additional theme, *The Future of Volcanology*, was entirely dedicated to ECRs, who shared their perspectives on the grand challenges ahead. These sessions created an inspiring space for the next generation of researchers to voice their vision and strengthen their leadership within the community.

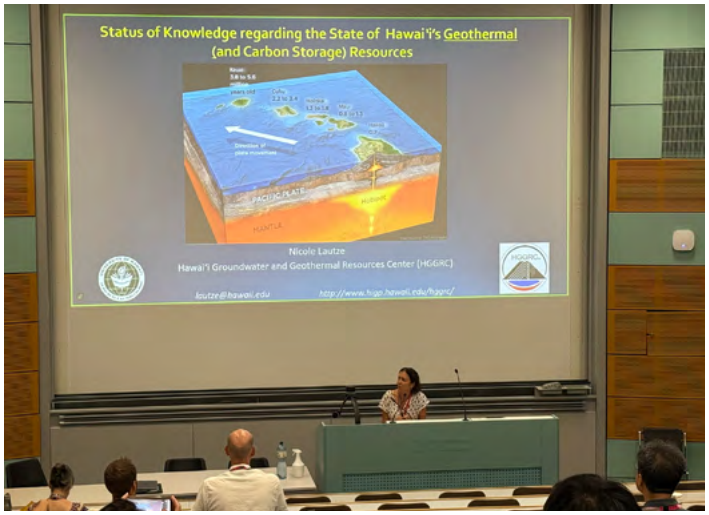
Diversity, Dialogue, and Representation

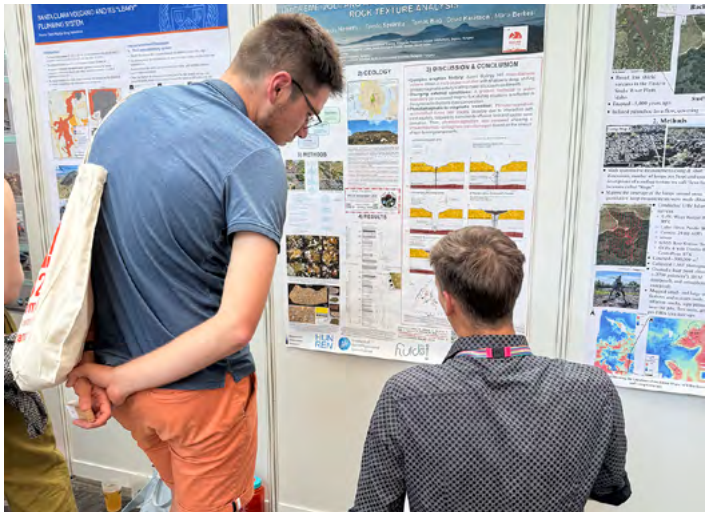
A major strength of the Assembly was its global and inclusive spirit. More than 40 full travel grants were awarded to delegates from 16 countries, helping ensure regional representation and participation from under-resourced institutions. These 40 candidates were selected of a pool of more than 200 individuals that had applied for a travel grant. Given this demand, the travel grant committee decided to opt for full travel support (flight tickets and shared accommodation centrally organised).

A particularly powerful moment was the "Challenges and Opportunities for Women Scientists in Volcanology" Round Table, which featured five outstanding female scientists from different continents sharing their inspiring professional and personal path (see Section 2.1). Their insights sparked lively discussions on equity, leadership, and systemic change, reinforcing the need for continued attention to diversity and inclusion in all aspects of volcanological research and practice.

Beyond the Conference Halls

Scientific exchange extended beyond traditional sessions. The conference opened with the presentation of all IAVCEI Commissions and Networks and a week-long poster session dedicated to our Commissions and Networks to stimulate community engagement. There were also multiple events, meetings, workshops and other activities led by IAVCEI Commissions and Networks which were, without exception, well attended, vibrant and dynamic (see Section 1.1). In parallel with these events, multiple meetings were led by the IAVCEI Executive Committee to encourage exchange, community-building and development of the IAVCEI as a modern scientific association (see Section 3.1).

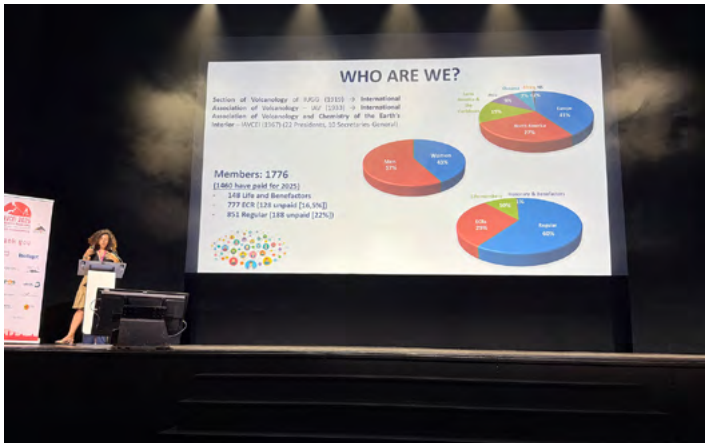


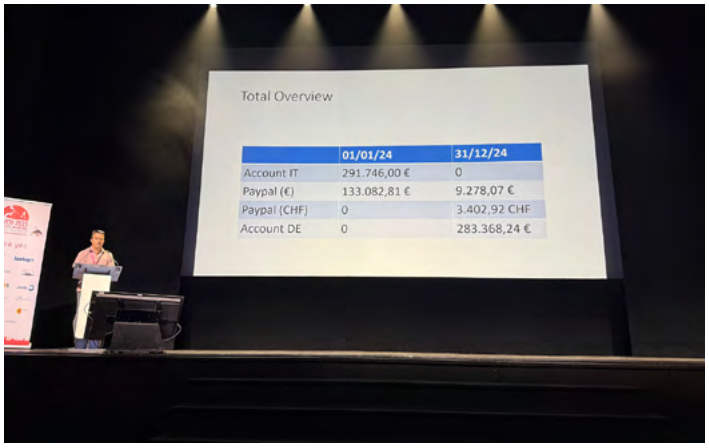


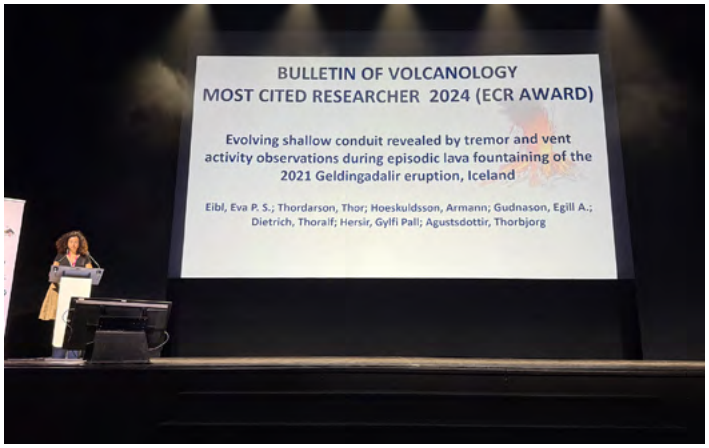
Vibrant oral and poster sessions enabled dissemination, exchange, interaction, and discussion

A week-long public outreach programme titled "*Enhancing Volcano Understanding*" featured interactive demonstrations and multilingual activities designed to communicate volcanology to a broad audience. In parallel, the exhibition "*Le Feu de la Terre – Une Aventure Humaine*", dedicated to the science and story of volcanoes, was inaugurated and will remain open until 28 September 2025. As a symbolic tribute to the volcanological community's presence in Geneva, the city lit its iconic Jet d'Eau fountain in red for one night, offering a striking visual celebration of science that deepened participants' sense of belonging to a vibrant, global community.

Meetings and celebrations: the commissions/networks meeting and the awards dinner







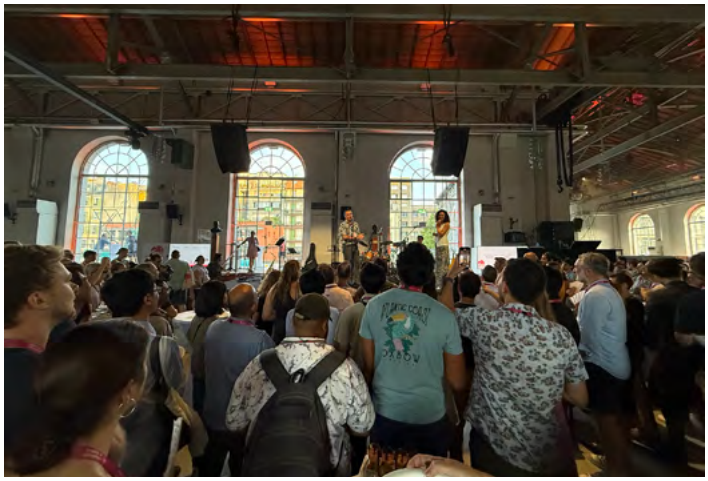
The Meeting of Members and the awards ceremony

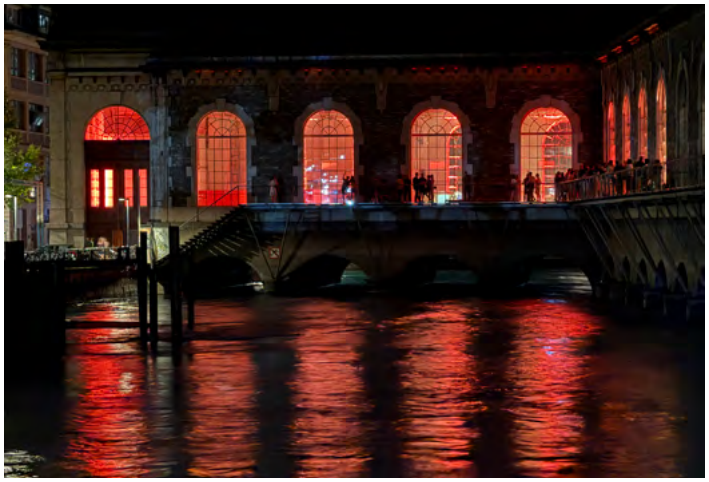
Pre-conference field trips to the Massif Central (France), the Eifel (Germany), and Mt. Etna and the Aeolian Islands (Italy) allowed participants to explore iconic European volcanic systems firsthand. These experiences fostered informal learning and strengthened ties among participants. The community spirit was evident not only in academic discussions but also in every coffee break, shared bus ride, and field site hike.

Looking Backwards and Forwards

The Meeting of Members (MoM) offered a chance to reflect on the work carried out over the past two years to support and strengthen the IAVCEI community. The MoM also allowed exchange of views as to how to continue to move our Association in the right direction to best support our community. As part of this, changes to IAVCEI membership fees, as well as the statutes and by laws were discussed, resulting in a lively and constructive open-floor debate. Based on the feedback, the Executive Committee has refined these actions that are now open online poll for IAVCEI members (see Section 3). *Please do participate!* The MoM also celebrated excellence through the IAVCEI 2025 Awards, recognizing individuals who have made outstanding contributions to the field (see IAVCEI Newsletter 02/2025).

Lionel Wilson was unable to attend the ceremony for the Thorarinsson Medal. Thus Steve Sparks collected the medal for Lionel and arranged a handover in an informal ceremony and lunch in Lancaster attended by Lionel's friends and colleagues at Lancaster University on 3rd September 2025. Magnus Tumi also sent Lionel a book of the poems of Sigurdur Thorarinsson (in Icelandic of course) to mark the occasion



The Volcano Party!

What defined this Assembly above all, however, was its community energy. The atmosphere in Geneva was electric, not just because of the warm summer weather, but because of the enthusiasm, curiosity, and generosity that each participant brought to the event. There was a shared sense of purpose: to push the boundaries of knowledge, to learn from one another, and to build a more connected, inclusive, and impactful volcanological community.

This spirit was on full display during the final Volcano Party, held in the stunning *Bâtiment des Forces Motrices*. With live music that got everyone dancing, the evening captured the joy and vitality that marked the entire week. It was also the occasion to announce the host of the next IAVCEI Scientific Assembly in Costa Rica from 1 through 6 July 2029, ensuring that the energy and momentum built in Geneva will carry forward into the future.

We look forward to seeing everyone again in Costa Rica to share more science, more enthusiasm, and an ever-stronger sense of community.

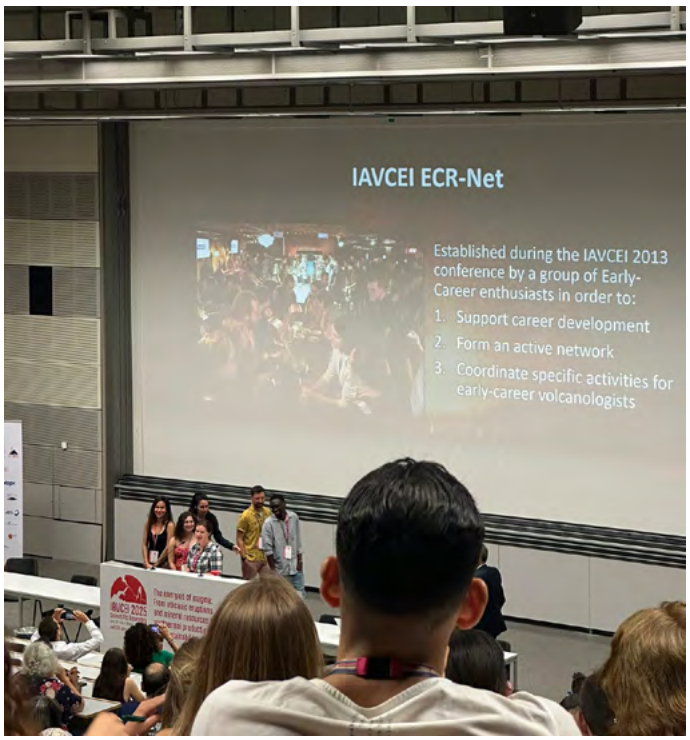
The Party's Over… until next time!

SECTION 1. IAVCEI – WHO WE ARE AND WHAT WE DO

1.1 IAVCEI Commission and Network Updates

Commission and Network activities at the IAVCEI Scientific Assembly
29 June – 4 July 2025, Geneva (Switzerland)

The opening ceremony of the Scientific Assembly on 29 June at 16:00 (CET) included short presentations from each IAVCEI commission and network. There followed a week of dense and intense activities by each commission and network, where we report on some of these activities here.



ECR-Net members at the IAVCEI opening ceremony: officially welcoming ECRs to the 2025 IAVCEI Scientific Assembly and showcasing upcoming ECR events within the conference

ECR Highlights at the IAVCEI SA 2025 – Geneva
The IAVCEI Early Career Researchers Network (https://ecrnet.iavceivolcano.org/)
After the IAVCEI SA 2023 in Rotorua in New Zealand, when we were received by a rainy Aotearoa, this year, scorching heat embraced us in Geneva. Thank God for those sprinklers and the dips in the lake!!

This year, the IAVCEI Scientific Assembly in Geneva was a festive occasion for our community and especially for our ECRs, who made up 56 % of our attendance! The Early Career Researchers Network (ECR-Net) had planned a full week of activities with the aim of connecting with, and celebrating, ECRs. In making this happen, I want to give a big shout-out to the ECR-Net Committee members for their dedication and creativity, especially to Alex, Omari, Sandy, and Jamie, who completed their four-year term on the Network during the conference, and whose energy have been instrumental to make these events possible. Thank you team, none of this would have been possible without you!

ECR-Net members at the IAVCEI 2025 closing party (From right to left: Sandy, Omari, Jamie, Alex, Joali and Jacqueline)

Scavenger Hunt: One of the most popular activities of the week was the ECR-Net Scavenger Hunt – Geneva Edition, which ran throughout the week. Eleven teams signed up with creative names and plenty of enthusiasm. After days of fun challenges, from networking with IAVCEI leaders (ask Ulli about it!!), through spotting Geneva's volcanic links, to chocolate-and-fondue adventures, we had a tie for first place. These two teams walked away with the prize: a 4-year IAVCEI membership waiver for each member.

The Scavenger Hunt winners: The Tuff Strata-gy for Scavenging (Rebecca deGraffenried, Bethany Janssen, Oceana Apollo) and La Soufflé de Guadeloupe (Kendra Ní Nualláin, Davitia James, Savannah Devine, Lea Osterero)

"Networking" challenges as part of the Scavenger hunt

Mentoring event: On Monday evening, despite the heat, and a very full-on first day, more than 100 ECRs joined our mentoring event. Senior researchers led informal discussions on career pathways, science communication, research impact, industry connections, and more. The event was very successful. Early Career and Senior Scientists enjoyed lively conversations and discussions, and hopefully, it helped to create many new contacts across career stages.

Future of Volcanology Session: ECRs also took the spotlight in Session 8: *The Future of Volcanology*. Across four days, eight ECRs presented their innovative projects, inspiring the community with new approaches and ideas. In addition, four ECRs delivered plenary talks right before senior plenary speakers, and *they crushed it!* This opportunity allowed us to showcase the talent and leadership potential of our next generation of volcanologists.

From a fun and friendly competition to professional mentoring and standing proudly on the plenary stage, Geneva was a full-on week of visibility, networking, and growth for our early career members. Ultimately, a huge thank you to all who joined, supported, and cheered on these events.

Scavenger hunt teams outside the conference venue

And once more, to the ECR-Net committee members who are completing their term – Alex, Jamie, Omari, Sandy, and Silvia – thank you for being part of this journey, and best of luck in your future endeavours, you will be dearly missed!

Joa Paredes-Mariño

Mentoring event. A heart felt thank you goes to our Mentors for bringing their time and enthusiasm in guiding younger generations who are a) Evi Nomikou & Cheryl Cameron; b) Taryn Lopez, Maarten de Moor, Angie Diefenbach; c) Chris Kilburn; d) John Browning; e) Adelina Geyer; f) Andrew Tupper; g) Jeremy C Phillips; h) Jackie Kendrick & Jamie Farrell; i) James Hickey; j) Natalia Deligne & Becs Fitzgerald, plus Jenni Barclay and Mike Cassidy

Towards Inclusive Collaboration: Reflections and discussion on engagement in global volcanology by INVOLC

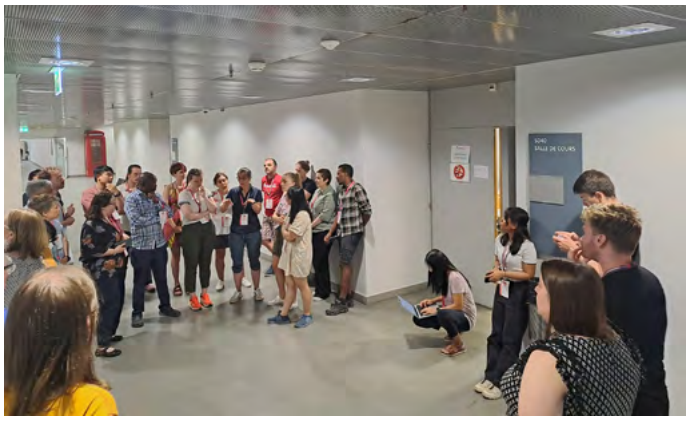
International Network for Volcanology Collaboration (https://involc.iavceivolcano.org/)

The International Network for Volcanology Collaboration (INVOLC) organised a mid-conference workshop entitled "*Towards Inclusive Collaboration: Reflections and discussion on engagement in global volcanology*", which was well attended by ca. 35 participants of a variety of career levels, positions and countries.

Prior to the workshop, participants were sent a series of relevant papers on topics related to *inclusivity* in volcanology, especially in the context of international collaborations, and were asked to read at least one or two of these papers. At the start of the workshop, participants wrote down a few key takeaways, which then set the scene for the discussions during the workshop.

The workshop was divided into three main parts, each part involving discussion-groups of 6–10 people, followed by short a report-back from each group.

1. The opening discussion question was: why a person became a volcano scientist; a question which served as an introduction round for each group.
2. The first of the two main discussion points was then: "*Reflect on your collaboration experiences – what went well, what did not go so well*", followed by,
3. "*Reflect on how we share information with the volcanological community*"… particularly in the published peer-reviewed literature.



Breaking out into discussion groups gave participants an opportunity to reflect on their perspectives as to how inclusive the volcanological community might look in five years time and to brainstorm priority activities to move us towards our common vision

Key points that came out of the discussions were:

- Insights into inclusive collaboration are incomplete due to data gaps and our understanding of the problems associated with parachute science.
- Open communication and building trust between project partners, while acknowledging cultural and political differences, is fundamental.
- Data and information sharing between all project partners is critical.
- All genuine needs and priorities of local collaborators *must* be addressed from inception of a project.
- Challenges related to publication pressure for early-career researchers, but also for scientists working in operational settings and especially during times of volcanic unrest, need to be emphasized.

We received extremely positive feedback from the participants, and this shows that there is a need to hold discussions about ethics of collaboration, at all levels up through international, in volcanology. The workshop output also emphasized how we can structurally improve things to work towards a more inclusive community.

As a result of the workshop, INVOLC will present a list of specific recommendations to the IAVCEI Executive Committee. We also expect to continue organising similar activities at future international conferences and elsewhere to continue raising awareness on inclusivity issues, so as to stimulate community-wide discussion and reflection on how to act.

For more information on INVOLC refer to:
https://involc.iavceivolcano.org/
or contact us at: iavcei.involc@gmail.com.

CAV Commission meetings and gatherings during the Scientific Assembly

Cities and Volcanoes Commission (https://citiesonvolcanoes.wordpress.com/)

The Cities and Volcanoes (CAV) Commission held its annual general meeting on 1 July in Geneva, with over 35 attendees in-person and online from around the world. The meeting provided updates on leadership changes and upcoming initiatives. We're pleased to share the presentation slides and the meeting minutes with you, where three highlights include:

- In lieu of the postponement of COV13, we have launched the call for events as part of the CAV2026 Volcano Communities Series, with nine events already submitted. We discussed how the 2026 series offers a valuable platform for regional engagement, especially given the impact of the COV13 postponement particularly on early-career researchers. Further CAV2026 event proposals can be submitted through our website (rolling submissions). We will announce an initial schedule for the CAV2026 Volcano Communities Series by December.
- We have launched an open call for hosting COV14 in 2028 (we are retiring the designation 'COV13'), with the expression of interest due in early October.
- Work on strengthening the relationship between the Commission and the Journal of Applied Volcanology, which is seeking a broader geographical representation on its editorial board, and more paper submissions, with waivers available

We had many constructive questions and suggestions from attendees and thank everyone who attended. During the conference, we co-sponsored three successful sessions on volcanic impacts, hazard communication, and risk assessment. We also displayed a poster highlighting the Commission's activities and focus areas, you can view the poster here.

Tephra Hazard Modelling Commission:
Updates from the 2025 IAVCEI Scientific Assembly

Commission on Tephra Hazard Modeling
(https://thm.iavceivolcano.org/)

The IAVCEI 2025 Scientific Assembly was a busy week for the Tephra Hazard Modelling Commission, as we supported three tephra-focussed workshops:

- **Volcanic plume benchmarking exercise:** integrating field observations, numerical simulations and analogue experiments. Attended by around 20 people, this saw volcanologists come together to discuss how future work is needed to benchmark existing numerical models of volcanic plumes against analogue laboratory experiments and field observations. Work is underway to form a new working group to address this.
- **Volcanic ash:** strengthening the connection between operational response and research. This workshop brought together researchers with staff from volcano observatories and Volcanic Ash Advisory Centres (VAACs) to discuss some of the issues faced when operationalising research advances. As part of the workshop, participants took part in a simulated eruption response.
- **Grain size analysis of volcanic ash**: methods intercomparison and best practices. In the months leading up to the conference, the *Grain Size Working Group* distributed a volcanic ash sample to 21 labs around the world, to undergo grain size analysis. At a pre-conference workshop, 35 participants reviewed the methods and results, highlighting the variability and exploring best practices for measurements (see next).

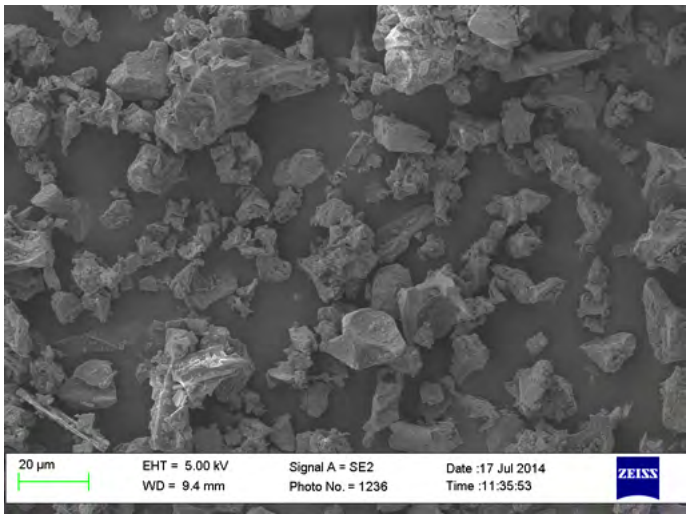
Eruption! Participants at the "Volcanic ash: strengthening the connection between operational response and research" worksjop break into groups, each playing as observatories or volcanic ash advisory centres during an eruption response

Grain size: Have we lost the plot?…
No. But… *the plot thickens*

IAVCEI Tephra Hazard Modeling Commission
(https://thm.iavceivolcano.org/)

The grain size of volcanic deposits is a key parameter for interpreting eruptive processes, but how can we ensure comparable results across diverse eruption styles, novel instruments, legacy datasets, and laboratory users?

On 29 June 2025, 35 scientists across all career stages convened in Geneva for a half-day workshop of the IAVCEI Tephra Hazard Modeling Commission to discuss current approaches to grain size analysis. The meeting opened with results from a global inter-laboratory comparison using a sample from the 1980 Mount St. Helens eruption. Participants were then challenged to merge data from different techniques (in this case, sieving and laser diffraction). The wide variation in resulting grain size distributions came as a surprise, highlighting the challenges of producing inter-comparable data. By the end of the workshop, there was unanimous agreement on the need to establish best practices for this fundamental method in volcanology.



FEG-SEM image of ash sample from the 18 May 1980 Mount St Helens eruption

The Volcano Geology Gathering

IAVCEI Volcano Geology Commission
(https://volcanogeology.iavceivolcano.org/)

Following the commissions and networks meeting in Geneva, the *Volcano Geology Commission* reviewed the importance of aligning with the Status and By-laws of IAVCEI. As a result, the *Volcano Geology Commission will open a call for a representative of Early Career Researchers (ECRs) and an Equity, Diversity, and Inclusion (EDI) officer to join the board*. We now ask interested IAVCEI members to send an email to the commission expressing their interest in these two positions. Once the final list of candidates is confirmed, elections will be conducted electronically through the IAVCEI website in October.

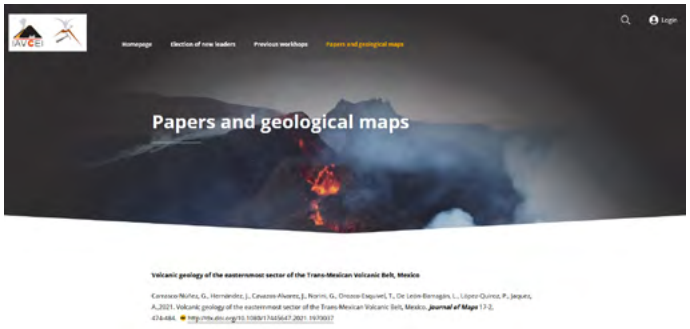
At our commission gathering we discussed our upcoming *field workshop planned for March 2027* in Japan, which will be led by Nobuo Geshi. It will take place in the southern Kyushu region, covering volcanoes such as Kirishima, Sakurajima and the Aira Caldera. It will focus on novel methods for reconstructing volcanic activity using stratigraphic analysis and geological mapping. The first circular will be sent out by the end of 2025.

Additionally, there was a reminder about the call for contributions to a *special volume on "Volcano Mapping"* as part of the special publications of the *Geological Society of London*. This is a great opportunity to *put geological fieldwork back to our centre of*

attention by setting the state-of-the-art for mapping and field-based work in volcanic areas as essential inputs to understand volcanism. The book aims to:

- Bridge the gap that has developed between field-based volcanology and advanced technology-based approaches;
- Demonstrate the value of field-based volcanology research to provide knowledge that modelling, volcanic hazard evaluation, resource-exploration, land-planning, geoeducation and geotourism requires.
- Show case the geological information that can be provided in geological maps,
- Provide guidelines on information should be displayed, so that maps can be useful for stakeholders interested in volcanic hazard and environmental management, risk mitigation, geo-cultural heritage, and sustainable development.

The volume will thus comprise examples of maps and field-work demonstrating the value of field work, as well as review papers covering the aspects of mapping in volcanic areas, as well as application of the fundamental basics of geology and stratigraphy. The editorial board is made up Federico Lucchi, Gerardo Carrasco, Nebuo Geshi, Guido Giordano, Karoly Nemeth, and Natalia Pardo. For those interested in sending manuscripts please contact Matteo Roverato through the commission email or by direct email to Federico (federico.lucchi@unibo.it).



Finally, we sent out a message to all IAVCEI members to share their published geological maps by linking them to the Volcano Geology Commission site dedicated to collating geological maps of volcanic provinces and features. Interested members should send the link to their publications with the request of sharing them in our commission email.

Volcano Geoheritage and Protected Volcanic Landscapes Special Session

Volcano Geoheritage and Protected Volcanic Landscapes (VGPL) (https://vgpl.iavceivolcano.org/)

The VGPL Commission co-organised Session 7.1, "*From Indigenous Knowledge to Geoheritage: Strengthening Community Resilience and Public Engagement in Volcanic Regions*", at the IAVCEI 2025 Scientific Assembly. The session consisted of six

Marie Noëlle Guilbaud presenting "How to use volcanic geoheritage to contribute to urban sustainability: the Geocity project, Mexico City" in Session 7.1 at IAVCEI 2025

talks and 15 posters, and was chaired by Jon Proctor, Heather Handley, Cheryl Cameron and Karoly Nemeth. We thank all who attended and contributed to the rich discussions, covering topics from the importance of co-creation with local and Indigenous communities in volcanic risk management and communication, to using online tools to encourage geoconservation.

The VGPL Commission meeting also took place on Monday, 30 June. Discussion points included:

- The need for an email sign-up form for easier communication of VGPL activities (coming soon)
- Preparing the VGPL global seminar series (starting later this year – volunteers welcome)
- Volcandpark 2026 in Sopron, Hungary
- VGPL curated contributions to the Third 100 IUGS Geological Heritage Sites nominations, now under evaluation

Stay up-to-date with VGPL activities via our new website and reach out to us through our new VGPL Commission email address.

Activities of the Commission on Monogenetic Volcanism at the Geneva Assembly

Commission on Monogenetic Volcanism (https://cmv.iavceivolcano.org/)

Our commission and its members had a great time in Geneva. There were countless contributions on Monogenetic Volcanism which were spread throughout the week and disseminated in all sessions. Of particular note, there were numerous talks and posters on the recent eruptions in La Palma, Canary Island, and Reyjanes Peninsula, Iceland.

Monogenetic volcanism oral presentations and posters at the 2025 IAVCEI SA

We were delighted to have received the opportunity to promote the commission several times during the event. At the opening ceremony on Sunday, we briefly presented our ongoing and upcoming activities, with our commission poster being on display throughout the conference in the main hall.

The following day, Monday, we had a short yet productive commission meeting. About 30 people participated, and others online. Recent activities were reported on, including our November 2024 conference in San Pedro de Atacama, Chile (see https://monogeneticconference2024.ckelar.org), plus commission webinars. As part of this, Karoly Nemeth introduced the next Volcandpark conference in 2026 that will take place in a monogenetic field in Sopron, Hungary (https://volcandpark2026.epss.hu/). To follow up on this, we made an open invitation to all to consider organizing the next International Monogenetic Conference. We also promoted our call to submit papers to our special issue, *Recent advances in the understanding of monogenetic volcanism*, in Bulletin of Volcanology (https://link.springer.com/collections/baijebbjjh). Finally, we encouraged all and any IAVCEI member with an interest in monogenetic volcanism to contribute to, and attend, our webinar series (https://cmv.iavceivolcano.org/2025-monogenetic-volcanism-seminar-series/).

On Tuesday evening, we participated in a special meeting organized by the IAVCEI Executive Committee, which provided insights on the revised statutes and by-laws, including requirements for commission elections and membership. On this note, *we encourage all of you to update your membership to the IAVCEI*.

Finally, on Thursday, we had our favorite session on "*Small-scale volcanoes and their large-scale volcanic context*", with seven talks in a busy room (about 100 participants). This was followed by lively discussions around the 22 posters in the full heat of the afternoon, partly tempered by cold drinks and hand-fans.

Marie-Noelle Guilbaud, Karen Bemis, Alison Graettinger

Report of CVHR Meeting at the IAVCEI 2025

Commission on Volcanic Hazards and Risk (https://cvhr.iavceivolcano.org/)

Participants of IAVCEI CVHR meeting on 30 June 2025

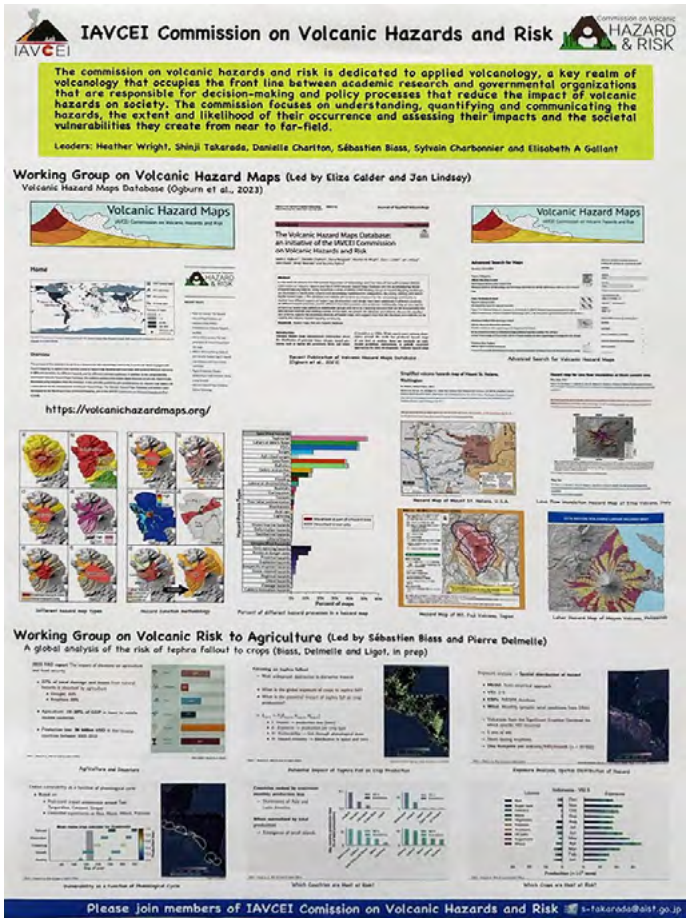
The Commission on Volcanic Hazards and Risk (CVHR) meeting was held on 30 June 2025. About 25 participants attended the meeting. Working groups summarized recent activities, including activities of:
(1) the working group on volcanic hazard maps, and
(2) the working group on volcanic risk to agriculture.

Eliza Calder and Jan Lindsay lead the *working group on volcanic hazard maps*. The aims of the working group are to:
(1) construct a framework for a classification scheme for hazard maps and promote harmonization of terminology,
(2) identify and categorize a suite of good practices and considerations for volcanic hazard mapping and present these in an IAVCEI-endorsed source book, and
(3) develop a database of volcanic hazard maps.

This follows up on a number of workshops that working group have held, including the "Workshop on Volcanic Hazard Assessments", held in Auckland, New Zealand, in 2023. Other initiatives include *The Volcanic Hazard Maps Database*, which contains 2089 hazard maps from 612 volcanoes in 54 countries, as available at https://volcanichazardmaps.org/ (Ogburn et al., 2023). A draft of the "*Sourcebook for the development of Volcanic Hazard Maps: Guidelines and Considerations*" is planned for publication by early 2026.

Sébastien Biass and Pierre Delmelle lead the *working group on volcanic risk to agriculture*. The working group is focusing on exposure analysis of risk to agriculture due to volcanic eruptions. In addition, a new working group on *cyberinfrastructure for volcanic hazard assessments using the VICTOR platform* (Volcanology Infrastructure for Computational Tools and Resources) has been proposed by Sylvain Charbonnier, Antonio Costa, Einat Lev, and Arnau Folch.

A poster summarizing some of the activities of the commission was presented during the IAVCEI 2025 at the poster session area. CVHR would also like to take this opportunity to request *renewed engagement and participation in our commission*.



CVHR Poster displayed during the IAVCEI 2025

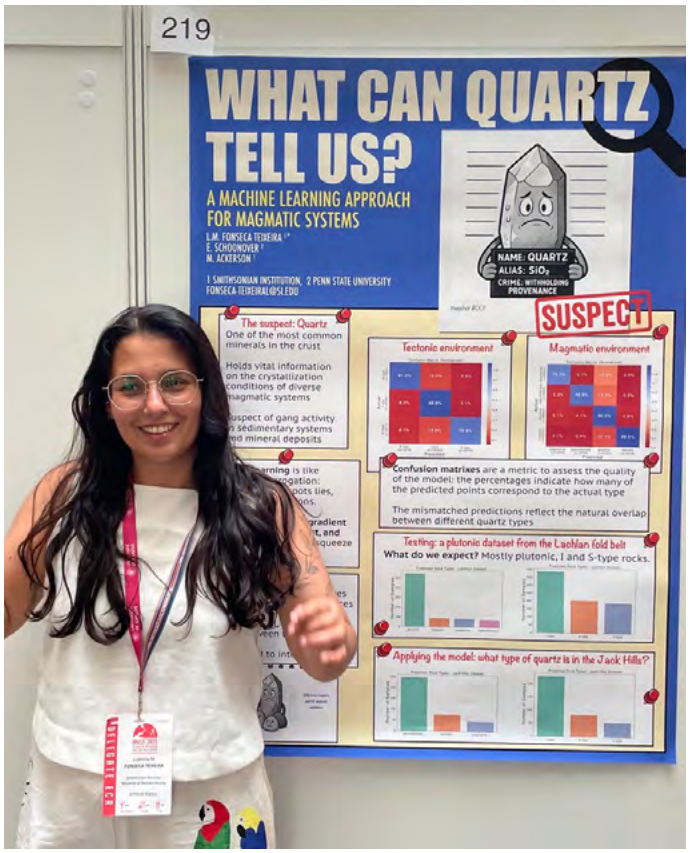
If you would like to join our mailing list and commission, please use this Google form to indicate your interest: https://forms.gle/BfEzzAFbWvu4aqBQ7.

Finally, new leadership of the CVHR is currently being elected using the IAVCEI online voting system (https://www.iavceivolcano.org/poll-volcanic-hazard-and-risk/), following the IAVCEI Statutes and By-Laws (https://www.iavceivolcano.org/statutes-and-by-laws).

Pompeii, Mount Vesuvius

1.2 The Voice of IAVCEI Early Career Researchers

ECR profile: Ludmila M. Fonseca Teixeira
(Smithsonian National Museum of Natural History



Ludi presenting some of her research results at IAVCEI 2025 in Geneva

Hi there!

I am Ludmila M. Fonseca Teixeira, but you can call me Ludi (pronounced loo-jee). I work at the interface between volcanology, magmatic petrology, and economic geology. I am originally from Brazil, though as a scientist I like to think of myself as half Brazilian and half from the world. My fascination with geosciences began in childhood, devouring well-worn geology books from the 1940s and 50s. At age eight, I learned that diamond is simply carbon and *I had* to share the information with all my school friends (they were not impressed).

Growing up in rural Brazil, I had to look beyond my hometown to find my community. I moved to São Paulo for my BSc, where I had the opportunity to work on projects involving silicic and alkaline magmatic systems. As I immersed myself in studying tourmaline granites, allanites from A-type granites, and pyroxenes from nepheline syenites, I began to plant the seeds of what would become a lifelong passion for magma research. A life-changing scholarship took me to Durham University (UK), where a field trip to Tenerife and a research project on Ischia volcano opened my eyes to just how thrilling volcanology could be.

Under some basaltic joints at Shenandoah National Park (Virginia, USA)

After my BSc, I headed to LMU Munich (Germany), where I worked on a project on experimental fulgurites for my master's – very literally using lightning to strike rocks and ash (yes, it was that fun!). Working with the Volcano Group in Munich was not only scientifically exciting but also an incredibly inspiring experience. From there, my journey continued to ETH Zürich (Switzerland) for my PhD, where I had the chance to explore a wide range of techniques and topics: from pegmatites to the volcanic–plutonic connection, high-precision geochronology, modeling techniques, and beyond. My doctoral work also took me to the GET-OMP in Toulouse (France) for a fantastic research stay that added a whole new dimension (and another country) to my research experience.

Ludi at the Pikes Peak batholith (Colorado, USA)

Currently, I am a Peter Buck Postdoctoral Fellow at the Smithsonian National Museum of Natural History in Washington, DC, and have recently accepted a tenure-track Assistant Professor position starting in Spring 2026. My research focuses on the processes in magmatic–volcanic–plutonic systems that may (or may not) lead to the formation of critical mineral deposits. I work across a wide range of geological settings, including the Pikes Peak Batholith (CO, USA), the Bergell Intrusion (Switzerland), the Tuolumne Intrusive Suite (CA, USA), and others. Rather than having a single “favorite” volcano or field area, I aim to piece together a broader, integrated view of how different parameters shape the geochemical evolution of diverse magmatic systems. I mostly do that by using in situ methods to extract as much information as possible from “common” mineral phases, such as quartz, feldspars, apatites, and zircon.

I am passionate about making science and academia more welcoming, respectful, and supportive spaces where everyone can thrive. I believe the influence of mentorship – both positive and negative – can ripple far beyond a single project or paper, shaping careers and changing lives in lasting ways. As a soon-to-be professor, I aspire to help the next generation navigate an easier path than the one I had, showing that science can be both rigorous and fun, and that we all grow stronger when we grow together.

Field work at Yosemite National Park (California, USA)

1.3 ECR Perspective: The IAVCEI Scientific Assembly – Geneva 2025

Blaise Mafuko Nyandwi
(School of Volcanology and Disaster Risk Management, University of Goma)

I am Dr Blaise Mafuko Nyandwi, a researcher and lecturer at the School of Volcanology and Disaster Risk Management of the University of Goma, in Eastern Democratic Republic of Congo. Recently, I had the honour of participating for the very first time, as an Early Career Researcher (ECR), in the IAVCEI Scientific Assembly held in Geneva. This was both an enriching and decisive experience for my career, and was marked by many discoveries within the international volcanological community.

My experience was particularly meaningful because, since defending my PhD thesis in October 2023, I have been working in an insecure context in my country and had not yet had the opportunity to take part in an international conference to share my research. The diversity of topics addressed during this assembly, as well as the recent advances in various fields of volcanology, made the experience all the more valuable.

I made several observations. On the one hand, I was pleased to discover the breadth of work carried out on volcanic hazard assessment and became aware of the importance of the different commissions within IAVCEI, the scope of which I had not realised before. On the other hand, I was surprised to note the limited representation of research focused on volcanic risk assessment and management, particularly those integrating human dimensions. The dominance of physical volcanology was clearly more pronounced than that of applied risk-related sciences.

Another concerning observation was the *under-representation of scientists from the Global South*, particularly from Africa. For this reason, I wish to sincerely thank the organisers for their efforts in mobilising travel grant funding, which allowed the participation of researchers from the Global South. For me, personally, this

Blaise giving his talk "Living on the edge of an active volcano" at the IAVCEI Scientific Assembly 2025

support was crucial; as for the past three years I have been conducting research in a volcanic zone affected by armed conflict.

This assembly also marked a decisive step in my career. It strengthened my conviction in the importance of my research at the intersection of society and the volcanic environment, aimed at developing more effective strategies for risk mitigation. For example, I presented a paper on the human dimensions of volcanic risk exposure, highlighting:

- How communities reoccupy recent lava flows, such as those from the 2021 Nyiragongo eruption, thereby recreating exposure conditions;
- How some populations deliberately choose to settle in areas of high magmatic CO_2 emissions, locally known as mazuku.

My presentation concluded with the screening of a documentary illustrating the daily experiences of the people of Goma, who live under the constant threat of a volcanic eruption.

As I have already mentioned, very few presentations or posters focused on the human aspects of volcanic risk. However, my exchanges with other researchers at the Scientific Assembly revealed a growing interest in these practical dimensions of volcanology. This confirms the need to strengthen such approaches, which complement physical volcanology and provide essential value in understanding and managing risk.

In short, the IAVCEI Scientific Assembly in Geneva not only marked a turning point in my career as an ECR, but also gave me renewed momentum to continue my work, after several particularly difficult months linked to armed conflict that hindered concentration and the development of scientific research in my region.

1.4 Observatory News

The Daily Volcanic Activity Report (DVAR) initiative
https://volcano.si.edu/reports_daily.cfm

The Smithsonian Global Volcanism Program (GVP) and USGS Volcano Disaster Assistance Program (VDAP) are pleased to announce a new product: *The Daily Volcanic Activity Report (DVAR)*. This will be published on the GVP website, and complements the Smithsonian/USGS Weekly Volcanic Activity Report (a 25-year old project) and the more comprehensive Bulletin of the Global Volcanism Network (which has existed for decades).

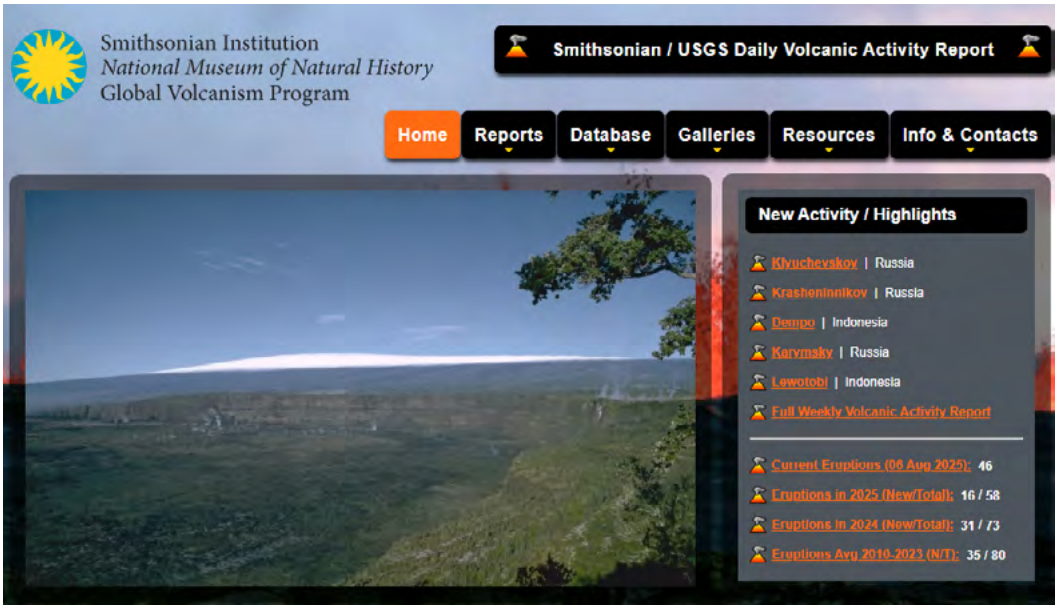
For the DVAR, concise daily activity summaries will be posted at: https://volcano.si.edu/reports_daily.cfm

Reporting will be from Monday through Friday, describing volcanic activity that has occurred, and been reported by volcano observatories or other authoritative agencies, during the preceding ~24 hours. The report is underpinned by a VDAP database, E-Chron, which archives chronologic information about volcanic activity for use in scientific and forecasting applications.

The DVAR focuses on volcanic events and their properties; such as volcanic alert levels, number of explosions, plume heights, lava effusion, and generation of pyroclastic density currents, but does not include primary geophysical or geochemical monitoring data. As such, the database will complement existing databases, including WOVOdat, Earthscope, and EPOS, among others.

For general questions about the DVAR, please email gvp@si.edu

We welcome data-sharing partnerships and collaboration with volcano observatories; please email Sarah Ogburn (sogburn@usgs.gov) for more information.



SECTION 2. IAVCEI CONFERENCES, MEETINGS AND WORKSHOPS

2.1 Towards a More Inclusive Volcanology Community: Lessons from Geneva's DEIA Workshop

The DEIA Workshop panellists

During the IAVCEI Scientific Assembly, a workshop titled "*Challenges and Opportunities for Women Scientists in Volcanology*" brought together volcanologists from diverse backgrounds to open a vital conversation about diversity, equity, inclusion, and accessibility (DEIA) within the volcanological community. The workshop aimed to create a respectful and constructive space where participants could share experiences and explore how DEIA principles can support both scientific excellence and community resilience, an objective that feels particularly urgent given the current geopolitical climate and widening global inequalities.

The event featured a panel of prominent women volcanologists from diverse regions and institutions, including:

The event featured a panel of prominent women volcanologists from diverse regions and institutions:

- Erouscilla Pat Joseph from the University of the West Indies,
- Mariton Bornas from the Philippine Institute of Volcanology and Seismology,
- Mabel Wantim from the University of Buea in Cameroon,
- Sara Barsotti from the Icelandic Meteorological Office, and
- Marta Calvache from the Colombian Geological Survey (and current vice-president of IAVCEI).

Each panellist shared personal insights into the barriers faced by women in volcanology within their regions and institutions. Common challenges included limited access to leadership roles, societal expectations around gender, lack of mentorship (especially in relation to lack of female mentors and role models), resource and funding constraints, and the persistent difficulty of balancing career advancement with family and caregiving responsibilities. Throughout the discussion, the importance of support networks and strong community relationships was repeatedly emphasized. Panellists shared how mentorship, both formal and informal, had played a crucial role in their own professional journeys. Institutional policies that recognize and address gender inequality were highlighted as essential, but participants also underscored the value of peer networks and regional collaborations in fostering career growth, resilience, and a sense of belonging in the field. The conversation extended beyond barriers, focusing on solutions and strategies for creating more equitable spaces within volcanology. Panellists encouraged early-career researchers to be proactive, fearless, and open to new ideas, while recognizing the need to build relationships and seek out mentorship. They advised young scientists to embrace diversity, take risks, and learn from setbacks, emphasizing that personal agency and structural change must go hand in hand.

A central theme of the workshop was the idea that fostering DEIA is not only a matter of fairness, but is also fundamental to scientific excellence. Diverse perspectives drive innovation and enhance the capacity of the scientific community to respond to complex challenges, from volcanic risk management to societal

The panellists sharing their personal insights into the challenges and opportunities for women scientists in volcanology

resilience. However, to harness this potential, the community must first address the systemic barriers that limit participation and advancement for women and other underrepresented groups.

The interactive format of the workshop allowed participants to engage in small group discussions and real-time technological activities, creating a dynamic and inclusive environment for sharing ideas. The supportive environment fostered during the session enabled participants to express concerns openly, reflect on personal experiences, and collaborate on identifying actionable solutions. Discussions highlighted the need for more structured mentorship programs, institutional policies that promote gender equality, and practical measures to support work-life balance, such as caregiving resources and flexible research opportunities.

While a pre-workshop survey had been conducted to inform the session, organizers also gathered real-time input through an on-site interactive survey. These quick-response activities helped capture the community's perspectives on the most pressing barriers and priorities. Participants identified structural and cultural barriers, funding disparities, caregiving burdens, and safety concerns as *major challenges for women* in volcanology. Moreover, they acknowledged that *similar obstacles impact other marginalized groups*, including LGBTQ+ individuals, indigenous and Global South scientists, racial minorities, people with disabilities, and early-career researchers.

The workshop concluded with a collective call to action. Participants agreed that these conversations must lead to tangible, sustained efforts, and the idea of forming a formal DEIA network within IAVCEI was strongly supported. Such a network could serve as a platform for continued dialogue, advocacy, and the implementation of initiatives aimed at creating a more inclusive and supportive scientific community. When asked which areas a potential DEIA IAVCEI network should prioritize, participants highlighted mentorship, funding opportunities, support for caregivers, intersectionality and accessibility, early-career support, and policies to ensure accountability and transparency within institutions. Practical suggestions included providing childcare at conferences, offering multilingual sessions, improving conference accessibility, and establishing mechanisms for ongoing feedback and monitoring of DEIA initiatives.

DEIA Workshop attendees

Ultimately, the workshop reinforced a shared understanding: promoting diversity, equity, inclusion, and accessibility is not an ancillary concern, it is central to the future of volcanology. Building a dynamic, resilient, and innovative scientific community requires the active participation of all its members, across all regions, career stages, and identities.

If you are interested in the development of an IAVCEI DEIA Network and you have not already participated in our survey, please complete this very short questionnaire (3 questions): https://forms.gle/Lr7PKU7TXS8Lofks6

2.2 Advancing Volcanic Hazards in Early Warnings for All: Workshop Outcomes and Path Forward

The workshop on *Advancing Volcanic Hazards in Early Warnings for All*, held at the World Meteorological Organization (WMO) headquarters in Geneva during 7–9 July 2025, marked the closing event of the 2025 IAVCEI Scientific Assembly (https://www.unige.ch/hazards/international-conferences/EW4ALL). Organized to capitalize on the unique opportunity of having the IAVCEI community in Geneva, the workshop aimed to strengthen ties between volcanologists and international organizations, while advancing the integration of volcanic hazards into global early warning efforts.

Volcanoes generate a wide range of primary and secondary hazards across diverse temporal and spatial scales, with impacts felt locally, nationally, regionally, and globally. Despite this, volcanic hazards have historically received less systematic attention in early warning system development than hydrometeorological hazards. Many volcano observatories operate with limited mandates and resources, and transboundary coordination remains weak. Some of the most active volcanic regions are also among the most vulnerable, lacking the capacity to issue timely warnings. Yet, when scientific monitoring is combined with effective collaboration among volcanologists, emergency managers, and communities, the impacts of volcanic eruptions can be significantly reduced.

Recognizing this gap, the workshop explored how volcanic hazards can be more effectively incorporated into the Early Warnings for All (EW4All) initiative (https://www.un.org/en/climatechange/early-warnings-for-all). Launched at COP27 in 2022, EW4All aims to ensure that every person on Earth is protected by early warning systems by 2027. The initiative is coordinated by the WMO, the UN Office for Disaster Risk Reduction (UNDRR), the International Telecommunication Union (ITU), and the International Federation of Red Cross and Red Crescent Societies (IFRC), and is structured around four interconnected pillars:

1) Disaster Risk Knowledge,
2) Detection, Observation, Monitoring, Analysis and Forecasting,
3) Warning Dissemination and Communication, and
4) Preparedness and Response.

Initially focused on weather- and climate-related hazards, EW4All is now expanding to include geological hazards, volcanoes among them, acknowledging their potential for severe and often cross-border impacts.

The workshop brought together over 100 participants from volcano observatories, national and regional disaster risk agencies, EW4All pillar leads, scientists, international organizations, and civil protection representatives. It served as a platform to share methodologies, case studies, and experiences related to multi-hazard risk assessment and early warning strategies, with four key objectives:

- **Understanding volcanic impacts:** How to integrate the scientific leadership of IAVCEI and volcano observatory knowledge into *EW4All*?
- **Identifying actionable steps:** What improvements to volcanic early warnings are feasible now, and what would be possible with greater awareness and investment?
- **Improving information flow:** How can volcanic hazard monitoring better support early warnings?
- **Clarifying responsibilities:** Who leads disaster risk analysis, early warning, preparedness, communication, and how these link to community-led action?

The three-day program featured over 20 invited talks covering the state-of-the-art across the four EW4All pillars, alongside presentations by the pillar leads. Regional case studies highlighted how local experiences inform and connect with global strategies. In parallel, more than 40 posters addressed diverse aspects of volcanic early warning systems worldwide.

Eight breakout groups focused on priority themes:

1) Relationships;
2) In-country governance;
3) User needs;
4) Best Operations Practices,
5) Multi-hazard Capacity Building (Spanish speaking group – Unpacking EW4ALL roadmaps of Ecuador and Guatemala);
6) Multi-hazard Capacity Building;
7) Innovations;
8) International Strategies.

Each group was guided by a facilitator and rapporteur to ensure focused discussion and effective synthesis.

The workshop gave participants the opportunity to familiarize themselves with EW4All's structure, partners, and ongoing implementation strategies. It also promoted a shared understanding of the volcanological community's collective progress and the need for coordinated, interdisciplinary collaboration. In addition, case studies underscored the importance of context-specific solutions within a unified global framework. Participants were encouraged to look beyond individual projects and engage more actively with UN agencies, international partners, and other scientific communities. The workshop thus fostered new partnerships and ideas, particularly aimed at bridging the gap between scientific research and operational implementation.

Looking ahead, two key outcomes will guide future work:

1. A consensual summary report capturing the current state-of-the-art, key gaps, challenges, and opportunities for integrating volcanic hazards into early warning systems across all levels.
2. A set of prioritized recommendations for the volcanological community, volcano observatories, EW4All pillar leads, relevant UN bodies and international organizations.

By reinforcing the connection between volcanology and global disaster risk reduction initiatives, this workshop marked a critical step toward ensuring that volcanic hazards are no longer overlooked in the effort to deliver early warnings for all.

2.3 IAVCEI SA 2025 field trip 01 – The monogenetic volcanism of the Chaîne des Puys, Massif Central, France

https://sa2025.iavceivolcano.org/content/uploads/sites/17/2024/08/01-chaine-des-puys-field-trip-iavcei-2025.pdf

Active diverse volcanism in central France!

Field trip participants together with trip leaders ontop of the Puy de Dome (looking North)

Eager participants converged from throughout the World to learn more about the beautiful active Chaîne des Puys volcanic field this summer. This wonderful pre-conference trip field trip was meticulously organised and led by Lucia Gurioli, plus many staff and emeriti of the Laboratoire Magmas et Volcans (LMV) and University of Clermont-Auvergne (UCA). The Chaîne comprises the closest active volcanoes to Geneva, host of this year's General Assembly – only 250 km away!

Lucia Gurioli presenting at Lempegy

We started with a professionally-guided historical tour of our host city – Clermont Ferrand, built on a maar tuff ring into which many cellars and tunnels for cheese maturation and wine preservation have been hand-dug. Several of the city's suburbs are also stepping up lava flows that have flowed down from the Chaîne to provide platforms for whole neighbourhoods, including many buildings of UCA, including LMV itself.

LMV doctoral student, Rémy Jubertie, leading a tour of the tunnels beneath Clermont Ferrand exposing the Maar de Jaude tuff erupted through Limagne basin sediments

The statue of Vercingetorix, proud Gallic king and successful local resister of the Romans. Asterix was discussed more than once

The Chaîne des Puys simply translates to '*chain of hills*' and this elongate cluster of domes, scoria cones, lava flows and maars is considered monogenetic; many vents in the central section are close to each-other, but still independent edifices. This is a *UNESCO World Heritage Site* situated in the footwall of the grand Limagne fault that separates the Chaîne from the city; an extensional setting that drives magmatism and elongation of the vents.

The field trip included five full days of excursions:

- June 24 – An overview of the Chaîne from Puy-de-Dôme – the highest point and naming feature of the local administrative Department of France; deposits of nearby explosive eruptions; and a hike to see very old hand-dug lava quarries for sarcophagi.
- June 25 – Maar de Beaunite on the Cariscan granites, then tunnels and caves beneath Clermont Ferrand. And a welcome subterranean refuge from the 42 °C trip high!
- June 26 – Thick trachyte impounded or eroded by glaciers on the Monts Dore stratovolcano. Grave Noire scoria mound, and its lavas underpinning the city and interacting with sediments of the Limagne basin.
- June 27 – Anatomy of Lemptegy volcano, a spectacular scientific visitor attraction, featuring cryptodomes, scoria cone deposits, fracturing and lava flows.
- June 28 – The youngest eruptions of the region – the subplinian La Vache and Lassolas eruptions, and Lac Pavin maar and its monitoring.

Group overview of the Chaîne des Puys from the summit of the Puy-de-Dôme (looking south)

We were enchanted by the amazingly diverse volcanism, from trachyte domes to extensive flows, scoria cones, and maars; and an ice-bounded stratovolcano to round it all up! The Chaîne includes about 80 vents, active over about 100,000 years, with an acceleration perhaps about 50,000 years ago. It is arguably more active than Auckland Volcanic Field, but locals had the presence of mind to build the city beside rather than on top of the vents.

Puy de Dôme is visited by hundreds of thousands of tourists every year. We learned Dôme is a very old word, and although it seems fitting given this is a trachytic lava dome the name is a coincidence – Dôme may simply have been an early word for hill. Climbing the dome served as our overview day and provided spectacular volcanic views in every direction.

The Chaîne to the north from atop Puy-de-Dôme

On the hike to Cliersou lava dome's ancient quarries with the Puy-de-Dôme in the background

In the north of the field there was widespread feverish hunting for the largest peridotite clast at Maar de Beaunit, which has punched through and chewed up basement granite. An excellent location to see the geomorphology of a maar, the architecture of its tuff ring, and the grainsize and clast diversity that comes with varying explosivity and surge intensity.

A candidate for best peridotite inclusion at the Maar de Beaunit

Beautiful rural cottage in the village of Beaunit

Monts Dore may be extinct, it may be dormant, but it has definitely seen a lot of ice. This stratovolcano is tantalisingly close to the southern end of the Chaîne, raising the question: what is the boundary of a volcano, of a volcanic field? We had a wonderful misty hike down from near the summit to explore the relationship between the Grande Cascade trachytic coulée and the ice that must have filled, if not carved, the adjacent U-shaped valley.

Thick ice-interacted lava flow at Grande Cascade, Mont Dore

An example of the extensive flows and domes cut by the glaciated valleys of Mont Dore

From Grave Noire looking down on Clermont Ferrand we observed a vent that tried to build a scoria cone teetering atop the fault scarp. We travelled down-flow to rafted scoria cone chunks that have travelled kilometres down into the city atop their lava conveyor belt. At the lava's toe there is a complex interaction with the once-soft basin sediments. Here we were given a detailed tour of LMV (which sits atop the lavas), and its wonderful range of laboratories: from tsunami generation simulation to health effects analysis.

Grave Noire scoria mound quarry, perched on the top of the Limagne fault, and the source of extensive flows under Clermont Ferrand

Group photo outside of the Laboratoire Magmas et Volcans (Université Clermont Auvergne)

The dissected volcano of Lemptegy is a must-see visitor attraction (https://www.clermontauvergnevolcans.com/en/pages/lemptegy-volcano/). Quarrying that stopped in the nick of time, then finished out with the care of an archaeological dig to emphasise and expose every intrusion, extrusion, scoria layer, fault and subtle variation in eruption style. It is visited by the public, and especially school trips en masse, and demonstrates a model for bringing volcano science to the people. LMV graduate students work as expert guides and interpreters. Atop this site we debated the range of ballistics and the dynamics of PDCs, erupted from nearby Puy Chopine, as they battle topography.

Our group at the Lemptegy volcano geoscience visitor attraction

The detailed anatomy of the inside of Lemptegy volcano, as presented by LMV doctoral student Ludovic Chender

The youngest volcanism is diverse, and distal. The most recent eruptions in the region are closer to Monts Dore stratovolcano than the centre of the Chaîne. We finished our full week at several young volcanoes in the south. Are these volcanoes distant southern vents of the Chaîne? Or a reinvigoration of the dormant stratovolcano. Is that just semantics? When is a volcano extinct anyway? The sign of excellent field excursions is the excited urge for folks to explore new research ideas together, and I sensed a range of those discussions amongst different folks throughout the week.

These southern vents include the maar crater of Lac Pavin where unusual lacustrine stratification stores substantial dissolved CO_2 at depth. We were introduced to the ongoing monitoring of the lake, and the regional seismic monitoring and campaigns. By coincidence, as we prepared to drive home our guides discovered recently-published interpretations of local deep seismicity (likely relating to, and locating, the magma source) had just been featured by local media!

LMV doctoral student Lisa Corrotti presenting an overview of La Vache and Lassolas eruptions, one of the youngest events in the Chaîne

France didn't fail to deliver cuisine – with individual à la carte catering of mains, deserts, and beverages; even for the field lunches! We were most thankful for the support of the whole trip from the *ClerVolc program of the International Research Center for Disaster Sciences and Sustainable Development of the University of Clermont Auvergne* and the administrative staff of LMV and the Montel family (Philippe, Lucas and Timothé) for their welcome to Lémptegy, their restaurant and 4D cinema.

Stratified Lac Pavin with elevated dissolved CO_2 at depth

The trip fostered extensive and lively discussion throughout every day and evening across many aspects of petrology, volcano-tectonics and physical volcanology. We went from being in 12 °C mist atop Monts Dore to sheltering from 42 °C in the tunnels below Clermont Ferrand, and cloudless blue expansive skies to a ground coated white with hailstones. This was a fine trip with great people that will be remembered very fondly for a long time!

On behalf of the organisers and participants

Graham Leonard, Earth Sciences NZ

Enjoying fine food and drink after another day when the heat tipped into the 40s!

2.4 IAVCEI SA 2025 field trip 02 – The Eifel volcanic field, Germany

https://sa2025.iavceivolcano.org/content/uploads/sites/17/2025/02/02-eifel-volcanic-field-for-iavcei-2025b250225.pdf

The Eifel volcanic field, only one 'f', there is no relationship to a steel tower in Paris…

Between 23 and 27 June 2025, 22 participants (of which nine were ECRs) from 12 countries visited the youngest volcanic area in Germany, the Eifel. This pre-SA2025 field trip was organised and run by Gerhard Wörner (Göttingen), Nicole Richter (Aachen) and Ulrich Kueppers (Munich) and logistically facilitated by the Deutsche Vulkanologische Gesellschaft (https://vulkane.de).

Visit to the subterranean tephritic lava quaries of Mendig, with the millstones carved from the lava. The big millstone is supposedly the only piece that has been exhibited at four world exhibitions

We started with a visit to the "*Felsenkeller*", extensive underground quarries of a tephritic lava flow. The flow shows spectacular columnar jointing with columns up to 2 m in diameter, which were mined for millstones since Medieval times. The town of Mendig above ended up with vast underground caverns that, up until the invention of the fridge, supported nearly 30 breweries (in a village of only 2800 inhabitants today!) that used the constant, cool and humid temperature (6–9°C) underground to brew and store beer all year long. They just had to hide the beer from the miners nearby. They surely didn't hide the beer from us during dinner in the "Vulkanbrauerei", the volcano brewery. Prost…

Reconstructing the magma reservoir that fed the Laacher See eruption at the "In den Dellen" quarry

During the following days, we examined the diverse facies expressions of the Laacher See eruption deposits in the East Eifel volcanic field and discussed the chemical evolution of the compositionally zoned phonolitic magma as recorded in the deposits erupted sequentially during the event. During several hours in the "*In den Dellen*" quarry, we collected the different juvenile and xenolithic clasts and "reconstructed" the magma

Examining stratified and massive pyroclastic density current deposits of the Laacher See eruption

reservoir by laying out the sampled lithologies: mafic to evolved phonolite pumice, crystal-rich mushes and the metamorphic carapace in the crust of the surrounding country rock. We also discussed the dynamics of pyroclastic density currents by examining stratified and massive facies deposits, exemplifying the influence of topography and radial distance from source on the deposit architecture. Needless to say, some also hunted for the beautiful blue hauyne crystals that can be found in the deposits.

Next, the quarry of "*Eppelsberg*" showed us that so-called "monogenetic" scoria cones can be highly complex, with many (compositionally and sedimentologically) distinct deposits representing eruptive phases, and changes in facies, separated by pauses and soil formation. We also visited several type locations of maar volcanoes in the West Eifel (Ulmener Maar, Pulvermaar, Meerfelder Maar) where we discussed the, often, very high lithic content, the presence of mantle xenoliths and the general dynamics and semantics of phreatomagmatic processes and deposits.

Visiting the maar volcanoes of the West Eifel and their deposits

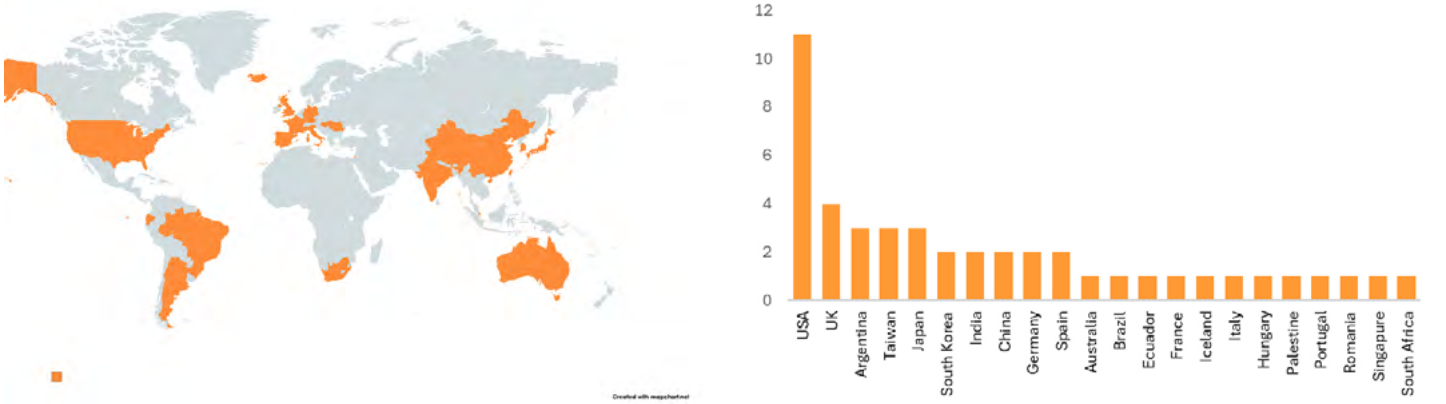
Finally, we hiked to the mofettes, i.e., the cold CO_2 springs that reveal that the Laacher See is still magmatically active. Here, we took gas samples, had a swim in the lake and walked home immersed in a flock of fireflies. The evenings concluded with pleasant get togethers at the camp fire, which effectively forged the real team spirit of our fantastic group of participants!

2.5 IAVCEI SA 2025 field trip 03 – Mount Etna and Aeolian Arc active volcanoes (Stromboli, Vulcano and Lipari): geology, eruptive activity and volcanic hazards

https://sa2025.iavceivolcano.org/content/uploads/sites/17/2024/08/03-etna-aeolians-field-trip-iavcei-2025.pdf

Participants together with the leaders of the field trip at Stromboli Volcano

The field trip "*Mount Etna and Aeolian Arc active volcanoes (Stromboli, Vulcano, and Lipari): geology, eruptive activity, and volcanic hazards*" took place during June 22–28, 2025, and was organized as part of the 2025 IAVCEI Scientific Assembly. It was led by volcanologists and petrologists from the University of Bologna, University of Calabria, and the Istituto Nazionale di Geofisica e Vulcanologia of Italy (INGV), with the support of the Riserva Naturale del Parco dell'Etna, as well as the cultural and volcanic centers of the Lipari, Vulcano, and Stromboli islands. Under the leadership of Federico Lucchi, Eugenio Nicotra, Stefano Branca, and Gianfilippo De Astis, the field trip involved with 46 participants (44 % female, 56 % male) from 22 countries worldwide. The participants were affiliated with more than 30 institutions, including research centers, universities and national geological survey centers, and the majority were PhD students or ECRs.



Map and histogram showing the nationality distribution of the scientists who took part in the field trip

The trip focused on the geology and eruptive activity of Mt. Etna and the Aeolian Arc volcanoes, emphasizing the strategies for evaluating risks and managing volcanic hazards in these urbanized areas with intense tourism activities. The program included a visit to key outcrops in the summit area of Mt. Etna, where the participants observed the products of its latest eruptive paroxysms, and included a visit to the volcanic and sedimentary deposits that cropping out in the walls of the Valle del Bove. A boat tour around Lipari Island offered exceptional views of the famous Rocche Rosse obsidian lava flow and the Mt. Pilato pumice cone, both related to eruptions on Lipari during the Middle Ages. From the sea, it was also possible to observe the marine terraces created during the last interglacial cycle, and various fallout deposits from eruptions in the Campania and at other Aeolian volcanoes. At Vulcano, the trip focused on the deposits of historical Vulcanian eruption on the flanks of La Fossa cone, which is currently characterized by intense fumarolic activity following its latest unrest. The last stop was Stromboli, where we viewed the summit and Sciara del Fuoco collapse scar, and observed the Stromboli's explosive activity.

The descent into the Valle del Bove on Etna's Eastern flank (photo courtesy of Dr. F. Ciancitto)

Our Journey

Arriving from different parts of the world, we got together at Catania Airport on the evening of June 22. From there, we were transferred to the Airone Wellness Hotel in Zafferana Etnea, a small Sicilian village situated on the southern flank of Mt. Etna. The evening began with an introduction to the geology of Mt. Etna led by Federico Lucchi, Eugenio Nicotra and Stefano Branca, and was followed by a group dinner involving a variety of Sicilian dishes accompanied by Italian red wine.

Day 1: Monday (June 23)

From Rifugio Sapienza (1900 m asl), we took a cable car to the spectacular viewpoint of La Montagnola (2500 m a.s.l.) and then hiked around La Montagnola cone and on to the head of the Valle del Bove. After taking in the view of Valle del Bove – a 5 km-wide and 7 km-long morpho-structural depression resulting from a lateral collapse 10,000 years ago, we descended into the valley. On the way down, we discussed the stratigraphy and volcanic history of the region, namely the cone-building facies and their relationship to volcanogenic sedimentary deposits, where the stratigraphic section reveals the various ancient edifices of the Valle del Bove eruptive phase. On the valley floor, amid a thunderstorm, we made our way across the extensive pahoehoe lava flow field formed during the 1991–93 eruption. To recover from the group's first-day fatigue, we ended the day with a relaxing and rejuvenating time at the hotel's spa and pool.

Visit to an INGV monitoring station on the northern flank of Mt. Etna

Day 2: Tuesday (June 24)

From Piano Provenzana (1800 m a.s.l.), on Etna's northern flank, we travelled to the INGV observatory at ~2800 m a.s.l. in 4×4 vans. Here, we discussed the observatory's equipment and the warning signals used to monitor background volcanic activity. Next, we moved to the Pizzi Deneri, where we observed porphyritic trachytic products of the 17th century. We also discussed the magmatic processes controlling the pre- and syn-eruptive dynamics of Etna's evolved magmas (open plumbing system vs. magma storage and fractionation). After lunch, we hiked down the NE-Rift zone and back to Piano Provenzana. The NE-Rift is one of the main intrusive zones of Etna, and consists of a network of mainly NE-striking, sub-parallel eruptive fissures. During the descent, we observed various spatter and scoria cones primarily linked to eruptions spanning the medieval period to recent times. At the end of the day, we said goodbye to Etna and started preparing for the next part of the adventure – the Aeolian Volcanoes, with an introduction by Federico Lucchi, Eugenio Nicotra, and Gianfilipo De Astis.

Photo of the group during the hike down the NE-Rift zone, and viewing a fissure, partially covered by the products of a more recent scoria fall and a scoria cone

Day 3: Wednesday (June 25),
We left Zafferana Etnea early, and headed to Milazzo, a small town situated on the north coast of Sicily, 20 km west of Messina. From Milazzo, we took a ferry to Lipari Island, arriving at La Filadelfia Hotel around midday. After lunch, under the command of Captain Domenico an old Sicilian sailor, we went on a boat tour to observe the volcanic successions and volcanotectonic structures exposed in the island's cliffs. The tour started with the observation of the northeastern coast, where the obsidian lava flows and pumiceous pyroclastic products of the Holocene to historic eruptions crop out. Along the western coast, we observed the intercalation between the volcanic successions and the marine terraces formed during the last interglacial (MIS 5, 124–81 ka), which are marked by unconformities.

During the boat tour we also viewed and discussed some of the widespread tephra layers used as stratigraphic markers across the Aeolian islands, such as the Grey Porri tufts and the Upper Brown tuffs, which are associated with eruptions at Salina and Vulcano Islands, respectively. Finally, we observed the southern dome-field of Lipari, which comprises successive rhyolitic pumiceous pyroclastics and lava domes. We finished the excursion with a baptismal immersion in the crystalline waters of the Mediterranean Sea, having no clue of what still awaited us that day.

After a short break to explore the town of Lipari, we got together for an evening surprise where we enjoyed an astonishing sunset over the Mediterranean, while savouring exceptional wines at the Tenuta di Castellaro Wine Cellar. During a guided tour of the cellar, we learned about the grape varieties produced here, which were introduced during the era of Hellenic colonization, and are now produced using methods that are centuries-old. In the cellar walls, we found the Brown Tuffs and other well-preserved pyroclastic deposits. It was a magical experience in an unspoiled environment, adorned with colors that only nature can provide. We concluded the day with dinner on the roof terrace of La Filadelfia Hotel, where we enjoyed fish dishes and delicious Sicilian Cannoli.

Visiting the Tenuta di Castellaro Wine Cellar, which preserves the Island's stratigraphy in its walls

Day 4: Thursday (June 26)
Thursday was Vulcano day, which began with La Fossa cone, a Holocene tuff cone comprising pyroclastic successions and lava flows erupted between ~5.5 ka and 1888–90. We climbed its western flank observing pyroclastic sequences associated with Vulcanian eruptions, mainly from eruptions in the Middle Ages and 18th century eruptions and comprising interbedded fallout and PDC deposits, as well as extensive lahar deposits. Unconformities within the succession allowed us distinguish between eruptive events, and the spatial distribution of the deposits allowed us to locate different vent positions.


The main crater of La Fossa cone showing the current fumarolic activity and the deposits from the pulsartory Vulcanian activity to which Vulcano gave it's name (i.e., the 1888–90 deposits, from the eruption that Mercalli observed and used to classify this activity-type).


A night of traditional Sicilian music and dancing led by the Cantori Popolari delle Isole Eolie

At the summit, we discussed Vulcano's caldera and the role of multi-stage volcanism in controlling the location of active vents and the distribution of volcanic products through time. We also observed the fumarole field and admired the panoramic view to the north. Finally, we walked to the southern part of the crater to see the deposits of the last (1888–90) eruption and discuss the pulsatory dynamics that characterize this type of eruption.

After a lunch break at the top of La Fossa, we returned to Porto di Levante, where we discussed the recent geological events on the island in the context of the Vulcano's volcanic hazards. We stopped at the Spiaggia delle Acque Calde to view the submarine fumarolic activity and finished at the mud pool, which is currently closed due to the volcanic risk posed by the toxic gases.

The night was filled with traditional Sicilian music by the *Cantori Popolari delle Isole Eolie*. Through their melancholic and expressive song themes, we learnt about the old chores of peasant life, and the islander's special relation with religion and the sea. Their contagious energy transported us to a different time and place, and made many of us step on stage.

Day 5: Friday (June 27)

We took the hydrofoil early in the morning and made our way to Stromboli. After settling down at the beautiful Villaggio Stromboli Hotel and a light lunch, we hiked up to the northern edge of the Sciara del Fuoco, where most of the volcanic products and volcanogenic flows of present-day activity are deposited. At its northern border, we discussed the evidence for recurrent lateral collapses and the Holocene evolution of Stromboli, as well as the features defining the main unconformities in its stratigraphy. At sunset, and already excited with the frequent and loud volcanic explosions, we patiently waited to appreciate how the Mediterranean sky blends with ballistic incandescent particles. With an average periodicity of 15 minutes (sometimes more!), we could appreciate the glow of the scoria, and gas emissions, typical of Strombolian explosive activity. For us, this was one of the highlights of the entire field trip. At night, and under a clear and glimmering sky, we made our way down for a final group dinner, where we enjoyed Italian pizza along with cold beers.

Stromboli erupting... an unforgettable highlight of our journey

Our journey concluded on Saturday (June 28), with a morning hydrofoil back to Milazzo, followed by a bus ride to Catania Airport. For us, this field trip was a memorable volcanological and cultural adventure, from the place where Vulcanus, the God of Fire, inspired the etymological origin of the term volcanism. We climbed volcanoes, analyzed the frequency of a Strombolian style eruption in real time and immersed ourselves in the warmth of Sicilian life. *More than just a field trip, it was an extraordinary opportunity for learning, discovery and connection*.

The fieldtrip participants

2.6 Celebration of the 10th Anniversary of the International Geoscience and Geoparks Programme (IGGP)

On 5 March 2025, several hundred people met at the Paris headquarters of UNESCO to celebrate the 10th anniversary of the International Geoscience and Geoparks Programme (IGGP) and its achievements. The assembly included Ambassadors, national delegations, scientific partners – including the International Union for Geological Sciences (IUGS) and the Global Geoparks Network (GGN) – and individuals. IUGG was represented by Patrick Allard, IUGG-UNESCO Liaison Officer, together with Mati Paz Miralles.

The 10th General Assembly of the International Geoscience and Geoparks Programme at UNESCO headquarters, 5 March 2025

UNESCO is a United Nations organization with a mandate to support research and capacity-building in Earth Sciences. Ten years ago, UNESCO Member States ratified the creation of a new designation – UNESCO Global Geoparks – aimed at recognising, selecting and preserving territories of exceptional geological significance under the flagship of the International Geoscience and Geoparks Programme (IGGP). Since then, 229 Geoparks have officially been designated and activated, in 50 countries (https://www.unesco.org/en/iggp/geoparks/about). Geoparks are conceived to be laboratories for promoting Earth geoheritage, i.e., the preservation of geodiversity, together with sustainable development of the local communities.

On 5 March, participants reviewed a decade of rapid progress, and discussed ongoing challenges and the future of IGGP within the UNESCO Global Geoparks framework. Discussions were carried out during three successive panel sessions, and highlighted the beneficial role of Geoparks in promoting scientific research, educational opportunities and local participation tied to geodiversity, as well as their strong connections with land-use planning, sustainable-resource management, cultural heritage, sustainable tourism and disaster preparedness. Examples included education approaches that are providing models for disaster risk reduction worldwide and insights from Indigenous communities and female cooperatives that are inspiring global practices in sustainability and conservation. Such matters are of direct interest to several scientific Associations within IUGG, including IAVCEI's Commission on Volcano Geoheritage and Protected Volcano Landscapes (https://vgpl.iavceivolcano.org/).

UNESCO – Example of workshop panel debates. @Sacha Heron

The 10th anniversary of IGGP was not only a celebration of the impressive growth and vitality of the Geoparks network, but also a strong opportunity to examine how the network could be expanded and strengthened over the next decade, particularly in under-represented regions (e.g., Africa). The meeting emphasized that Geoparks need to be integrated into national policies, with financial and administrative support, while ensuring that local communities play an active role in their management. Also in evidence was how education, governance and cooperation, in particular through multidisciplinary international scientific collaborations, will remain essential in building for the future. From local initiatives to global impact, the discussions *reaffirmed the role of Geoparks in shaping a more sustainable future*.

Patrick Allard, IPGP, Paris, France
IUGG Liaison Officer with UNESCO

2.7 Field Workshop on Volcano-Ice Interactions in Iceland

IAVCEI/IACS Joint Commission on Volcano-Ice Interactions (VIIC)
https://viic.iavceivolcano.org/

Workshop participants on a glacier hike at Sólheimajökull – a prominent outlet glacier extending southwest from Mýrdalsjökull, Iceland's fourth-largest ice cap, which overlies the active Katla Volcanic System. Photo taken by Linda Sobolewski

The *2nd Field Workshop on Volcano-Ice Interactions* was held in Iceland during May 2025 (19-24 May) in fantastic weather. According to the Icelandic Meteorological Office it was the most significant heatwave ever recorded in Iceland during May, with temperatures reaching – or even exceeding 20 °C – for 10 consecutive days. Whilst everyone was prepared for typical Icelandic weather including rain, wind, and snow, sunscreen and water bottles were the most desired items during the workshop! These weather conditions are in complete contrast to those experienced in New Zealand two years ago, when a series of cyclones not only impacted the first VIIC field workshop, but also impacted numerous people trying to attend the IAVCEI General Assembly in Rotorua.

The 2nd workshop Volcano-Ice Interaction was organized by:

- Iestyn Barr, Manchester Metropolitan University,
- Linda Sobolewski, University of Iceland,
- Tryggvi Unnsteinsson, University of Aberdeen,
- Maximillian Van Wyk de Vries, University of Cambridge,
- Robert Askew, Icelandic Institute of Natural History,
- Rosie Cole, University of Iceland, and
- Catherine Gallagher, University of Iceland.

The goal of the workshop was to provide a broad overview of glaciovolcanic interactions in Iceland, and to identify related features in the field. On average, 20–30 volcanic eruptions occur in Iceland every century, and half of them take place beneath glaciers. This makes Iceland a unique place to discover and study glaciovolcanism. Due to the limited time (*five full days*) our workshop focused on the landscape in south and southwest Iceland only.

Day 1

We started our trip in Reykjavík and drove towards the Reykjanes Peninsula to look at Pleistocene pillow ridges (Undirhlíðar) and hyaloclastites (Helgafell). Expertise was provided by Magnús Tumi Guðmundsson from the University of Iceland who joined our group for that day. In the afternoon we continued our drive towards our accommodation near Hvolsvöllur.

a) Magnús Tumi Guðmundsson explaining the formation of Pleistocene pillow ridges at Undirhlíðar. The quarry is a crucial site for understanding subglacial volcanism and pillow ridge formation. Photo taken by Iestyn Barr. b) Lausalda hill – deposits from the three largest jökulhlaups are exposed here, alternating with soils and numerous tephra layers from Katla and other volcanoes. Photos taken by Linda Sobolewski

Day 2

This day took us over the high ridgetops of Iceland, and into the deep canyons of Þórsmörk, where we had the chance to look both at outcrop- and landscape-scale features of the volcano-ice interactions that have shaped this area. The field site is situated between Eyjafjallajökull and Katla volcanoes and, during the last glacial period three major ice masses converged over the area: Eyjafjallajökull, Mýrdalsjökull, and an ancient ice stream from Torfajökull. To reach the area we travelled by a highland bus in the morning, which included numerous river crossings, and tantalizing glimpses of the terrain and geology surrounding Eyjafjallajökull and Katla, before starting the hike from Básar. Although it was a long day, we had spectacular views of the Þórsmörk ignimbrite, pillow lavas, the 2010 Fimmvörðuháls lava, and the outlet glaciers from Katla.

Day 3

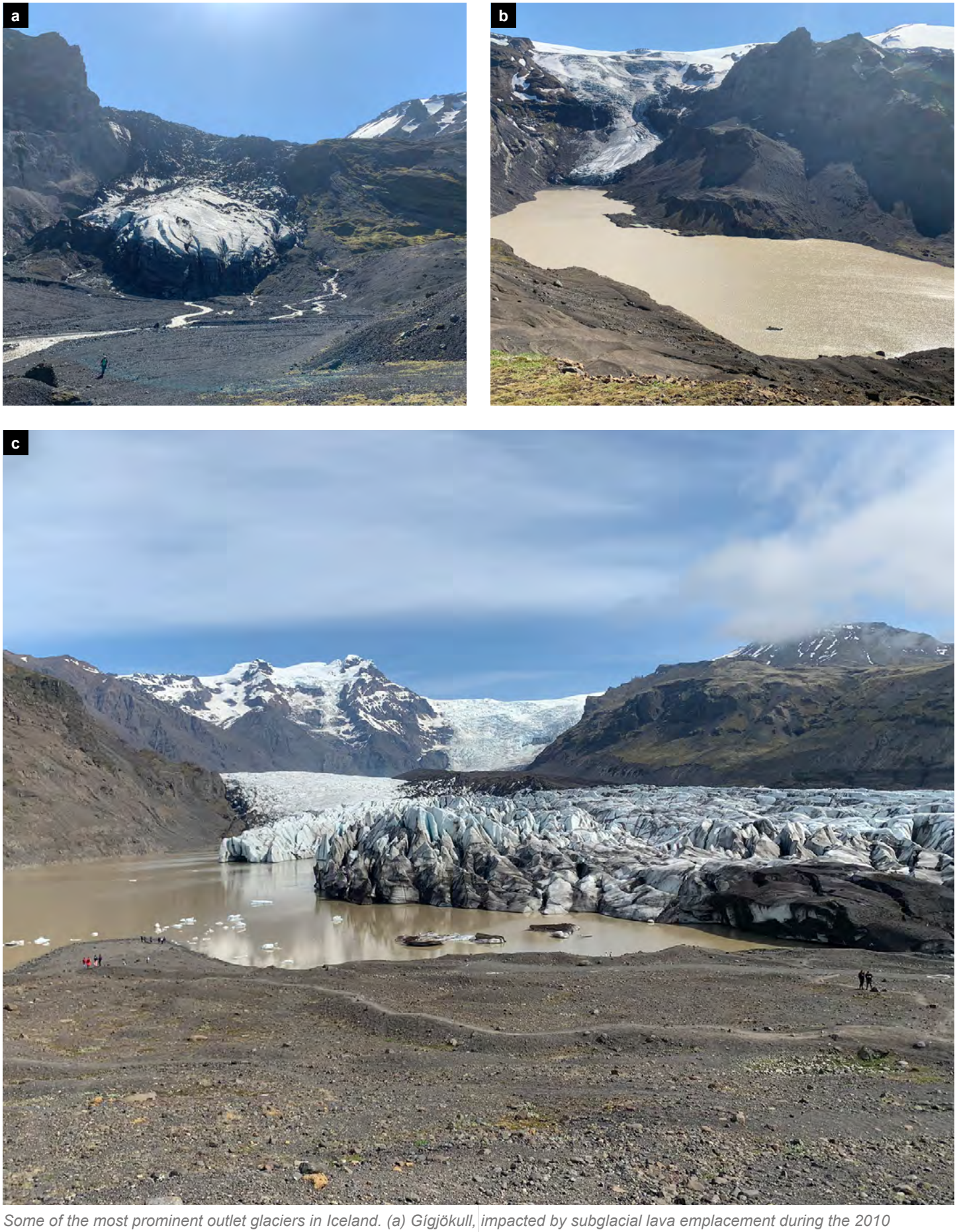
We spent another day in Þórsmörk looking at jökulhlaup (glacial outburst flood) deposits related to Katla eruptions. The remaining stops focused on the Eyjaflallajökull ice cap, its outlet glaciers, and the 2010 eruption. Gígjökull, one of Eyjaflallajökull's outlet glaciers, was impacted by subglacial lava propagation in 2010, while the nearby Steinsholtsjökull has a landslide history influenced by climate change. Those that chose to do the longer hike down to the lagoon at Gígjökull also enjoyed some outcrops of the reworked Þórsmörk ignimbrite. The evening was used to do something very Icelandic: going to the pool and relaxing in a hotpot after an exhausting day.

Part of the group on Morinsheiði (800 m asl.), a lava delta sequence emplaced within an englacial lake formed within an ice cap. Photo taken by Linda Sobolewski

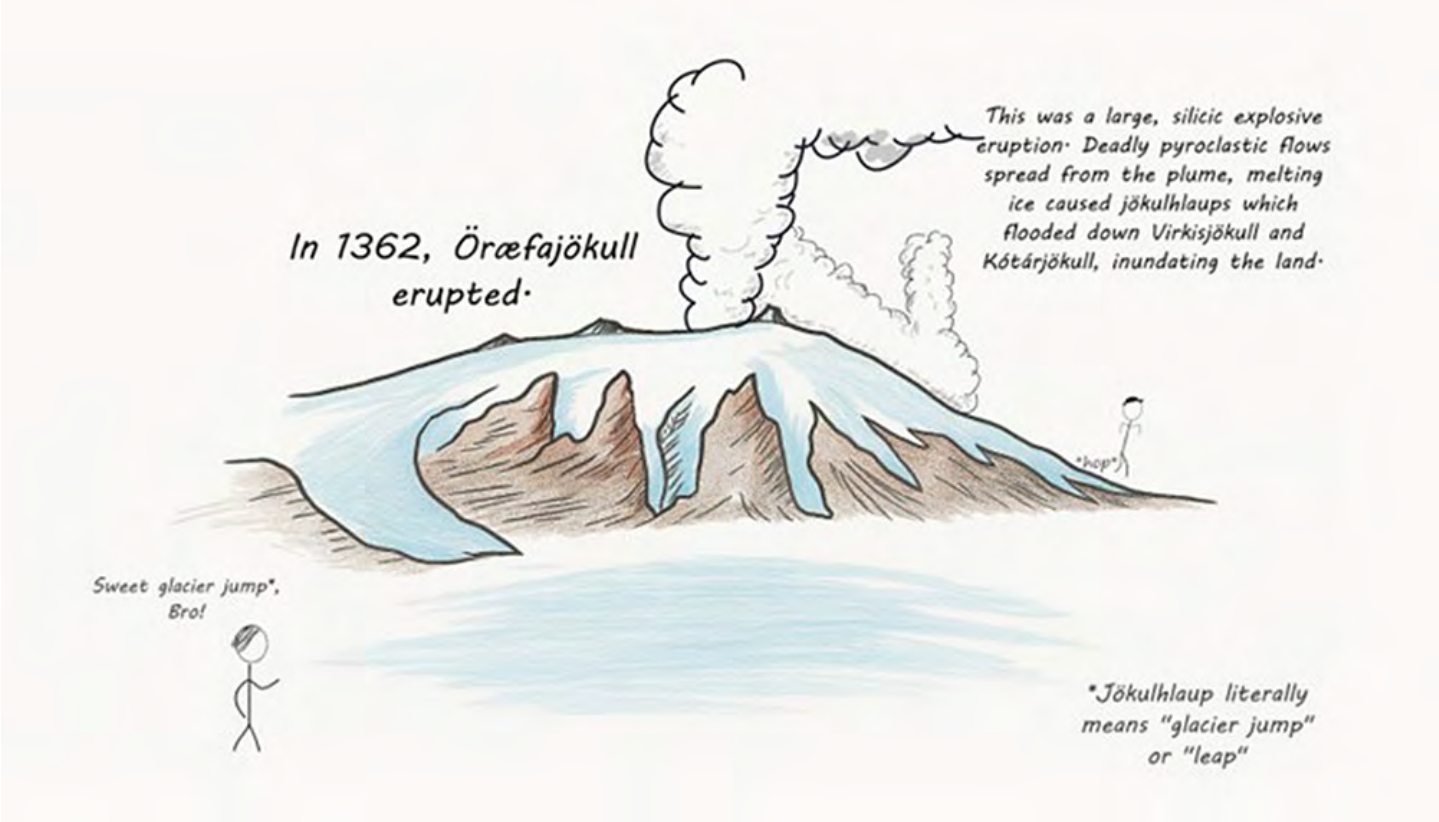
Day 4

Today we toured the dramatic landscapes that can be seen between Vík and Öræfi". During a long drive towards Öræfi, a district beneath Öræfajökull volcano, we had plenty of time to discuss historical eruptions, as well as their associated hazards for local communities and major tourist sites, as affected by three volcanoes: Grímsvötn, Bárðarbunga, and Öræfajökull. Stops included (amongst others):

1. The Siða formation, characterized by prominent alternating sequences of lava flows and hyaloclastite deposits of Plio-Pleistocene age;
2. The glacial-interglacial formations and unconformities around Skaftafell (Hrútfjallstindar and Svínafell); and
3. Svínafellsjökull, one of Öræfajökull's outlet glaciers.



Some of the most prominent outlet glaciers in Iceland. (a) Gígjökull, impacted by subglacial lava emplacement during the 2010 Eyjafjallajökull eruption; (b) Steinsholtsjökull, disrupted by a rockslide in 1967, which caused a jökulhlaup; (c) Svínafellsjökull, hit by a landslide sourced from lateral moraine deposits in 2008. Photos taken by Linda Sobolewski



Cartoon illustrating the 1362 Öræfajökull eruption (by Robert Askew)

As Iceland's outlet glaciers continue to recede, more of the older volcanics and lateral moraine deposits are becoming exposed, as is the case around Öræfajökull. These areas pose a greater risk of landslides as they are over steepened and generally are more fissile in nature. A landslide sourced from lateral moraine deposits hit the Öræfajökull glacier in 2008, and a discussion was held about the impact of it on the glacier, as well as future hazards for the local community.

Day 5

After experiencing the first rainfall of the trip, and spending some time in Vík in the morning, a glacier hike on Sólheimajökull gave us the chance to:

- Examine glaciological features in the field and understand the workings of glaciers,
- discuss the history of Sólheimajökull and its response to climatic changes, and
- provide a general overview of Iceland's glaciation history.

In the evening everyone was looking forward to the farewell dinner in Hvolsvöllur's Midgard Restaurant to try locally-sourced Icelandic food. The workshop ended on Saturday afternoon in Reykjavík after having some tourist stops around the Golden Circle.

A total of 16 participants attended, from Australia (1), Brazil (3), Canada (1), Germany (3), the Netherlands (1), the UK (4), and the USA (3). The group covered a wide range of career stages and scientific backgrounds. Financial support was provided by IACS (International Association of Cryospheric Sciences) for workshop costs, and IAVCEI contributed the same amount of money for travel grants.

The best bus driver we could imagine – river crossing in Þórsmörk with Herman (a) and our most adorable workshop attendee: Pippin Gallagher-Askew, who joined us for most of the trips and sometimes caused distraction from scientific discussions (b). Photos taken by Linda Sobolewski and Robert Askew

2.8 The 2025 International School of Volcanology – "Working on active volcanoes: Learning the tools of modern volcanology": An early career researcher's perspective

https://www.youtube.com/watch?v=7xeZ8NvsKss

The International School of Volcanology "Working on active volcanoes: Learning the tools of modern volcanology": Class of 2025

From 8 to 16 June 2025, International School of Volcanology "*Working on active volcanoes: Learning the tools of modern volcanology*" took place in the Aeolian Islands (Italy). The summer school, which is endorsed by IACVEI and Italian Association of Volcanology (AIV), has been held annually in June since 2023, and will be held again in June 2026. The Hotel La Filadelfia, well-known for its hospitality in Lipari, hosted the summer school, and has become the regular venue for the school.

The school is supported by the International Research Center "*Natural disaster and Sustainable development*" of the I-SITE program of the University Clermont Auvergne and the French government initiative "*programme d'investissements d'avenir*" managed by the Agence Nationale de la Recherche (ANR) under grant ANR-20-SFRI-0003 project CAP GS. These two funding sources mean that once the students arrive at La Filadelfia, all is covered, including accommodation, meals, plus boat and bus transfers to and from other islands. This year, 21 international Early Career Researchers (ECR) were funded to participate in the summer school, so as to learn state-of-the-art physical volcanology, remote sensing, geophysics and geochemistry. ECR's from 14 different countries (Colombia, DRC Congo, Ecuador, France, Germany, Guatemala, Indonesia, Ireland, Italy, New Zealand, Philippines, Spain, UK, and USA) attended, with participation of scientists from Laboratoire Magmas et Volcans (University of Clermont Auvergne), University of Pisa, the Italian National Institute of Geophysics and Volcanology (INGV), University of Turin, Italian National Civil Protection (DPC), University of Pittsburgh and University of Hawai'i at Mānoa.

The active volcanic arc of the Aeolian Islands offers the possibility to study a large variety of eruptive styles and their related hazards, and as such the school was split into a series of theoretical and practical sessions, linked with fieldwork activities, on Lipari, Vulcano and Stromboli. As part of this, the eruptive history and geological evolution of the three systems was presented, focusing on processes at open (Stromboli), closed (Vulcano), and dormant (Lipari) systems. In-class activities were integrated with deployment of state-of-the-art geophysical and geochemical monitoring systems to define the evolution of volcanic processes and the possible impact on the nearby communities.

(a) Marco Pistolesi (University of Pisa) presenting the recent (1243–1316) activity of Lipari at Monte Pilato; and (b) Nicole Lautze (University of Hawai'i at Mānoa) giving a keynote presentation about Stromboli

Group activities included preparing stratigraphic logs, processing collected data, analyzing time series data, reporting results and decision making. Regarding the skill-sets of the participants, the organizers mixed the academic and professional backgrounds of the group to create multidisciplinary groups, enriching theoretical discussions and development of field-based activities. Group cohesion was also driven by strengths and weaknesses of members across the respective fields of expertise, with a strong emphasis on team building and teamwork.

On Lipari, the group explored the deposits of the most recent sub-Plinian volcanism on the island, that chronologically formed by five main sequences known as Gabellotto-Fiumebianco, Monte Pilato, Lami, Forgia Vecchia and Rocche Rosse. Each group prepared a stratigraphic log of the volcanic deposits at a different location, and compared the findings with other groups to build a comprehensive picture of the eruption.

Groups working on stratigraphic logs for Monte Pilato, and presenting/interpreting and collating their results at La Filadelfia

Instead, the historic activity of the closed-system on Vulcano has been characterized by Vulcanian and phreatic eruptions, with an active hydrothermal system feeding significant thermal and gas fluxes on the main edifice of La Fossa cone and along the beach. The participants were divided into five groups to parametrize the hydrothermal activity using remote and in-situ thermal data, together with geodetic (GB-InSAR), geophysical (self-potential) and geochemical (gas measurement) methods. The group then had the surreal experience of observing the small explosions of Stromboli from a safe distance, while measuring ash dispersion, gas composition, seismicity and infrasonic signals associated with an open-vent system.

In the NW flank of Stromboli, La Sciara del Fuoco, traces of landslides that have triggered tsunamis in ancient and present times were observed, while the tsunami warning system was discussed aboard the Popolo Giallo. We then landed, to reflect on tsunami issues at Stromboli. Due to the continuous activity of Vulcano and Stromboli, the local community is exposed to

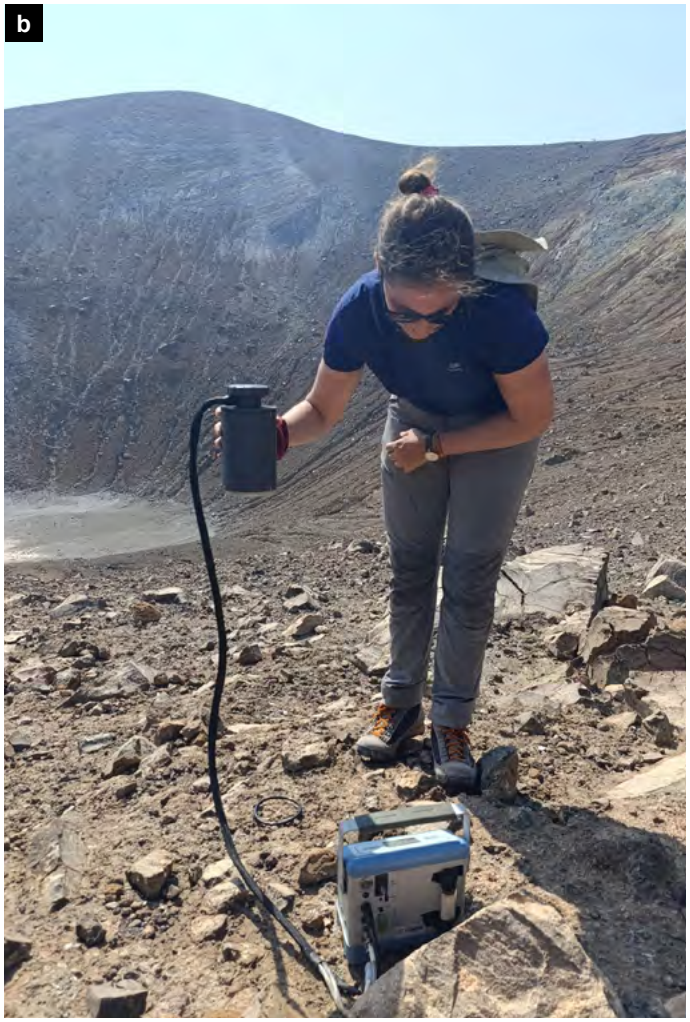
different volcanic hazards from high concentrations of toxic gases and/or ash emissions, through paroxysmal explosions, to tsunamis. Therefore, we learnt that, intensive monitoring with satellite and in-situ sensors provides critical information during an emergency.

To practice decision making and communication, a role-play game on volcanic hazard and risk management was carried out in which one group took the role of the scientific committee and the other acted as the decision makers (i.e., government officials and risk management institutions). The former group tried to interpret real data from Stromboli to help the latter group make a decision, without overlooking the social dimensions. In the next round, the groups swapped roles to understand each role better. This was proceed by a data-reporting exercise, and setting of alert color codes, using real data for paroxysms and unrest at both Stromboli and Vulcano.

The International School of Volcanology provided the chance of observing both open- and closed-vent volcanic systems, and of obtaining hands-on experience in collecting field data and interpreting multiparametric monitoring data. The key takeaway message of the school is the importance of integrating multiple data sources – both historical and contemporary – to gain a more comprehensive understanding of volcanic systems, their evolution, and the associated hazards. Once science-based information is available, it is critical to develop effective early warning systems with volcanic alert levels tailored to the eruptive dynamics of a given volcano, while considering societal dimensions and risk management policies.

Sindy Lizarazo
Laboratoire Magmas et Volcans, Université Clermont Auvergne

Pooria Ebrahimi
University of Napoli Federico II



(a) Cinzia Federico (INGV-Palermo) explaining how to collect fumarolic gas samples at Baia di Levante, Vulcano;
(b) A participant measuring CO_2 degassing of La Fossa Crater (Vulcano) using an accumulation chamber

Groups: (a) working on thermal camera data to report on the current heat flux at Vulcano; (b) presenting the results of monitoring CO_2 soil flux and fumarole emission on Vulcano Island to explain state of volcanic unrest to Domenico Mangione (Dipartimento della Protezione Civile–Rome); and (c) attending a role-play game led by Domenico

2.9 SHV30: Reflecting on 30 Years of the Soufrière Hills Volcano Eruption and Shaping the Future Together

https://discovermni.com/2025/07/14/shv30-conference-opens-with-reflections-on-volcanos-lasting-impact/

Photos of the SHV30 Opening Ceremony with the MVO Director (Graham Ryan), IAVCEI President (Costanza Bonadonna) and the former prime minister of Trinidad and Tobago (Keith Rowley)

From 14 to 18 July 2025, over 90 participants from the Caribbean and around the world gathered at the Montserrat Cultural Centre to mark a deeply significant milestone: *30 years since the onset of the Soufrière Hills Volcano (SHV) eruption*. SHV30 was a moment of collective reflection on what happened, what we've learned, and how to move forward as a global, regional, and local community living with volcanic risk. Supported in part by IAVCEI through the travel of key participants, the meeting created a space for inclusive dialogue, shared memory, and forward-looking strategies for recovery and resilience.

The 1995–2010 eruption of SHV profoundly reshaped Montserrat physically, socially, and economically. It displaced much of the population, buried the capital city of Plymouth as well as other important villages, and transformed the island's geography and infrastructure. Yet out of this crisis emerged a globally significant case study in volcanic monitoring, interdisciplinary science, and long-term recovery.

The SHV30 meeting opened with a powerful ceremony led by the Montserrat Volcano Observatory (MVO) outreach team, with addresses from the Acting Governor, the Premier of Montserrat, the MVO Director and the IAVCEI President, with a keynote by the Director of the University of West Indies (UWI) Seismic Research Centre. Their words underscored Montserrat's central role in advancing both volcanic risk reduction and sustainable development.

The conference was structured around four overarching themes that explored scientific, governance, and community-based perspectives on living with volcanic risk. Sessions focused on regional volcanic activity and monitoring in the Eastern Caribbean, innovations in understanding magmatic systems, and integrated approaches to observing and responding to volcanic behavior. A strong emphasis was placed on the island's evolution from crisis to capacity, tracing three decades of local, regional, and international collaboration. Participants shared experiences on how to build-back stronger, from developing geothermal resources and preserving cultural heritage to addressing impacts on health, education, ecology, and infrastructure, as well as identifying opportunities for sustainable growth.

The programme was intentionally structured with only one session at a time, which facilitated vibrant exchanges among scientists, community members, policymakers and artists. Panel discussions played a major role in sparking deeper conversations. One panel – "*What We Know, What We Need: Science for All*", explored how to bridge gaps between scientific evidence and real-world decision-making, particularly under pressure and uncertainty. Another – "*Looking South: What Next?*" – examined strategies for risk reduction and sustainable futures. A moving session also revisited the early years of the eruption through the recollections of Montserrat's children who were part of the 1996 "*Stress Buster*" trip to the British Virgin Islands and USVI, providing unique insight into the emotional and social dimensions of the crisis.

Panel Discussion: "Looking South: What next? A conversation about risk and sustainable development". Panelists: R. Robertson (UWI-SRC), A. Ryan (DMCA), G. Ryan (MVO), R. Meade (GoM) E. Calder (SAC), F. Savage (OBE)

A defining feature of SHV30 was the central role played by the community in telling their own stories through music, poetry, visual art, and memory. Music-based initiatives included "*Singing the Life We Live*", "*Volcano Voices*" (https://www.geog.cam.ac.uk/research/projects/volcanovoices/), and "*Curating Crises*" (https://3sresearch.org/2022/03/17/curating-crises-the-past-as-a-key-to-improving-the-stewardship-of-hazard-knowledges-for-the-future/). Oher creative projects demonstrated how artistic expression and science can come together to process trauma, share experience, and inspire resilience. These deeply personal contributions were integrated throughout the conference, reminding all attendees that the impacts of volcanic eruptions are not just geological: *they are lived, remembered, and continuously navigated*.

The meeting fostered strong engagement with local stakeholders, including government representatives, disaster managers, infrastructure authorities, and scientists from MVO and UWI-SRC. Three interactive workshops expanded these conversations further

- The first was focused on geothermal resource governance and development;
- The second explored long-term planning for volcanic hazards through online training;
- The third investigated how to collaborate on the development of volcano-tourism.

The final workshop included group work with both conference attendees and Montserratians interested in shaping the island's future tourism narrative and infrastructure, the Montserrat National Trust and Tourism Authority.

Mid-conference field trips gave attendees the opportunity to experience firsthand the island's complex volcanic landscape. From visits to pyroclastic deposits and explorations of the island's biodiversity, to the Montserrat Volcano Observatory, the Montserrat Community Murals, and the buried city of Plymouth. These excursions provided scientific insight and emotional resonance in equal measure.

Example of one of several murals being commissioned across Montserrat by MVO as part of the "Curating Crises" project; a project geared at increasing volcanic risk awareness and promoting Montserrat's rich history, culture and environment. The project is led by Prof. Jenni Barclay of the University of Bristol, in collaboration with the University of Oxford, the Royal Society, the National Archives, the Seismic Research Center, and MVO. This specific mural features a re-imagined "Mermaid of Chances Peak" and is a tribute to the housing schemes such as Look Out and Davy Hill, which were developed to house families displaced due to volcanic activity in the 1990s

Participants of two of the SHV30 field trips: (a) to the 2008 pumice flows, and (b) geology by boat

The social programme complemented these experiences with a rich blend of music, performance, film, and community celebration, creating space for reflection, storytelling, and connection beyond the formal sessions. A highlight was the concert by the Emerald Community Singers, "*Through It All & Still Standing*", which featured songs composed during the Soufrière Hills eruption. The performance powerfully illustrated how music can support healing, preserve memory, and reinforce collective identity in the aftermath of disaster. Equally memorable was MISSIVES, a staged reading based on archival documents from the 1930s volcanic unrest on Montserrat. Blending humour with historical insight, the performance vividly brought past voices to life while revealing striking parallels and key differences with more recent volcanic experiences. Then, the *Volcano Movie Night* featured a curated selection of short films from Montserrat and the Caribbean, capturing the lived realities of communities shaped by volcanic landscapes through documentary, personal testimony, and creative storytelling. The week of activities culminated in a lively street party in Salem, where music, dance, and informal conversation brought together participants and residents in a shared spirit of resilience, joy, and belonging.

MVO Director, Dr Graham Ryan, closing the SHV30 conference at the Salem street party. Dr Ryan is talking in front of the Salem City Mural that pays tribute to the village of Salem as part of the "Curating Crises" project. While the 1995 volcanic crises impacted Salem and changed the village in many ways, it's original essence remains and is celebrated through the capsulation of its history and culture on the wall of the Walkinshaw Building.

Final discussions turned to the future, debating strategies for the sustainable redevelopment of Montserrat's southern region, including a new hospital, enhanced infrastructure, volcano tourism and the potential f geothermal energy. These conversations reinforced the importance of inclusive, long-term planning and the value of collaboration among governments, scientists, and communities.

The 1995–2010 Soufrière Hills eruption was fundamental in advancing scientific understanding of volcanic processes and real-time monitoring. SHV30 demonstrated that Montserrat continues to lead not only in science, but in shaping new pathways to recovery that are deeply rooted in community experience, creativity, and partnership.

This meeting was a powerful reminder that living with volcanoes requires more than instruments and models: *it calls for solidarity, shared memory, and the co-creation of futures shaped by both science and society*.

SECTION 3. IAVCEI – DOWN TO BUSINESS

3.1 IAVCEI 2025 – Statistics and actions

Meeting of the IAVCEI Executive Committee (EC) and Advisory Board (AB) with (round the table, left to right): ***Alexander Rudloff*** *(IUGG, Secretary General),* ***Ulrich Kueppers*** *(IAVCEI, Secretary General),* ***Costanza Bonadonna*** *(IAVCEI President),* ***Roberto Sulpizio*** *(past Secretary General – AB),* ***Joali Paredes*** *(Representative of Early Career Researchers – EC),* ***Cheryl Cameron*** *(Indigenous volcanology network – AB),* ***Lis Gallant*** *(EDI advisor – AB),* ***Karen Fontijn*** *(INVOLC – AB),* ***Alvaro Amigo*** *(Councillor – EC),* ***Nobuo Geshi*** *(Councillor – EC),* ***Nico Fournier*** *(WOVO – AB),* ***Marie Edmonds*** *(Executive Editor, Bulletin of Volcanology – AB),* ***Marta Calvache*** *(IAVCEI Vice President),* ***Alessandro Aiuppa*** *(Councillor – EC),* ***Patrick Allard*** *(past President – AB), and* ***Alessandro Bonforte*** *(Councillor – EC). In the foreground, on the computer screen,* ***Marie-Anna Mysikova*** *(Guarant Representative) and name badge of* ***Andrew Harris*** *(IAVCEI Vice President)… taker of the picture.*

In total, 1081 people registered for the IAVCEI 2025 Scientific Assembly in Geneva, of which 31 were virtual. Of all attendees, 610 (56 %) were ECR.

In total there were four days of talks, with five sessions running in parallel each day, there being 17 talks per room per day. Including the four Plenary and four ECR talks, this amounted to 348 presentations. In addition, there were 952 posters, with 73 abstracts being withdrawn.

IAVCEI events and business by day

Saturday 28 June

- 3 workshops

Sunday 29 June

- 4 workshops
- Opening ceremony
- IAVCEI dinner for Award and Advocating Committees

Monday 30 June

- Commission meetings:
  - Volcanic Hazard and Risk
  - Volcanic Geoheritage and Protected Volcanic Landscapes
  - Monogenetic Volcanism, Volcano Seismology and Acoustics
- Bulletin of Volcanology – Springer dinner with associate editors

Tuesday 01 July
- Commission meetings:
  - Tephra Hazard Modelling
  - Statistics in Volcanology
  - Cities and Volcanoes
- Meeting of working group "Volcano Tourism"
- Meeting of Commissions and Networks
- IAVCEI dinner for Commission/Network leaders

Wednesday 02 July
- 5 workshops
- Commission & Network meetings:
  - Volcano geology
  - INVOLC
- IAVCEI meeting of Executive Committee and Advisory Board
- Lunch for IAVCEI National Correspondents to IUGG
- CERN visit
- Meeting of Members and awards ceremony
- IAVCEI dinner for awardees

Thursday 03 July
- 1 workshop
- Commission & Network meetings:
  - Volcanogenic Sediments
  - Cities and Volcanoes (CAV)
  - Submarine Volcanism
  - Volcano-Ice Interaction
  - WOVO
- Meeting of Ash and Gas Impacts working group
- Meeting of WOVO network with CREWS

Friday 04 July
- Meeting with Chinese National Committee for Volcanology
- Lunch for "Global Challenges" working group
- Closing Ceremony and "Volcano Party"

Saturday 05 July
- 2 workshops
- IAVCEI Executive Committee debriefing

Monday 07 July – Wednesday 09 July
- EW4All workshop

3.2 Introduction to the polls

Poll 1: *Amendment to § 7 of IAVCEI Statutes and By Laws*

Following discussions at and around the Meeting of Members held in Geneva on 2 July 2025 we discussed a number of changes and amendments needed to our Statutes and By-Laws (SBL), as well as our membership fees. We have updated the initial proposals following all member input and advice, and now need to vote on these actions. This involves three polls, which we invite you to now join.

For all polls herein selection of "YES" represents *approval*; "NO" represents *disapproval*.

The outcomes will be announced in the December newsletter.

The first poll involves a minor issue, but following our SBL, we need your approval to implement the action. That is:

To bring our SBL into alignment, to make § 7 resolution 10 consistent with § 10, resolution 1, § 7 resolution 10 needs rephrasing from:

The EC is authorized to make decisions on behalf of IAVCEI and its members. Changes of the Statutes and By-Laws require approval by the Meeting of Members.

to

The EC is authorized to make decisions on behalf of IAVCEI and its members. Changes of the Statutes and By-Laws require approval by the members which can happen by voting in-person or via online polls.

The poll is now open at
https://www.iavceivolcano.org/amendment-to-%C2%A7-7of-iavcei-statutes-and-by-laws/

Voting is open until 31 October 2025 (midnight, CET)

3.3 Poll of Members to amend Membership Fees

Poll 2: *Proposal for revision of membership fees, salary caps, and donations to IAVCEI*

During our Meeting of Members in Geneva on 2 July 2025, the Executive Committee (EC) tabled a proposal to revise IAVCEI's membership fees. There followed a lively and constructive discussion from the floor, during which the need for several important amendments be made before the proposal could be put to vote. The EC has now modified and revised the proposal taking into account all of the members advice.

The proposal in brief:

- The 1-year membership plan fee remains unchanged;
- The 4-year membership plan fee has been reduced in price (4 years are now cheaper than 3 individual years) for all salary categories;
- The salary caps for senior scientists (= any member that is not an ECR) have been raised and changed to Euros (e.g., 8k$ to 10k€ and 16k$ to 25k€) to align with the banking system where the IAVCEI account is held.
- Life membership remains the same;
- Benefactor rates have been increased;
- A donation option is to be made for any party.

The new proposed membership scheme is:

A. Early Career Researcher:
For definition see §4.2 and §4.3 of the Statutes and By-Laws
1 year: 15 € [existing fee: 15 €]
4 years: 40 € [existing fee: 50 €]

B. Senior scientist:
B.1 Annual salary less than 10 000 €
1 year: 15 € [existing fee: 15 €]
4 years: 40 € [existing fee: 50 €]

B.2 Annual salary more than 10 000 €, but less than 25 000 €
1 year: 25 € [existing fee: 25 €]
4 years: 70 € [existing fee: 80 €]

B.3 Annual salary more than 25 000 €
1 year: 50 € [existing fee: 50 €]
4 years: 140 € [existing fee: 175 €]

C. Life membership:
one-time payment, no annual fees thereafter
800 € [existing fee: 800 €]

D. Benefactor:
life membership included
1500 € [existing fee: 1000 €]

With this, we hope to make the 4-year membership plan more attractive and reduce the administrative workload related to the current high amount of annual renewal. Reminders will be sent out to expired memberships on 15 January of each calendar year. On the same date, an invitation to donate will be sent out to all life members and benefactors. The donation option will be added as an option on the membership section of our website.

Members with fees paid for any given certain year are entitled to all benefits of being an IAVCEI member (https://www.iavceivolcano.org/membership/benefits-of-iavcei-members). See § 5 of the statues and bylaws for all details on IAVCEI Membership.

IAVCEI also offers membership fee waivers (for a maximum of 4 consecutive years). Following §5.9 of the Statutes and By-Laws (https://www.iavceivolcano.org/statutes-and-by-laws):

"*Upon good and proved reason, the Executive Committee can waive the membership fee for natural persons in need, upon request and on an annual basis for up to four consecutive years. These natural persons acquire all the rights and obligations of a regular member for the duration of waived membership.*"

Requests will be taken by a motivation letter outlining the reasons for the waiver, to be sent to the secretary general. Waiver requests can be made at any time and will be considered by the Executive Committee on a case-by-case basis.

The poll is now open at
https://www.iavceivolcano.org/proposal-for-revision-of-membership-fees-salary-caps-and-donations-to-iavcei/

Voting is open until 31 October 2025 (midnight, CET)

3.4 Poll of Members to amend By-Law § 7

Poll 3: *Proposal change to the IAVCEI Statutes and By Laws to allow a President to run for multiple terms of office*

According to § 7 of the IAVCEI Statues and By-Laws (SB&L: Statutes and By-Laws – International Association of Volcanology and Chemistry of the Earth's Interior) the Executive Committee (EC) consists of the following nine natural members:

- President
- Secretary General
- two Vice Presidents
- four Councilors
- an Early Career Researcher

Section 7 of the IAVCEI SB&L contains 16 resolutions, of which resolution 5 states that:

The President can only serve as President for one term.

Instead resolutions 6 and 7 state that:

The Secretary General is elected for two terms of four years each.

and

The term of office of all other EC members is four years. Re-election is permitted.

During an Executive Committee debrief with the advisory board on 5 August 2025, it was proposed to also allow re-election of a president incumbent. This argument was made on the basis of past and current experience so as to allow continuation of team, policy and direction, while allowing *you* (our IAVCEI members) to decide whether this change is beneficial… or not.

The change would involve changes to none of the current 16 resolutions, ONLY deletion of resolution 5, that is:

~~*The President can only serve as President for one term.*~~

The poll is now open at
https://www.iavceivolcano.org/proposal-change-to-the-iavcei-statutes-and-by-laws-to-allow-a-president-to-run-for-multiple-terms-of-office/

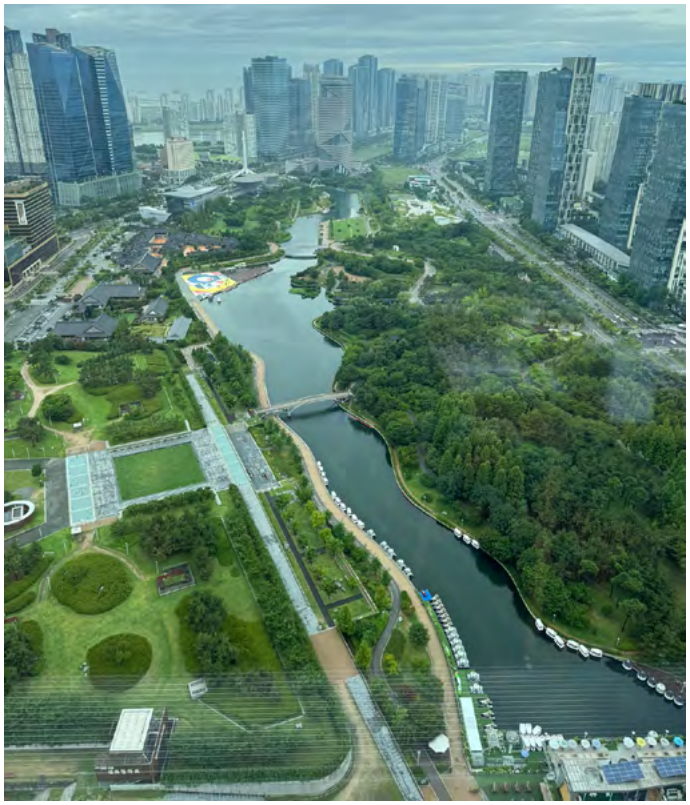
Voting is open until 31 October 2025 (midnight, CET)

Iceland

3.5 IUGG Business Meeting in Incheon, Korea

Between 16 and 18 July, Marta Calvache (Vice-President) and Ulrich Kueppers (Secretary General, SG) attended the 2025 IUGG business meeting in Incheon, South Korea. This is the only in-person meeting held for the IUGG Executive Committee and the Presidents/SG of all eight IUGG associations (of which IAVCEI is one) between two IUGG General Assemblies (GA). IUGG-GA which happen every 4 years, meaning that these important meetings happen at the same frequency.

As part of the meeting, Marta and Ulli carried out an onsite inspection and review of the venue for the 2027 IUGG General Assembly (https://songdoconvensia.visitincheon.or.kr/), and assessed accommodation options.



Song-do, the Incheon neighbourhood where the IAVCEI General Assembly 2027 will be held. The venus is located in a newly built town on land reclaimed from the sea. There are many hotels nearby at low cost. There are also eight international universities nearby that can offer cheap accomodation for students and ECRs

Delegates at the 2025 IUGG Business Meeting in Incheon. Spot Marta and Ulli!

A strong representation at the IUGG General Assembly, in terms of special sessions, contributions and attendance, by IAVCEI members is imperative if we are to maintain the strong support of IUGG and their financial commitment to us.

Thus, *please do begin to consider your participation now*:
Including proposals for sessions, workshops and field trips!

3.6 Events and Meetings 2025–2027

IAVCEI events 2025

7th Volcano Geology workshop
11–17 January 2025, Colombia
[Volcano Geology commission]:
https://volcanogeology.iavceivolcano.org

CVS Workshop
7–11 April 2025, Hungary
[Volcanogenic Sediments Commission]
https://cvs.iavceivolcano.org/cvs-activities/

Field Workshop in Iceland
19–24 May 2025, Iceland
[Volcano-Ice Interactions Commission]
https://viic.iavceivolcano.org/iceland-workshop-may-2025/

Working on Active Volcanoes:
Learning the Tools of Modern Volcanology
4th International Summer School
8–16 June 2025, Lipari, Vulcano and Stromboli
[IAVCEI-endorsed event]
WOAV I-SITE Web Link

IAVCEI Scientific Assembly
29 June – 4 July 2025, Geneva, Switzerland
[IAVCEI]
https://sa2025.iavceivolcano.org/

SHV30 Conference
14–18 July 2025, Montserrat
[IAVCEI-supported]
https://discovermni.com/2025/07/14/shv30-conference-opens-with-reflections-on-volcanos-lasting-impact/

Field workshop
31 August – 7 September 2025, Hokkaido, Japan
[Commission on the Chemistry of Volcanic Gases]:
https://ccvg.iavceivolcano.org/field-workshops/14th-workshop-japan-2025/

Volcanic processes: A variety of length and time scales
1–5 September 2025, Kigali, Rwanda
[ICTP-EAIFR, IAVCEI-supported]
https://eaifr.ictp.it/events/conference-on-volcanic-processes-a-variety-of-length-and-time-scales/

Laccoliths, sills and dykes (LASI 7)
9–11 September 2025 (field trips 12–14 September), Hveragerði, Iceland
[Volcanic and Igneous Plumbing Systems commission]:
https://lasi7.hi.is/

Convective and Volcanic Clouds (CVC) detecting, monitoring and modeling
23 September – 1 October 2025, Vulcano Island, Italy
[IAVCEI-sponsored]
http://www.cvctrainingschool.org/school/

Volcanology in Practice
7–11 October 2025, Niigata, Japan
[IAVCEI-supported]
https://www.thevolcano.world

Upcoming events 2025

Curso internacional de volcanología
20 October – 1 November 2025, La Palma, Spain
[IAVCEI-supported]:
https://espaicrater.com/es/cursovolcanologia/

International Tsunami Symposium
12–14 November 2025, Hyderabad, India
[IAPSO/IASPEI/IAVCEI Commission on Tsunamis]
https://its2025.incois.gov.in/

Annual workshop
23–29 November 2025, Pucon, Chile
[IASPEI/IAVCEI Commission on Volcano Seismology & Acoustics]
https://sites.google.com/uct.cl/volcanoworkshop/

IAVCEI events 2026

12th Physics of Volcanoes workshop
18–20 February 2026, Potsdam, Germany
[IAVCEI-endorsed]
https://dgg-online.de/physics-of-volcanoes

12th Workshop on Volcanic Lakes
9–17 March 2026, Luzon, Philippines
[commission on Volcanic Lakes]
https://iavcei-cvl.org/2024/05/31/the-cvl12-2026-workshop-will-be-in-luzon-philippines/

7th Conference Alfred Rittmann
7–9 July 2026, Catania, Italy
[IAVCEI-sponsored]
https://www.conferenzarittmann.it

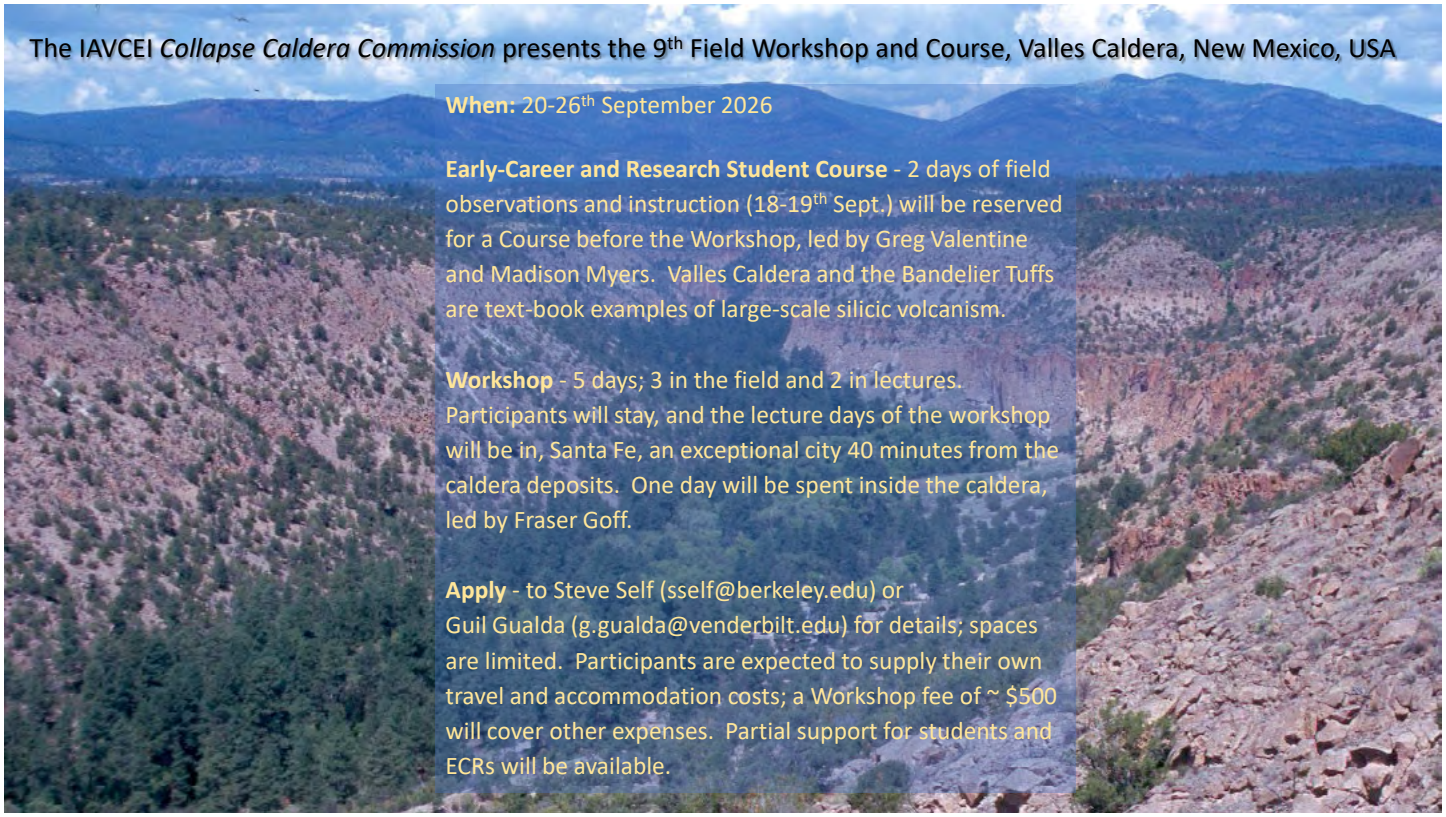
Cities on Volcanoes 13
12–17 July 2026, Bend, USA
[Cities and Volcanoes commission]
POSTPONED
https://citiesonvolcanoes.wordpress.com/next-conference/

LIP-IDC 2026 International Conference on Large Igneous Provinces and their Dyke Swarms
3–7 August 2026, Nyeri, Kenya
[Large Igneous Provinces commission]
https://lipidc9.sciencesconf.org/

9th CCC workshop
20–26 September 2026, Valles Caldera, New Mexico, USA
[Collapse Calderas commission]

IAVCEI events 2027

29th IUGG General Assembly
16–22 July 2027, Incheon, South Korea
[IUGG]
https://iugg.org/meetings/iugg-general-assemblies




Lanzarote

3.7 Call to host, and key application dates, for COV14 in 2028

The Cities and Volcanoes Commission (CaV) is pleased to announce the call to host Cities on Volcanoes 14 conference to be held in 2028! To see the requirements and criteria, please visit the hosting COV14 page on our website.

The key dates are as follows:

Friday 3 October 2025 (5 pm HST)
Deadline for Notification of Intention to develop proposal to host COV14. Please email the CAV Secretary, providing information on:

- Host city and country
- Tentative month or dates of proposed conference
- Contact information for chair of proposing committee
- Availability of chair and known members of proposing committee in October and November 2025

October–November 2025:
Required informal meeting with CAV Executive Committee to review scope and expectations.

Friday 3 April 2026 (5pm HST):
Deadline for written Proposal to host COV14, which should include all elements specified on the website.

We look forward to hearing from you!

Best regards,

The CaV Executive Committee

3.8 CAV2026 Volcano Communities Series

The Cities and Volcanoes commission (CAV) continues to accept proposals for events that will be part of the *CAV2026 Volcano Communities Series*. Event proposals can be submitted through our website (rolling submissions). Events should be held in the language(s) that makes the most sense for the target audience. Events that are already planned and are in line with the COV conference mission are welcome, especially if they can be opened up to the wider regional or virtual community. The CAV commission will promote CAV2026 events and provide non-financial support to event organizers as needed and as we are able to.

The CAV commission is already working with proposers and hosts for events in Europe, North America, Asia, Oceania, and virtual events, including domestic and regionally-focused workshops, field trips, and a special event bringing art and science together. Proposals from all regions are encouraged to make the series truly global. We look forward to announcing an initial schedule for the CAV2026 Volcano Communities Series by December.

Bromo

SECTION 4. NEWS FROM MEMBERS

4.1 Remembering Wes Hildreth, 1938–2025

In Memoriam: Wes Hildreth, 1938-2025 | U.S. Geological Survey

The USGS California Volcano Observatory is saddened to announce the death of Edward Wesley (Wes) Hildreth III, in a vehicle accident on June 19, 2025, in rural western Nevada near Long Valley Caldera

Wes was born on August 17, 1938, in Newton, MA, and lived most of his early life in the Boston and San Francisco Bay areas. He studied at Harvard, where he majored in geology with a minor in government (BA, 1961). Receiving a Harvard Sheldon Fellowship, he traveled around the world alone in 1961–62. In 1963, he drove his Volkswagen van to Panama and back. After two years at Harvard graduate school in international affairs, he withdrew, alienated by bitterness over the Vietnam War. Between 1966 and 1970, Wes was a National Park Service naturalist at Muir Woods, Glacier Bay, Grand Canyon, Olympic, and Death Valley national parks.

Wes returned to graduate school at the University of California, Berkeley, in 1970, intending to map Precambrian stratigraphy in Death Valley. Instead, he met Prof. Ian Carmichael and soon found himself studying igneous petrology and volcanology in an exceptionally fruitful environment with talented fellow students, including his future wife, Gail Mahood (geology professor at Stanford University). That period was characterized by the advent of precise and comprehensive trace-element analyses, the transformation from wet chemistry to X-ray fluorescence, and from mineral picking to the then still-primitive electron microprobe. Wes's 1977 PhD on the Bishop Tuff ignited a global interest in large-scale silicic volcanism and magmatism that continues undiminished. He joined the USGS in 1977, where he remained a research leader for his whole career.

The many outstanding features of Wes's productive career reflect his intertwined interests in mapping volcanoes and understanding large-scale magmatic processes. He combined the two (with a sometimes-intimidating gravitas) through numerous intensive, field-focused studies mostly in the U.S. and Chile. For more than 45 years, he did so with Judy Fierstein, an indefatigable field collaborator and the artistic talent behind their many geologic maps. Their work made heavy use of USGS analytical facilities and was made possible by the high-quality geochronology provided by the USGS argon dating laboratory.

Wes and Judy, seen here in 2009 on the east shore of Sparks Lake near Oregon's South Sister volcano, were longtime field and research partners. Their work showed how mapping and understanding of geologic field relationships provide an unequaled framework for interpretation of laboratory-generated data; and how well-honed curiosity, acute observations, and willingness to do the hard work combine to build world-class scientific contributions.

Several facets of Wes's research, often made with U.S. and international collaborators, stand out:

- Wes's petrologic study of the rhyolitic Bishop Tuff, pioneering in its detail and comprehensiveness, challenged models for generating wide ranges in trace-element abundances in the erupted products. After what Wes himself referred to as "… *the wild-goose chase of Soret effects in magma chambers,*" his subsequent comparisons with other ignimbrites and related plutonic systems and the efforts of many other workers led to what has become widely known as the "*mush model*," which is now a central paradigm for the generation of silicic magmas.

- Turning to the ultimate driver of silicic magmatism, Wes recognized the fundamentally basaltic nature of most continental crustal magmatism and developed enduring concepts for what are now termed trans-crustal magmatic systems. His original 1981 concepts were further developed in 1988 to outline (using Chilean examples) the roles of crustal thickness and deep crustal processes (the MASH model) in the generation of arc magmas.
- At the Yellowstone Plateau volcanic field, Wes and his colleagues were the first to document the contrast between the narrow ∂18O range in the ignimbrites and the much lighter isotopic values of the earliest post-collapse lavas. His interpretation, that meteoric water was involved, initiated much research on the role of hydrothermally altered crust in the origins of low-d18O rhyolites and influenced the understanding of upper crustal silicic magma bodies.
- Studies of the Valley of Ten Thousand Smokes in Alaska yielded fundamental insights into how a complicated volcanic plumbing system beneath Novarupta and Katmai caldera led to a remarkable diversity of magmas erupting in the 1912 eruption.
- Wes's contribution to the 1986 geologic map of the island of Pantelleria in Italy stands as the most detailed study of a peralkaline rhyolite volcanic center. It remains an important contribution to understanding the physical volcanology of low-viscosity felsic magmas and their associated calderas, as well as the chronology of volcanic ashes across the Mediterranean.
- Late in his career Wes turned to his love of basic field geology and stratigraphy and published compelling studies on the landscape evolution of eastern Sierra Nevada, including the geology and geomorphology of the Long Valley Caldera region, the evolution of the Owens River gorge, and the nature and timing of development of the eastern Sierra Nevada escarpment.
- A major legacy of Wes's productive career at the USGS are the detailed geologic maps and descriptions of volcanic histories for Mount Adams, Mount Baker, Three Sisters, and Simcoe Mountains in the Cascade Range of Washington and Oregon; Mammoth Mountain and Long Valley Caldera in eastern California; Katmai in Alaska; Quizapu-Descabezado and Laguna del Maule in Chile, and Pantelleria in Italy. In Wes's words: "*I've emphasized on-foot authentic geologic mapping of blank spots on the map, largely in wilderness or otherwise uninhabited areas*."

Wes received wide recognition and awards during his career, including Fellow of the Geological Society of America (1985), Fellow (1995) and Bowen Award (1985) from the American Geophysical Union, the Thorarinsson Medal of the International Association of Volcanology and Chemistry of the Earth's Interior (2004), and a Meritorious Service Award from the Department of the Interior (2004). Wes and Judy jointly received the 2019 Florence Bascom Mapping Award from the Geological Society of America. In response to the award, Wes noted that it "*celebrated what I love doing best*."

Wes mapping on the rim of the Owens River in 2013. Wes's 1977 PhD on the Bishop Tuff ignited a global interest in large-scale silicic volcanism and magmatism that continues undiminished.

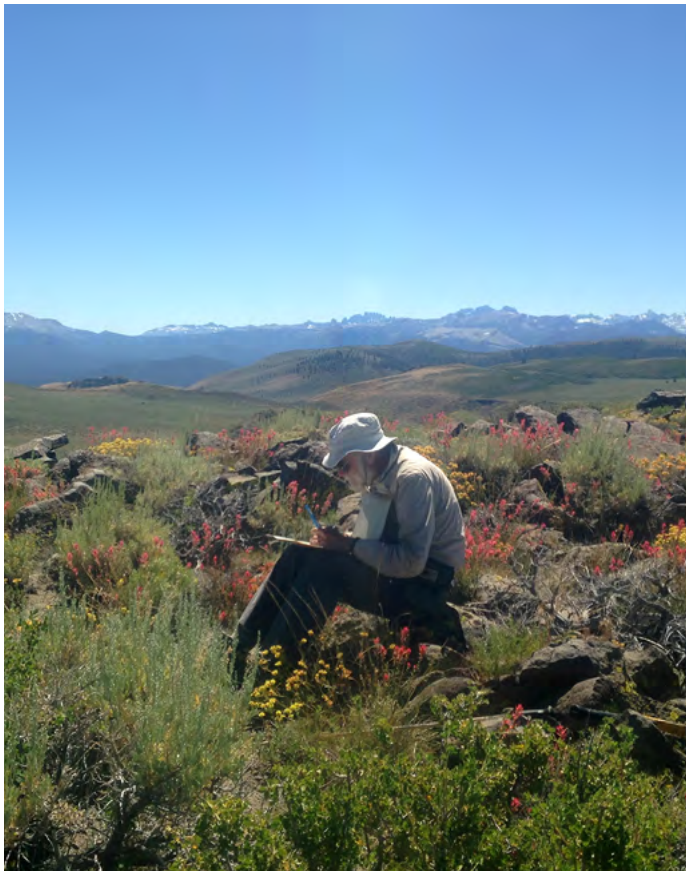
Wes was an avid reader and maintained a broad knowledge of global affairs, which was seeded by his travels through the Harvard Sheldon Fellowship. To colleagues, he offered three-thousand-year perspectives on the roots of conflicts in the Middle East and Europe. Before starting fieldwork each day, he scrutinized and read aloud portions of the daily academic commentary on current domestic affairs.

Wes was a lifelong runner, an activity that aided him in his field work. At his induction into the Dipsea Foundation Hall of Fame, he said, "At age 87, I still hit the road for an hour every day – 365 days – slower every year, but the mentality and fitness support my geological day job...There's a spiritual component – the freedom of the hills – the simple gift of communion with the landscape."

Wes was also a lifelong runner. He ran cross-country for the Harvard Crimson, and he finished in 29th place in the 1960 Boston Marathon. While traveling the world on the Sheldon Fellowship, he spent two months training at an immersion running camp in Australia. Between 1955 and 1972, Wes competed in the Dipsea Race for a grueling 12 km over the flank of Mt. Tamalpais, just north of San Francisco. On June 6, 2025, just two weeks before his death, Wes was inducted into the Dipsea Foundation Hall of Fame. In his acceptance speech, he said,

"*Distance running can be as much a lifestyle as a competitive sport. At age 87, I still hit the road for an hour every day – 365 days – slower every year, but the mentality and fitness support my geological day job*," and "*there's a spiritual component – the freedom of the hills – the simple gift of communion with the landscape*."

Wes was an outstanding geologist who had broad interests, including aspects of regional geology well outside of his recognized specialties in volcanology and igneous petrology. His insights and contributions have been of the highest quality and promise to last over time. At the time of his death, Wes was still carrying out work in the Sierra Nevada, the Mono Basin, the Cima volcanic field (all in California), and the Mina volcanics in western Nevada near where he died. His body of work, meticulously detailed, authoritatively stated, and contained within beautifully written papers, remains as an enduring memorial to his creativity, knowledge, and influence.



Wes spent much of his 48 years with the USGS working in the Long Valley Caldera. It seems only too fitting to say "goodbye to Wes" here: filling out his field book, amongst flowers, in the sun. USGS photo by Emily Montgomery-Brown.

Charlie Bacon, Andy Calvert, Judy Fierstein, Shaul Hurwitz, Jake Lowenstern, Tom Sisson
USGS Volcano Science Center

Gail Mahood
Stanford University

Colin Wilson
Victoria University, NZ

4.2 Remembering David Johnston

The USGS California Volcano Observatory is saddened to announce the death of Edward Wesley (Wes) Hildreth III, in a vehicle accident on June 19, 2025, in rural western Nevada near Long Valley Caldera

David on the lahar deposits from eruptions of Ruapehu during the 1995-96 episode (photo: J Lindsay)

David was the Distinguished Professor of Disaster Management, and Director of the Joint Centre for Disaster Management at Massey University in Wellington (New Zealand). He made an early choice to break down artificial barriers between behavioural and physical sciences, as one of the first researchers trained as an earth scientist to immerse himself in the social sciences. He had very broad vision, endless energy and enthusiasm, and a capacity to draw new ideas and directions from many disciplines. David was responsible for translating the concept of 'Cities on Volcano' into a self-sustaining series of conferences which in popularity now often rivals IAVCEI's assemblies. Together with Bruce Houghton, Carolyn Driedger and Grant Heiken he *founded the Cities and Volcanoes Commission of IAVCEI* and was actively involved in the planning and support of several of the early meetings. David was totally innovative in attracting funding from hazard sources to bring 'outside' specialists to COV meetings – economists, sociologists, planners, emergency managers. Many of these people remain part of our research community today.

David in Te Papa, the New Zealand national museum, with Colin Wilson exploring the new Earth Sciences exhibit they both helped design

David with members of the Volcanic Ashfall Impacts Working Group at USGS – HVO helping with one of many updates in 2022 to the ash impacts web resource

David expanded the culture of volcanology by demonstrating the relevance of its science to society, and he created spaces for volcanoes within social science research, policy making and practical applications. During his tenure as a professional, David authored or co-authored 260 publications. He supervised and oversaw 35 PhD students and 16 student master's projects to completion. David's professional influence extended beyond academia via workshops, courses, and informal guidance for emergency managers, schoolteachers, and museum specialists. David was as comfortable speaking with members of the at-risk public and politicians, as he was with professional peers. David's portfolio and legacy expanded and touched widely on earthquake, tsunami, flooding and wildfire hazards, but it all started with his PhD focused on the impacts and human response to eruptions of Ruapehu volcano. He came up with this study absolutely independently and sold it persuasively to his advisors and the newly created GNS Science research institute. His committee contained two volcanologists, a psychologist and a statistician- a first in New Zealand and probably internationally. Ruapehu then promptly began to erupt in 1995, providing a detailed and first-hand case study. GNS Wairakei decided this opportunity could not be passed over and hired David, initially diverting funds intended for the hire of a state-of-the art photocopier. In typical fashion, David then set up a social science team at GNS Science 25 years ago, created a completely new stream of national funding, and pioneered embedding social scientists in Earth, hazard and risk science. Senior managers joked that the "S" in GNS stood for "Social" (it did not).

Later David travelled to study international cases including the legacies of the Spurr eruption in 1991 in Alaska, Pinatubo, Philippines, and of the 1980 Mount St Helens eruption. This work served as a data base for later researchers who addressed volcanoes and human health. It inspired emerging researchers to conduct in-depth studies of ash effects on societal infrastructure and the natural world.

David also pioneered the global volcanic ash impacts and mitigation web resource with Bruce, Richard Fisher, Steven Brantley and Jennifer Adleman: the international one-stop-shop for volcanic ash information housed out of USGS. David led several international reconnaissance trips to observe and remove data gaps for eruption impacts on infrastructure and societal coping. The on-site observations established the base of evidence for the website and began a legacy that has expanded to more than 20 post-event studies in as many years. David's work led to robust partnerships with infrastructure specialists, and co-development of industry specific ash mitigation posters that have been adopted and modified for global context.

David focused on partnerships with stakeholders and community groups in many places beyond New Zealand, especially in volcanic hazards with Washington State emergency managers and USGS. David's international experiences, sincerity in acknowledging locals' concerns, and willingness to speak with public officials and at-risk neighborhoods alike gave him an almost legendary status in the community. In a society still motivated by 1980s eruptions

of Mount St. Helens, David's confidence and encouragement led to co-development of studies of preparedness and new channels for school and neighborhood educational outreach. David used the volcano work as a template for additional partnerships with USA officials concerning earthquake and tsunami preparedness.

David observing recovery from the Pinatubo eruption with PHIVOLCS in the Philippines (2007)

Carolyn Driedger reflected that during the late 1990s, David became a common sight in communities near Mount Rainier at a time when scientists, officials and the public wrestled with best ways to improve lahar preparedness:
"*David showed that he truly cared about their cause. He gave us all ideas and confidence, and he offered practical solutions. He urged us as scientists to do 'radical listening' even before the term had been invented, by resonating the interests expressed by the community, and by acting more as a mirror for their volcano interests than a megaphone spouting information about hazards*."

David's legacy in the region continues. During a Spring 2025 groundbreaking for a pedestrian bridge over highway that can facilitate evacuation, several people commented on the twenty-plus years required for construction to begin. Another person responded:
"Remember, that many years ago a scientist from New Zealand told us not to give up – that we might not see an evacuation plan completed in our lifetimes, but that a future generation would"

That scientist was David M. Johnston.

In New Zealand he pioneered hazard maps at Ruapehu, developed public warning system exercises with the Department of Conservation and evaluated them with observers and public surveys. He strongly pushed for new data to underpin and drive new interventions in human behaviour and risk mitigation.

David on Heimaey (Iceland) in 2008, studying the long term impacts and recovery following volcanic activity (J Lindsay)

The Determining Volcanic Risk in Auckland DEVORA programme was David's initial idea, and more broadly he has pioneered embedding social science in a geological survey and with a volcano observatory.

In the last decade he has become actively involved in UNDRR and WMO initiatives around severe weather and warnings. This has come full circle to IAVCEI with the recent partnership for Early Warnings for All workshop hosted by WMO in Geneva July 7-9 with IAVCEI following the Scientific Assembly.

Mike Lindell reflected on David's impact on wider disaster human behavioral science:
"*We will all miss David Johnston for the many significant scientific contributions he made during the 30 years since his first publication in 1995. It goes without saying that he produced numerous publications that have received thousands of citations. More significant, however, are the diversity of the topics and the wide range of hazards that those publications addressed. The research topics included all aspects of hazard management – spanning risk communication, hazard mitigation, emergency preparedness, emergency response, and disaster recovery. David is best known for his work on volcano, earthquake, and tsunami hazards. However, he also made contributions to research on landslides, severe weather, wildfires, and the COVID-19 pandemic. His research is also remarkable for the large number of collaborators from countries other than New Zealand – Australia, Canada, Japan, Thailand, the United Kingdom, and the United States. Finally, I will miss David most as a research collaborator and as a personal friend.*"

David at Mt Rainier as part of a trip supporting Washington State emergency managers in 2008

David was a wonderful and inspiring friend, mentor and leader. Making the uncomfortable comfortable; showing that it was ok and even critical to lead inter-disciplinary work because by nature no-one feels initially comfortable being that bridge. David had an infectious passion for public good, social science, health, earth science, education, history, feminism, support of Māori (indigenous people of Aotearoa New Zealand) aspirations, and was a leader in inter-disciplinary work.

He was a close friend and colleague of many IAVCEI members and volcano observatory staff over the years, as well as a significant number of people throughout universities and government internationally. Lately, David has been working with throughout the country with Māori to embed Māori research and Te Ao Māori perspectives alongside physical science.

David's tireless work, visionary drive for societal resilience, and lovely positive presence will be deeply missed by many.

David next to the deposit of Earth's youngest super-eruption (Ōruanui) 1000 km downwind from the source on the Chatham Islands – a place he loved dearly

He is survived by his partner Carol Stewart and son Joshua Stewart, who are also friends to many volcanologists collaborating on volcanic health and emergency management projects, respectively.

Graham Leonard, Bruce Houghton, Carolyn Mastin and Tom Wilson