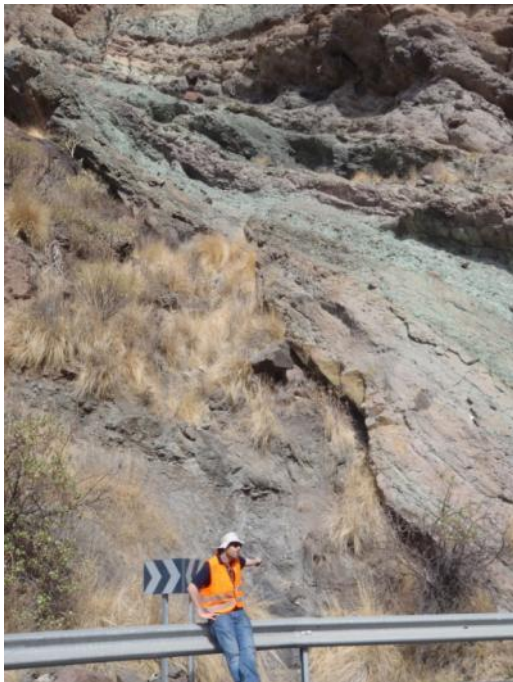




### VMSG Fieldtrip – Gran Canaria: Through the inside of a volcano!

The much anticipated VMSG fieldtrip to Gran Canaria was a great success, owing mostly to the excellent organisation by Val Troll and Lothar Schwarzkopf. We were quite the eclectic group, with 24 participants, from 7 different countries, including Sweden, Russia and Australia, and with an age range of 22-76. The weather was fantastic all week, allowing for liberal use of sun cream, and the consumption of copious amounts of ice cream, sometimes even for breakfast! Over 6 days, we traced the volcanological history of Gran Canaria, from the Miocene to Holocene, looking at how ocean island volcanoes grow and are destroyed.



Val explaining the formation of the hydrothermally altered caldera margin deposits (Photo: Heather Rawcliffe).

The focus of day 1 was the Miocene shield basalts and ignimbrites, which crop out extensively on Gran Canaria. Over the course of the day we were introduced to the rhyolitic Mogan and Fataga ignimbrite Groups and their somewhat chaotic stratigraphic labelling! For many the highlight of the day was unravelling the complexities of these rheomorphic, welded and non-welded ignimbrites; for others it was the 'Café Cortado Leche Leche'

(condensed milk, coffee and milk foam) we enjoyed in the mid-afternoon break!



View from Los Pochos towards Roque Nublo, and Tenerife in the distance (Photo: Heather Rawcliffe).

Day 2 was spent completing an exercise logging and correlating ignimbrites of the Fataga Group in the Barranco Ayagaures. This was particularly useful for the students amongst the group, and demonstrated how valleys are formed, filled and then eroded on Gran Canaria, and other ocean island volcanoes.

Day 3 was spent in the north west of the island looking at the Miocene Tejada Caldera, from extra-caldera deposits, through the hydrothermally altered caldera margin and into the fill of the caldera basin. The caldera margin at Fuente de Los Azulejos displays exotically coloured tuffs, which are characteristic of low-temperature hydrothermal alteration. There was also a perfectly located juice refreshment stop, where papaya and banana smoothies helped lubricate the group, as we admired the wonderful views of the barrancos below. In the afternoon, we looked at the spectacular cone sheet intrusions that cut the caldera, and saw for the first time the major Miocene-Pliocene unconformity.

Day 4 was devoted to the Roque Nublo Volcano and the most recent volcanism on Gran Canaria of the Las Palmas Volcanic Field. After looking at some Roque Nublo breccia deposits we hiked up to the monoliths of Roque Nublo. We paused for a short time at the highest point on

the island, Pozo de las Nieves (Los Pochos), more than 1900m above sea level.



*Inspecting the tsunami deposit from the Güímar collapse on Tenerife (Photo: Heather Rawcliffe).*

Here there were spectacular views of Teide, Tenerife, taken in by many tourists, including the crazy cyclists who braved the sharp hairpins and steep roads to get there. Spectacular Pleistocene and Holocene maars and scoria deposits completed an excellent day.

On day 5 we concentrated on the 'end of ocean islands'. We inspected uplifted pillow lavas, recording the interaction of Roque Nublo lavas with shallow marine sediments, and an uplifted marine platform, the Arucas, which is host to many shell beds. We inspected tsunami deposits, thought to be from the Güímar collapse on Tenerife (830,000 years ago) and a spectacular landslide, aptly named El Risco! Here we brought together our well practised road safety skills, and managed to inspect the roadside exposures without antagonising the locals too much. The day was perfectly finished off with fantastic food in a local Canarian restaurant.

Day 6 was a summary day that traversed the island from south to north. By now we were familiar with the stratigraphy of the island and it was a great way to round the trip off, bringing together everything we had seen throughout the week.



*The group on the side of one of the most recent scoria deposits, Mountain Negro (Photo: Nina Jordan).*

We would like to sincerely thank Val for a fantastic trip, and presenting such complex geology in a clear and logical way to the group. Although there were many different levels of experience, everyone gained a thorough understanding of the information being presented, which was aided by excellent exposures and discussion within the packed itinerary. We would also like to thank Lothar for his help in organising and running the trip, and dealing with the minor car issues!

By Heather Rawcliffe

## **Workshop Caribbean volcanism and crustal structure, 9-10<sup>th</sup> of July, University of Bristol**

The School of Earth Sciences of the University of Bristol is hosting an interdisciplinary workshop on the geology of the Caribbean, aiming at bringing together scientists (around 40 people) that use geophysics, geochemistry, volcanology and petrology to study the Caribbean volcanism and crustal structure. The meeting will start with an icebreaker party on Sunday evening (8<sup>th</sup> July), and will run from Monday morning, 9<sup>th</sup> July, to late afternoon, Tuesday 10<sup>th</sup> July.

For more information, please see:  
<http://caribbean2012.gly.bris.ac.uk/>



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## Student reports

*Nina Jordan, University of Leicester*

A VMSG travel bursary enabled me to attend the Gran Canaria field trip this spring. We learned about the volcano's subaerial history and physical volcanology to date (some 14 Ma).



*Nina during a hike to one of the highest points on the island (Roque Nublo). The island of Tenerife can be seen in the distance (above Nina's hand).*

Since my PhD research is about welded ignimbrites I was most interested in seeing the ignimbrites on Gran Canaria. A whole day was spent logging and correlating ignimbrites which I thoroughly enjoyed as it was similar to my own fieldwork. However, the rocks were slightly different so it did not get boring. Amazingly, the ignimbrites on Gran Canaria are even more high-grade, almost lava-like, than the ones I study on the island of Pantelleria (Italy). Between the ignimbrites I have seen on Gran Canaria, Pantelleria and Tenerife I now feel like I have a good idea of the range of grades in ignimbrites (sensu Branney & Kokelaar, 1992). It was a magnificent trip with a diverse and interested group, many thanks to the leaders Val Troll and Lothar Schwarzkopf! I am most grateful to VMSG for helping me to go on this trip by awarding me £300!

*Peter Fawdon, Open University*

I would like to thank VMSG for awarding me financial support to attend the European Geosciences Union general assembly 2012 in Vienna between the 22<sup>nd</sup> and 27<sup>th</sup> of April. At the conference I presented my poster: 'Syrtris Major Volcano evolution characterised from a terrestrial analogue' in the "Volcanism and Tectonics in the Solar System" session. My poster received positive comments from specialist and non-specialist viewers as well as the judges of the outstanding student poster award. Attending the conference not only allowed me to present the poster but I also gathered important information about the research in planetary volcanology happening across the world. Importantly I met key authors in the field, who do research specifically relevant to my project. We had encouraging and informative discussion on my preliminary results, the direction of my research and my use of a novel terrestrial analogue to explore the Syrtis Major region.

EGU was much larger than my previous conference experience (VMSG 2012), with over 11000 attendees. The week gave me experience in the dynamics of a large conference and this aspect of communicating science. I will now be able to better take advantage of future conference attendance.

I found Vienna to be a beautiful and historically fascinating. During my stay I went to a Beethoven concert in the Musikverein (standing tickets!), walked in the hills surrounding the city and visited the natural history museum. Overall I feel that it was a successful conference and again I thank VMSG for enabling a fantastically useful experience.



*Peter (second from right) outside the entrance to EGU*

## **VMSG fieldtrip Adamello, Italy – cancelled**

*26<sup>th</sup> August – 1<sup>st</sup> September 2012*

Leader: Jon Blundy

## **Obituary**

### **Professor John Guest**

The sad news has been announced that Prof. John Guest (UCL) has died unexpectedly after a short illness. During a career that spanned more than 40 years, John not only pioneered the UK's involvement in NASA's fledgling planetary-science programme, but was also instrumental in transforming UK volcanology into the modern science we know today.

For example, he founded in the 1970s the NASA Regional Planetary Image Facility at UCL (at the time the only such facility outside the USA) and was pivotal to the Anglo-Italian collaboration that produced the modern geological map of the active volcano Mt Etna in Sicily - the first for more than a hundred years. Beyond research, he trained and inspired generations of students - undergraduate and postgraduate alike - and cemented the UK's global standing in the fields of volcanology and planetary science.

By Chris Kilburn

## **Editorial**

Please forward any articles, comments or notices of events, workshops and conferences before 18<sup>th</sup> August '12.

*Charlotte Vye ([cvye@bgs.ac.uk](mailto:cvye@bgs.ac.uk))*