



### Report on the VMSG field trip 30<sup>th</sup> August – 4<sup>th</sup> September 2010, Northern Ireland

#### In the Footsteps of Giants: Irish Legends and Palaeogene Magmatism

Organised by Carl Stevenson with help and contribution from Mark Cooper (GSNI), Hugh Anderson (UCD), Ian Meighan (TCD/SUERC), Fiona Meade (Glasgow), Cora McKenna (UCC), John Gamble (UCC) and Paul Lyle.



Group photo at Giant's Causeway (Photo: C. Stevenson)

Forty years since Jack Preston and Henry Emeleus published their Field Excursion Guide to the Tertiary Volcanic Rocks of Ireland, the 2010 VMSG field trip returns to the Emerald Isle. The Palaeogene subvolcanic complexes and lavas in this province remain classic areas in geology where the blueprints for our modern understanding of volcanism were drawn up by the groundbreaking work of 20<sup>th</sup> century trailblazers including Richey, Reynolds, Tomkeieff, Patterson, Tilley and Walker, and Emeleus and Preston's (1969) guide remains the best introduction to the Irish sector of the BIPIP. The field trip visited localities in the Mourne Granites, some new road cut outcrops through the Slieve Gullion ring-complex, cone sheet outcrops of the Carlingford Centre, faulting and intrusion relationships west of the Antrim Basalt plateau, the Portrush Sill and, of course, the Giant's Causeway. The aim of the trip was to consider the structural relationships of these subvolcanic intrusions, the

implications for their emplacement, and examine new evidence for tectonomagmatic relationships in this sector of the BIPIP.

On the trip we stayed at the Cnocnafeola Centre, Attical in the heart of the Mourne Mountains where Mairead White and staff made us feel very welcome and comfortable for the next two days. In Co. Down we visited Glasdrumman Port to see outcrops of composite minor intrusions that displayed spectacular mingling textures between mafic and felsic magmas, the Bloody Bridge River section through the Eastern Granite Centre, cone sheets of the Carlingford Complex, and some new exposures of the Slieve Gullion complex revealed by new road cuts. On Tuesday evening Dr Rowan McLaughlin from Queen's University gave a seminar of some of the archaeology and mythology of the region, and then on Wednesday evening we were entertained by the former Riverdance violinist Zoe Conway who played for us a mixture of classical and traditional Irish fiddle.



Glasdrumman Port (Photo: C. Stevenson).

Leaving Co. Down we headed north, stopping first at Gibbison's Quarry near Portadown to see the base of the Antrim Basalts and the Clay with Flints horizon. Further



north at Carmean Quarry, Maghrafelt, the relationship between Palaeogene faulting and magmatism was considered. Staying at the Sheep Island View Hostel in Ballintoy, we arrived on Thursday and were treated to a taste of Belfast Ale, provided by Professor Gamble (purchased in Attical). The next day we visited the Portrush Sill in the morning to examine the structure and internal variation and textures of this intrusion. Then in the afternoon, joined by Paul Lyle, we visited the famous Giant's Causeway. That evening the hostel owners had arranged for some live music down the pub. Then on Saturday we set off, initially led by Prof Gamble, then by a Sat Nav when we got lost, along the Antrim Coast Road and finally back to Belfast. Altogether this was a great trip with kind weather and enthusiastic participants.

Thanks all.

Carl Stevenson



Investigating the Portrush Sill (Photo: C. Stevenson).



## Forthcoming Events

### VMSG Annual Meeting Cambridge, 5-7<sup>th</sup> January 2011

The annual VMSG meeting will be held at Queens' College, Cambridge from the 5-7 January 2011. We propose that the meeting should be guided by the following broad themes, but welcome contributions from all fields of volcanic and magmatic studies.

- ***The science of volcanoes and society***

How can we improve volcano monitoring strategies? How can we better predict the environmental impacts of eruptions, their direct influence on those living close to volcanoes (pyroclastic flows, glacial floods) and the far-field effects (ash clouds, volcanic gases)?

- ***Volatiles in magmas and volcanic degassing***

What is the role of volatiles in magma evolution, dynamics and eruption? How do they behave in volcanic plumes?

- ***Crustal storage of magma***

What happens when magma batches stall in the crust and accumulate in large magma chambers? How do replenishment and emptying of such bodies relate to the fluid dynamics of the magma body and surrounding crystal mush? How are these processes preserved in the intrusive and volcanic record?

- ***Volcanic margins***

How is melt generated at volcanic margins? Where does it pond in the mantle and crust and how is it transported towards the surface?

- ***Mantle processes***

How are compositional heterogeneities in the convecting and/or lithospheric mantle reflected in the compositions and volumes of erupted melts? How do these compositional heterogeneities originate in the Earth's interior? What are the controls on melt generation in the mantle?

The opening icebreaker and poster session will be held on Wednesday 5<sup>th</sup> January 2011. The conference dinner,

which is included with the registration fee, will be held at Queens' College on Thursday 6<sup>th</sup> January. Accommodation will be available at Queens' College and may be reserved when registering. Further details will follow <http://www.vmsg2011.org/>

## Deadlines

### **VMSG 2011**

Abstract submission, early bird registration and accommodation deadline **5<sup>th</sup> November**.

### ***Upcoming annual meetings***

We are pleased that Durham has provisionally agreed to host the 2012 VMSG meeting. We are now looking for a volunteer to organise and host VMSG 2013. If you are interested in hosting the conference please contact a member of the committee.

### ***Student travel grants***

Applications for VMSG support enabling travel funding from UK-based postgraduate researchers are due before **15<sup>th</sup> December**. For further information and an application form please see the website funding page <http://www.vmsg.org.uk/>

## Editorial

All members of the VMSG community are invited to contribute articles for the newsletter. Deadline: 3<sup>rd</sup> December '10. Please forward any articles, comments or notices of events, workshops and conferences to me before the deadline.

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**VMSG Committee Member, Editor and List Manager**