

British Society for Geomorphology (BSG) Conference Attendance Grant Report

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Summary

The BSG kindly awarded me £650 to support my attendance at the European Geosciences Union (EGU) meeting in Vienna, 27th April – 2nd May 2014.

I gave one oral presentation and two poster presentations at EGU, which included the results of a 2013 field campaign to California that was also financially supported by the BSG. My presentations were well-received and invaluable opportunities for me to receive constructive feedback that will greatly improve my future publications and research. I have detailed these presentations and outcomes below. The conference was a very useful opportunity for me to meet other geomorphologists and extend my network, and a number of talks at EGU have given me new ideas for advancing my own research in the future.

The support of the BSG also gave me the opportunity to attend the 'SteepestDescent' geomorphology meeting in Vienna on the 3rd May 2014, where I also displayed my poster presentations and received further constructive feedback.

Presentations

- (i) 30/04/2014. Oral presentation: **"Debris flow fans as sensitive recorders of glacial-interglacial climate change in the south-western United States"**, by M. D'Arcy et al., *session: TS4.1/GM3.3/SSP3.2.6.*

I presented the results of a BSG-sponsored field campaign to Owens Valley, California, in Nov./Dec. 2013, demonstrating a strong correlation between the grain size distributions of debris flow fan deposits and climate change during the past 140 ka. This talk received a lot of positive interest from geomorphologists and sedimentologists. I am now writing 2 papers based on this data, and the feedback I received at EGU will be extremely helpful in preparing them.

- (ii) 01/05/2014. Poster presentation: **"Age calibration of weathering fractures in desert clasts: A new approach to dating geomorphic surfaces in arid landscapes"**, by M. D'Arcy et al., *session: CL6.9/GM1.10/SSS3.8.*

I presented a separate data set from my field campaign in Owens Valley, which reveals a strong relationship between the ages of debris flow deposits and the sizes of weathering fractures that dissect their surface boulders. I proposed that these fractures can therefore be used as calibrated chronometers for the dating of additional alluvial fan surfaces in this study area. This is a new technique, which has just been accepted as a paper for *Earth Surface Processes and Landforms*. The poster attracted a lot of very

positive attention, and these comments will directly improve the final revised version of the manuscript. I was approached by a number of geomorphologists who have observed similar weathering fractures in deserts in Chile, Argentina, and Australia, and I am hopeful that this will result in future collaborations as well.

- (iii) 02/05/2014. Poster presentation: “**New geomorphic constraints on landscape sensitivity to climate in tectonically active areas**”, by M. D’Arcy & A. Whittaker, *session: GM3.1/GD1.4/TS4.5*.

I presented a poster detailing how the longitudinal geometry of river channels is sensitive to climate in various tectonically-active landscapes. I originally presented this research at the BSG annual meeting in 2013, and it gained further attention at EGU. This research has now been published.

Outcomes

1. I am currently making revisions to a paper that has been through review for *Earth Surface Processes and Landforms*, based on the material I presented in poster (ii) (above). As well as the reviewer’s comments, the feedback I received at EGU will be very helpful in improving the manuscript before publication.
2. I am currently preparing 2 additional papers based on the material I presented in talk (i) (above). Again, I received a lot of constructive feedback about my ideas and this will be very helpful in preparing the papers.
3. A number of talks at EGU have given me useful ideas about how to advance my research.
4. I had useful discussions with several other geomorphologists about poster (ii) (above). Several have made similar observations in their study areas, and are going to test my ideas when they conduct future field campaigns. Two groups proposed a future collaboration if they find similar results, so I am hopeful that this research will continue in the future.
5. EGU was by far the largest conference meeting I have attended, and I was able to meet many geomorphologists who I had not met before. This was very helpful for building my own professional network.
6. By giving 3 presentations on different topics, EGU was an excellent opportunity to promote my research and that sponsored by the BSG. I explicitly acknowledged the support of the BSG in my presentations.

Use of BSG Funds

In total, the BSG awarded me £650 towards the conference costs, which ultimately made it possible for me to attend EGU. The following is a breakdown of how this money was spent, and receipts are attached.

- Return flights from London Heathrow to Vienna; **£225.00**.
- Rental of a room in Karlsplatz, Vienna, 28th April – 3rd May 2014, on AirBnB; **£263.00**.
- EGU PhD student member early registration; €210.00 = **£172.68**.

These costs total **£660.68**, using an exchange rate at the time of spending. My supervisor has kindly paid the remaining cost of abstract processing fees, and I paid for my own breakfast/lunch/dinner expenses.

I would not have been able to attend EGU without the support of the BSG, so I appreciate this grant very much – thank you.