

ROBERT MYHILL

Department of Earth Sciences
University of Cambridge
Bullard Laboratories
Madingley Rise
Cambridge, CB3 0EZ
UK

phone +44 (0)7841 714164
fax +44 (0)1223 360779
email rm438@cam.ac.uk

EDUCATION

Current PhD Research at the University of Cambridge

The Mechanisms of Deep-Focus Earthquakes

I am researching the causes of earthquakes occurring at depths greater than 300 km through an integrated analysis of seismic distributions, focal mechanisms and the pressure-temperature regimes within which these events occur. I will combine this analysis with geophysical modelling techniques to elucidate aspects of the interaction between subducting plates and the upper-lower mantle boundary.

Advisors: Dan McKenzie and Keith Priestley.

2004-2008 MSci + BA Peterhouse, University of Cambridge, Class of 2008.

Natural Sciences (Physical; 4 years).

Part III: First Class. 1/36 in Class (Geological Sciences).

Part II: First Class. 1/39 in Class (Geological Sciences).

Part IB: First Class (Maths, Stratigraphic Geology, Mineralogy, Petrology).

Part IA: First Class (Geology, Maths, Physics, Chemistry).

SELECTED GRANTS AND AWARDS

2008 The Hugo de Balsham Prize for Exceptional Academic Distinction.

The Harkness Scholarship (first-placed Finalist in Geological Sciences, University of Cambridge).

The Huppert Prize in Geophysics.

2007 The Henry Wilkinson Cookson Senior Scholarship in Natural Sciences.

The John Reekie Memorial Prize for the best geological fieldwork-based thesis submitted for the first degree at the Department of Earth Sciences.

2005-2006 Peterhouse Junior and Senior Scholarships.

2005-2007 Departmental Field Mapping Prizes

(5 prizes, from the Arran, Sedbergh, Dorset and Cornwall and Greece Field Trips).

2004 The George Watson Prize for Outstanding Scholarship

(Best results, Class of 2004, Sir John Leman High School).

SKILLS

- Competent user of L^AT_EX, Microsoft and Serif Office programs.
- Experience of FORTRAN, C, C++ languages, and use of the OpenGL API.
- Experience in BASH and HTML scripting.
- Over 400 hours experience with THERMOCALC.

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed journal articles

- 2010 R. Myhill, D. McKenzie, K. Priestley, "Clustering of deep-focus earthquakes in the southwest Pacific".
Submitted to Earth and Planetary Science Letters.
- 2010 R. Myhill, "Constraints on evolution of the Mesohellenic Ophiolite from sub-ophiolitic metamorphic rocks".
Geological Society of America Special Publication, accepted.
- 2010 A. Rassios, Y. Dilek, R. Myhill, D. Ghikas, A. Mpatsi, "Melange Formations beneath the Pindos Basin Ophiolites, Northern Greece: Evidence of an active, rapid decollement emplacement surface".
Geological Society of America Special Publication, accepted.

Presentations

- 2009 "Clustering of deep-focus earthquakes in the southwest Pacific". *Poster presentation, American Geophysical Union Fall Meeting.*
- 2009 "Faulting 300 kilometers down: The mystery of deep-focus earthquakes". *Magdalene Parlour Talk.*
"Deep-focus earthquakes". *Bullard Laboratories Friday Talk.*
- 2008 "The significance of high temperature low pressure rocks beneath the Mesohellenic Ophiolite".
Poster presentation, Institute of Geology and Mineral Exploration (IGME) Field Symposium.
IGME Field Symposium: Ophiolites 2008. *Field demonstrator and member of the organising team.*
Köln undergraduate field trip to Greece. *1-day invited field demonstrator.*

RELEVANT EXPERIENCE

- 06/07-01/08 Masters Thesis at the University of Cambridge: Metamorphic Development beneath the Mesohellenic Ophiolite. I obtained a high First (80%) for this project.
Advisor: Dr. Timothy Holland, University of Cambridge.
- 06/06-01/07 Bachelors Thesis at the University of Cambridge. Independent mapping project and industrial work experience: Vourinos, Northern Greece. I obtained the top First in the year for this project (80%).
Advisors: Dr. Alan Smith, University of Cambridge and Dr. Anne Rassios, IGME.
- 07/05-08/05 Field geologist, British Geological Survey. Paid appointment for the Tellus Project, part of a national environmental survey completed in 2006.
Advisors: Louise Ander, Sean Quigley, Sophia Passmore (British Geological Survey).
- 2008-present Supervisions given in the following courses: *Geology (IA), Hydrosphere (IB), Tectonics and Structural Geology (IB), Tectonics (II/III) and Revision and Essay Skills (IA/IB/II/III).*
Demonstrated practicals for the following courses: *Tectonics and Structural Geology (IB), Tectonics (II/III) and Seismology (II/III).*
Field Demonstrator: *Ketton (IA), Arran (IA), Sedbergh (IB).*
- 2005-present 250+ days fieldwork experience (as of April 22, 2010) as demonstrator, field guide, employee, researcher and student.
(Locations include: Ireland, Iceland, Greece, Dorset, Cornwall, Sedbergh, and the Isles of Arran and Skye.)

OTHER INTERESTS

- First Aid: I am presently Duties Coordinator for Cambridge LINKS, the student division of St John Ambulance, having been a member since 1998.
- Magdalene College MCR: I am currently MCR Treasurer.
- Outreach: I volunteer for Time Truck (the student geological outreach organisation) and also SEEK (Science and Engineering Experiments for Kids).
- The Sedgwick Club (The University of Cambridge geological society): As an undergraduate I was president of this society, and I remain an active member.
- Music: I play oboe and piano, and as an undergraduate was a member of the Peterhouse Chamber Orchestra.
- Foreign travel: I particularly enjoy my time in Greece, and spent my final year at undergraduate level learning Modern Greek at the Department of Medieval and Modern Languages.