

# Curriculum Vitae - Dr. David Graham Cornwell

## Personal Information

*Work Address:* Institute of Geophysics & Tectonics, School of Earth & Environment, University of Leeds, Leeds, LS2 9JT, UK. Tel: 0113 343 7012; Email: d.cornwell@see.leeds.ac.uk

## Education and Qualifications

2008: PhD in Seismology, "Magma-Assisted Continental Rift Margins: the Ethiopian Rift", University of Leicester

2001: MSc. Exploration Geophysics, University of Leeds

1999: BSc. (Hons) Geophysics (Geological) (Class 2:1), University of Leicester

## Employment History

*Current:* Postdoctoral Research & Teaching Fellow in Geophysics  
*University of Leeds (Sep.2007-present)*

*Past Positions:* Research Associate  
*University of Liverpool (Mar.2007-Aug.2007)*  
Graduate Teaching Assistant  
*University of Leicester (Jan.2003-Dec.2006)*  
Geophysical Contractor  
*GSI (Zetica) Ltd., (Oct.2001-Jan.2002)*  
Volunteer Scientist  
*U.S. Geological Survey (Menlo Park) (Aug.1999-Sept.2000)*

## Research Publications

Cornwell, DG; Pathirana, S; Stuart, GW (in prep) Anisotropic signatures of magmatic intrusions into the Ethiopian crust, *GJI*,

Cornwell, DG; Hetenyi, G; Blanchard, TD (submitted 2011) Variations in the mantle transition zone beneath the Ethiopian Rift and Afar, *Geoph. Res. Lett.*,

Cornwell, DG; Maguire, PKH; England, RW; Stuart, GW (2010) Imaging detailed crustal structure and magmatic intrusion across the Ethiopian Rift using a dense linear broadband array, *GEOCHEM GEOPHY GEOSY*, 11, doi:10.1029/2009GC002637 (cited by 2).

Keir, D; Bastow, ID; Whaler, KA; Daly, E; Cornwell, DG; Hautot, S (2009) Lower crustal earthquakes near the Ethiopian rift induced by magmatic processes, *GEOCHEM GEOPHY GEOSY*, 10, doi:10.1029/2009GC002382 (cited by 5).

Cornwell, DG., *et al.* (2006) Northern Main Ethiopian Rift crustal structure from new high-precision gravity data. *In: Yirgu, G., et al. (eds) Structure and Evolution of the Rift Systems within the Afar volcanic province, Northeast Africa*, Geological Society, London, Special Publications, 259, 309-323 (cited by 20).

## **Funding/Equipment Loans**

- Sindri (Faroes Oil Industry Consortium) (PI; £115k): Investigating variations in crustal structure beneath the Faroe Islands using passive seismic data (1/5/2011-31/4/2013).
- NERC Standard Grant (CO-I; £500k): Testing models of plume–lithosphere interaction: imaging the edge of the African superplume (submitted Dec. 2010).
- NERC Standard Grant (CO-I; £950k): Deep crustal structure of the North Anatolian Fault Zone and the earthquake cycle (submitted Dec. 2010).
- NERC Geophysical Equipment Facility: i) Loan 918 (2011-2013): 12xESPD Seismometers; ii) Loan 765 (2004): 2xLeica 500 GPS (c/o Prof. Maguire).

## **Other Research Experience, Skills and Awards**

- Reviewer for the *Journal of Volcanology and Geothermal Research*, *Geophysical Journal International*, *Tectonophysics*, and the *Journal of African Earth Science*.
- Field instrument deployment for controlled-source and passive seismic projects in Romania, Ethiopia (EAGLE) and USA (USGS: LARSE, SHIPS).
- Participated in 11 international, national and University conferences and received 4 awards for talk/poster presentations: Best Talk, British Geophysical Association Postgraduate Meeting 2005; P.C. Sylvester-Bradley Award (Best Postgraduate Talk) 2005; Outstanding Student Paper Award, AGU Fall Meeting 2004 and 2006.
- Full member of AGU, EGU and EAGE.
- Current full driving licence (since 1997).
- First Aid at Work Certificate (until 2012).

## **Teaching Qualifications/Experience**

**Qualification:** University of Leeds Teaching Award Master's-level course (Nov. 2010), ongoing study to achieve a Postgraduate Certificate of Academic Practice (PGCAP).

**Lecturing:** 2 yrs lecturing MSc and 3<sup>rd</sup>-year UG in Seismic Acquisition and Processing, including practical-based ProMAX™ seismic processing, MESA™ acquisition design and seismic reflection acquisition fieldwork.

**GP Field Teaching:** >10 yrs experience teaching geophysical and geological field methods, including gravity, seismic reflection/refraction, EM, GPS, field data QC/processing and basic structural geology. Co-leader for >20 geophysical fieldwork courses across UK and Europe.

**Project Supervision:** 3 UG Geophysics 8-month and >10 MSc Exploration Geophysics 3-month individual projects. >5 yrs experience providing UG and MSc project support, including: geophysical software licencing, systems admin; SEG Y data loading; software reporting; software training.

**Demonstrating:** >3 yrs experience demonstrating UG practical classes including: Plate Tectonics; Fortran/Matlab Programming; Near-Surface Geophysics; Geological Maps/Structures; Potential Fields; and Global Seismology.