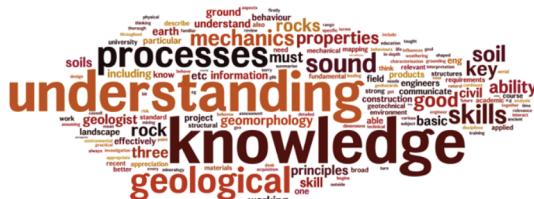


NZGS IS PROUD TO PRESENT:

FEET ON THE GROUND: Engineering Geology, Past, Present and Future

PROFESSOR JAMES S GRIFFITHS

BSc PhD FIMMM CEng CGeol FGS EurGeol FRGS PFHEA
Registered Ground Engineering Professional Advisor
Professor of Engineering Geology & Geomorphology and
Dean of Research & Innovation at Plymouth University

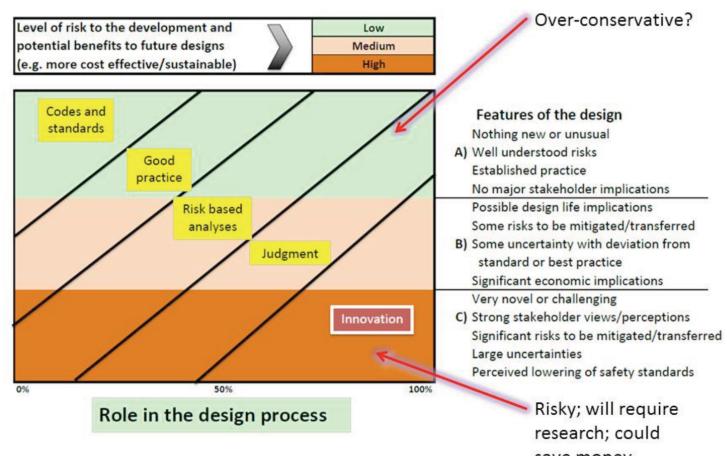


ABSTRACT

Engineering geology has a long and rich heritage and the United Kingdom has been in the vanguard of the development of the subject as a distinct discipline with the first book on the subject being published in London in 1880. Since then engineering geology has been applied to projects around the globe and engineering geologists have become core members of planning, investigation, design and construction teams in the civil engineering and mining industries. However, in the past few decades we have seen numerical analyses increasingly being accepted as the answer to all geotechnical design questions; although as engineering geologists we are used to dealing with natural materials and processes and recognise that their inherent variability cannot always be reduced to a simple numerical value. Consequently, how do we ensure that any proposed construction works in civil engineering or mining take full account of this variability and the uncertainties that result? To enable engineering geologists to understand and describe these uncertainties are there

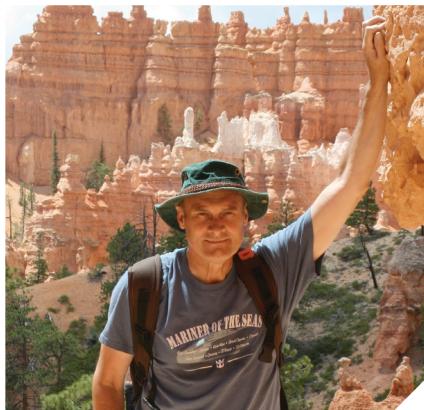
fundamental skills that define an engineering geologist and, if so, how can these skills be taught or acquired? Also, in a world dominated by readily accessible data that can be downloaded and analysed for so many planned development sites how important are the field techniques of observation and mapping that an older generation of engineering geologists, including the author, considered their defining skill? Concentrating on the role of engineering geology in relation to civil engineering these are amongst the questions explored in this paper leading to observations as to how the profession might develop in the future in order to meet the needs of society.

Risk versus innovation



February 2015

THE SPEAKER



PROFESSOR JAMES S GRIFFITHS

Jim Griffiths joined the geotechnical department of Rendel Palmer & Tritton (RPT), Consulting Engineers, in April 1979 after completing his PhD at King's College, London, on natural hazards to road construction in hot deserts. For the next 14½ years he worked in industry on a range of projects specialising in flood estimation for bridge and culvert design, highway earthworks design, slope stabilisation, on-shore and offshore site investigation interpretation, geotechnical database development, engineering geological and geomorphological mapping. For the period 1987-1990 he was technical director and main project manager for Geomorphological Services Ltd, and from 1991-1993 he was the Associate responsible for the Engineering Geology & Geomorphology Division of Engineering Geology Ltd.

In September 1993 Jim joined Plymouth University as a lecturer in engineering geology. He was promoted to Head of the Department of Geology 1995-2001; Head of the School of Earth, Ocean & Environmental Sciences 2006-9; Head of the School of Geography, Earth & Environmental Sciences 2009-2013; and was appointed Dean of Research & Innovation in May 2013. Jim was awarded his professorship in Engineering Geology in 2005. Despite spending 14 of his 20 years in academia as a manager he has continually taught specialist final year undergraduate modules in engineering/applied geology and terrain evaluation for engineering practice.

Jim has worked on projects throughout England and Wales, as well as in Algeria, Australia, Austria, Chile, Eire, Ethiopia, France, Georgia, Holland, Hong Kong, Liberia, Pakistan, Papua New Guinea, Saudi Arabia, Spain, Switzerland, Syria, and the USA (California).

Jim's publication record to date comprises: 5 books; 14 book chapters; 44 journal papers; 18 conference papers; and over 50 professional reports. He was Chair of the Geological Society Engineering Group Committee 2006-8; chair of the organizing committee of the 10th Annual Congress of the International Association for Engineering Geology and the Environment in 2006; served on the technical planning committee for the Geological Society Bicentennial Conference in 2007; chaired

AUCKLAND

FEBRUARY 3RD 2015

Beca, 21 Pitt St, Auckland, Refreshments from 5.30pm, Lecture at 6.00pm

CHRISTCHURCH

FEBRUARY 4TH 2015

C2 Central Lecture Theatre, University of Canterbury. Refreshments from 5.30pm, Lecture at 6.00pm

WELLINGTON

FEBRUARY 5TH 2015

Royal Society, 11 Turnbull St, Thorndon, Wellington, Refreshments from 12pm, Lecture at 12.30pm

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the IAEG Commission 22 on Landscape Evolution and Engineering Geology (2007-2012); chaired the 2nd Working Party on Land Surface Evaluation for Engineering Geological Practice (1997-2001); served on the working parties for Engineering Geology and Geomorphology of Hot Deserts (2003-2011) and Relict Glacial & Periglacial Conditions (2011- 2015). In addition Jim has been a member of the Geological Society Books Editorial Committee since 2000 and the Editorial Board of the Quarterly Journal of Engineering Geology & Hydrogeology since 2001. In November 2013 he was awarded the Glossop Medal by the Engineering Group of the Geological Society of London for his contribution to teaching, research and practice in engineering geology.

Jim is married to Sarah and away from work they share mutual interests in their grandchildren (6 so far), travel (having visited 49 countries together), gardening, swimming, and hiking.