

## Women in geophysics



Ann-Marie Anderson-Mayes

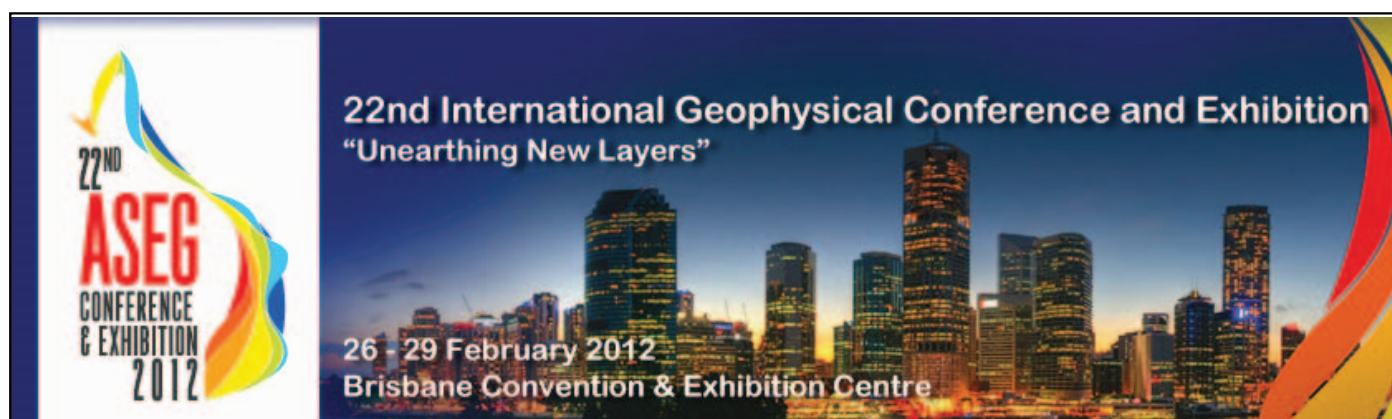
Kelly Keates, Managing Director of Zonge Engineering, is the subject of this issue's People Profile. After preparing her interview, I became more attuned to issues associated with women in science. Some of you will know that this is a topic of some interest to me – I was Coordinator of the Women in Science

and Engineering Project (WISE) at UWA for a couple of years in the early 1990s. The purpose of the programme was to encourage more women into physical science and engineering courses. So, it was with some amusement that I spotted the following item in the '50 & 100 years ago' column of *Nature* (vol. 469, p. 480, 2011) based on a report from *Nature* (vol. 189, pp. 253–4, 1961).

*The report of an enquiry into the employment of qualified women scientists and engineers in private manufacturing industry shows clearly that, in general, industry in Britain is a man-dominated world and is likely to remain so for many years to come ... From the survey one conclusion is inescapable. Employers are reluctant to employ*

*educated women scientists and engineers mainly because, on economic grounds, they are a bad risk ... From the employer's point of view, their years of useful service before beginning full-time duties in their homes is very limited. All the well-meaning protestations by women's organizations will not make young women scientists and engineers anything but a bad industrial investment compared with their male counterparts. Most educated women know this and accept this.*

In another recent item in *Nature* (vol. 470, p. 153, 2011), it was noted that whilst overt discrimination has largely been removed, there continues to be a persistent gap in the number of women in



# CALL FOR PAPERS

## Key Dates

- Abstracts to be submitted by Friday, 29 April 2011.
- Notification of acceptance by Friday, 17 June 2011.
- Submission of Extended Abstracts by Friday, 30 September 2011.

**For more information visit [www.aseg2012.com.au](http://www.aseg2012.com.au) or email [aseg2012@arinex.com.au](mailto:aseg2012@arinex.com.au).**

maths-intensive fields such as physics, computer science and engineering. It would be fair to say that geophysics sits firmly in this group. The article reported that the barriers to women's participation in these fields were likely multiple and more invisible – social, biological and institutional.

So, why is geophysics still a male-dominated discipline? I really don't know the answer. As a matter of interest, Curtin University has the only dedicated *Exploration Geophysics* department in Australia. On their web page, no women appear in the list of academic staff, and amongst 22 PhD students, only 5 are women. In a fact sheet published by the American Geological Institute in May 2010 ([www.agiweb.org/workforce/Currents/Currents-033-GenderOccupations](http://www.agiweb.org/workforce/Currents/Currents-033-GenderOccupations)).

pdf), statistics for 2006 showed that only 16% of geoscientists were women.

When I studied Physics at UWA over 20 years ago, I was the only female Honours student in our class. At the time, I really didn't think too much about it – I was studying something I enjoyed and the question of gender was irrelevant to me. It was only with hindsight and my experience working at WISE that I began to question why a choice which was completely natural for me, was not of interest to the majority of my female friends (in fact I have a good friend now who delights in introducing me as a 'the one who likes maths!' as though this were something truly extraordinary, or just plain weird). I suspect most of my female colleagues in geophysics feel the same – the question of gender simply

didn't arise in our choice of career, and you will read in Kelly Keates' profile that this is certainly true in her case as well. But this still leaves me wondering, why do women choose our profession in relatively low numbers when compared with many other branches of science? And is there anything as a professional society that we can or should be doing to improve the gender balance?

Alongside all the regular contributions in this issue, we have two feature articles that look at different aspects of analysing data. Anya Reading *et al.* advocate using a mix of both deterministic and inferential data analysis techniques to maximise the extraction of useful geological information from geophysical data; and Dirstein and Fallon apply genetic algorithms to the interpretation of 3D seismic data.

## Thomson Aviation *Geophysical Survey*



HIGH QUALITY MAGNETIC & RADIOMETRIC SURVEY  
FIXED WING & HELICOPTER PLATFORMS



Call Paul Rogerson

P: (02) 6964 9487 • M: 0427 681 484 • [paul@thomsonaviation.com.au](mailto:paul@thomsonaviation.com.au)  
[www.thomsonaviation.com.au](http://www.thomsonaviation.com.au)