

Flying the flag for the quarrying sector's younger generation

Ann-Marie Farr is the senior geological engineer in national overlay (quarries) at Boral's Malvern office in Melbourne. She talks to **Damian Christie** about how she became involved in the extractive industry, her work for the IQA's new Young Members Network and promotion of quarrying as a prospective career for young women and men alike.

"I was always interested in an outdoor career," says Ann-Marie Farr, recalling her schooling and her initial career interests. "I was good at maths and science, so I knew I wanted an engineering degree or equivalent. After some looking around, I found geological science the most interesting course."

Ann-Marie subsequently graduated with a geological engineering degree after studying at RMIT University in Melbourne. She left Melbourne for Tasmania, where she worked as a graduate geological engineer on a mine site for two years. "I worked for Australian Bulk Minerals, an iron ore mine at Savage River, in the north west of Tasmania. My main tasks involved mapping the mine faces looking for potential stability defects.

"I monitored unstable faces through the use of surveys, was involved in clay capping waste dumps which produced acid mine drainage and other environmental issues like ground water monitoring. It was a huge learning curve, putting all the theory I'd learned at university into practice. Most importantly, I learned how to document all my findings and discussions with management and to clearly communicate, especially if I thought there was an issue with one of the faces."

After returning to Melbourne, Ann-Marie joined Boral, initially as a planning engineer in its Melbourne-based quarries division before moving into the National Overlay division. She opted for the quarry industry over the mining industry because it "is a great substitute for people like me



Ann-Marie Farr says that as a teenager, she was always interested in pursuing an outdoor career.

who may have to go out to the bush to work. It's very attractive in that sense [to stay closer to home]".

When asked to explain what a senior geological engineer does, Ann-Marie replies: "In my current role, I'm involved in inspecting the high walls and the pits in the quarries and doing audits on them in terms of stability. I am also involved in a lot of quarry planning and development, and resource estimations. For example, we do diamond drilling programs to determine the level of resources we have in existing quarries and some greenfield sites as well, and from there, we devise potential designs for new quarries or extensions to current quarries.

"We use two computer packages for the quarry designs. One - Microstation - is a CAD (computer-aided design) program and the other is more of a mining program - Surpac - and that helps with the design work and all-round design development in calculations. The programs enable us

to design pit geometry and haul roads, and through use of surfaces, we are able to determine current and future resources. We can use the programs to demonstrate the stage of pit designs."

Ann-Marie estimates that she would spend 40 per cent of her time out in the field, "accumulating the work, inspecting sites, and when there's drilling programs, you're out there supervising the rig, logging core and taking samples". The other 60 per cent is spent back in the office, "when you are working on the design or writing the reports that come from the drilling programs".

Ann-Marie most enjoys the outdoor component of her work, in which she oversees the development of many quarry sites per year. "I enjoy working outside a lot. I can pretty much get out whenever I want to - there's always work to be done! I get to travel around Australia a fair bit. Travelling gives you a great opportunity to network with new people in the industry. I also enjoy the creativity of the design process; you can have a bit of an influence in how the quarries progress.

"Also, within the role, you learn a lot about other subjects, for instance, the environmental impacts you have to be mindful of, planning approvals you need from local councils. You can get involved in a broad range of issues that can impact on quarry development, and these can be very challenging.

"A lot of public concerns about quarry developments are based on environmental factors, for instance, a vulnerable species of flora or fauna. You really have to work hard for approvals to go in and disturb that area. The perception of the community about quarries in general, and getting them on side, is also important. Generally, the public are quite supportive, but they need to be informed about the rehabilitation options."

CHALLENGING PUBLIC MYTHS AND MISCONCEPTIONS

Ann-Marie describes a "hard hat" career like quarrying as not "your general run-of-the-mill stuff - it's quite interesting and exciting. I really got into it when I first went into the mining industry." She would



Ann-Marie at a blast site, where she is involved in planning and supervising Boral's drill programs.

like to see more women in the extractive industry, but states that there are numerous public perceptions and misconceptions about the industry which are leading not only to a low participation in the industry by women, but by men as well.

“A lot of people - certainly some women I've met - are not even aware of what the industry is about when you explain what you do and what you work for. They look a bit dumbfounded when I say I work in the quarry industry. In general, regardless of whether it's a woman or a man, the quarry industry is not that well known. If you say you work in the mining industry, some people will respond to that. But sometimes the quarry industry doesn't enjoy that same perception when you tell people. I think it's just a general lack of awareness amongst people, not just women.

“I think people have the attitude that quarrying involves people driving dump trucks or operating and repairing machinery and that it has a kind of 'blokey', labour-based character to it.”

Ann-Marie agrees that one of the reasons for the low participation of women in the extractive and resources sectors (it is believed that women in Australia comprise about 12 per cent of mining or construction employees) is that the industries are still seen as “blokey”. However, she is also

strongly of the view that they are also some of the strongest equal opportunity industries as well.

“I guess it's just the way the industry started out, being predominantly male-driven, but it is definitely moving away from that. Even during my time in the mining industry, the number of women was increasing. At the moment, mining and quarrying are still 'blokey' industries, but there are more and more women becoming involved.

“I think it's also different times as well. About 30 years ago, there weren't the opportunities for women to get involved in mining or quarrying careers, but now there is, and I guess the industry is moving ahead with the times. Some positions within the quarry industry are still manual and intensive, but there are lots of areas now in which women can become involved, such as occupational health and safety, design work and environmental analysis.”

While there is clearly a need for the extractive industries to better educate the public and strip away a lot of common misconceptions, Ann-Marie concedes it is a challenge. “It all comes back to communicating what the industry is about and outlining the different areas within the industry that people can become involved. I think people are very interested when

they realise that there are incentives for sustainability and restoration, that it's not just all about digging dirt and driving trucks. I certainly think there's scope as well to promote some of the new technologies we use, such as the software programs of the business, which will be attractive to today's generation who are very computer literate and may not realise that there are programming opportunities in our industry.”

ESTABLISHING THE YOUNG MEMBERS NETWORK

Nevertheless, Ann-Marie is playing her own part in waving the flag for the industry in its bid to promote the positive side of quarrying to both prospective and new workers. She has recently accepted an invitation from the IQA to act as the national co-ordinator of the Young Members Network (YMN), a national network that aims to provide young IQA members and newcomers to the quarry industry with guidance, support and the opportunities to develop their careers within the industry.

While the YMN is nominally aimed at IQA members from 18 up to the age of 40, the network will not exclude newly joined IQA members above that age range. Ann-Marie says that while she expects the majority of participants will be in their twenties and thirties, “the network will be available to anyone there who needs it”, in particular “new people to the industry who aren't that familiar with how quarrying works”.

Ann-Marie's first task as the YMN national co-ordinator is to recruit and organise “co-ordinators from every state and set up a framework of how it is going to work. In particular, we have to discuss how frequently we can all meet as a group over the course of the year”.

“The service we're aiming to provide initially is a blog on the IQA website,” she explains, “in which people can ask each other questions about issues they encounter in the field or post advice on things that they are working on. So, as a starting point, it's going to be a swap meet for information for people. Hopefully, the YMN will also provide guidance and assistance for people who are uncertain about their direction within the industry, providing some career path advice and options about the training they should do to get where they want to be.

“Obviously, we're still very early in our preparations, but our intention is to

organise events and forums which will bring our younger members together and provide fundamental industry learning and sessions. We're also hoping to encourage younger members to contribute to technical papers for publication and to interviews and work-related biographies online which will assist the YMN and the IQA in general to increase the industry's exposure."

Ann-Marie says that while the YMN is predominantly aimed at the institute's younger members, she hopes the network will be able to also develop some educational initiatives for school leavers and students, from Year 12 upwards.

"We still have to discuss exactly what

we will offer school leavers, but the YMN may give them an opportunity to promote themselves and express their interest online. That would be one of the services that we would try to introduce to students - promoting the young people/members already working in the industry, running direct profiles of them, explaining the roles they have, and giving students some exposure to the senior members of the industry as well."

Ann-Marie estimates that there are currently 40 members under the age of 30 amongst the broader IQA membership, an "ideal" number for starting the YMN. "That is our aim - to recruit all the

members under 30 and then try to grow the network. It will take some time and effort to get the YMN out there, to get people interested in it and for them to start using it as a resource, so starting with those 40, if we can get them, would be great." •

At the time of the interview, Ann-Marie confirmed that she had started to talk with prospective state co-ordinators, both from within Boral and across other companies and states. If you are interested in joining the YMN or would like some further information, contact Ann-Marie by email: annmarie.farr@boral.com.au