



GROUND WATER
DIVISION

Water Women Wednesday

18 August 2021

With the recognition of August being South Africa's Women's Month, the Young Professionals Committee of the Ground Water Division has set to spotlight young women making a mark in the growing field of hydrogeology. This week, we speak to **Annalisa Vicente** about her specialisation and developing a career as a hydrogeologist in South Africa.



Think back to your earliest memories, what was your first inkling that you wanted to be a scientist?

Growing up as an only child, I always found myself turning to nature to keep me busy. Spending quite a bit of time in the garden made me question many things such as whether talking to my plants would help them grow faster and whether planting vegetables would bring more bird species into the garden. My untamed questionable mind led me to experiment. In high school I had to make the big decision of what career I wanted to pursue. This was a daunting decision that had me look to God for help and, after a week of prayer, something just 'hit' me - I needed to pursue a career that was outdoors and in nature! Little to my knowledge did I know that "environmental and water science" degrees existed and yet somehow ended up scouting them. This was my initial 'inkling' of wanting to become a scientist, although I would say it felt more like a 'calling'.

What are your fields of interest in water and what motivated your choices?

Specialising in groundwater (hydrogeology) always intrigued me more than surface water (hydrology). I think there's something fun about 'playing detective with what is happening underground. My interest lies in numerical groundwater modelling, as I've found it to be a powerful tool to predict future flow and contamination. Although, 'models' are never 'correct' per se, I thoroughly enjoy simulating a range of scenarios to better understand the hydrogeological response.

Who are the monumental people that nurtured your path to being a hydrogeologist?

I had the experience of support from many people: firstly, my aunt and uncle grew and sold organic vegetables when I stayed with them at a young age - spending our sunsets gardening instilled my love for the environment. Second, was my best friend's father - Uncle Rodge - after dinners we would find ourselves in deep conversations about climate change and the effects of overpopulation. Most times it wasn't a positive topic but always prompted me to the possibility of making a difference. The third and greatest figures would be my mother and grandmother who have also always supported my decision of studying something I was passionate about. They sacrificed a lot to get me educated and I am very grateful for that.

What are your reflections of being a woman in earth science?

Although there are certain difficulties in the workplace, such as safety in the field in comparison to the male colleagues, Being a woman in the water industry feels liberating and purposeful. History has viewed women as 'water caretakers' due to their involvement in the community and reliance on the rivers and/or groundwater, being a woman in science feels like a tribute to that.



In terms of access, what do you imagine needs to be in place to nurture and especially retain women in earth science?

In my experience, universities and funding institutions have done a great job in promoting women in science. I think that there are many powerful women in the industry to look up to and exposing students to them would be beneficial. The women I had looked up while in university were Xanthea Limlberg, Candice Lasher-Scheepers, Nicollette Vermaak, Marlese Nel and Helen Seyler. All of these woman were innovative, knowledgeable and passionate about what their work.