

Miriam Tawane one of the first black female Palaeontologists in South Africa spoke to *The Star Workplace* about her work as a Palaeontologist

What do you do?

I study fossils and other ancient remains. My key focus is on palaeo-anthropology and I specialise in Dental Anthropology, which is the study of dental remains of human fossils or hominid fossils.

How did you get into this field of study?

My initial plan was to do a BSc and thereafter to study Medicine and become a Doctor. That plan changed in my third year of my BSc, when I attended a short course on human evolution, where I discovered that one of the first human ancestral fossils (a skull of a 4 year old hominid called Australopithecus Africanus, commonly known as the Taung Skull/child) was discovered in my home village in Taung, in the North West. This came as a complete surprise to me that something so important and significant to our human origin had been found where I grew up. It was then that I became interested in human evolution, where we come from, how we came to be and I developed a desire to know more. So, when I completed my BSc degree, I did an Honours Degree in Palaeontology, and then completed my Masters and PhD in Palaeontology, majoring in Dental Anthropology.

What does your job entail?

My main focus is on Dental Anthropology, so I study the dental frame of fossils to determine the diet of fossils, their environmental background, their lifestyle to eventually analyse how they came to be and how they have evolved with time. A large portion of my time is spent on research. I go out into the field in search of fossil remains and use teeth remains to determine various lifestyle aspects of the fossils, including their age, diet and determining the relationship between different hominids and humans. By so doing, the research done brings us closer and closer to understanding ethnic differences, for example, and how humans have with time evolved and become different and elements that make them different. So I do quite a bit of field work research, analysing my findings and compiling conclusive reports on those findings.

I also do tours at the Wits departmental museum teaching Palaeontology to primary and high school learners from various areas in the country, including learners from Taung. Additionally, I also do voluntary work in career guidance together with the Palaeontological Scientific Trust (PAST), where we visit various schools across the country to teach learners about Palaeo-sciences.

What's the most interesting thing about the work that you do?

I would say the fact that every day literally brings new discoveries. With one fossil finding, you get to discover so many different aspects about how that fossil came to be, with each discovery bringing you closer and closer to understanding the human heritage in its entirety. Africa is the Cradle of mankind so there's no better place to explore than here. Being in South Africa at the heart of all discoveries makes my work so much more interesting and exciting.

I also enjoy the travelling aspect of what I do, as my work does come with quite a bit of travelling, especially to areas where discoveries have been made and where we are able to learn more about the area and the hominids that lived there.

What do you find most fulfilling in your job?

I really enjoy teaching, the role that I play in helping learners get to know more about Evolution is one of my favourite things and makes me feel that I am using my knowledge to help create a better understanding of our past so, and help bridge the evident gap – especially

among previously disadvantaged learners who have no or very little knowledge of palaeontology or related fields of study.

With most of the learners that I've interacted with, I've found that although Evolution forms part of their curriculum, most of them still don't know what evolution is or what fossils are. So it truly brings joy to my heart to be able to share the information that I have and the knowledge that I have accumulated to help these children know more about evolution, and how mankind came to be and to assist them in a fun and interactive way to understand the Palaeo-Sciences through my sessions with them.

What are some of the challenges that you've faced in this field of study?

When doing research, sometimes you find that, you only get a few specimens to work with and this is very limiting in terms of resources to study, so it sets you back in finishing your research.

What do you least enjoy about your job?

Being in the office capturing data and writing reports, but it's necessary. I mainly enjoy the outdoors and the adventure of discovering and digging up to discover new things. I enjoy being in a class giving lessons to learners and helping change their lives.

What is needed to be able to venture into palaeontology?

During Matric, learners are advised to study science subjects like Maths, Biology, Physical Science and Geography to be able to study a Science related degree which will eventually assist learners in getting into Honours in Palaeontology. Palaeontology degrees are only available from Honours level and not available at undergraduate level, as a result students would have to study courses such as Biology or Zoology, or Anatomy, Geography and Archaeology, or Anthropology. These courses would enable students to qualify into Palaeontology at Honours.

Where to from here, what plans do you have for the future in your chosen career path?

I plan on continuing in this career path and continuing with my studies, I'm enrolling for a Post Doctorate in Palaeontology for 2012. There's so much to learn, and so much to discover in this field of study and I feel to truly understand the Palaeo-Sciences, education in the field of study still remains of paramount importance.

What advice would you give to learners wanting to enter this field of study?

This field of study and career path is broad and exciting, and it is filled with many opportunities for someone to enjoy a long and exciting career. So if you enjoy the outdoors, adventure and have a keen interest in knowing more about the heritage of mankind or the origin of dinosaurs, fish, botany, palaeo- sciences is definitely the field to explore.

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