

A gap in Palaeo-sciences study; Learners encouraged to consider a career in Palaeo-sciences

Many opportunities exist in South Africa and Africa for people to work in the field of fossil finding and preservation, from field work searching for fossils to working in high-tech laboratories as Palaeo-science technicians.

Palaeontology, which is the study of the history of life on earth, is among the broadest fields of science, and yet still one of its most poorly known, with very few people from Africa involved in this field of study.

“Palaeontology is more than just dinosaurs, as it is often perceived by young people. Broadly speaking, it along with archaeology and palaeo-anthropology comprise the palaeo-sciences, which cover the study of the anatomy of old fossils, the life-ways of prehistoric species, and the ancient environments in which they lived,” explains Andrea Leenen, CEO of the Palaeontological Scientific Trust (PAST) - a non-profit organisation, established in 1994 for the preservation of Africa’s rich fossil heritage and promotion of ongoing scientific research.

“Although Africa still remains the only place in the world where you can study the earliest origins of human life, with the oldest human fossil findings having been made in East and Southern Africa, most findings to date were made by teams led by foreign researchers and not by people from the continent,” notes Leenen.

She adds, “This is a one area of study where our scientists can be internationally competitive, and yet we have a big skills gap. Added to that is a lack of awareness of the available career opportunities in the field, with the result being a shortage of learners interested in pursuing palaeontological studies.”

“The biggest challenge is getting black learners interested in palaeontology. Currently we have a handful of qualified black palaeontologists. This year, we’ll see one of the small group of black female palaeontologists graduate as a qualified palaeontologist. We really need to start seriously addressing the current gap if we are going to allow Africa’s rich fossil heritage to benefit the continent.”

“We need to start creating awareness of the numerous career opportunities available within this field of study. We must start encouraging and cultivating interest in the evolution of humankind in learners at a very early age, so that by the time they are ready to start university they are conscious of the existence of palaeontology and are passionate to study the sciences,” comments Leenen.

She notes that one of the biggest challenges in South Africa in getting children interested in palaeo-sciences is the current Maths and Sciences attitude that these are difficult subjects and comments, “Yet every day we live in science and our learners don’t realise it because they have not been made consciously aware of it. The sciences extend to a far broader spectrum of our lives than children have been taught. Learners often see science as boring, as “people in white lab coats,” but they don’t realise that science is all around us, and it is fun. A visit to a museum that displays fossils is science, and most learners are not aware of this.

Leenen explains that, “In an attempt to cultivate passion and interest in the science of the evolution of humankind, PAST has created a physical theatre play called “Walking Tall” – which is an

educational intervention that seeks to promote curiosity and inspire children to understand more about human origins.”

“These and other initiatives that have been introduced by PAST are an attempt to get more learners interested in this field of study. We are not looking at creating a bunch of palaeontologists, but we rather want to create an interested population of young people who recognise the value of opportunities available within the palaeo-sciences field of study. We want to ensure that our unparalleled fossil heritage is capitalised on by South African and African researchers, who can then become internationally competitive in science research,” comments Leenen.

Career opportunities available in palaeo-sciences include working in the field as an excavator or fossil hunter, working as a laboratory-based researcher analysing findings, working as a palaeo-technician who cleans and repairs fragmented fossils, using high-tech laboratory equipment to gather information on findings, working in the academic field as a lecturer or teacher, or doing more creative work like making casts and designing museum exhibits.

According to Professor Robert Blumenschine, who is PAST’s incoming Chief Scientific Strategist, “Palaeo-sciences expose students to general principles of scientific enquiry and address humankind’s fundamental need to understand our roots and modern diversity. The past is all we know of the future and this serves as encouragement to all young people thinking to take the route of studying palaeo-sciences. Learners need to know that; we need to preserve our past in order to give future generations an understanding of where we come from.”

Each year PAST gives out 20 to 60 bursaries to students interested in the study of palaeo-sciences. University students studying palaeo-sciences at Honours, Masters or Ph.D. levels can apply for 2011/2012 bursaries with PAST. First preference will be given to learners from South Africa and Africa. For more information learners can visit www.past.org.za.

Institutions in South Africa that offer Palaeontology Studies at Honours , Masters and Ph.D level include;

- University of the Witwatersrand (Institute for Human Evolution and Bernard Price Institute for Palaeontological Research)
- University of Cape Town
- University of Johannesburg
- University of the Free State
- Geosciences Council
- Ditsong National Museum of Natural History (Transvaal Museum)
- Iziko Museums, Albany Museum, Natal Museum, National Museum Bloemfontein

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