

South-African astronomer who battled with apartheid urges young black kids to take up science and technology

10 October 2005 Deborah Gabriel

Inspired by Haley's Comet

Dr Thebe Medupe, now an astronomer based at the University of Cape Town in South Africa told Black Britain that when Haley's Comet came to the skies in Africa it changed his life forever.

His interest, stimulated by this event led him to visit the library where he stumbled across a book on how to make a telescope using household materials.

Dr Medupe said: **"I went ahead and built my telescope. I was 13 years old at the time. The first time I looked at the moon with it seeing craters, mountains and valleys I was hooked. That's when I knew for sure that I was going to become an astronomer."**

From that point Dr Medupe became more interested in maths and science and read more widely. On completing school he won a scholarship to study at the University of Cape Town.

There he took a first degree in physics and a masters and doctorate in astrophysics.

But throughout his education, even under the scourge of apartheid, Dr Thebe credits his mother with unshakeable belief in him. He told Black Britain:

"She has believed in me from as far back as I can remember. When I was a kid she used to make me read the bible everyday in the morning and did not accept anything less from me than 100 per cent."

He acknowledges that his parents made a huge sacrifice by sending him to a good school that they could not really afford.

In terms of the effects of apartheid, Dr Thebe said:

"We were denied knowledge of the contributions made by black people to the fields of science and technology and told that our people were not capable of becoming astronomers."

Solutions to Africa's problems are to be found in science

At the age of 17 in 1990 Dr Medupe won a Science Olympiad and was awarded a trip to England to visit the science institutions, which was the first time he had been outside Africa.

He told Black Britain: **"I made sure I went to the Greenwich observatory where I saw a working telescope for the very first time. It increased my motivation to become a scientist."**

On leaving university Dr Medupe's first role was as a research fellow at the University of Cape Town. However, he asked the director of the observatory to allow him to return to his home town to try to get some of the young black South Africans into astronomy. He said:

"Part of my reason for wanting to do that was my annoyance at people telling me that black South Africans were not interested in astronomy."

Within the first year nine young hopefuls were involved in research projects that he was conducting. Dr Medupe is also involved in the National Astrophysics and Space Science Programme (NASP) which aims to get young people into master's science programmes in astrophysics.

Dr Medupe said that the problem of how to get young black children interested in science and technology is one that affects black people on the continent or in the Diaspora generally.

Part of the reason, he feels is that young black children do not have enough role models:

“How can someone imagine becoming an astronomer when they do not even know that a career as an astronomer exists?”

Dr Medupe said that one of the ways to overcome this is by promoting black scientists and technologists within black communities in the same way that professional soccer players and musicians promote themselves in the media. He said:

“Changing the image of black people in the media really needs to be worked on.”

During his UK visit Dr Medupe is touring schools with the film ‘Cosmic Africa’ and holding discussions and sessions on how to build telescopes. Commenting on the reaction of 14-15 year olds at a school in Lewisham after one of the sessions, Dr Medupe said:

“The enthusiasm of the kids was amazing. They just loved what they saw. They loved the interaction and they loved playing with telescopes.”

Parents have a crucial role to play in the development of future black scientists:

“My mother didn't have much education herself yet she saw the value in it. She believed in my abilities and supported me all the way.”

Dr Medupe told Black Britain that it is very important that there is a strong community of black scientists and technologists all over the world:

“Science and technology will find solutions for many of the problems that we find in Africa such as under-development. If Africa is to succeed I do not see any other way other than through investment in those areas. “

Addressing the under-representation of black people in science

Dr Liz Rasekoala is a Manchester-based chemical engineer and Director of the African and Caribbean Network for Science and Technology (ACNST).

She told Black Britain that the organisation was launched in 1995: **“Because we were very concerned about the under-representation of black people in science, engineering and technology.”**

During her masters degree in chemical engineering in Manchester she noticed that all the black students in the department were from overseas. She said:

“There was not a single black British-born undergraduate or post-graduate student. It seems strange that black students can come from a third world country and walk through a post graduate course in chemical engineering and black kids born and bred in England cannot.”

And so after getting together with other black scientists and parents to discuss how to deal with the problem ACNST was formed.

Dr Rasekoala said: **“I can count on the fingers of one hand the number of British born black scientists or engineers. Ninety five per cent of the black professionals in this field were all educated overseas or have done a substantial part of their education overseas.”**

ACNST works on three levels to try to address the under-representation of black people in science: through education, parents and young people themselves.

Within education, says Dr Rasekoala : **“We are dealing with low expectations and stereotyping of kids where Asian children are encouraged to take up science and black kids sports and music.”**

ACNST hold science clubs where children go after schools on Saturdays and get support with maths and science and through initiatives like Cosmic Africa ACNST is trying to make the science educational curriculum more relevant to black children.

Dr Medupe’s visit to the UK has been sponsored by the Particle Physics and Astronomy Research Council, a body which funds astronomy in the UK. Its Chief Executive, Professor Keith Mason said:

“We want all of Britain’s young people to know that astronomy and other sciences are open to them. The UK has a vibrant and successful programme of astronomical research and a person’s social and ethnic background should not be a barrier to becoming a part of that.”

Future British scientists to be found from black and minority ethnic communities

ACNST works with all the major stakeholders including the Department of Education and Skills, the Department of Science and Technology and with business and industry.

Dr Rasekoala said: **“It has been a real struggle working with the government and to be honest I feel that the level of response and support has been pathetic.**

There has been a lot of buck-passing and wringing of hands and lip service and nothing really concrete or substantial happening.”

According to Dr Rasekoala, more worrying than the government’s apathy is the elitist attitude among the scientific community towards the issue of diversity. She said:

“They are still struggling to get their heads around the gender issue, never mind adding the issue of race equality.”

Referring to the US, Dr Rasekoala said that Americans are **“light years ahead in terms of addressing adversity.”**

She described African Caribbeans in the US as the **“pillars of the middle class”**, asking the question **“if they can do it in the US then why not here?”**

Dr Rasekoala said that the scientific community in Britain is not looking at how to address the problem of the decline in interest in science in a strategic way:

“They just think lets just continue fishing in the same limited pool of white middle class males

to get more of our scientists.”

According to the Office of National Statistics by the year 2050 half of all school age children will be non-white. The US will reach this level in 2035. But Dr Rasekoala told Black Britain:

“2050 is already here. We have six UK cities where already the school age population of ethnic minorities is over 50 per cent.

The scientific community are still behaving like ostriches and burying their heads in the sand, thinking that the declining white population is somehow going to save science. They need to wake up and smell the coffee!”

According to Dr Rasekoala it is no longer an argument for diversity and inclusion but it is in the interests of Britain to nurture and develop scientists of the future.

Adding that it is also an economic reality in a competitive world environment where Asian tigers **“are becoming elephants”** she said that Britain would not be able to compete without **“a human resource pipeline in science, engineering and technology.**

Who is going to fill that pipeline if it’s not black and ethnic minority individuals? The same people whom they have been allowing to wither on the vine.”

GIVE US YOUR FEEDBACK

What did you think of this feature? Please post your comments onto the forum or send an email to the **Features Editor** at Deborah@colourfulnetwork.net.

PRINTED WITH KIND PERMISSION AT: www.iamcolourful.com