

THE OTHER DR BONES



FROM UNDERWATER ARCHAEOLOGIST TO UNDERGROUND ASTRONAUT, DR KENEILOE MOLOPYANE MADE HEADLINES IN 2021 FOR ALL THE RIGHT REASONS. SHE TELLS US HOW SHE FOUND HER PASSION IN THE DARKEST OF PLACES.

BY CHARIS TORRANCE

Explorer, biological anthropologist, paleoanthropologist, archaeologist... These are just some of the words that describe Dr Keneiloe Molopyane. But if you asked her mom, she'd tell you her daughter is Lara Croft meets Indiana Jones, minus the Nazis and assassins. 'I do cause a bit of stress for my parents, but they love it,' Keneiloe says, laughing.

The year 2021 was a wild one for Bones, as she's known to her friends and social media followers (in references to the character Dr Temperance 'Bones' Brennan in the TV series by the same name). It was the year that saw her selected as one of 15 global changemakers to comprise the 2021 National Geographic Society's Emerging Explorer cohort, being immortalised as a superhero in the SuperScientists collection of trading cards, and becoming the first black South African woman to be granted a permit to excavate in the Cradle of Humankind. On top of that, she graduated with a PhD in biological anthropology from Wits University. But all this has been in the making for a long time. Since she was seven years old, in fact.

BENONI BEGINNINGS

Already known in connection with Charlize Theron, Bryan Habana and Princess Charlene of Monaco, Benoni will be adding the name Dr Keneiloe

Molopyane to its list of illustrious alums who have called the town home at one stage. This is where Bones lived with her parents, both medical doctors, and her two brothers. The eldest child, Keneiloe says education was an important part of their upbringing. 'My parents and my grandparents all wanted us to study hard to be better people, so I was always surrounded by books.'

She gets her love for exploration from her dad, she explains: even though he became an ophthalmologist, he was always a bit of an explorer. 'We would always go on holidays to these historical sites and spend the entire time exploring and learning.' Her dream of becoming an archaeologist, however, started with a Saturday-morning cartoon. 'I was seven, and my mom and I were watching *The Adventures of Tintin*. And even though Tintin was a journalist, the stories he covered were very much centred on ancient civilisations, cultures, and exploration in general, and it resonated with me.' Luckily for Keneiloe, her mom was there to introduce her to the wonderful world of archaeology, and she's been obsessed ever since. 'Everything I did in school was about archaeology, and when I went to university, I picked it up as a major.'

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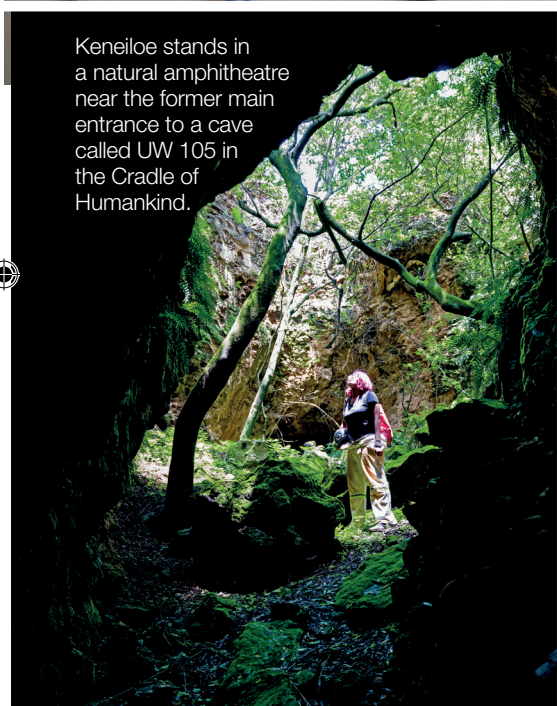
After matric, Keneiloe studied at the University of Pretoria before heading to the University of York in the UK for her master's degree. After that, she returned to South Africa. Fast-forward to 2021, when she graduated with her PhD from Wits, celebrating the (sadly, virtual) occasion with a glass of bubbles. It was a long journey that only other post-doctorate research fellows can relate to. 'I could have had an IV line of coffee attached to my arm... that's how much caffeine I had running through my system.' For her PhD research, Keneiloe

MODERN-DAY EXPLORER

Keneiloe looks on as Justin Mukanku inspects a fossil embedded in rock in the Rising Star Fossil Preparation Lab.



Keneiloe stands in a natural amphitheatre near the former main entrance to a cave called UW 105 in the Cradle of Humankind.



BIG ADVENTURES

She may not have voyaged to the moon (yet), but to date, Keneiloe's life has been just as adventurous as Tintin's. Before she did her PhD, she settled on an internship with the National Research Foundation (NRF) at the Iziko Museums of South Africa in Cape Town while she made up her mind about the subject of her doctorate.

'I swam a lot growing up and in school, but had never scuba-dived in my life,' she says. The NRF told her not to worry, they would send her on a course. 'It was like Navy Seals level training!' She's not exaggerating: the Class IV course she did is used by the police, fire departments and various rescue teams – it's really not for the faint of heart.

'We were learning how to dive while having our masks ripped off our faces, having all the air in our cylinders turned off, having our masks completely blacked out; we were jumping off cliffs into the roaring ocean – all to simulate very difficult scenarios.'

She got her scuba-diving licence and joined a research team for the

Slave Wrecks Project, searching for a ship that had been transporting slaves from Mozambique to the New World colonies when it sank off the Cape coast in 1798.

Keneiloe's next adventure took her to the Cradle of Humankind, where she joined Prof Lee Berger's Rising Star second-generation team in 2018. Following his discovery of *Homo naledi*, Prof Berger put out the call on social media for 'underground astronauts' to excavate fossils from the UW 105 site, and Keneiloe's friend (and a member of the original team) Lindsey Hunter forwarded the Facebook post to her. Keneiloe was in the process of writing up her final thesis, and needed to take a break. She thought: what better way to do that than by exploring the Rising Star cave system? An interview later, she was underground, caving and 'getting stuck in places I never knew I could get stuck in'.

Even though she'd always dreamt of becoming a National Geographic Explorer, she was too shocked to speak when she got the call last year to say she'd been nominated as one of the National Geographic Society's Emerging Explorers for 2021. 'They were telling me about the opportunities that came with the title, but my mind went blank; the only thing I heard was, "You're a National Geographic Explorer."' She politely asked them to call back so that she could process the news.

Keneiloe is the first to admit that the National Geographic Explorer badge comes with a lot of responsibility, but it also means there are people out there who have faith in her and see her as the future of science and how science should be. 'I don't know how many black female archaeologists people know of in South Africa, but I'm one of the best known because I'm out there,' she says. It's a role she takes

extremely seriously. ‘My job is to open up the world of paleo sciences and encourage others to think about doing something very different.’

On the back of all of this, Keneiloe was granted a permit to excavate at the Gladysvale Cave in the Cradle of Humankind. ‘It’s a beautiful, huge cave with a lot of paleo history.’ Excavations at the site started in the 1940s and were most recently undertaken in the early 2000s by Prof Berger. The site has been closed since then, but she’s excited to bring a team back this year. ‘We might find something interesting there, or maybe we’ll just add to the collection of the ark of animals that are at Gladysvale.’

The best part of her job is that every day is different, Keneiloe says. ‘On the one side, I’m doing admin work or interviews like this, and on the other I’m in a cave, doing research, preparing for the next expedition.’ She could be in the laboratory looking at all the fossils that she and the team have dug up, trying to figure out what they are, or she may be collaborating with other scientists to piece together the full story behind a discovery.

How does she handle being in the dark in tight spots? She owes it to her amazing team, she says, who also trained her. ‘Mathabela Tsikoane, Maropeng Ramalepa and Dirk van Rooyen worked with the *Homo naledi* discovery and they know their stuff, so they’re always there to keep me safe and I’ve learnt a lot from them.’ She was also taught by Dr Marina Elliot and Becca Peixotto to navigate her way through Rising Star. ‘I’ve been stuck at times, but because my team is always cool, calm and collected, I also become cool, calm and collected. And then, all of a sudden, you just slip out of the space you were stuck in.’

Keneiloe’s younger brother, O’Bakeng, is a sports scientist;



Exploring the Rising Star cave complex requires inching through a narrow passage called Superman’s Crawl.

MEMORABLE MOVIE ARCHAEOLOGISTS

- Basil Brown in *The Dig* (2021)
- Percy Fawcett in *The Lost City Of Z* (2016)
- Scarlett Marlowe in *As Above, So Below* (2014)
- Elizabeth Shaw in *Prometheus* (2012)
- Benjamin Gates in *National Treasure* (2004)
- Lara Croft in *Lara Croft: Tomb Raider* (2001)
- Evelyn Carnahan in *The Mummy* (1999)
- Dr Daniel Jackson in *Stargate* (1994)
- Indiana Jones in *Raiders Of The Lost Ark* (1981)

he works with athletes like Wayne van Niekerk and Akani Simbine. Youngest brother Phenyio is studying business law. ‘I think he’s the one who’s going to make the most money, so at least he can take care of the whole family!’ Keneiloe says.

What does her family really think of her unconventional career choices? Her parents, she says, have come to accept her job, and are always excited to know what she’s up to. ‘I once asked Mom if she thought Tom Cruise’s mom’s nerves were always on edge, because he does all his own stunts. My mom’s reaction was, “Yes! I live that every day with you going into dangerous spaces and having to pray for you every day.”’

A NEVER-ENDING STORY

Does Keneiloe think we’ll ever run out of stuff to explore? ‘Never! We’ve only just scratched the surface of exploration sciences. Imagine all the things that are still hidden. I think that’s what keeps most of us going.’

Maybe her SuperScientists character Bones might solve the mystery as to what is at the bottom of the barrel? She’s immortal, so if anyone can, it’s her. Created by

Justin Yarrow, SuperScientists showcases African scientists to young people. ‘It was incredible to be asked to be a part of it. My character even has red hair like me, paying homage to our underwater experiences – you know, like [the mermaid] Ariel’s red hair.’

Exploration, Keneiloe believes, may save the world. ‘By exploring, we learn more about ourselves and one another, and that’s very important for our species right now. We seem to be misunderstanding one another and the environment we’re in, so if we keep learning about ourselves and how we fit into the greater scheme of things, we might be able to preserve our species for a bit longer.’ ❖