TRACKING With a master

Louis Liebenberg may appear to be a reticent academic, but mention the subject of tracking and you had better prepare yourself for an animated conversation that oozes passion and dedication.

Stephen Cunliffe spent a week in the Lowveld in the company of this tracking guru - widely acknowledged as the patriarch of tracker development in southern Africa - and discovered a man who has devoted his life to promoting tracking as a bona fide science and livelihood. He shares the experience.

TEXT & PHOTOGRAPHS BY STEPHEN CUNLIFFE





ABOVE Louis Liebenberg explains the intricacies of tracking and its immeasurable value to a trainee

OPPOSITE, ABOVE Liebenberg and senior tracker Juan Pinto outline the subtle differences between the tracks of a male waterbuck and those of a blue wildebeest to workshop candidates.

OPPOSITE, BELOW A track of a black rhino.

PREVIOUS PAGE Wilson Masiva, Juan Pinto and Jonas Mhula discuss tracking with Liebenberg. One of the biggest challenges to the growth of the industry is the low number of fully qualified trainers

ouis Liebenberg's lifelong obsession with tracking began in the unlikeliest of places. In 1978, as a young South African Defence Force conscript, he found himself stationed in northern Namibia. He had little interest in the bush war, but soon discovered a deep affinity with the tracks and signs of wildlife that criss-crossed the trails he patrolled. He began to sketch the animal spoor and his hobby soon morphed into an all-consuming passion. He started going AWOL and climbing over the fence into Etosha National Park, where he would spend time alone drawing the tracks. With his moisture from the kudu's stomach concommanding officer turning a blind eye, tents to quench my thirst, but the men he was able to indulge his interest.

1980, Liebenberg began working on a and it would kill me.' Liebenberg was book about tracking. It wasn't until five severely dehydrated in a part of the

vears later, however, when he was introduced to the Bushmen of Lone Tree village in the Central Kalahari by the National Museum in Gaborone, that he began to master the art. He spent a month living with the desert-dwellers, at first observing their tracking skills with an academic eye. He returned annually, developing lifelong friendships with these amiable, highly accomplished people who helped him realise that to truly understand the art of tracking he needed to become a tracker himself. It proved to be a protracted process and it was 1990 before he finally felt ready to publish his first book on the subject.

While in the company of the Bushmen, Liebenberg witnessed a gemsbok hunt with dogs, and a successful bow-andarrow wildebeest hunt (a rare occurrence as only about five per cent of hunts with these weapons are actually successful). But it was his first experience of a tenacious persistence hunt that really captured his imagination.

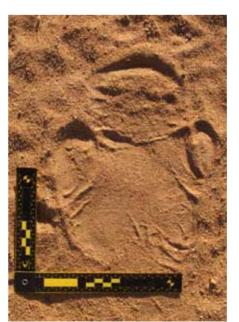
After two fruitless weeks stalking game with bows and arrows, Liebenberg and three companions - !Naté, Kayate and Boroh//xao - caught sight of a big male kudu. A spur-of-the-moment decision was made to abandon the weapons in favour of what is called a persistence hunt (see 'Running down a kudu'). Running down an antelope in the midday heat is a serious undertaking and the Bushmen strongly urged the 'white man' to return to the camp and leave them to chase alone, but he insisted on accompanying them to witness and record how they did it.

The quartet set off, running on the kudu spoor. They maintained a constant pace, with the Bushmen occasionally fanning out as they tried to predict the antelope's movements. Tiring, Liebenberg fell behind. Slowly the hunters were also overcome by exhaustion and dropped off the pace, until only !Naté remained. As the Bushman felt the end draw near, he quickened his stride and caught up with the severely fatigued kudu just as it collapsed.

By the time Liebenberg reached the Bushmen and their catch, he was delirious. 'I wanted to drink the foul-tasting warned me that tannins in the half-On completion of his military service in digested leaves made this liquid toxic



Kalahari that had not experienced rain for a very long time. There were no tsama melons or succulent roots to dig up for moisture. Halfway back to camp he realised that he had stopped sweating, a symptom of severe heatstroke. !Naté, seeing that he was in serious trouble, ran ahead to get water. 'I very nearly died of heat exhaustion,' Liebenberg recalled. 'But !Naté risked his life to save mine.'



eturning to Johannesburg and a brief flirtation with politics as a member of the ANC environmental policy mission, Liebenberg left the city in search of a venue in which to establish a tracking school. Alas, he was ahead of his time. In the 1990s, the safari industry was too raw to value skilful trackers and their training, so he settled upon a different approach.

In December 1994, he was invited to Thornvbush Game Reserve in the greater Kruger National Park to conduct a trackertraining workshop. 'As this was my first tracker evaluation, I decided to play it by ear,' he told me. He was certainly illprepared for the atmosphere of hostility that greeted his arrival. 'It didn't take a rocket scientist to figure out that the guys really didn't want me there. The white rangers were lined up on one side glaring at me, while the Shangaan trackers smirked at me from the other. I felt like Daniel stumbling into the lion's den!'

After winging his way through a poorly rehearsed introductory speech about why he was there, Liebenberg suggested they take a walk to a nearby waterhole to look for tracks. But before they could even set off, he was stopped by one of the older Shangaans, Wilson Masiya, who said in Fanagolo, 'Hang on a second, I have ▶

The Bushmen of Lone Tree village ... helped Liebenberg to realise that to truly understand the art of tracking he needed to become a tracker himself

66 AFRICA GEOGRAPHIC · APRIL 2013 WWW.AFRICAGEOGRAPHIC.COM 67



Running down a kudu

Persistence hunting may be the most ancient form of hunting, having taken root long before the invention of bows and arrows or the domestication of dogs. Through two million years of evolution humans developed into efficient running animals capable of covering long distances at a sustained fast pace. Our lack of hair and ability to cool after sweating further enable us to run in extremely warm conditions without overheating. A typical persistence hunt takes two to five hours to complete and covers 25 to 35 kilometres in midday temperatures exceeding 40 degrees Celsius. The sandal-clad Bushman hunters consume as much water as they can stomach before embarking on the hunt, carrying nothing but a spear.

Upon setting off in pursuit of their quarry – usually a gemsbok in the wet season or a kudu in the dry – it is essential that the trackers are able to identify the spoor of a particular individual, even when it runs back into the herd. They prevent their target from retreating to the shade to rest and, as the antelope begins to tire, its stride length and spoor pattern change. When the hapless animal eventually collapses, it is quickly dispatched with a spear.

In times past, an accomplished Bushman hunter in his prime could successfully run down a large quarry once a month on average. Today hunting with dogs and horses, along with alcohol use and tuberculosis, have eroded this technique to the point where persistence hunting is seldom, if ever, practised.

ABOVE !Naté, pictured here hunting with a bow and arrow, is also proficient at the even more ancient and gruelling - technique of a persistence hunt, which involves running down one's guarry armed with nothing but a spear.

found a track right here and I want each of you to tell me what it is.' The rangers traipsed up one after another and had a crack at it; the trackers scrutinised the faded smudge in the dirt - no-one could decipher it. Finally, Masiya turned to Liebenberg and said, 'Well, you're here to teach us, so why don't you have a look and tell them all what it is?'

Liebenberg knew that this would be the 'make or break' moment for his tracking seminar. He took his time poring over the print until the pattern of surrounding scuffs convinced him of its source. 'Scrub hare.' he announced with

conviction. All eyes turned to Masiya, who said simply, 'OK. Now you can go ahead with your evaluation.'

'Just my luck that on day one of my first-ever tracker evaluation I encountered a remarkable man who, 20 years on, I still believe to be the best tracker in the Lowveld.'

It was from these humble beginnings that Liebenberg's tracker training and certification framework emerged. With input from the by-then master tracker Masiya and a handful of others with the same qualification, Liebenberg forged a system that emphasises learning through testing and peer review.

I caught up with Masiva, who is still based at Thornybush Game Reserve, although he has moved on to become head tracker at Royal Malewane - one of the most prestigious safari lodges in the greater Kruger. In the shade of a leadwood, he spoke about Liebenberg. 'Louis has done so much for tracking,' he said. 'In the beginning no-one cared about trackers or tracking, but he helped us raise our profile. He wants both to learn from us and to teach us. This approach is number one, because it takes a real team effort to develop the industry.'

hortly after Liebenberg's successful Thornybush showdown, the Field Guides Association of Southern Africa (FGASA) approached him to establish an official tracker accreditation system, which he did, calling it Cyber-Tracker. But, he maintains, 'tracker training and evaluating is only 50 per cent of the process'. The other half is the software component for an environmental monitoring tool, which he believes will revolutionise conservation management and stem the rhino slaughter (see 'Cyber-Tracker').

The Evaluation Standards Committee for CyberTracker, consisting of Liebenberg, Masiya and senior trackers Adriaan Louw, Juan Pinto and Mark Elbroch, is charged with ensuring that the industry adheres to the values and principles upon which it was founded. Liebenberg is quick to heap praise on his colleagues. 'They have been invaluable allies in developing the tracking industry,' he explained. Elbroch, a top American wildlife tracker, has added an international dimension to CyberTracker, bringing scientific credibility to the project. Together, they make a formidable team.

There are currently 11 tracker-training service providers in South Africa and more than 4 000 **CyberTracker certificates** have been issued to date

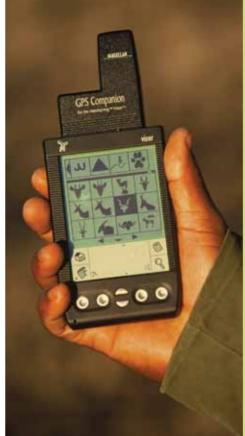
Liebenberg himself has published six tracking-related books and received numerous accolades for his CyberTracker work, including a nomination as an Associate of Human Evolutionary Biology at Harvard. And he has no plans to slow down. He is currently in the process of establishing The Tracking Institute on land donated by Royal Malewane. This umbrella organisation will complement all current trackertraining initiatives worldwide by striving to raise standards throughout the training and evaluation system.

There are currently 11 tracker-training service providers in South Africa and more than 4 000 CyberTracker certificates have been issued to 2 300-plus trackers to date. Somewhat surprisingly, this includes only 27 senior trackers and a handful of master trackers. 'My desire is to address the critical shortage of trackers at the highest levels,' Liebenberg explained, and he plans to scour the villages around the Kruger to find retired Shangaan trackers and re-employ them to mentor senior tracker candidates at the institute.

After spending a week with this inspiring man, I attempt to summarise his primary objectives: developing the dving art of tracking into a modern science; empowering marginalised tracker communities by creating meaningful employment opportunities; and creating a state-of-the-art conservation tool to monitor ecosystems. Liebenberg smiles his acknowledgement. 'I still have a lot to learn about tracking,' he confesses. 'Even after 34 years and having worked with many of the best trackers from around the world, I realise I've only scratched the surface.' The future of this continuously evolving science rests in a very safe pair of hands.



Wilson Masiva is one of the last surviving master trackers in South Africa.



CyberTracker

In 1996, Liebenberg partnered with former University of Cape Town computer scientist Justin Steventon to develop the CyberTracker prototype. Traditionally compatible with handheld computers (pictured on the left is an earlier version of the software installed on a Visor Magellan GPS unit), the award-winning programme has been refined and an upgraded Androidcompatible version for GPS-enabled Smartphones was released in early 2013.

CyberTracker can be operated by anyone, including illiterate trackers with no formal education, to record complex field observations. The hand-held device features a customised palette of research-specific symbols that the tracker selects to match what he sees, such as a grazing antelope or poacher's footprints. The observation is recorded along with a GPS coordinate. It's an extremely simple system, allowing all trackers to share their sightings and knowledge, 'The CyberTracker-enabled Smartphone may well replace the Bushmen's traditional bow and arrow as the cultural artefact that keeps their tracking customs alive in the 21st century, Liebenberg jokes.

The programme's new Smartphone interface will allow information to be uploaded as soon as the device comes within range of a cellphone tower. What's more, the software is available on the Internet free of charge. To date, more than 50 000 people from 210 countries have downloaded CyberTracker to kickstart environmental projects.

Liebenberg believes CyberTracker has a critical role to play in the rhino poaching pandemic currently afflicting South Africa's game parks. 'Success in the rhino war requires sufficient accomplished trackers to cover the landscape, each equipped with a new CyberTracker Smartphone to enhance our real-time capabilities,' he comments. The trackers gather detailed data that park authorities at a central control can plot on a map immediately.

Ezemvelo KZN Wildlife's CyberTracker pilot programme has proved highly effective in assisting its park managers to monitor law enforcement efficacy. In the Kruger, some 500 trained and capable trackers are urgently required. 'The lives of our country's last remaining rhinos could depend on it,' concludes Liebenberg.

Find out more about the CyberTracker programme at www.cybertracker.org

68 AFRICA GEOGRAPHIC · APRIL 2013