



SASA Bulletin

Volume 46, 2020



This Bulletin is compiled by:

SEC

Speleological Exploration Club

SEC is a founding member of **SASA**
along with **CPSS**

SASA is the South African National Body for Caving

Volume 46 - 2020

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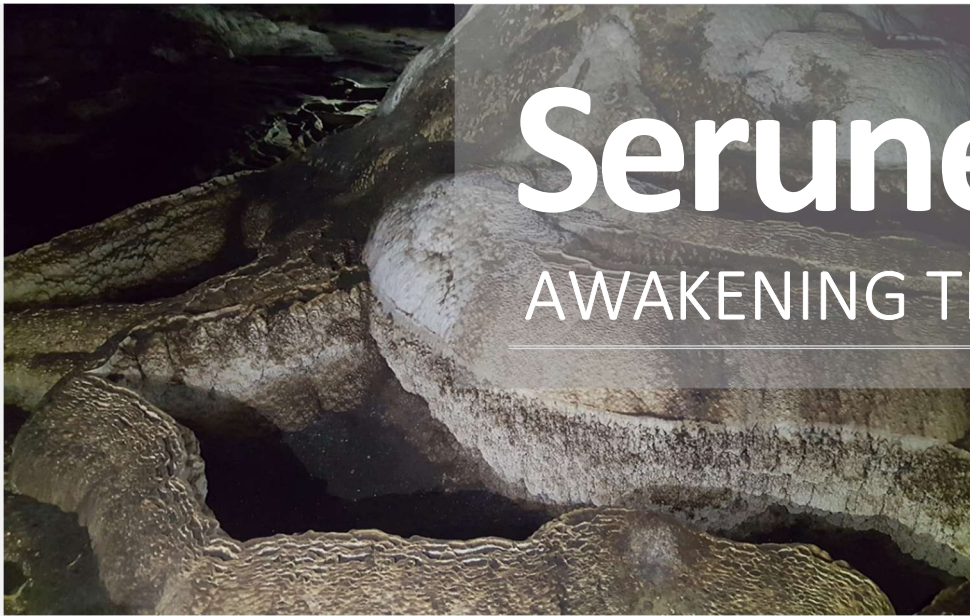
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Cover Photo: By Alex Brock on their trip to Dragon's Breath Cave, Tsumeb, Namibia in 2019

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Rimstone Pool in Serunecjar – Photo by Tyron Clark

Serunecjar:

AWAKENING THE DRAGON

Discovered 20 years ago, a riveting survey journey was undertaken by a group of avid cavers.

Written by Steven Tucker

This impressive cave was surveyed 20 years after being discovered. Based on meet reports written by Jaco Krynauw, the cave was found by Servaas Badenhorst and other members of CERAC in 1996 and was explored over three days in 1997.

The initial day of exploration was published in the 1998 SASA Record of the Transvaal publication (Ringdahl, N., 1998. Orighstad Camping Weekend. SASA Record of the Transvaal, 43, 12-15) and the following two days of exploration was also published there, in a separate article (Ringdahl, N., 1998. Orighstad Camping Weekend. SASA Record of the Transvaal, 43, 20-23). It is

interesting exploring a cave based on descriptions and not having a survey to confirm whether the chambers you enter are new or have been explored already. It is especially difficult to establish whether previous explorers found something you missed! This article attempts to follow in the footsteps of those initial explorers to confirm whether everything has been rediscovered.



The Dragon, guarding the first large chamber of Serunecjar – photo by Tyron Clark

The first explorers entered a walk-in entrance, hidden in the bush. Inside the cave they kept left and walked past a 6 x 6-meter passage, then through 50 meters of small passages and entered the Dragon Chamber. This perfectly describes the difficult to find entrance. The 6 x 6-meter passage probably refers to the entrance to the Entrance Chamber.

They then explored a higher section, where they found a second entrance, a large pot and a black mamba. The Pot Chamber was easily found, but there was no sign of the pot or any black mambas.

The group continued to the end of the Dragon chamber and went down a slope to a T-junction. They passed two left hand passages and went right, down a steep slope and through a boulder choke and stopped above a 25-meter drop into a large chamber below. This drop was later explored by them and by us and is the main link to the lower level of the cave.

They returned to the left-hand passages and went down a series of steep and well decorated passages going deeper and deeper and finally entering a spectacular chamber 40 x 40 x 10 meters in size with active gour pools that had 60 cm high walls. The Gour Pool Chamber was rediscovered and is easy to recognize with its spectacular speleothems which makes it one of the main attractions of the cave.

They continued to the end of the chamber and climbed down into a series of decorated sections with low roofs. Then they



Two cavers seen at the bottom of one of the steep slopes - Photo by Tyron Clark

returned to the chamber and dropped down a 12-meter deep side passage and into more well decorated sections before finally entering the same Bedding Plane chambers as before. This is probably the section to the far north-east on the survey and contains remarkable speleothems, that are more pristine than those

found in the Gour Pool Chamber. That ended the first day of exploration in Serunecjar as well as the first part of the survey.

The next article, describes the exploration done in May 1997 and focusses on the section below the 25-meter pitch found in February (which turned out to

be 18 meters). Half way down the pitch, they entered a side rift which did not extend very far. This seems to refer to the lower level rift (Rift Chamber) that leads underneath the Entrance Chamber. Then reaching the bottom of the shaft they found numerous leads, and were soon in a large, three-meter-high undulating chamber. This perfectly matches the Vast Chamber, which is below the Dragon Chamber and Gour Pool Chamber. On the opposite side of the chamber they ducked under a low arch and entered a canyon passage with a thick mud floor. 30-meters later they were met with junction after junction in a large maze of passages. This is definitely the Maze, which is west of the Vast Chamber.



One of the most recognizable set of speleothems in Serunecjar - Photo by Tyron Clark

They then went to the rifts to the south-east the lower section and finally entered a chamber with a high roof and aven. This chamber was entered from the top on the following day by abseiling down a shaft from the entrance chamber. This describes the 16-meter deep pitch that connects the entrance chamber and to the Aven Chamber, which is the second link to the lower level.

Whilst some cavers were exploring the lower levels, others found another decorated section in the upper levels, which they named the Vineyard. This possibly describes the well decorated section directly east of the rifts connecting the Dragon Chamber and Gour Pool Chamber.

On their third day of exploration they describe going past a pool of water and up a rubble choke in the maze section, then bearing left, climbing up and past the “mother In-law’s sowing machine” and finally re-entering the vast lower chamber. This section was explored during the survey and

possibly has some potential for exploration in higher levels of the rift and collapses. An interesting discovery which was not mentioned in the article from 1998 was the pool of water in the far west section of the maze, which contains many strange, multi-coloured worms, unlike anything we’ve seen in other caves. This was not discovered on the initial

exploration in 1997, but was definitely found by others before the survey was done.

The survey of the cave unfortunately didn’t find anything new that was of great interest, but does document what is certainly the most impressive cave in the area. It also indicates a few question marks, which can be pushed, either by digging, blasting or bolting.

Since its discovery, spiders were collected within the cave, indicating at least five species. Four were immature and therefore only identified to the genus, with a fifth being identified to species (Ansie S. Dippenaar-Schoeman FRSSAf & Jan G. Myburgh (2009) A review of the cave spiders (Arachnida: Araneae) from South Africa, Transactions of the Royal Society of South Africa, 64:1, 53-61, DOI: 10.1080/00359190909519237). They are as follows:

Ctenus parvoculatus

Smeringopus sp.

Phyxelida sp.

Themacrys sp.

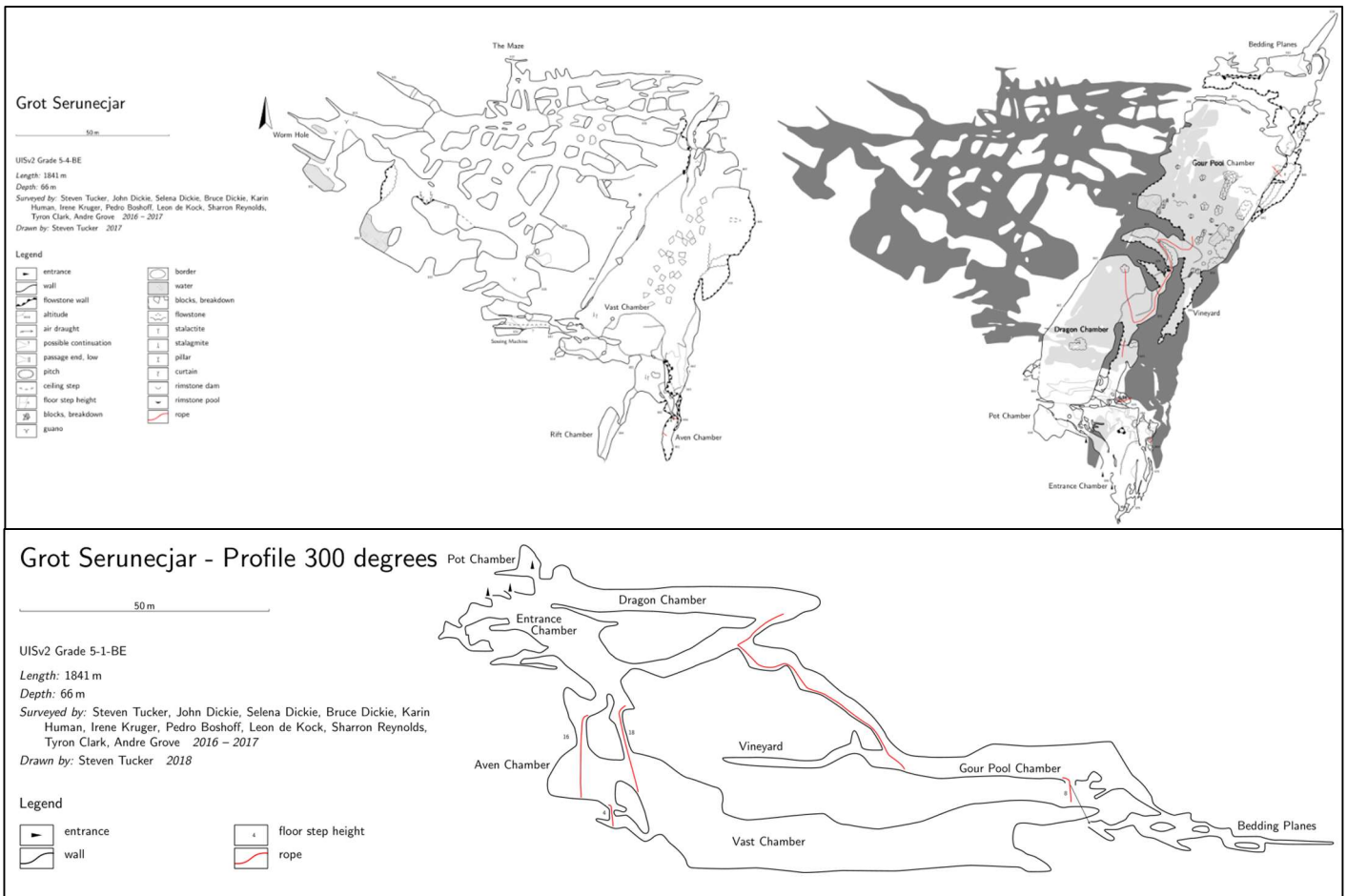
Anyphops sp.

The survey of the cave has been reproduced below. The profile view is a simplified view based on the 3D model of the cave, as it was not sketched in the cave. It does provide a good idea of how the various chamber relate to each other. It does not include the Maze, which is mostly flat and at a similar elevation to the lower levels of the Vast Chamber. The Vast Chamber’s height is exaggerated due to

different sections of it being at different elevations. Its height

is generally only three meters.

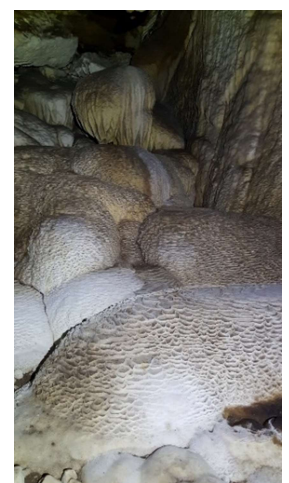
A better-quality survey can be obtained from SEC.



Looking towards the entrance of the Gour Pool Chamber - Photo by Bruce Dickie



Karin Human, abseiling into Aven Chamber - photo by Steven Tucker



Some of the well decorated sections at the bottom of the 12-meter drop - Photo by Tyron Clark

Sketchy Luiperd's mine surveyed

Written by Horst Müller

Luiperds mine was a gold mine in the Vredefort Dome near Venterskroon.

We are not sure what the official name was, the name Luiperd was adopted because at one of the entrances this is what it is marked as on the rock. Luiperd is Afrikaans for leopard. Geological reason why gold is found here is because of the meteorite strike about 2 billion years ago, which lifted the gold bearing reef and brought it to the surface. These are the same beds of conglomerate as on the Witwatersrand. But this meteorite is also the reason why large-scale mining never took off in this area. The violent upliftment also scattered the reef

and mining was very uncertain, the gold was only found in relatively small pockets. On the Freestate side of Schoemansdrift was a mine called the Great Western, which, I think, was the most productive mine of the area. There we were told by one of the old inhabitants whose dad had been working there that the reduction works would come to a standstill for weeks at times whilst underground they were searching for the gold bearing rock. The same must have happened here at Luiperd's.

From the survey only one area can positively be identified as having been a working area, that is near the entrance. Here one can clearly see how the miners followed the reef on an incline down. The picture shows

the approximate position of the reef as it slopes down to the working area. When was the mine active? Details are sketchy, in Ref 1 it states that mining on the farm Rooderand

commenced in 1887. Some of the mine tunnels did exist at the time of the Anglo-Boer war (1899-1902). Trooper Gaskell in Ref 4 describes how they went into the mine, searching for enemy soldiers. That was after the battle of Tygerfontein, one should rather say a skirmish. Christian de Wet, the Boer general, had sent a small force to delay the British so that he could make his way out of the valley. Tygerfontein is the neighbouring farm to Rooderand.

At some time after the war mining started again, most of the long adits are from this period. There is a report that core drilling was in operation in the 30th and 40th of the last century to establish where the gold is. Obviously insufficient quantities were found to carry on mining. The late Johannes van der Merwe, owner of Buffelskloof, told us that mining



Team at work – Photo by Horst Müller

operation carried on until 1953. Various ruins of buildings that used to be part of the mine can be found at the bottom of the hill. What their use was is not certain. The one in the picture could have been the mine manager. Interesting construction with rocks at the bottom, up to 2m and on top of that sun-dried bricks.

In more modern times the mine turned into a tourist attraction. A short trip through one of the tunnels was incorporated into a hiking trail. This was stopped a few years ago after an inspection by the inspector of mines at the request from the Tourism Board. The information board on the fence coming onto the property from the north explains the situation, to comply with the regulation is too expensive and we can not afford it.



Entrance to one of the tunnels – Photo by Horst Müller



Engraved rock at entrance – Photo by Horst Müller



The yellow lines approximately indicate the gold bearing conglomerate the miners have been following – Photo by Horst Müller



One of the buildings left over from the times when mining active – Photo by Horst Müller



The notice explaining the accessibility of the mine – Photo by Horst Müller

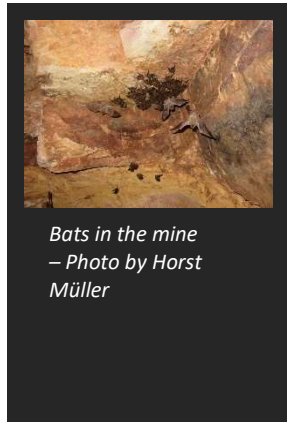


Porcupines in the mine – Photo by Horst Müller

Our observation whilst working there was that this has not stopped tourists to still enter the tunnels. The mine tunnels are now home to some wildlife, porcupine and bats amongst others.

Ref 1.: W.U.Reimold & R.L.Gibson 'Meteorite Impact!', Springer Verlag
 Ref 2.: Prof Okkie de Jager, 'Vredefort Dome from a Philatelic Perspective', 2005
 Ref 3.: J M Jansen van Rensburg,

'Geoconservation of abandoned goldmines and granite quarries in the Vredefort Dome World Heritage Site, South Africa'
 Ref 4: HS Gaskell, 'With Lord Methuen in South Africa'



Bats in the mine – Photo by Horst Müller



The Search for Betty's Chamber

Written by Dawid Van Der Spuy

Betty's chamber was found by Neville Engelbrecht and his wife Betty in Bats cave (across Oakfield garage) and recorded in the CROSA bulletins.

regarding Betty's chamber.

"One day my wife, Betty, and I were together exploring for new chambers. That day I was looking up every

One day my wife, Betty and I were together exploring for new chambers.

CROSA has always been notoriously secretive and did not divulge the exact location of the chamber. Numerous parties over the years have attempted to rediscover this apparent magnificent chamber but to no avail. The excerpt below is from the CROSA bulletin

crack for possible passages. Passing the cave pearls on the way to the slippery slope I saw a crack that looked like a dead-end. It had a rubble floor that moved as you tried to go up it. However, with a little persistence, I moved upwards and to my astonishment it

curved vertically upwards and I could see a room with beautiful undamaged formations. We were soon both in and it was clear that we were the first humans to enter this room. It was perfect with argonite clusters and stalactites, and stretched for about 10m on a plane about 4m above the level of the passage below. We named it 'Betty's Room'.

I first heard of Betty's chamber when Gerrie took a group of us to Bat's cave in 2019. Gerrie had done research into finding Betty's chamber and we spent a fair amount of the trip looking for it but to no avail.

In December 2019 myself and Gerrie decided to restart the search for Betty's chamber. We created a whatsapp group and before long all the members on the group were trying to find out any and all information about Neville and Betty



Original photo found on Neville and Betty's Flickr account



Original photo found on Neville and Betty's Flickr account

Engelbrecht so that they could maybe guide us to this chamber. During the internet search the biggest find was Neville and Betty's flickre accounts where we found two actual photos of Betty's chamber.

With all the information in hand printed out in zip lock bags, myself, Dirk, JP, Paul, Ian, Michael, Minika and Thilo went to Bats Cave in order to find Betty's chamber on the 13th of December 2020. We found that many of the passages were missing on the current Bats survey which made the chamber slightly more difficult to find, but using the directions available and with photo's in hand it did not take very long to find the chamber.

Unfortunately, there is plenty of evidence that many people have been in the chamber since it was found by Betty and Neville, just no one knew it was Betty's chamber. The chamber has deteriorated significantly since it was originally found and is not really of much significance now. Fortunately for us there was still enough of the original formations left to compare with the photo to make a definitive match. The reason why no one had "rediscovered" the chamber in the last 20 years is that it does not live up to expectations/rumors that have been created over the years that there were rim stone pools and waterfalls in

Betty's chamber. It even turns out that original trip with Gerrie we had actually found Betty's chamber but we did not know that we had found it.

Even though Betty's chamber is not the discovery we were hoping for and not of much significance it is still significant to put an age old caving mystery to rest.



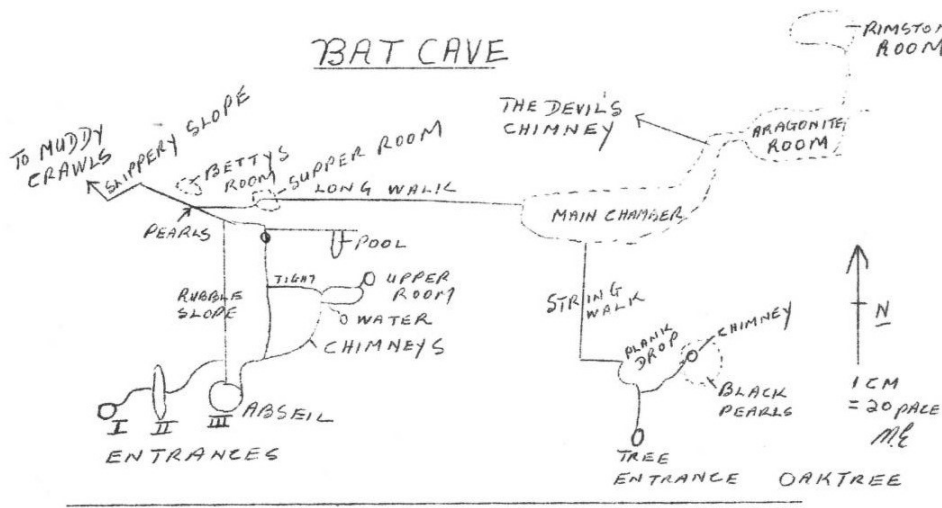
JP, Ian and Paul in Betty's Chamber



Thilo in Betty's Chamber



Courtesy of Thilo comparing the original photo of Betty's chamber with a new one we took in December 2019



The only clues left by the original explorers as to the whereabouts of Betty's Chamber

Rapunzel's Tower Surprise

After the completion of the Mudwall and the disappointing results there, the exploration of Armageddon's various bolting opportunities was put on hold. This changed very quickly in February.

A Japanese film crew were doing a documentary on the Vredefort Dome. They contacted SEC and requested two days of filming inside the cave. During the first day a film crew of four were taken in and filmed around the entrance, the main chamber and through to the Giant's Walk. Everything went very well, except for the exit. A big storm arrived just as we were exiting. Standing at the edge of the sinkhole for almost two hours, with rain pelting you almost horizontally was not a fun experience. It was even less fun for those below as streams of water flowing down the sides of the



*Written by
Steven
Tucker*

sinkhole were dislodging golf ball sized rocks regularly. Armageddon would need to be put on hold.

During the worst of it, those below had to retreat back down the slope and into the main chamber until the storm calmed down a bit. At the end of the day, everything turned out well.

The following day was the big day, when three of the film crew were taken to Rapunzel's Dreadlocks to film them. Seeing those amazing speleothems and the chamber with their large lights was already worth the effort of going there. Over and above the formations, there were two interesting observations. The northern wall of the chamber is full of cherty dolomite, whilst the southern wall is smooth and seems to be a marbled dolomite. The other very interesting observation was a large open space, 25 meters above the entrance to Mutiny Alley. With smaller lights we had never noticed it! The rock looked good for bolting – overall a much easier task than the Mudwall.

John Dickie, Dejan Praprotnik and I went back on the 11 of March with ropes, a drill, four drill bits and a bunch of 6mm bolts. Dejan and I raced ahead and made it to back in under two hours, giving us plenty of time for bolting. We started drilling, made half a hole and the drill bit was destroyed! We popped in the next drill bit and went a bit slower and managed to complete the hole, but the drill bit was already in a sorry state. It managed to do a

centimeter on the second hole before being completely ruined. Our third drill bit completed the second hole, but made barely a dent in the third. The fourth and last drill bit could not even complete the third hole. John arrived thirty minutes later and informed us we should have been cooling down the drill bits with water. A lesson I will not forget.

On the next visit, John and I were joined by David Groenewald. This time we were armed with a lot more drill bits and with a bottle of water dedicated to cooling them off. The drilling was slow, as we had to cool off the drill bit four times for every hole, but it worked and the bits were surviving. The rock was excellent and we progressed very quickly. Towards the upper levels the rock started to deteriorate and more climbing than bolting was needed. David was perfect for this. Up he went, placing a few more bolts where he could and finally managed to stand and create a very good set of anchors. He climbed through a very dodgy set of boulders, the Adrenaline Spot, and carried on for another 15 meters until a short, but a difficult climb stopped him from continuing.

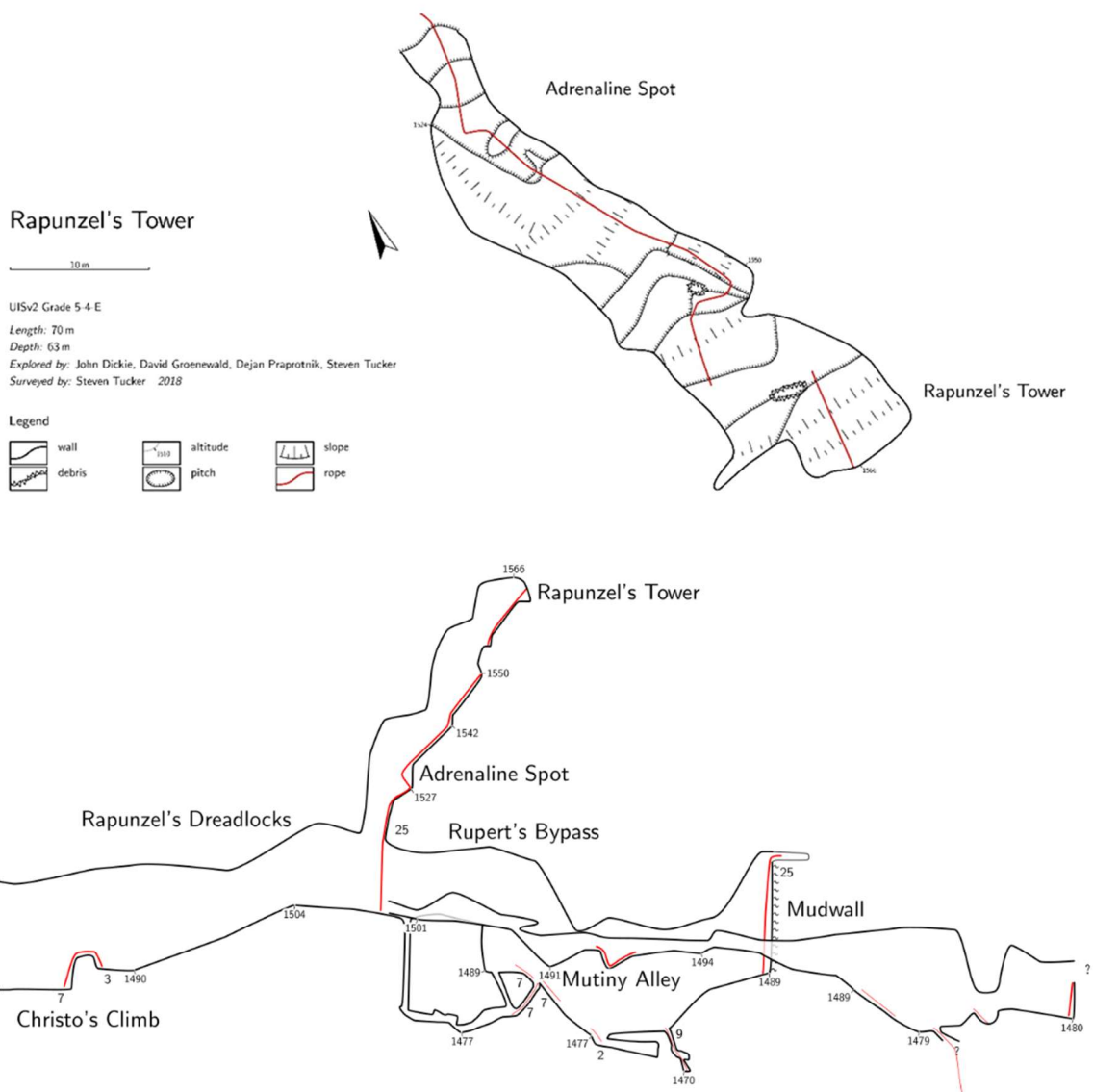
John and Dejan then went back on the 15th of April. They climbed up the Adrenaline Spot and tied a rope around a rock. They proceeded up the slippery slope to where David had stopped. There they placed a bolt and assisted each other to climb up and continued up another slope of loose rubble. At

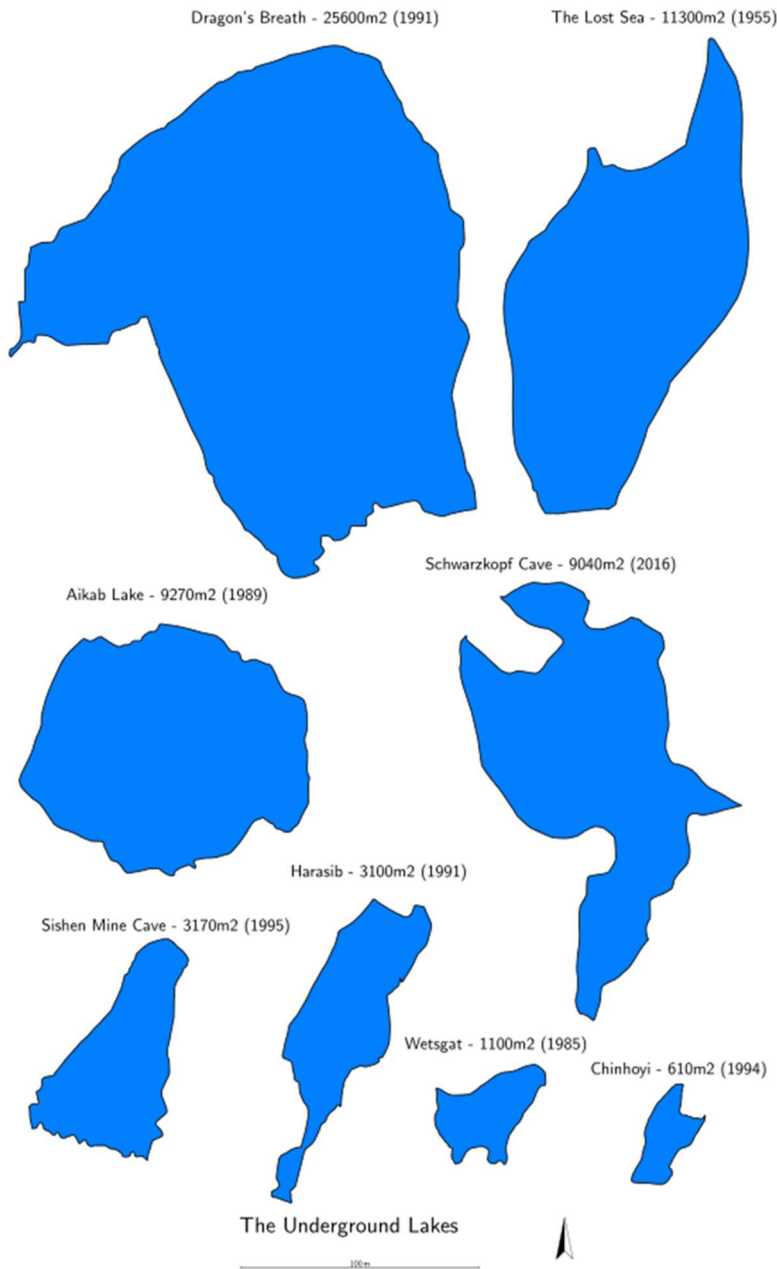
the end, all they could find was a chert ledge to tie the rope around for the descent. Ahead, they were faced with a narrow, near vertical climb with loose material threatening to rain down on the person below. They called it a day and hoped to return the following week. Unfortunately, the drill had stopped working! Further exploration at the back of Armageddon would need to be put on hold.

It was only on the 10th

of November that we finally returned with a brand-new drill in hand. Irene Krüger, Selena Dickie and Anette Kruger joined John, Dejan and I to the back of the cave. The majority stayed below, doing some photography, whilst Dejan and I climbed up. We quickly reached the last rock on a rope and replaced it with a much more secure bolted anchor. Dejan climbed up the narrow fissure, whilst I was secured to the anchors below. He placed a few bolts and I climbed up into a larger chamber. Dejan went up a steep slope in the chamber and placed a set of anchors. We could then walk horizontally and were once again faced with another narrow vertical

climb and then a larger steeply sloping chamber. Dejan climbed this, at times drilling holes and leaving the drill bit in place as an anchor to step on. He quickly reached the top, and unfortunately the cave ended. I joined him there, at the top of Rapunzel's Tower, 63 meters above the floor where we had started in March. I surveyed the extension on the way down, whilst Dejan removed as much equipment as he could safely do. So, ended another difficult bolting opportunity in Armageddon, adding 70 meters of passage to the total length. Bolting opportunities remain at the bottom of Gerrie's Bathole and at the end of Mutiny Alley.





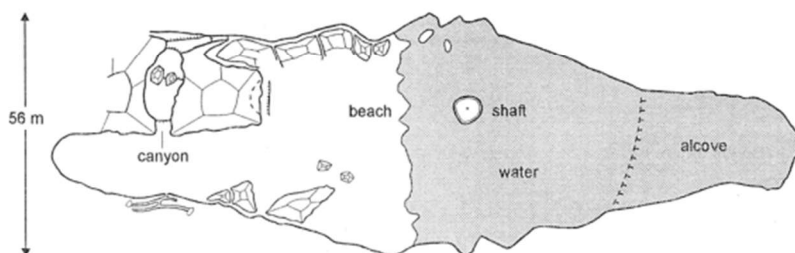
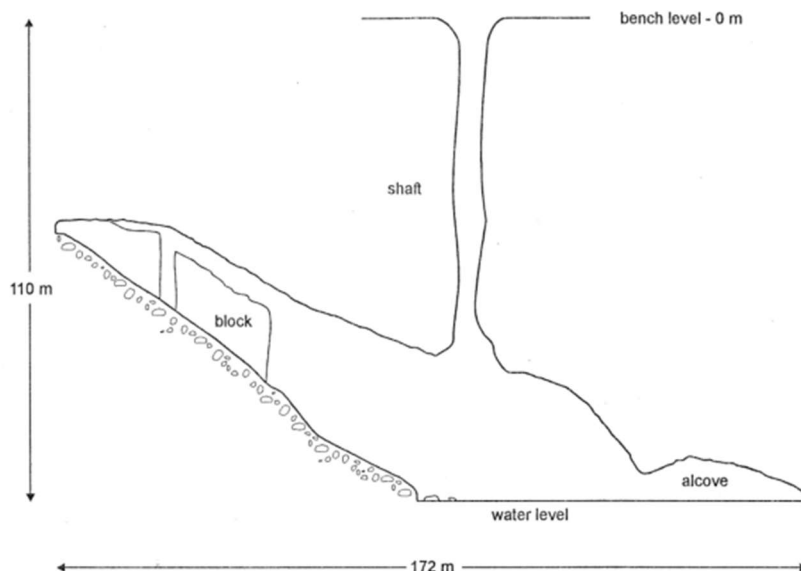
Sishen Mine: Size Matters

What about Sishen Mine Cave, surveyed in 1995? Where did it rank in the list of underground lakes of Southern Africa?

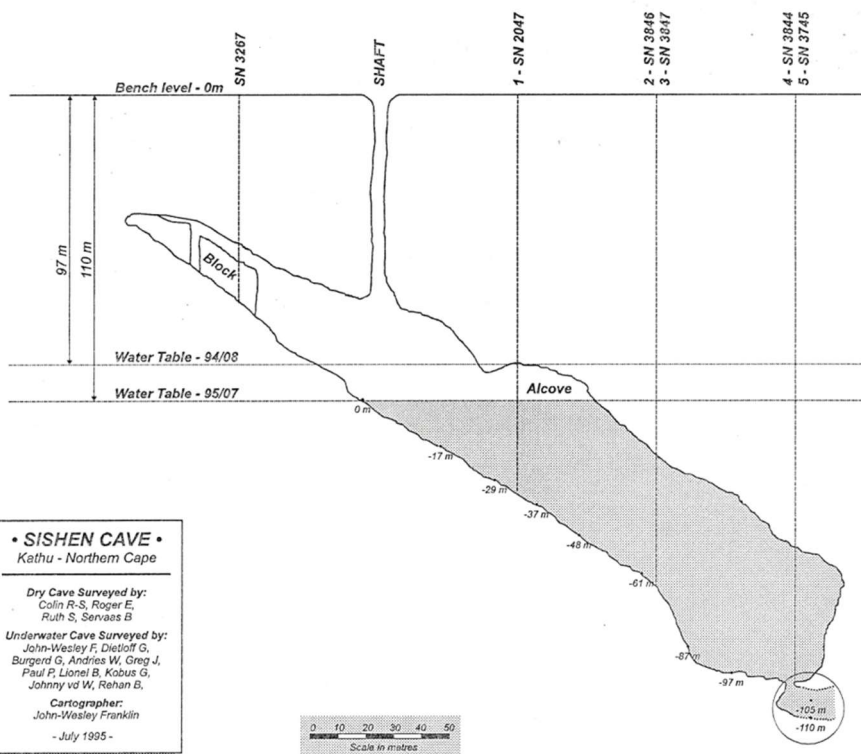
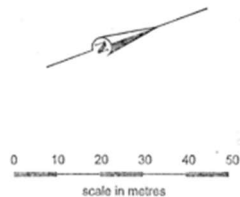
Written by Steven Tucker

In Volume 43 of the SASA Bulletins, published in 2017, Schwarzkopf Cave was announced as the largest underground lake in South Africa, and third largest in Southern Africa, after Dragon's Breath and Aikab. This raised a question; what about Sishen Mine Cave? Since then, a previously unpublished survey of Sishen Mine Cave was found and is reproduced below. At a total depth of 220 meters it is the

third deepest cave in South Africa, after Boesmansgat and Armageddon. A more interesting observation is that the lake covers an area of 3170 square meters. Therefore, for a period of 21 years, Sishen was the largest known underground lake in South Africa. Three times the size of Wetsgat, which was considered to be the largest. Unfortunately, as it was never published before now, its size was never official, until after a larger lake had already been found.



SISHEN CAVE
 Kathu - Northern Cape
 Surveyed by: Colin Redmayne-Smith
 Roger Ellis, Ruth Staslak
 Servaas Badenhorst
 Cartographer: Colin Redmayne-Smith
 Survey Grade 5D © SASA July 1995



• SISHEN CAVE •
 Kathu - Northern Cape
 Dry Cave Surveyed by:
 Colin R-S, Roger E,
 Ruth S, Servaas B
 Underwater Cave Surveyed by:
 John-Wesley F, Dietloff G,
 Burgerd G, Andries W, Greg J,
 Paul P, Lionel B, Kobus G,
 Johnny vd W, Rehan B,
 Cartographer:
 John-Wesley Franklin
 - July 1995 -

Something that has been on my shelf since childhood is a book called "Dragon's Breath Adventure" by Sandy Rudd and illustrated by John Gibbs. In it a small girl called Ndahafa stumbles into a hole in the ground, which billows "smoke" from time to time; it was thus named Dragon's Breath Hole. Locals believed that when the hot humid air rises out of the hole, the dragon that resides below is angry. In this cave Ndahafa finds a huge cavern filled with water and a ceiling dripping with stalactites. She befriends the dragon that lives down there, and they explore the cavern together. She is then returned to the surface after their adventure with the knowledge that when the "smoke" rises the dragon is not angry but laughing instead. This story with its fantastic imagery stimulated my imagination and curiosity as a child greatly.

Further research yields that the cave is on a farm called Harasib, located between Grootfontein and Tsumeb in Namibia. It was discovered, or rather someone was crazy enough to go down it in 1986

and was found to house the largest underground non-subglacial lake in the world of about 2 hectares.



"She befriended the dragon that lives down there, and they explored the cavern together"

Dragon's Breath Adventure – Sandy Rudd

Now does that not sound like a possible fantastic adventure!

At university I became close friends with Bruce Dickie, who encourage my proceeded to encourage my wild streak and many wild adventures. There are too many to write down and most of them probably shouldn't be written down for fear of giving my mother a heart attack. However, part of these adventures was an introduction to caving and with it a method called "SRT" (single rope technique). This

involves abseiling and climbing up ropes within caves. We explored numerous caves in this way on Table Mountain. Bruce's parents John and Selena are the heads of the Speleological Exploration Club (SEC) and upon meeting them last year we began discussing the possibility of doing the Dragon's Breath cave together. This led to me receiving

a message earlier this year asking if I wanted to join SEC in the expedition into the cave in March of 2019. Without much further thought I confirmed and so preparations started. On Wednesday the 6th of March I was therefore equipped and ready, only working half the day in order to still drive up to Farm Harasib that day. Anette Kruger, a SEC member, arrived in Windhoek at 11:30am and by shortly after noon we were on the road up north. 488km or 5 hours of good

Dragon's Breath Cave Conquerors

- A Cavers Tale

Written by Alex Brock



Dragon's Breath Cave – Photo by Alex Brock

Trip Logistics

Written by Selena Dickie

Dragon's Breath

Team: John Dickie, Selena Dickie, Anette Kruger, Alex Brock, Roger Hanson

Gear: Rope 20m and 70m. Used existing bolts and hangars (there were 36 existing bolts; 30 were excess; one bolt was the original SASA bolt). Four inflatable boats, one tyre tube, raft pump. SRT gear. Floating lanterns, one to mark the climbing rope.

First pitch: 8m ladder climb

Second pitch: 10m. Used the 20m rope

Third pitch: 12m. Used the 70m rope here all the way down.

Fourth pitch: about 25m from a platform off into the water below

chatting and driving through patches of rain we arrived at the farm, meeting up with John and Selena in the process. John's nephew, Roger, whom had been travelling with the latter two had decided to jump on as well and thus our merry band became a group of five. We took a drive with one of the farm workers to see the entrances of Dragon's Breath and the Harasib sinkhole, which we also intended to go into. SRT refresher training was still done that evening as well as amazingly braaied meat, John's home brewed stout and much laughter.



Stalactites reflecting in the water – Photo by Anette Kruger

The next morning, we were up early but not in a big rush, we packed all the gear we would need (which included four inflatable boats, a tractor tyre innertube and my freediving mask & fins) and headed to the entrance of Dragon's Breath Cave. The cave

entrance is amongst black jagged, volcanic looking rocks in the middle of the indigenous forest. It is was a scene similar to those seen in first contact films with aliens where the space craft or meteorite has crash landed. The entrance is very unassuming and quite small, although the bolted metal ladder does give it away.

John descended the 10m ladder first and the first roped boats (still deflated) and lanterns were lowered down. It needs to be noted here that there had been a hiccup along

the way and so we were a harness (with all its gear) and a pair of gloves short, therefore Roger and I, of similar size and build, had to share (i.e. take turns – not both try to fit in at the same time). I donned the harness first and descended second and helped

John move the gear along the 20m passage further into the cave. The boats were then half inflated here as it was an easy spot to do so and then passed down the following two 10m abseils. Once I was down at that level with John, he tied the tyre and one boat (now fully inflated) to the end of his 70m rope and dropped it off the narrow ledge into the abyss below. I then clipped in and abseiled down first to a small metal platform about 15m below, and retied the rope to a bolt here, the rope required quite a bit of hauling and reworking so that the final descent (and later ascent) would be easier.

Finally, I clipped in and descended into complete darkness. The descent was about 35m and ended with me comfortably landing in the inflated rubber boat.

I took a moment to take in the vastness of the cave, with my torch trying its very best to reach the far corners. Most of the cave's ceiling was about 15m above and as described in the book the ceiling was dripping with stalactites. The water in my spotlight glimmered bright blue, yet as

John rigged the various pitches. The inflatables were pumped up with a raft pump after the second pitch. There was one climbing rope

me panicking and came to the rescue offering me his tube (these are tougher than the explorer 200s) and he swam off elegantly with



Deflating boats for ascend – Photo by Anette Kruger

and a second rope for lowering and hauling inflatables into the water from the third pitch. The tube was sent down first, then Alex descended into it, and the rest of the

his fins.

The chamber is about 75m across; the roof is 20 – 30m high with scattered stalactites. We all swam/paddled off in different directions exploring. Anette found the beach and we congregated there and had a great time swimming, snorkelling, free-diving and taking photos. The water is a beautiful clear blue with underwater formations clearly visible on the walls which went deeper and deeper beyond our lights. 20 – 30 bats came to investigate us.



Entrance – Photo by Anette Kruger

inflatables went down. I came down last onto an inflatable, realised that the boat had a leak and had a little panic because there was no one about (all too busy exploring the wondrous large chamber) and I would sink weighed down by my heavy

Three of us had made our way to the beach wearing our harnesses so getting back on rope was a matter of trying to balance on the inflatable and attach. The other two enjoyed the balancing manoeuvre of getting harnesses off and on, on top of a small soft inflatable. We climbed out hauling our gear with us.

clear as I've ever seen. My borrowed harness was then hauled up again so that Roger could come down, meanwhile the remaining boats and gear was lowered, and I was then joined by Anette, John, Roger and lastly Selena. We discovered that the boat Selena had landed in had a puncture in one of the compartments and so she ended up using the tyre and I equipped myself with my freediving gear and swam around instead.

On the far end of the cave is a small rocky outcrop with a small beach on which we all congregated after having explored the cave a bit. Here past groups had left their marks. We didn't add anything as the SEC emblem of 1987 was already in place. We spent the next 3 or so hours swimming, exploring and trying to take a decent cave picture. Free diving next to Anette was a delight as her head torch was very strong and waterproof! This meant I could dive down to 10+m and see the stalagmites below the water's surface; this showed that the water level within the cave must fluctuate.

It was then time for the ascent, with me going up last. This



Chain ladder at Harisib entrance – Photo by Anette Kruger

took quite some time and so for about an hour I lay in a boat below the ascension point whistling and just trying to process the awesome experience I was having. Finally, it was just me, the tyre, the boat I was lying in and the harness being lowered down to me. I thought taking off the harness in a boat was a bit tough, boy was that a walk in the park compared to putting on the harness in the boat. Once done I clipped my chest harness and ascender onto the rope, got my feet through the ascender's foot loops and began the long and exhausting climb up the rope. It was a forearm workout like no other and by the time I had reached

the platform I was hot and sweaty enough to go for another swim. A lot of rope hauling and packing later I could do the ascent to the narrow ledge again. A few minor complications and scrapes and bruises later I emerged back into sunlight, very happy and super tired. We then packed up and drove back to the farm in John and Selena's old Land Rover. The gear was then all laid out to dry and the evening spent in a similar manner to the previous one. The following day, Friday, the morning was yet again not rushed and by around 8:30am we were at the entrance to the Harasib sinkhole. his sinkhole has a large opening

boots and SRT gear. Fortunately Alex heard

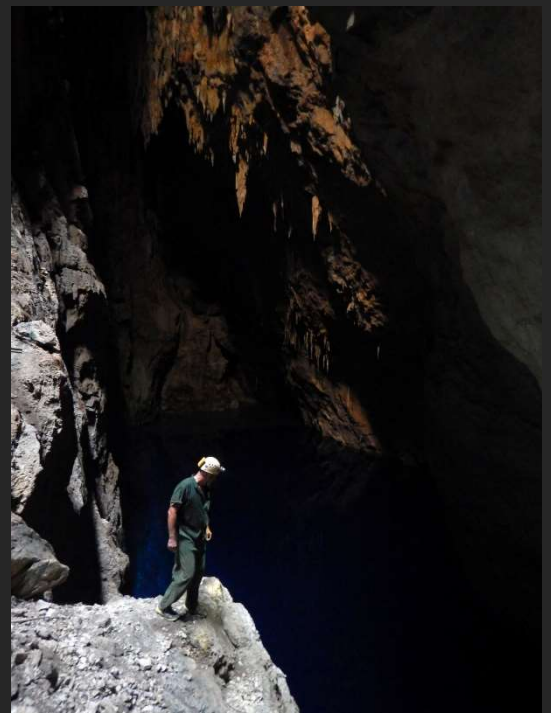
with Anette and Alex taking away some stunning photos. John was visibly relieved that the logistics and rigging went so smoothly. We went back to camp to enjoy a great kudu steak braai, and beer.

It was a fabulous trip in this beautiful underground lake/cave

Harisib 2019

Gear: Rope 70m and 20m. SRT gear

First pitch is a 30m rope assisted clamber. Second pitch is rigged using existing bolt and cable, 50m next to existing steel ladder. The steel ladder is not recommended as the rungs are very awkward to use, too widely spaced. Much easier to SRT, and sometimes the ladder just gets in the way.



First look at Harisib – Photo by Anette Kruger

Descended onto a boulder strewn floor. Daylight shines through

blue water. Stalactites on the roof and on the

surrounded with a lot of vegetation. The 75m drop down is sheer, however very old metal ladders do descend all the way to the bottom. It is very nice as the water below is illuminated by the sunshine and reflects as a bright blue light. The water is so clear you can see the cave walls about 40m below. The descent was a lot less technical as more anchors were available and we could use the old ladders when needed (would not recommend using just the ladder without a rope, unless you're very, very brave – i.e. stupid). I descended first again, having rigged the rope with the knots John refreshed me on the previous night (Selena and John both did check them for me as well though). I was almost down within 10mins, maybe having gone a bit too fast as I managed to almost burn a hole through my glove. I had asked John if he

thought the rope was going to be long enough and he did say yes and so when I reached the knot at the end of the rope about 15m from the ground I was a bit shocked. I however remedied the situation by clipping my safety to the ladder and freeing myself from the rope.

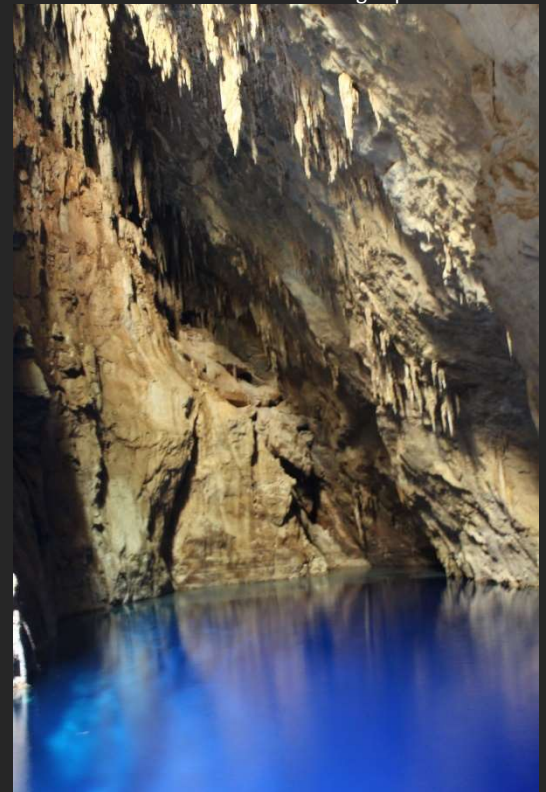
The following scene would have my mother hitting me on the back of my head and so best not describe just how I got down the rest of the way. Suffice to say I made it down alive. The harness was then hauled up again by John for Roger and an extra rope tied to the bottom of the main rope. In the

meantime, I made myself comfortable in the sunshine at the bottom of the hole. The sinkhole slants a bit and has numerous stalactites jutting out of the ceiling/wall. Anette descended first, then Roger,

Selena and lastly John. We then proceeded to thoroughly enjoy our time in the sinkhole: snorkelling, freediving, taking pictures, jumping off 10m cliffs etc. Anette accidentally dropped her mask and snorkel at one point and after a bit asked me if I could please see if I could retrieve it. I managed to catch up with the still plummeting items around the 20m mark and although a bit out of breath was able to give it back to Anette. During this I still had my GoPro strapped to my head and I didn't have my completely waterproof casing on it and so some water managed to get in and fog up the lenses thus limiting the pictures and videos I could take in Harasib. The order of ascent was almost the reverse of entering and so I once again had time to process and ponder the questions of Life,

the collapsed roof revealing aquamarine- formations deep underwater. Again we had fun swimming, snorkelling and freediving the lake. As we began our ascent we heard thunder and it started to rain. It even hailed while Anette was

walls. Stunningly beautiful and visible on the ladder, and there was a proper downpour while Alex was climbing out. The much-needed rain in Namibia made it an epic end to this 2 day caving trip.



Harisib – Photo by Selena Dickie



Alex ascending from Harisib – Photo by Anette Kruger

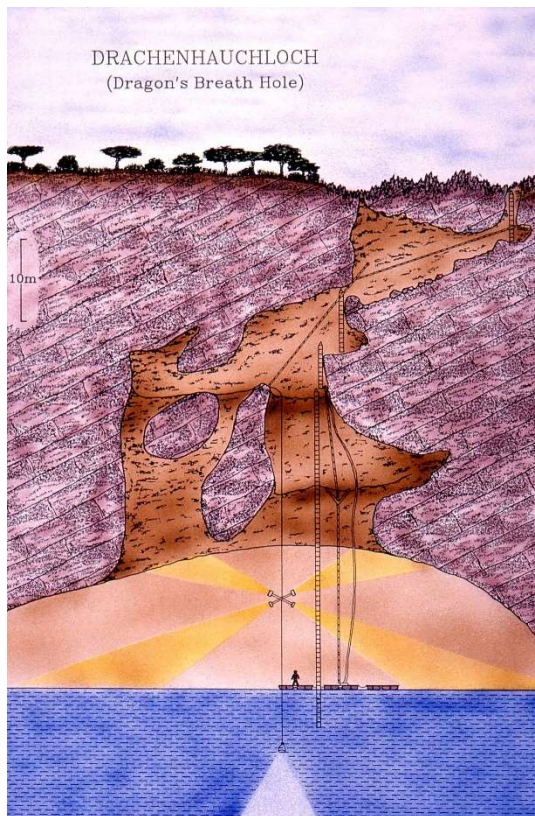
the Universe and Everything.

When we entered the cave and throughout the majority of our time at the bottom of the cave there was wonderful sunshine outside. By the time it was Selena’s turn to ascend, leaving only Anette and me, the heavens decided to make things a bit more challenging and proceeded to lightly start drizzling. Anette’s ascent was in a good trickle of water and she had to deal with small hail landing on her, I guess that’s why we wear helmets?

When it was time for me to climb out the heavens really laid it on thick and I pretty much climbed up a waterfall, as well as hauling up soaking rope after me. I think stating I was drenched as I climbed out of Harasib is a gross understatement, I didn’t feel I’d ever be dry again. It may not have been the most pleasant ascent, but for me it just added to the adventure and I was thoroughly thrilled. It turned out it had rained about 32mm within 40mins according to the farmer. Roger then had to be transported to the tar road as his lift was waiting there for him and the rest of us had lovely warm showers and relaxed for the rest of the

day and night. The next day around 8am we parted company and said that we should do it again sometime.

Harasib is truly beautiful and I would highly recommend a trip down, but I still preferred Dragon’s Breath. I am really thankful to John and Selena for organizing the entire expedition and having so much patience with all of us; also, Anette for letting Roger and me use her daughter’s harness and gear. It was definitely one of those once-in-a-lifetime experiences (although hopefully not) and one I will treasure dearly.



Dragon’s Breath Side View



Anette gearing up at Dragon’s – Photo by Selena Dickie



Contemplating greatness at Dragon’s Breath – Photo by Anette Kruger

A Mexican Love Affair

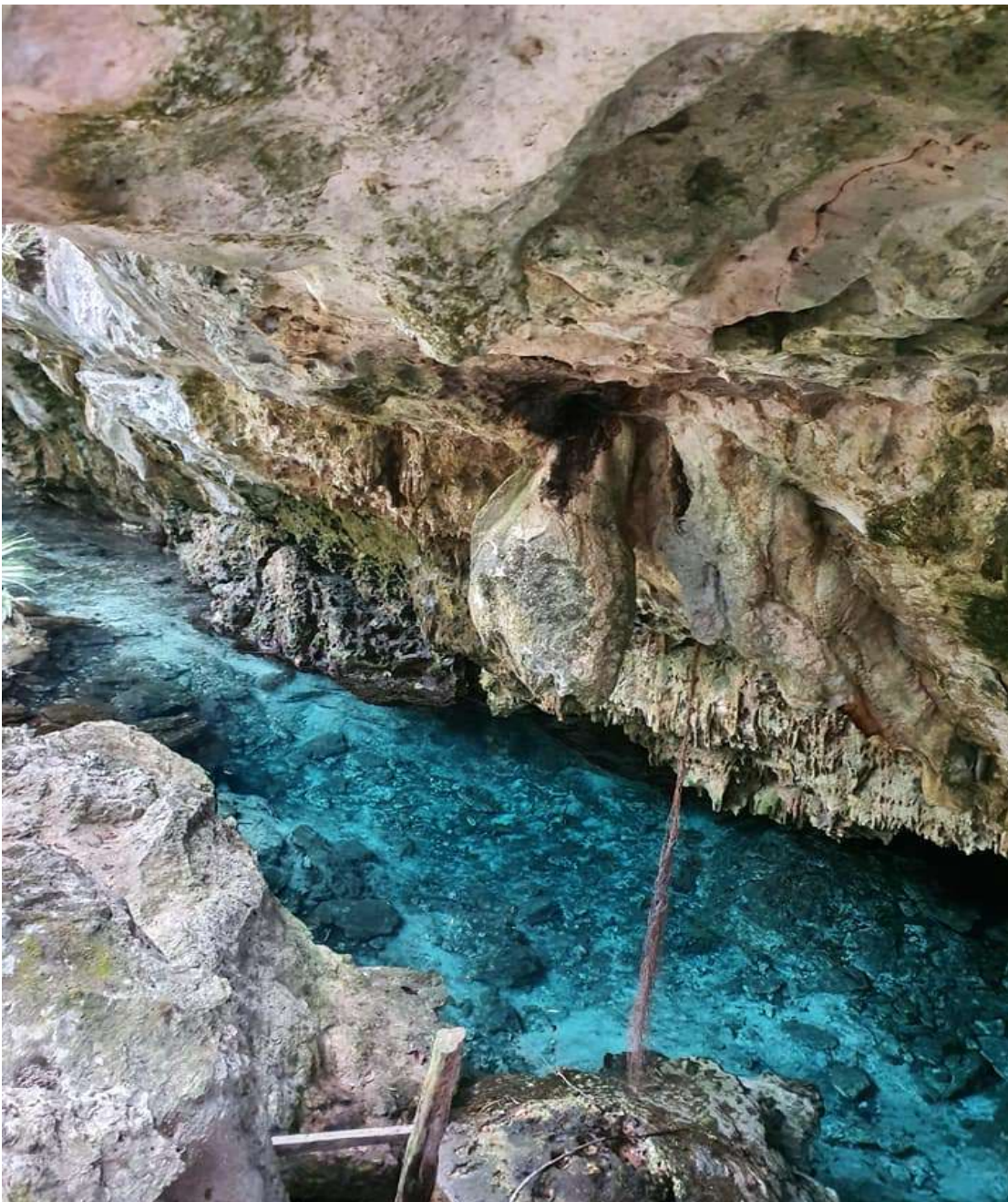
Written by Karin Human

Mexico is in our blood now. We drank her water and breathed her breathe, we roller-coastered her perfect landscapes and found a homestead in the depths of her soul. We became hers.

June 2019

Mexico is a heart place. It consumes every bit of your soul, an adventurous dance to the rhythm of Mariachi. The nights were hot, the days even hotter and some days we kitted up while being enveloped in a soft, misty drizzle. The moment the rain stopped, clouds of mosquitos rose from the damp jungle in search for some fresh blood to suckle on. We soon realized they had an acquired taste for South African anti-bug products which had us scurrying around to find local products.

We arrived in Cancun early afternoon. The blazing sun had Don, who was our driver to Tulum, drinking ice drenched pineapple juice at a small bar just outside the doors of the airport while waiting for us to clear customs. The airconditioned minivan was such a welcome change with ample space. I jumped at the opportunity to take the backseat for the two-hour drive still ahead. After 32 hours of travelling in confined spaces, uncomfortable airport chairs and standing in queues, this was like a 5-star hotel. Don and



Entrance at Cenote Mino Tauro, Mexico – Photo by Karin Human

Ryan's chatter faded to nothing as I slipped into a deep sleep.

Underworld Tulum was like a little oasis midst the bustling town. Tulum is a deeply spiritual place, I eventually realized. Daytime doesn't offer much movement as this town comes alive anything from eight in the evening. The sun is still out at that time and had us quite confused with adjusting from the South African winter sun set time. A quick meet at The Office for a couple of Mexican beers with Budgie, our dive guide, was usually followed by dinner at a restaurant.

Mornings started early. Breakfast was first on the menu. Underworld Tulum has self-catering apartments and a quick visit to the local supermarket had us fully stocked. While breakfast masterpieces were taking form, lunch was also packed for the day. Then gear checks were done. The minivan was packed and we were off to collect filled cylinders for our day's chosen adventure. Driving through town had me fascinated. Many brightly coloured Mayan murals decorate numerous walls of neglected buildings. Many are riding bicycles to work and when you exit the town, you find riders on their way for a day

in the sun at the cenotes.

We spent our days diving in mind-blowing caves. I still struggle to get my head around the size of the chambers compared to the 'sometimes just a mud pool in someone's back yard' entrance. The beauty of these caves was mesmerizing with enormous formations, haloclines and unusual jewels found in unexpected little corners. The first day or so I had my camera with me, attempting to document my Mexico experience, but then I realized I was spending more time looking at my camera and the journey was passing me by.

With grand highs, we also had extreme lows. With the change of climate came a few days of working through a bad cold for Don and me and we also lost a team member after a freak accident while kitting up. He had to return home and we decided to take a day off diving. A drive to Coba to visit a Mayan ruins sight was not wasted at all. The tattered rock buildings are nestled in an impressive jungle teeming with bird life. The silence was a welcome reset. We also used this day to get our laundry done and our day ended with a bicycle ride to a nearby local semi-

restaurant spot with some local music.

Packing for our journey home was a tedious task. I vowed to return and left with some tears shed. Mexico is in our blood now. We drank her water and breathed her breathe, we roller-coastered her perfect landscapes and found a homestead in the depths of her soul. We became hers.

January 2020

She called, I obeyed, and I went back. This time I had a mission. Mexican cave diving is vastly different to what I'm used to. In South Africa, cave diving has rather short penetrations, but deep waters. Our main discipline is decompression diving. Mexico offers long penetrations at rather shallow depths. Also, I wanted to learn more about something I'm very passionate about; cave surveying.

Gear checks and a shakedown dive was on the menu for the first day. Cave surveying is an incredibly involved process and the last thing you want to think about or fiddle with is gear. Lanny, from Underworld Tulum, was the master in the water on this day and a few adjustments later I was set for the course commencing the next day.

I've never liked classroom sessions, but Seb Kirster's class was captivating. We all soon realized that we were in for a serious ride of information and experience as the class progressed. The end of the course would have us producing a proper 3D map to be proud of. We did just that by starting the first half with traditional means of surveying involving a compass, slate and a piece of knotted line. The second half we worked with the Mnemo and the map was created on the Ariane's lines platform. The Mnemo is a cutting edge survey tool designed by Sebastien Kirster, a soft spoken Frenchman living in Mexico. No more compass or knotted line but slates will always be a must. We surveyed triple the distance done on the first day with the Mnemo.

The remainder of my time in Mexico was dedicated to sharpening dive skills in a cave environment with a varied ensemble of workshops led by Lanny from Underworld Tulum. My sidemount harness was also adjusted for optimum fit and it reminded me of a scene somewhere in a movie I saw, think



Budgie, Fernando, Ryan & Karin – Photo by Don Shirley



Cylinders used per day – Photo by Karin Human



Most baggage was dive gear – Photo by Buks Human



Entrance Crystal Cave, Mexico – Photo by Karin Human

it was Armageddon, where Bruce Willis just chucked a whole lot of parts one side with suitable comments, until my harness was streamlined, well fitted and functional.

I had one day off and explored the Mayan Ruins in Tulum. The sight is situated on a rocky cliff just outside of the town. The ruins have well-kept lawns and almost no trees. Such a stark contradiction from the sight at Coba. This sight was dedicated to the Wind God; quite fitting as the wind was blowing endlessly, and gusts were fiercely fighting to get my hair in as much disarray as possible. Also turned out to be my laundry day and again, dinner at the close-by local spot. This time around I did more cooking than having dinners at restaurants. Traveling alone has some pros, but a bit more cons.

I've made some amazing new friends, cuddled deeper into the heart of Mexico and yes, definitely planning another trip.

Cave Formation in the Yucatán Peninsula

The Yucatán Peninsula is composed of a large and intricate system of beautiful

underwater caves and cenotes. These caves have formed from a combination of varying geologic phenomenon such as glaciation, dissolution and the impact of a large asteroid.

For millions of years, the Yucatán Peninsula of Mexico was submerged beneath a prehistoric ocean and was largely made up of coral reefs. These reefs thrived in the shallow and warm waters of their environment and lithified to form over 1300 m of limestone strata during the Cretaceous period. During the Tertiary period, another 1000 m of carbonate deposits accumulated, creating the great limestone platform that makes up the Yucatán Peninsula today. Due to the carbon dioxide present in the atmosphere, precipitation in the area is slightly acidic. This acidic water is thus able to dissolve and percolate through the porous limestone until it reaches the aquifer below the surface. The combination of the aquifer and acidic precipitation carves the long caverns that characterize the peninsula today.

Throughout the Sangamon Interglacial and the Wisconsin post-glacial periods, the sea level fluctuated. As the sea

level dropped during active glaciation, the water table also dropped, leading to the drainage of caverns that were previously filled with water. This caused the ceilings of the caves to collapse because they were no longer supported by the water, thus creating new karst windows that carried stream beds along their bottoms. In time, this karst water eventually eroded the limestone walls of the caves leading to the broadening and lengthening of cave passages. As the sea level rose again, these passages, initially filled with fresh water, mixed with the incoming salt water from the ocean.

Cenotes and the Maya

Another geologic formation that characterizes the Yucatán Peninsula is the cenote. This word is derived from the Mayan word, 'Dzonot' which means; sacred well. More specifically, the word cenote refers to a large natural sink hole whose limestone covering has caved in years ago to reveal the running stream below. While some of these structures are simply vertical shafts filled with water, others are composed of underwater passageways.

Cenotes have played a significant role in the lives of the Mayan Indians of the Yucatan area and continue to do so today. Because this region of Mexico is fairly dry, with relatively no rivers or streams on the land surface, the underground water beds provide an important source of water for the Mayan populations. The Mayas were able to utilize the opening of the cenotes to retrieve water much like Westerners use a well. Because these underground water systems were very extensive and deep, it is not surprising that the Mayan civilizations built around cenotes were able to thrive.

Along with being used for subsistence purposes, the cenotes and caves of the Yucatan held significant spiritual meaning in Mayan culture. They were thought of as entrances to the underworld, called Xibalba, where the Mayan gods and ancestors could be contacted by the living. Many sacred rituals and ceremonies were therefore held within these underground chambers because they were closer to divine and supernatural powers. It is for this same reason that many archaeologists speculate that cenotes were used as.



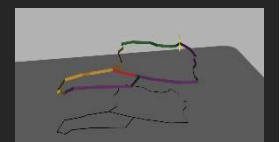
End of survey course – Photo by Seb Kirster



Karin, surveying with Mnemo – Photo by Seb Kirster



Karin, old school surveying – Photo by Seb Kirster



Stick map produced during course



Last day of diving



Seb giving briefing before dive

a site for human sacrifice and burial. Though numerous skeletal remains of ancient Mayans have been found within these structures, the notion of their use for such purposes is questionable. For one thing, the decomposition of bodies within cenotes would have certainly contaminated the

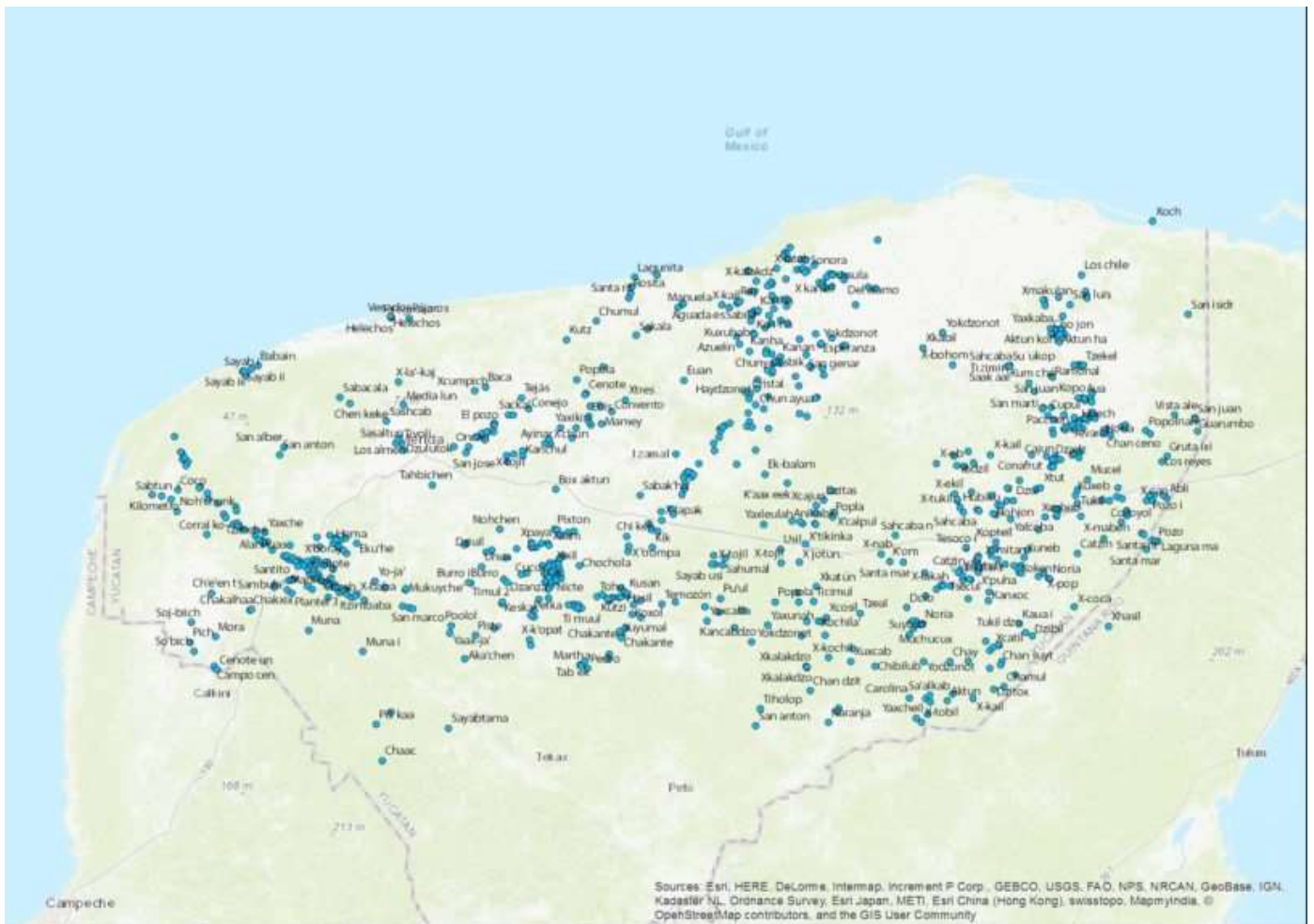
Mayan's only water source. In addition, many of the Mayan civilizations built around cenotes had been inhabited for hundreds of years, meaning that far more bodies would have been discovered had sacrifice and burial been a common practice within cenotes.



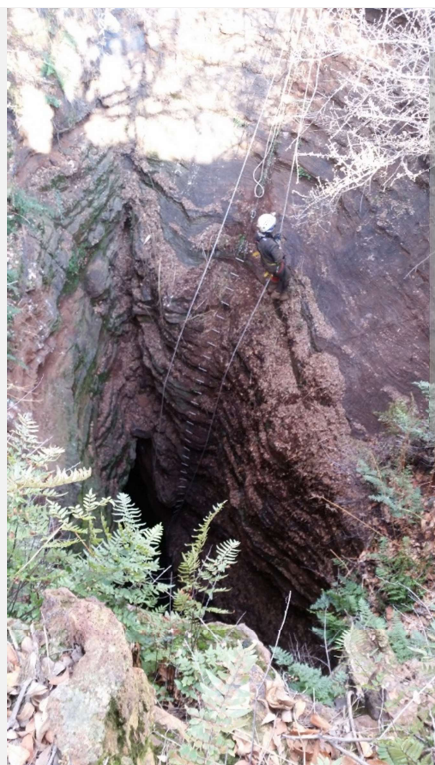
Ariane's Lines. Capturing data – Photo by Seb Kirsten



Dry runs before dive – Photo by Seb Kirsten



Map of cenotes in the Yucatán Peninsula. New cenote and cave discoveries are still being made. In some places the jungle is very dense, hiding little jewels from being discovered. Some cenotes are literally a mud pond in someone's back yard, giving access to amazing cave systems.



Selena on rope at Nick's cave entrance
– Photo by Karin Human

Nick's Cave:

OLD DAVID'S CAVE GETS NEW SURVEY

Discovered in 1975 and re-discovered in 1997, a lost extension was finally rediscovered recently.

Written by Steven Tucker

SEC (SASA Transvaal at the time) first became aware of this cave in September 1975, when systematic exploration of the area around Koster was performed. At the time the cave was named David's Cave and was surveyed and explored in 1976 to a length of 550 meters and a depth of 70 meters.

The survey and description indicated that a 20-meter-deep dissolution chimney lead into a large chamber, formed by collapse, with a few phreatic passages leading a short distance away from the main chamber. Faint footprints and a partially burnt newspaper indicated that the cave was explored as early as 1949. (Martini, J. and Davies, G., 1977. Two Caves of the Koster Area - David's Cave. SASA Bulletin, 4-5.)

The cave was subsequently rediscovered in October 1997, when a new group of cavers re-explored and resurveyed the cave. Fortunately, no one had told the 1997 group that the club had been there 20 years before and the majority of the cave was resurveyed and a large extension was discovered, including the areas

just south of the Sick Room through to the Pink Floyd Chamber and the Grand Kenyon. They described the cave as a series of very large dusty chambers with only a few "small-but-nice" crystals and interesting multi-coloured rock layers on the walls. Despite the group surveying a very impressive 1400 meters of passages in a single day, they believed a strong draft indicated that more was to be discovered in the future. The cave was named after Nick Coetzee, the extremely friendly owner of the property (we now gain access to the property through his son, Alwyn Coetzee). (Poot, M., 1998. Nick's Cave. SASA Record of the Transvaal, 43, 27-30.)

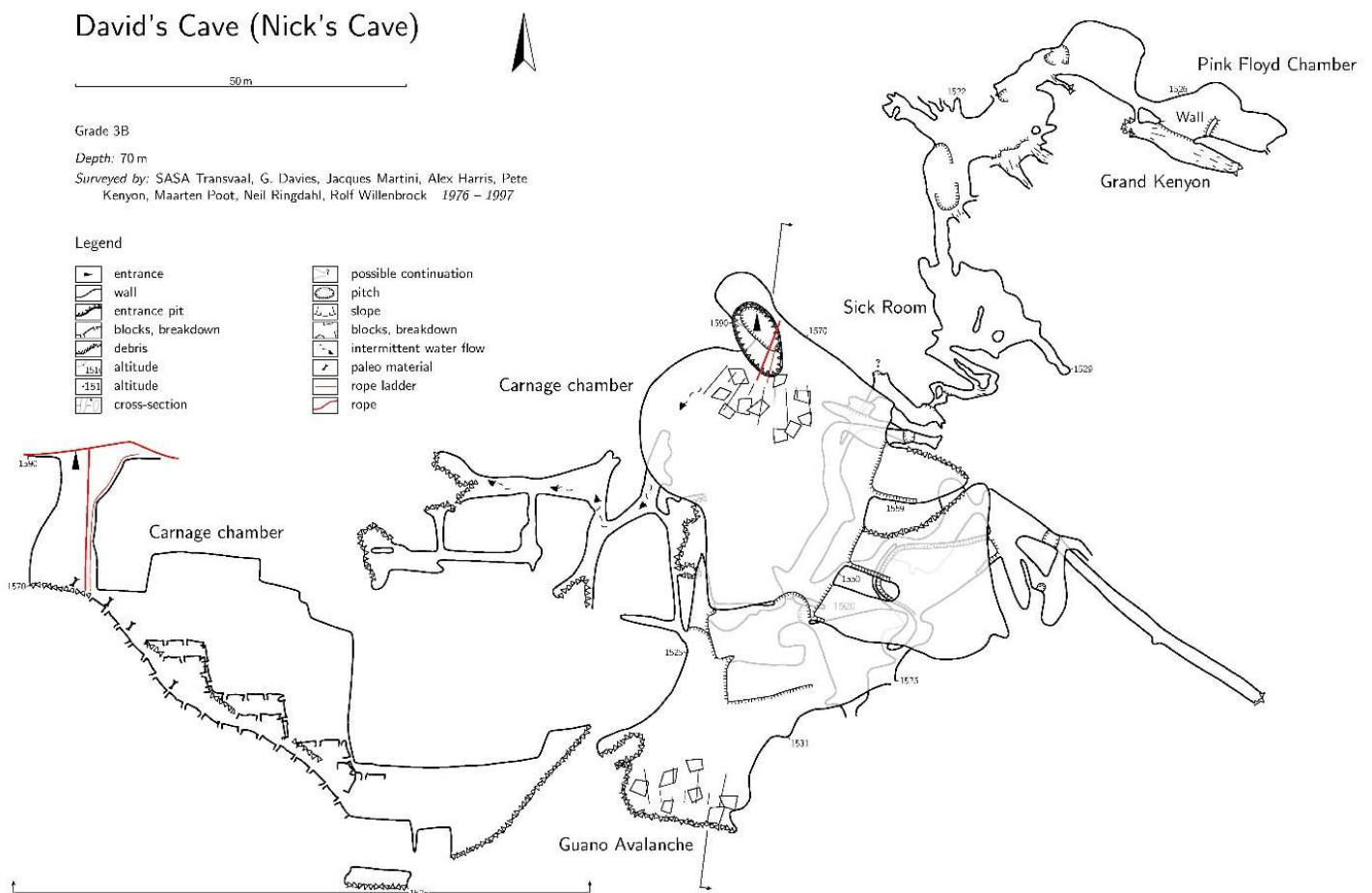
Fifteen years later, and the next group of cavers (some of whom had been through the cave with the 90's group), knew the cave

as Nick’s Cave. Despite several trips, they could not find the entrance to the extension found in the 90’s. In 2013 I sent several emails to Neil Ringdahl to get more information on the elusive extension. He said he had a strong suspicion that the cave was named Davel’s Cave. A thorough search through the cave register and SASA Bulletins revealed that Davel’s Cave was in the Abe Bailey Nature Reserve and was not Nick’s Cave. However, David’s Cave was found in the records and the survey looked like it matched. This was confirmed on a later trip; Nick’s cave was David’s Cave. But the extension still could not be found! As a

final attempt to find the extension, the 1976 and 1997 surveys were both redrawn on Therion, then the two surveys were combined into a single file and duplicated sections were removed by removing the less detailed survey of the section. With this combined survey in hand we returned to the cave in May 2018 and quickly found the start of the extension... but in the first chamber, there were thousands of bats getting ready for hibernation and they completely blocked any possible routes onwards. We returned in November after winter, and quickly returned to the first chamber. The route on

was not that easy to find as we first found a chamber not located on either of the two surveys (located at the question mark on the survey below). The correct route was found soon after and the Sick Room, the Pink Floyd Chamber and the Grand Kenyon were visited for the first time in many years!

Since then, the combined survey has been corrected and updated and the result is shown below. With this information in hand, hopefully the 1997 extension will not be lost to cavers again and will form a basis for future exploration as this cave certainly offers more opportunities for discoveries.



Armageddon: Trapped illegal miners rescued

Written by Dawid van der Spuy

In search of gold, 10 Zimbabweans were trapped in Armageddon for 5 days before rescued.

On 6 June 2020, We arrived at the cave at around 09:00. The purpose of the trip was to check two bolting opportunities down Gerrie's Bathole. The ropes were setup and we had Maxwell (John's gardener) cut the grass around the hole, the cars and the rope in order to avoid a veld fire, as the grass was long and dry. We were all down the hole by about 10:00. On the previous trip down Armageddon, on the 15th of March 2020, we discovered some of our ropes (down the entrance slope and across pit 1) were stolen by zamma zamm

(illegal miners) and as such Steven decided to quickly cross the three pits and ensure everything was still intact. Previously, the miners had crossed the first two pits, but had fortunately stopped at Dickie's Pit.

John, Herman and I proceeded down the Bathole and before the first hand line descent we heard some voices in front of us. We were very startled, as one can imagine. The only way in and out of Armageddon is a 50+m SRT and no ropes were hanging at the entrance. A variety of thoughts went through our minds. One always hears that zamma zamm are dangerous and armed. There was a short debate in terms of the course of action but ultimately John and Herman decided to make contact with them. Shouting a few formalities



Team of rescuers with group of illegal mines – Photo by Maxwell

down the pitch was followed by the zamma zamm shouting back. One asked if he can come up and talk to us. He climbed up webbing they had installed at the climb and we kept watching his hands as he climbed up to ensure there were no weapons. Once he was up, he told us that they had been forced down the entrance by between about a hundred armed men from Lesotho. They had been told that there was a lot of gold down the hole and that they must mine it. The men from Lesotho were supposed to pick them up 24 hours later. According to them, that was 5 days ago! They were attempting to go deeper into the "mine" to look for an alternative way out. He asked us what type of mine this was as he knows gold mines but this was obviously not one. He asked if it was a

platinum mine. To which we laughed and told him no this was no mine it was a cave. He said that there were 10 of them and they were all Zimbabweans.

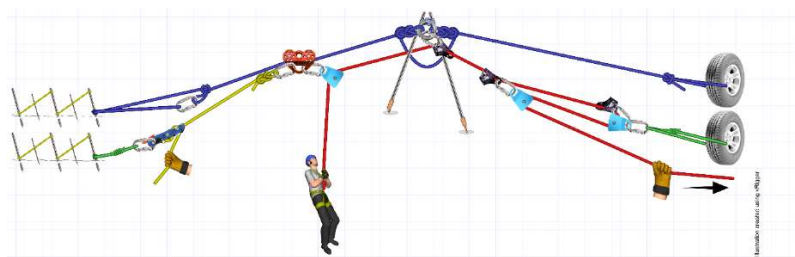
Steven was about to enter the chamber when I told him we have some friends down there. He was immediately surprised after which I proceeded to tell him that I believe we were safe as they seemed genuinely in need of help and not aggressive at all. In fact they seemed more scared of us than we were of them. We told the zamma zamm we would take them out and the trip turned into a rescue mission for 10 trapped miners! We proceeded to the entrance, but noticed they were not following us. We shouted back "Are you coming?!" to which they answered "yes yes we are coming". We told them we will meet them at the bottom of the sinkhole.

We arrived at the bottom of the sinkhole and Steven proceeded to sort out, followed by John. By this time about 40 minutes had passed and we still had not seen the zamma zamas. We figured they had lied to us and were not desperate to get out and wanted to remain in the cave. As John neared the top of the sinkhole the first zamma zamas started to appear. About 5 of them sat down with Herman and I and we proceeded to share what food and drink we had which they gorged themselves on. Their hunger and thirst was definitely not faked. We asked them where their friends were and they said they were just a little way down, but were scared to come out. When the last 5 saw the food and drink going around, they came out to get some before it was all gone. The one asked me how is it up top, are there any police? I told him of course not we are just cavers not law enforcement.

I climbed out of the hole so we would be enough people to haul the zamma zamas out. When I

came to the top, I told John how scared the zamma zamas were and that I had promised we would not call the police. To which John replied the police were already on their way. John had phoned the owner of the property, who insisted that police should be present in case there was any aggression. The situation was still quite dicey as one doesn't know if the zamma zamas would get aggressive once they saw the police, or if they pull out guns once they were out of the cave and possibly steal our gear or even the cars.

A hauling system with an inline 3:1 mechanical advantage and two progress captures was rigged:



Inline 3:1 Hauling system rigged for rescue

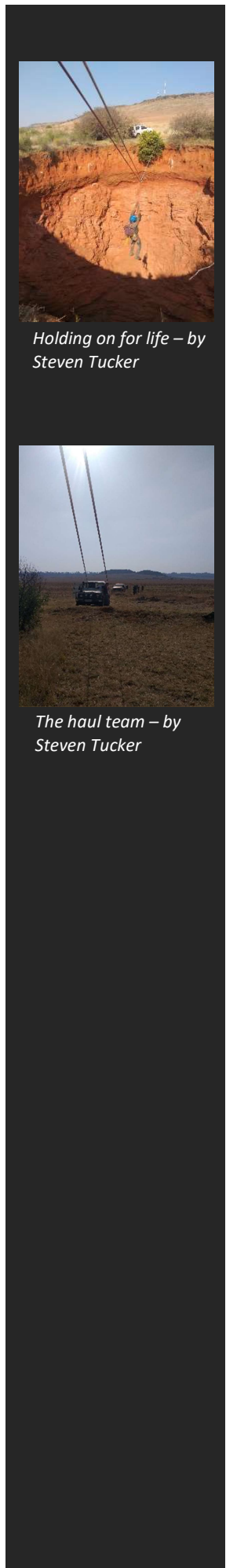
We pulled out 3 zamma zamas and then the police showed up. When we looked around the three had disappeared into the veld, nowhere

to be seen. The police seemed very interested in terms of what was going on and were showed a lot interest in the sinkhole. They took a few photos and got a bit too close to the sides of the sinkhole a few times. There was some concern that they would have an issue with us being there during the Covid-19 lockdown. Also bearing in mind we were four cavers, Maxwell the ten zamma zamas, the farmer and his wife and two police officers, which meant 19 people. Quite a gathering during these times! The police asked if they could take a photo of Steven next to the bipod, to which Steven responded they could once he had put on his mask.

We were busy

pulling out the fourth zamma zamma and I suggested the police should hide as we did not want the zamma zamma to warn their friends at

the bottom. They might decide to stay in the cave or even put Herman in danger! Herman had remained below to assist them into harnesses and ensure they correctly connect to the rope. The police did not think this was a realistic concern and stayed right next to the hole. Luckily when the zamma zamma were pulled no warning was given to his friends at the bottom. The police questioned him for a few minutes and then informed the farmer they were not going to be arresting anyone today. The farmer said that is fine but that they should just be present for safety reasons. We asked the police for permission to have the zamma zamma help us haul out the rest, to which they



Holding on for life – by Steven Tucker

The haul team – by Steven Tucker

friends were in the back of the police's bakkie. We just laughed and told him they had run off and he could go and look in the back of the bakkie if he doubted us. About a half an hour later the police left with most of the operation still ahead of us.

As we were hauling the fixed cheek pulley below the tandem pulley started making noises, which became progressively worse. After the 7th person was hauled out (close to 400 meters of hauling!) the

pulley was replaced and things sounded better. The pulley was later dissected, and it was found that a bit of dirt had entered between the tube around the central pin and copper portion of the sheath. Almost a millimetre of the copper had been worn away. This may have affected the efficiency, but the intact central pin showed that the pulley was still perfectly safe. We pulled out the last all of the zamma zamas and hauled Herman out as well. By then using a straight haul since we had such a large

team. All of the gear had been packed away by 14:00. Not bad for such a rescue of 10 miners.

We took a few photos with the zamam zamas and they asked us which way Soweto was, to which we pointed them in the right direction, and they set off by foot. It is also worth mentioning that Herman exchanged numbers with the zamma zamas and has organized himself a diamond for his rock collection. They will give him a call if they get it for him. The zamma

zamas can thank their lucky stars that we went caving that day and that we risked it to make contact with them. It was a dicey situation that could have gone a million different ways but ended up with an excellent outcome and ten lives being saved. We now have evidence of at least 3 visits by illegal miners into Armageddon over more than a year. I would not be surprized if we found more people or even bodies down there in the future.



Dissected pulley – by Steven Tucker

Komati Springs and its surrounding nature reserve is one of the environmental success stories. Once it was 40 rundown farms and an unrehabilitated mine. After an extensive healing process, it became a pristine wilderness. It is part of the Barberton Makhonjwa Mountains World Heritage Site.

As you drive to the site one of the ancient volcanic Komatiite commands the Komati River Valley. This area is a geologist's dream.

Komati Springs in known by scuba divers as a dive site. But little do they know the site rests on a World Heritage Site covering 113 137 hectares called the Barberton Makhonjwa Mountains World Heritage Site. It contains the oldest and best-preserved sequence of volcanic and sedimentary rocks on earth, comprising a unique record of the early formation of the planet and many endemic and exceptionally rich diversity of plant species, all set in amazing vistas.

The 3.6 Billion-year-old is the best-preserved sequence of rock exposures. Scientists have

researched how the earth's crust was formed here. Evidence has been found of the first massive meteorite impacts that might be related to our moon's formation. Billions of years old tidal traces are so completely recorded they allow for calculation of changes in the distance between the earth and the moon over time.

The Barberton Makhonjwa Mountains is the only place on earth where the

"We dive because of what's not there. The void, the silence. The lack of light."

Unknown

development of the early earth and evolution of life itself can be studied. This is where life began.

The area has attracted a steady pilgrimage of leading scientists from around the world since the 1960s and continues. The Barberton Mountain lands is regarded internationally as the place on Earth where the earliest

life forms and the oldest well-preserved rocks have ever been discovered. Over 3 600 scientific publications on the area have been published since 1885.

The WHS consists of the Mountainlands Nature Reserve, Songimvelo Nature Reserve, Nkomazi Game Reserve, Komati Springs, Queens River and Barberton Private Nature Reserves. Also included are the timber growing properties that lie between these

protected areas and two enclaves of private and communal land towards Badplaas.

The following geological assets support scientists' reference to the area as the "holy grail" of ancient geology:

- The oldest sedimentary and volcanic rocks on Earth (oldest well-preserved real estate)

into the wild: Komati Springs

- An adventurer's dream

Written by Andre Shirley



The Dive Site

Nestled between the oldest mountains on the planet lies Komati Springs, a dive site surrounded by a private Big Five nature reserve. Here you will only hear the noise of lions roaring, elephants trumpeting, jackal calling and birds singing. Night sounds are truly "Africa". No traffic, alarms or man-made noises. The game, birds and natural beauty is refreshing. We have counted around 130 bird species ourselves, but there is rumoured to be over 250 in this area.

Komati Springs guarantees diving under all weather conditions 365 days a year. It is totally unique for many reasons, and diving is not the only one. The water is clean and slowly flows out of the cave system into the open hole and then out another cave at the far side into the spruit. This keeps everything fresh for divers and fish alike.

Diving in the open hole can satisfy any diver. Komati Springs is frequented by divers of all levels, from Open Water to Rebreather, Cave, Trimix, Rescue and more. Dive schools routinely visit us for completion of their open water dive classes. The night dives are stunning, especially on a full moon weekend.

- The first continent on earth known as the Kaapvaal Craton)
- The remains of the oldest fossils ever found on Earth consisting of the earliest life forms ever found on the planet
- Rocks called Komatiites, which are named after the Komati river and known as the hottest volcanic rocks ever to erupt on Earth
- The oldest and largest meteorite impact deposit on Earth
- The oldest fossilized riverbed on Earth, and
- The oldest fossilized seabed, estuary, beaches, tidal flats and sand dunes on Earth.

The area has:

- Grasslands and mountains like Serengeti in Tanzania; the most threatened biome on Earth
- Koppies like Matopos in Zimbabwe

- Clear perennial rivers
- Interesting and unique rock formations
- Impressive Geomorphological features
- Rainforests and wetlands
- Mountains, valleys and plateaux
- Caves and Bushman paintings
- High plant diversity
- High animal diversity
- Moderate climate
- Good rainfall

The perennial Komati River flows through the Greater Komati Valley for 20 kilometers providing the Nkomazi game reserve with a permanent source of clean water. In addition, there are numerous other water resources on the game reserve and Komati Springs; from clear water streams, waterfalls, and wetlands, to fountains and freshwater springs. The caves in Komati Springs has one of those springs that slowly filters through the dive site from the depths of the caves to the opposite side of the open site, through the rock formation to the Sterkspruit river. This ensures no stagnant water

in the dive site and keeps it fresh.

The area has an above-average rainfall that has averaged 850mm over the past 80-years, compared to South Africa's average of approximately 460mm per annum. Rainfall is typically in the summer months from November to March and is generally cloudbursts which last an hour or two, but sometimes can be drizzle that lasts around two days.

The river and streams have formed spectacular valleys and gorges over the millennia.

The climate is temperate all year round and is subtropical and frost-free. Summers are generally warm to hot, winters dry and sunny and it is overall more temperate than the lowveld region of the Kruger National Park area.

Cultural Significance

The Barberton Mountainland is of considerable historic interest with a long and rich history of human use and occupation which dates back 45 000 years with evidence of primitive artefacts manufactured by Stone Age man.

The current camping ground is a large area of lawn and shaded trees, with ablutions (toilets and showers) in a converted 1920 homestead. It's basic, clean, and has hot and cold water. The peace and quiet of the site has to be experienced. Komati Springs is an ideal getaway if you want to recharge and get rid of the city stress. Your only complaint will be that the weekend is too short.

The existing dive centre has 4 bedrooms which are normally booked for divers on course, but are available to others – booking essential.

Dive Site Specifics

- The open dive site is 110m long by 60m wide and 53m at its deepest point
- There are 6, 10 and 30m grids
- Buoy lines to 40m and 53m
- In two areas the walls slope to the depths and the other walls are sheer – great wall diving
- The water temperature at its deepest is a constant 16°C throughout the year. In summer it gets to 26°C at the surface extending down to about 10m.
- Winter viz is stunning, side to side and top to bottom. As the water warms up the viz decreases due to plankton life to around 10m.

The Caves

If you're into caves the cave system is very extensive, with the main cave starting off at a lip at 12m giving access to the two entrances into the main system at 18m. If a cave was ever created by man for divers this would be it (and it was man made an ex mine). There are levels at 9, 18, 26, 36, 48, 68, 110 and 140 with the deepest part of the cave at 186m. All levels are interconnected by shafts and stairways, and every level is slightly different in character.

The names given to places in the cave list the adventures of the site, the Tunnel of Love, the Helter Skelter, H-Frame, Green Door(s), the Bunny Run, Bunny Foot, the Main shaft and more. The visibility in the cave is always great and you can generally see as far as your light can shine. At 26m the water gets clearer and beyond that depth it

Iron Age activities dating back to 40 000 BC have been recognised by archaeologists. One can find Flints and Iron Age sites. There is evidence of the oldest mines on Earth in the area.

It is said that the Dravidian explorers from India mined gold in the area over 2 000 years ago, and ancient ochre and gold mines, stone terraces, circular structures and a celestial calendar are to be found. Well-preserved Kung bushman paintings can also be found on the surrounding areas.

The area was a battleground between Mzilikazi and Dinga (King Shaka's brother). Shaka ordered Dinga to kill Mzilikazi but Mzilikazi fled into the Barberton Mountainlands. As it was impossible to capture Mzilikazi, he doubled back the same night to murder his brother Shaka. The area where Shaka camped is now known as Tjakastad.

In the early 1800s, the Voortrekkers colonised the area. The gold was discovered and Barberton was founded in 1884. The Boer war followed, and Boer war battle sites and concentration camp

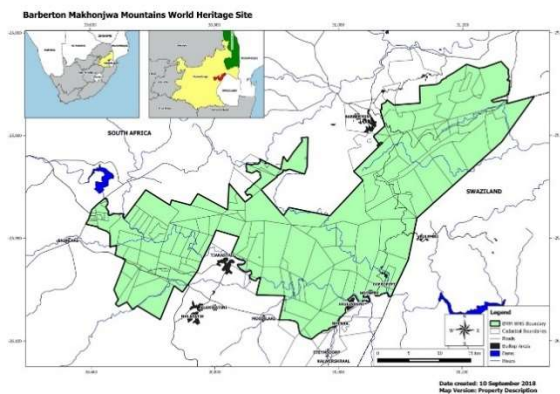
sites are in the area as well.



The San Rock Art - Photo courtesy Nkomazi Game Reserve

References:

UNESCO Barberton
Makhonjwa
Mountains Map



Komati Springs

<http://www.komatispings.com>

<https://www.facebook.com/komatispings>

The Movie and Book

<https://www.facebook.com/davenotcomingback>

The Area

<https://whc.unesco.org/en/list/1575/>

<http://www.mountainlands.co.za/world-heritage-site/>

<http://www.bmmlworlheritage.org/indexGalA.php>

seems so clear you'd think you are floating in space.

There are large spaces and tight tunnels carved in solid, stable rock where exhaled bubbles form mercury-like mirrors on the roof. As you may be

able to tell, this is one of my favourite places to dive.

News from Bushman's in the Northern Cape

- Dave not coming back



A feature documentary on the last dive of David Shaw, directed by Jonah Malak with producer Audrey-Ann Dupuis-Pierre.

Release dates will be announced, but it will be December 2020 for South Africa.

Born in Australia, Dave Shaw broke the world record of depth with a rebreather in October 2004 at Boesmansgat in South Africa. On this day he found Deon Dreyer's body, who died 10 years earlier. He then swore to repeat the record 3 months later but this time he'll get the body back to the surface..

Discover the man, his vision and his motivations.

"We dive because of what's not there. The void, the silence. The lack of light."

Don Shirley was an army electronics engineer who also accumulates a 46-year diving career. This experienced instructor and true coordinator of the operation was Dave's closest friend, his underwater alter-ego. He was the direct witness of Dave's last dive. He is the one who tells us all about the events.

Trailer of Dave not coming back:

<https://youtu.be/CKnGN-5S1xM>

Two Rabbits and an Aloe Cave

Written by Selena Dickie

An exciting fossil discovery. Hominin or not?

SEC was invited to assist the landowners at Hoogland to explore some known potholes/cave/sinkhole. Cavers were John Dickie, Selena Dickie, Karin Human, Gerrie Pretorius; climbers Andrew Louw and Odette Lippold; and landowners Anette Kruger and her family.

The first day John dropped down two potholes which were blind. We went into a mined-out cave (Vlakplaats Cave 1A) known to the family which had a walk-in entrance. Further in a short drop using a handline into mined out chambers and a chamber was rediscovered which had flowstone and an old miner's tin can for water was found. This chamber with its "roasted marshmallow" walls gave the cave a new name, Marshmallow Cave.

We dropped down another sinkhole about 20m which had an interesting aragonite chamber at the bottom which had apparently only recently opened, now called Aragonite Cave.

The next day we set off on a short hike up a different ridge to an entrance shaft which was also



Entrance at Two Rabbits and an Aloe Cave – Photo by Irene Krüger



Gerrie Pretorius, getting ready to abseil down the inconspicuous entrance – by Irene Krüger



Steven Tucker looking back up at the entrance - by Irene Krüger

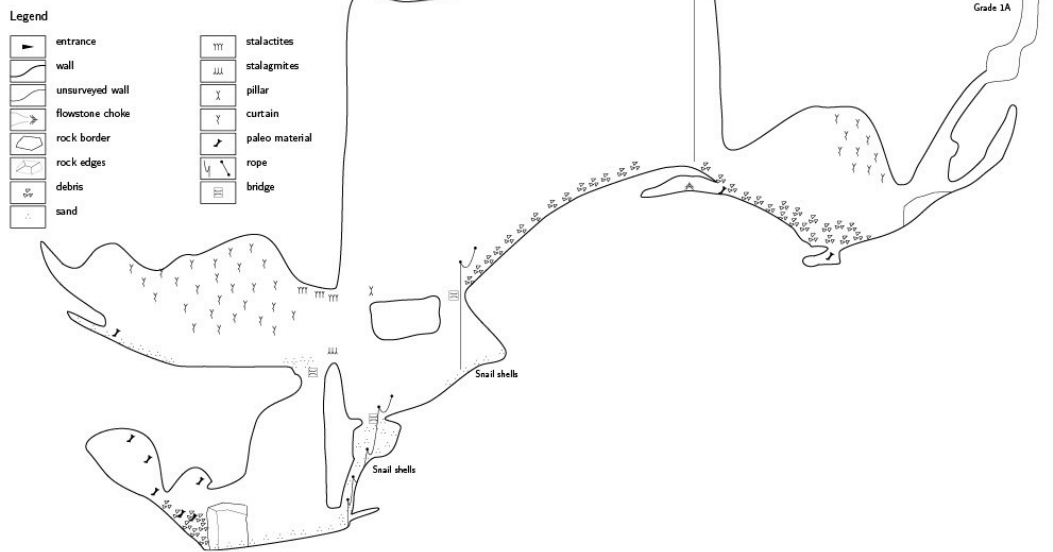
known to the family but not explored. We rigged it for SRT and John went down the 15m followed by Anette and the rest of the cavers. The same rope was used as a handline down a scree slope of 10m, and then a 4m drop off in the rubble. There is an upper level of the fault with some pretty formations, and another 4m drop down into a dusty 10m long chamber. There was a lot of excitement when John found some interesting fossils in the walls and floor of this sandy chamber. Subsequent trips back included Steven Tucker to identify the fossils, though not positively identified, but not hominid.



Some of the fossils found

Two Rabbits and an Aloe

UISv2 Grade 4-4-E - Elevation Projected on 36 deg
 Length: 138 m
 Depth: 37 m
 Surveyed by: Karin Human, Gerrie Pretorius 2018
 Drawn by: Gerrie Pretorius 2018



Death Cave: New possibility

Explored for the first time in 1975, a return visit in 1985 confirmed a possible continuation of the cave.

Death cave first caught my eye in the 1985 SASA bulletin where G. Wright writes about how he and P. Boshoff visited the cave. Death cave was also shortly mentioned in the 1975 SASA bulletin when J. Martini and I. Kavalieris wrote about the cave. They give a short history of the cave, including where the name of the cave comes from. The thing that interested me most about this cave was that both accounts mention a short passage ending in water with possible continuation beyond the water. This is because I, myself have a great love for cave diving. Interestingly the accounts differ slightly with the 1975 account mentioning that the sump is most likely too small to be explored by diving and the 1985 account saying that sump should be investigated by divers. It is possible that both accounts are correct depending on how high

Written by Dawid van der Spuy

the water level is at that given period. The 1985 account also mentions that several forty-four-gallon drums were sunk in the water and that as a future project the drums would be removed. There is no further mention of the cave in any other SASA bulletin or SRT Magazine and no detail of further projects that might have been undertaken. From my discussion with different caving club members as well as a former Cave Diving Club member there is no recollection that anyone has undertaken a dive in the cave.

It was decided by me and Gerrie at the last minute that Death cave would be good Thursday night trip, as the cave is not particularly big and relatively close to where we stay. The purpose of the trip was to assess the cave for future diving potential. Gerrie knew exactly where the cave was from an obsession with the cave in his early caving days, although he never had the opportunity to go into the cave at that time. Arriving at the cave we noticed that, conveniently, there are no



Tree at cave entrance – by Thilo Müller

fences and a small rarely used dirt road going right by the cave. We were able to park my Suzuki Jimny right by the cave and quickly got ready to go down the sink hole.

The cave is situated in an impressive sinkhole which one could possibly enter without a rope, but hand line is preferred from a safety point of view. We tied a hand line around a tree at the edge of the sink hole and proceeded down the hole. Just after halfway down one reaches a vertical drop of

a couple of meters with a permanent metal ladder installed. We debated the safety of the ladder but decided to proceed regardless as we could not see an alternative. Three quarters of the way down Gerrie proceeded to come down after me. He requested that I shine my light up so that he could see where he was stepping as his trusty cave light was producing the amount of light of half a candle. While lighting the ladder for him I continued down the last bit of the ladder without looking

and almost fell as I turned out that some of the rungs of the ladder had rusted through. Entering the cave, we saw a fairly large chamber which slopes downward due to a lot of rubble and loose rocks from previous collapses. There was surprisingly little rubbish for a cave in an urban area, especially in comparison to Wonderfontein in Carletonville, and only two previous fireplaces where visible. It is evident that the cave has been used for ritualistic purposes. Moving straight ahead from the entrance you can immediately see two passages in front of you. Taking the passages that is on your right and proceeding about 5 meters, you get to the water. The water was crystal clear and only one of the forty-four-gallon drums mentioned in the 1985 bulletin was visible in the water clearly blocking the way forward. Looking past the drum it is possible to see that the passage continues. Interestingly three other drums are visible just before you enter the passage in the main chamber and one can only assume that after the 1985 bulletin there was a further project that removed those drums. After staring at the crystal-clear water for some time it was decided that I would attempt to remove the drum as it

seemed to only be about a meter deep and was only about a 3-meter swim until one was directly over the drum. Swimming to the drum immediately reduced the visibility of the water to zero leaving it a dark brown colour. Once I was over the drum, I took hold of the side of the cave wall and pushed myself under the water to feel if I could move the drum with my feet. It

as the forty-four-gallon drum is blocking the way further. We believe the best approach would be to return with scuba gear and to tie a rope around the drum and then to pull it out from the surface. It is very likely that this drum could previously not be removed with the others due to its depth.

From a cave diving perspective, it seems



David getting ready to dive – by Thilo Müller

turns out the crystal-clear water had created an optical illusion and that the drum appears to actually be about 2 meters under water. I had no success and it was decided we too would return and remove the last drum from the water and complete the project that was mentioned in the 1985 bulletin. This will have to be done before someone can attempt to the dive the sump further,

unlikely that the sump could be pushed with a twinset and that a side mount configuration would be ideal. The fault line that formed the cave extends in the direction of the sump and there is a good possibility of finding a major extension to the cave by pushing the sump.

A few months after the initial trip another we went back to Death Cave with scuba gear to remove the drum. Gerrie, I,

Sharron, Leon and Thilo joined were all part of this trip. Hani and Karin were invited as fellow cave divers but unfortunately both had to cancel last minute.

We went on a Friday night making the trip the club's first nighttime cave diving trip. We all met outside the cave and divided all the gear between one another and proceeded to descent with a hand line. It was decided to use a recreational scuba set with one cylinder as the purpose of the trip was only to remove the drum. Once in the cave by the water we decided to first see what we could see past the barrel with Sharron's fish finder camera while the water was still crystal clear. We assembled a few poles with cable ties which we tied on to Sharron's fish finder camera to extend the length so that the camera could be pushed past the barrel. After some struggle we did manage to do this with some success.

Unfortunately, the quality of the image did not really allow us to make out properly what was further past the barrel.

I then proceeded to kit up with my scuba gear. We used one of the club's old ropes which we tied around my right arm to use as a communication system when in the water. We also lowered down a thick cloth into the water over the part where I was

to go in to try and minimize the silt. I tried to get into the water with my fins but soon realized my fins will not be of much use. I proceeded without my fins but still did not manage to get into the water slow enough and upon entry even with the cloth disturbed a tremendous amount of silt. I did manage to stay ahead of the silt and get to barrel while the visibility was still good. From the few split seconds, I was there before the silt arrived it did seem to continue as far as I could see past the barrel. I proceeded to grab the barrel with both my hands. As I pulled it up the barrel it disintegrated in my hands. I did get two big bits of the barrel and proceeded to take it out of the water. I went back multiple times breaking off bits off the barrel and taking it out of the water till I could not find/feel any more of the barrel. I also pulled out other big rocks and big pieces of wood to make future cave diving trips easier. Needless to say, after the first trip visibility was at a zero.

Even after we were done with the barrel, we played around with the communication system (rope tied around my arm) for about half an hour. One tug was the question and an answer of okay? Two tugs meant give me more slack, three tugs

meant take up slack, four tugs or more meant I am in trouble pull me out/rescue me. Gerrie was my rope tenderer.

While spending a few hours in the cave we saw there is a small hole that goes up into roof and seems to continue and warrants pushing by a small person and or a camera with a stick. We also noticed that there could be a possibility of digging above the sump and maybe continuing without scuba diving. We would also want to take a better-quality camera to push into the sump to really see what is going on further and decide upon digging/diving as the best solution forward. It would also be ideal to have a camera on the helmet of the diver for the few seconds of good visibility to analyze the footage later. In terms of reducing silt it might be worthwhile bolting and then lowering the diver down slowly with ropes. Lastly we noticed that sometimes the rope that was being tendered to the diver got stuck behind the cylinder at which point communication is completely lost, then upon returning the rope is not pulled back and the diver can completely lose touch in terms of which direction to go as the rope is floating and not providing guidance. One alternative is the diver laying his own rope just for direction purposes but

this would not allow the rope to be used as communication and/or for rescue purposes. Using multiple ropes would greatly increase the

chance of entanglement and would also not be recommended. This trip taught us a lot and warrants future trips.



The team – by Thilo Müller



Interesting cave life – by Thilo Müller

Cave Volumes

Written by Steven Tucker

Caves are measured in a variety of ways, with the most common methods being length and depth. The area of a chamber is often calculated, or as elsewhere in this bulletin, the area of an underground lake. Beyond bragging rights, calculating the volume of a cave does give two practical benefits. The first is the “Wow!” factor. A cave with a very large volume tends to elicit a great deal of “Wows!” from anyone who sees it for the first time. On a more serious note, the volume can be compared to a theoretically

calculated volume based on the amount of airflow at a cave’s pinch points. This could give a theoretical estimate of how much cave there still is to be discovered.

Refer to the table for the list of caves (and mines) that have been mapped in recent years, with their volumes, lengths, depths, and horizontal extent. Volume is measured in cubic meters.

As seen, especially with Schwarzkopf Cave, volume does not necessarily correlate with any of the other measurements of cave size. Armageddon’s 20-meter-wide, 50-meter-deep entrance sinkhole alone gives a volume of 15708 cubic meters. Larger than many of the caves on this

List.

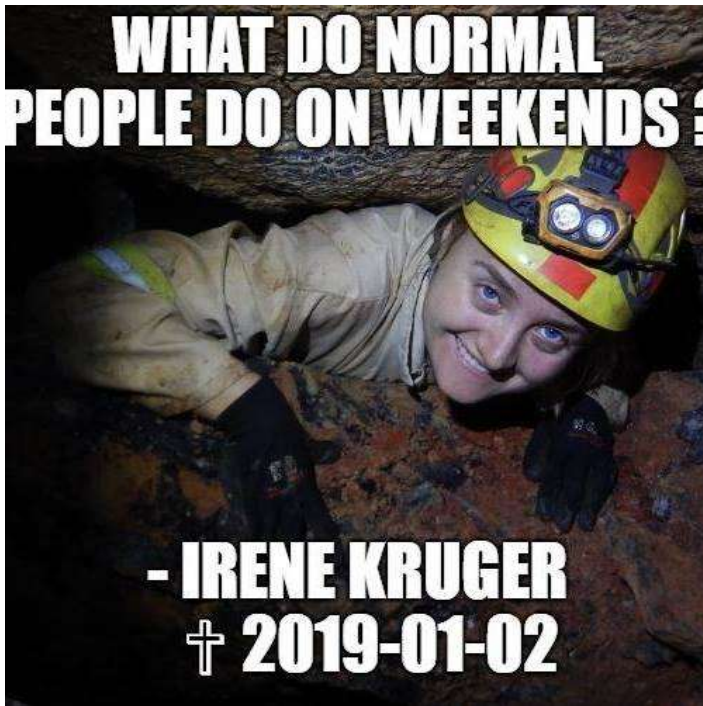
Determining these volumes starts with drawing a plan view survey on Therion. Therion uses this information to create the walls of a 3D model of the cave. The height of the 3D model is determined by adding Up and Down measurements at each survey station. From Therion’s 3D model, the file is converted, using Paraview, into a vtk file and then into a stl file that can be opened in MeshLab. From there, various measurements can be taken, including the volume.

The models created through Therion are of course a simplification of the cave, using limited input. By using shorter differences between stations, especially when ceiling heights change significantly, a more accurate 3D model can be created, but it will never be precise. Therefore, the volume calculation will also never be precise. It remains an interesting and potentially useful tool.

Another useful application is that by creating a stl file, the 3D model of the cave can be using a 3D printer. The Dinaledi subsystem of Rising Star has been printed this way. Being able to hold a 3D model of a cave in your hands, makes it much easier to understand its complexity.

Finally, on the above list, Armageddon is listed first, as the largest cave by volume. Armageddon is the second deepest cave in South Africa, after Boesmansgat at 295 meters. It is the second largest by horizontal extent, after Congo at 2.4 kilometers. By volume it is possibly also the second largest, after West Driefontein. Unfortunately, the volume of West Driefontein and many of our other large caves is not known, but the SASA Tvl Newsletter from February 1976, does indicate that the volume of the Texas-Deep Range Chamber alone is almost 300,000 m²! As there are so many other large areas within the cave, it probably far exceeds the size of Armageddon.

Cave:	Volume:	Length:	Extent:	Depth:
Armageddon Cave	532622	4093	2007	259
Schwarzkopf Cave	162759	160	160	50
Diviner's Cave	145737	2341	668	59
Grot Serunecjar	40322	1841	186	66
Skilpad Grot	8565	508	151	63
River Passage Cave	5012	314	93	52
Luiperds Mine One	4367	788	251	52
Leeuwenkloof Cave I	3399	182	65	20
Luiperds Mine Two	1770	340	144	3
Yom Tov Cave	1661	748	107	28
Jaws Cave	1532	230	39	27
Luiperds Mine Four	1458	313	157	3
Nico's Cave I	1084	433	67	32
Slagyster Gat	759	241	75	16
Luiperds Mine Three	549	191	116	20



Obituary:

Irene Krüger

3 September 1988 – 2 January 2019

Written by Steven Tucker

We will never forget you.

Our first caving trip was in May 2010, a trip to Wonderfontein, organised by Sharron Reynolds. From our meeting point a convoy of cars attempted to cross the Wonderfontein spruit, only to be forced back when it was discovered that a bridge had been washed away. We drove around, then down a dodgy gravel road, through an informal settlement and were soon following the Dickie's Defender across veld hiding big chunks of dolomite. If Sharron's golf could make it so could ours! We quickly learnt how cavers operated in getting anywhere... Quite a few people were on that first trip; the Dickie's, Sharron, Peter Kenyon, Al Grant and others.

Our third trip was one that would not be forgotten. Nico's II... Dave Ingold's description of the upcoming trip was: "This is a stunning, exciting, and long cave. I'm sure he'll want to complete the 'round trip' which entails lots of fun. There are a couple of short but tricky climbs but no SRT so this trip is open to visitors." Selena Dickie gave us the following warnings: "this trip has some difficult traverses" and "definitely not a walk in the park" and "this cave is hectic, called 'nasty' by some....." Having survived Wonderfontein and Boon's these warnings were way too subtle. How bad could it be?

Shortly into the trip Irene was terrified and at more than one point there was crying. The site of Gerrie Pretorius' torn overalls or Lewis Coosner's all too public shower after the trip probably didn't help matters. At least sitting on John Dickie's lap after a particularly bad climb helped – though he asked her to promise not to tell Selena. To top it off we had a flat tire on our way home. Why did we continue caving? As Irene said in her SEC application – "Caving is fun. Plus I find the people fascinating."

Irene had an intense fear of heights that almost never went away (it went away once, when she found a chicken at the bottom of Donkerkloof/Paswene Cave. The chicken had to be rescued, so she tucked it under her arm and climbed out one handed faster than any of us could believe possible.) Her fear of missing out was bigger than her fear of heights and in her years of caving she did all the big caves including Wonderfontein, Boons, Nico's II, Knocking Shop, Scramblers, Rising Star (where we spent many anniversaries), Bats, Hidden, Crystal, Dripkelder, Apocalypse, Sudwala, Armageddon, Yom Tov, Stinkhole, West Driefontein, Slotmachine, Thabazimbi, NH3, Chaos, Mbobo Mkhulu, Wolkberg, Jock's, Beatrice, Serunecjar, Nick's, Skilpad, Jaws, Cango, Wondergat... Sadly, we

never got to do Dragonsbreath and Harasib and I never got to show her the wonders on the other side of French Connection.

Irene's contribution to caving won't be forgotten. She was there during the first exploration of Armageddon. The content for the SEC website was primarily created by her. She gave the Rising Star Expedition's underground astronauts their introduction to the cave by leading the way through the Upside-Down-Turn-Around. Most of our cave register and our publications were digitised by Irene. She served on the committee for several years and helped countless new cavers face their own fears. I'm sure I've missed plenty of other things. Mostly, she is missed for the humour and joy she brought to the campfire after a long day of caving.



A plaque has been put up in Giant's Walk in Armageddon in memory of an amazing person



Obituary:

Raymond David Ingold

2 December 1943 – 23 July 2019

Written by Sharron Reynolds

We will never forget you.

Steven Tucker remembers the one story about Dave he will always remember.

Dave's first caving trip was in 1949! He loved it and afterwards he would switch off all the lights at home and go crawling around under the furniture pretending he was back in the cave.

For some reason it's really easy to imagine a 6-year-old Dave crawling around the legs of a dining room table.

Although I caved with Dave for well over a decade, I didn't really know him "personally" and reading his eulogy at his funeral I was sorry that I did not get the chance to REALLY get to know him.

In 2004 SEC started the Wednesday night caving trips as a regular meet – Over the next 2/3 years Dave was a regular meet leader, fortunately for us he seldom missed a Wednesday night, I had earned the reputation of "DON'T follow the red overall, so without him we would not have been able to go on many of the trips. Over and above our Wednesday night trips he was nearly always on our monthly trips.

Dave was always supportive, willing to help and an amazing instructor. His

fitness levels in a cave were remarkable and I could NEVER keep up with him. On a caving level he knew me well and I never got to a section in the cave which he knew I would not be able to get up/down or through that he wasn't waiting to help, encourage, cajole, praise and support.

And it wasn't just me – he was always there for each and every caver in the group.

Inside the cave if we asked where a passage went, he would say not sure – why don't you go check it out, and quite often he would meet us on the other side, he had the ability to osmose through rock!

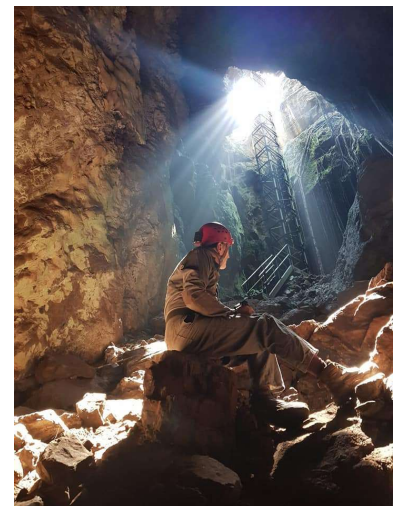
HE NEVER gave up – we searched for months for a "lost" section in a cave (Pinch and Punch), he would spend the week asking other cavers questions, checking survey's (it was not on the survey) and the next week we would be back trying a different route, but always in the same area. Until one year end function he sat next to Neil and picked his memory – the next Wednesday had us wriggling through the tunnel.

On the home stretch of every cave he

would stop listen and comment "can you hear it calling" his customary one beer while we sat around and chatted after a trip.

What I remember most about our caving trips... "Shazza you did good" ALWAYS accompanied by a HUGE hug, his amazing sense of humour and lightning quick response, his 5l of HOT water wrapped in a towel, a plastic dish, soap and cloth.

Dave you may be gone but you will never be forgotten.



Dave's last caving trip at 75 years of age – Photo by Karin Human