

Crete 2008 – The Promised Land

Sheffield University Speleological Society



Expedition Report

Compiled by Rob Eavis

Background to the trip 2006:

In 2006 Sheffield University Speleological Society (SUSS) organized their first exploratory caving expedition to the White Mountains of Crete for 25 years. In total the expedition lasted 1 month, with most of the 19 person strong team at base camp for more than half the time.

In the course of the expedition over 200 cave entrances were GPS located and fully explored. At the end of the trip only two of these caves had ongoing leads that the team would need to return to explore. However only half of the valley was explored in the time they were there, so a return trip was in the planning even before they left.

2008:

In July/August 15 members of SUSS returned to the White Mountains for 3 weeks in total. The objections were to follow up the remaining leads from the previous trip and to search for entrances in a remaining area, nicknamed 'The Promised Land'.

9 members of the team had been on the 2006 Crete expedition and most of these 9 had been on other caving expeditions as well. 6 had never been on a caving expedition before. Of these 4 were current students from the university.



Transport:



In 2006 the team battled with the cheap airlines to get as much luggage through as possible. All extra was shipped over on a pallet, including the generator, drills and most of the ropes. While this option worked quite well, it meant that we required a hire vehicle while in Crete to transport all the gear around.

All of these costs added up and so in 2008 we took the decision to drive most of the team and all the gear out. Eleven of us split into two vehicles and undertook the 3000 mile journey taking us through: France, Belgium,

Germany, Austria, Hungary, Romania, Bulgaria and Greece. We met with the remaining 4 in Athens who flew out, and then all took the ferry across to Chania.

The advantage of this method was that we were our own transport around the island and we had all our gear with us to begin caving straight away. However, once all the road tolls, ferry crossings, insurance, and then fuel were added up, actually flying and a pallet for gear would probably have been cheaper...



Camp:



Base camp is situated on the only flat, non rocky ground in the valley called Mavri Laki (Greek for *Black Buckets*). To reach base camp from the nearest village (Anopoli) involves an hour drive up a dirt track – climbing over 1000 metres in altitude. Then walking from the adjoining valley over a ridge and down to base camp took about 2 hours and involved at least 400 metres of height gain. All the gear and food was carried over the ridge to base camp

in rucksacks in a series of 'load carries' by the team members. It's a good way to get fit quickly, not to mention the blisters! This base camp was used both in 2006 and in 2008.

The advantage of this base camp is that it is situated directly in the middle of the valley, providing us a perfect place to explore all the caves from. However the area that was not covered in 2006, "The Promised Land", is at the far northern end of the valley. This meant it took 40 minutes to reach the start of the area and almost 3 hours to reach the far edges.



The Average Day:

The best way to describe a caving expedition is to explain an average day. At sun rise everyone came out of their tents because once the sun hit your tent it was impossible to stay in it! A breakfast of cereal with water and powdered milk was eaten along with tea/ coffee. Usually we would all split into about 4 teams of between 3 and 5 people. Each team would be assigned an area to 'prospect'. The team would pack the caving gear for the day along with lunch and then walk to their area. This was generally about one hours walk from base camp but almost all up hill! Upon reaching the area the team would spread out and walk either up, down or across the slope looking for cave entrances.



When these were discovered the team would GPS it, and explore it which sometimes involved placing bolts into the rock to hold ropes. On average the caves went down vertically for 15 metres or so. Most ended in a floor made of boulders, caused by frost shatter from the winter, and so had no way on. These were derigged and the searching,

referred to as 'surface bashing', continued. When a cave could not be fully explored on a day due to time or equipment the same team returned the next day to continue exploring.

At some point in the day we had a lunch of crackers and spam or tuna. Teams returned to



base for a 19:30 dinner that was cooked by one team. This consisted of rice, couscous or smash with onions and tinned tomatoes with herbs, spices and tins of fish. When the sun left the valley the temperature quickly fell and although everyone sweated during the day in shorts and t shirts at night everyone wore coats and trousers.

By 22:00 most nights everyone was in bed in their tents.

Water:



As the valley consists purely of limestone there is no surface water. Therefore in the height of summer this can be hard to come by. Our solution for both years has been to string a series of tarpaulins through a cave called freezer cave (as we store our chocolate in this 4 deg C cave). The tarps catch percolation water that drips through the rock. The water is channelled into buckets and collected. Every day one team was required to do a round trip of about 2 hours to collect water for camp.

Overall:

In total the team found and explored just over 150 new cave entrances. Of these, 6 caves went deeper than 100 metres and 1 cave went over 200 metres deep. This was found on the last day of the expedition and so this cave was not finished. There will be a return expedition in 2009 to continue exploring this cave, named Colosuss!

Team Members



- 0

COLOSUSS

The White Mountains, Crete

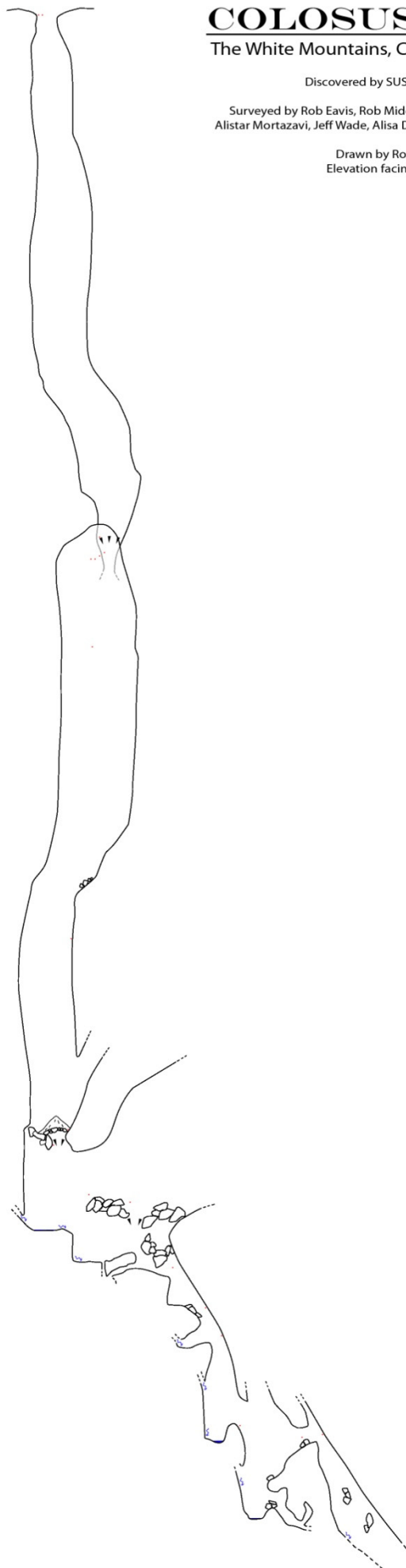
Discovered by SUSS 2008

Surveyed by Rob Eavis, Rob Middleton,
Alistar Mortazavi, Jeff Wade, Alisa Duncan

Drawn by Rob Eavis
Elevation facing West

- 100

- 200



Colosuss

Introduction

The impressive 150m entrance shaft of Colosuss was discovered on the second to last day of the expedition. At the bottom of the pitch a small stream passage was met and followed down a series of short pitches, past large chambers above, and across some airy traverses.

In those final two days the cave was explored to 213m in depth and the way on was left wide open at a 5m high rift passage, sloping down steeply at 45°.

Oh, and it's strongly draughting!

Data

Code – JR03

N – 3911848

E – 0234837

Alt – 1936

Depth – 213m

Length – 312m

Team Members

Rob Eavis, James Rhodes, Rob Middleton, Ali Mortazavi, Ben Morley, Katie Dent, Robbie Shone, Jeff Wade, Alisa Duncan.

Diary of Exploration

By Rob Eavis

29/07/2008

On this Tuesday almost all of the team were searching the remaining couple hundred square meters of the western slopes in search of our "promised" cave. In the hot afternoon sun whilst searching on his own, James found an



entrance shaft that was about 5m in diameter and at least 60m down to the first ledge. Rob Eavis joined up with him and they managed to source 100m of rope and a drill from one of the teams nearby.

Unfortunately James started having a bad nosebleed so Rob descended down into the great shaft first.

At 57m a steep rubble slope was met which descended steeply down to the north. Still on the rope, Rob carried on down over the edge to meet a flat ledge 72m below the surface. From here it was obvious a continuation of the shaft carried on down for a long way, so a message was sent up for more rope.

An 80m rope was lowered down and Rob put in a short traverse across the eastern wall to allow for a good hang. A 45m freehang reaches another steep, rubble covered ledge, below which another rebelay was put in. Here the shaft is about 12m in diameter, with a rift heading off into

the blackness to the SE. Rob carried on abseiling down until the final rope ran out, about 15m off a boulder-strewn floor!

While sitting on the end of the rope two 10m diameter circles in the floor could be seen. One was directly below the shaft and was filled with a great mound of snow. The other one was very dark and looked like another shaft down. However with no rope left Rob had to retreat back to the surface.

30/07/2008

The next day RobE returned with Ali Mortazavi and reached the snow plug. The dark circle was indeed a continuation of the main shaft and quickly opened out below the jammed boulders. A small stream entered from SE and ran across what seemed to be the base of the shaft and into a small crack to the north. However above that a rift opened up which Rob bolt traversed into to gain a reasonably large passage, the floor of which seemed very questionable. After about 8m there was a pitch down between boulders, but straight ahead opened up into a vast, echoing chamber, most of which lay hidden around a right hand corner. Instead of traversing around into the chamber they headed down the 6m pitch to drop into a phreatic passage 2m in diameter. To the south led back to a small crack in the roof with water coming out from the base of the shaft above. An attempt was made to follow the water down but it was too tight. To the north a quick duck under some large boulders quickly opened up into a large passage heading steeply down. A 2m traverse to a 4m pitch then a 3m pitch dropped into another phreatic passage, similar to the first. At the southerly end of this passage the streamway drops out of an

impenetrable crack and quickly sinks down into another. To the north the passage emerges at the top of a roomy 15m pitch down into a pool.

At this point Rob and Ali had run out of rope so they radioed up for more. While waiting they surveyed back to the main shaft. Soon Rob Middleton arrived with a massive bag of rope and plenty of energy.

RobE descended down the pitch while RobM and Ali took over the surveying behind. At the bottom of the pitch a window to the north opened into a traverse (Devil's Traverse) over a 10m pitch. First Rob descended the pitch to a series of very small phreatic tubes, but the water yet again slipped away into an impenetrable crack. With no way on Rob climbed back up and across Devil's Traverse to a large sandy ledge at the other side. A small crack in the northern wall led to a short, tight passage which shortly broke up into a large bedding plane sloping down to the north at an angle of 45°. Here a large draught comes from behind, and heads strongly down into the hill. The floor drops away quickly but Rob continued heading along at roof level where it was widest.

After 20m they ran out of hanger plates so the team were forced to retreat, which was good as it was getting late. From the furthest point reached the stream can be seen flowing along the floor some 5m lower and there was a large echo from ahead...

31/07/2008

This day was the start of the dekitting of basecamp but before doing so Jeff and Alisa descended Colosuss and completed a survey of the entrance shaft and derigged the remaining 200m of rope.



The Depths of Hades

White Mountains, Crete

Explored by SUSS, July 2008

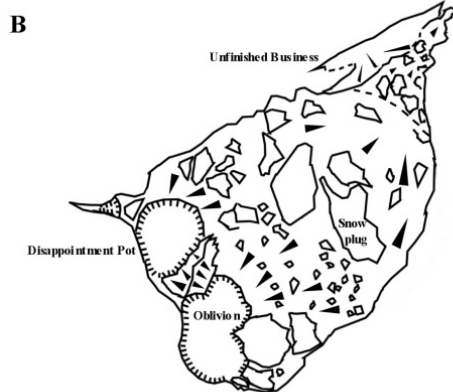
Stations 1 - 19a: Book Robbie Shone, Instruments Gina Moseley

Stations 20b - 36c: Book Gina Moseley, Instruments Katie Dent

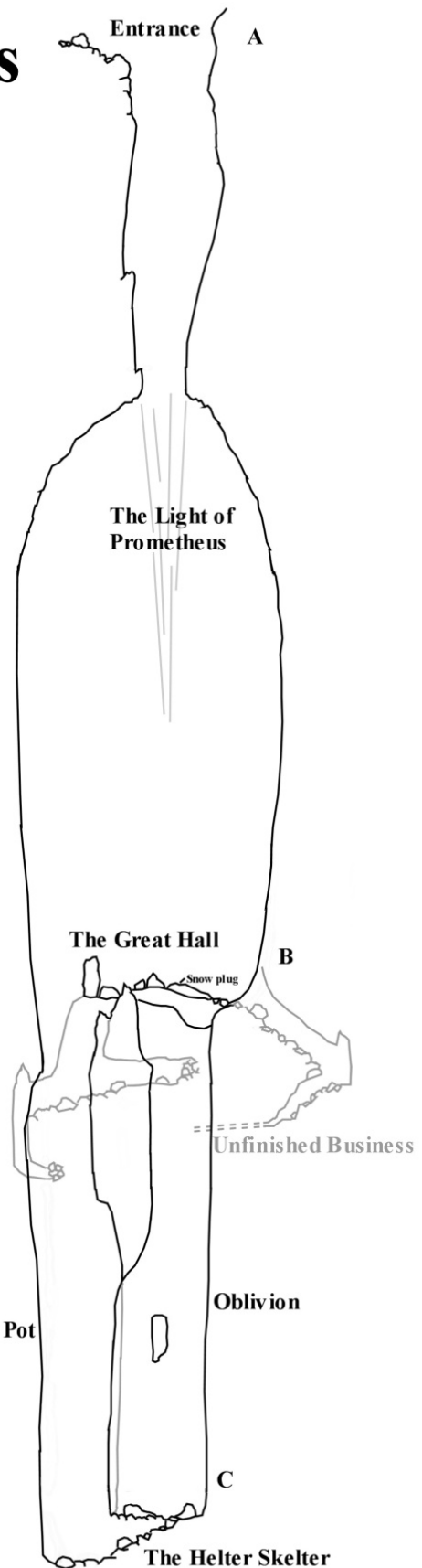
Drawn by Gina Moseley

Facing North

0  20 metres



Key:
 E Entrance
 Breakdown
 - - - Lowering of roof
 Drop down
 Slope down





(The Depths of) Hades

Introduction

At the time this was the deepest and largest of the caves in Mavri Laki valley, and certainly the one that created the most excitement at the time with "a chamber bigger than Gapping Gill!" Interestingly this cave was first discovered on a light recognisance trip in 2006 by Robbie Shone and Rob Eavis, but with no gear they were only able to take a GPS reading the entrance and to sound record the huge echo of stones landing in the depths. When fully explored in 2008 the team discovered it was 160m deep and really quite large!

Data

Code – KD10
N – 3911617

E – 0234913
Alt – 1829 m
Depth – 160 m
Length – 371m

Team Members

Katie Dent, Robbie Shone, Gina Moseley, Ali Mortazavi

Diary of Exploration

By Katie Dent

24/07/08

The day after exploration of The Trident finished the lower west ridge of The Promised Land was visited by Robbie, who had been to this area every day, accompanied by Me, Gina and Ali who were all visiting this patch for the first time.

Throughout the day we found about four caves that involved rigging to descend and a few more with free

climbable entrances. Near the end of the day, right after Gina had descended and concluded "Frosty the Snowman Cave" we all split up and headed up the hill covering different areas. I was the furthest south in the group. Within 10 minutes of splitting up I found a reasonable sized cave entrance that sounded deep, judging by the sounds created by throwing stones down it. Convinced no-one else could have had time to find a cave still splitting up I left my rucksack by this entrance and went in search. I first found Ali, who had found a large horizontal entrance! However neither of us could see the other two! We wondered north where we came across a large vertical shaft which spoke like Robbie! However without any rope or gear for a descent obvious this seemed unlikely. The cave that sounded like Robbie then instructed us to walk down the hill a bit further and bring a rope. It transpired that there was a window near the base of the shaft that could be crawled through from a nearby shakehole. Using the rope, belayed securely around Ali, Robbie checked out the only possible lead – down the side of the snow plug, but this proved to be blind. By now Gina had found us and we returned to Ali's cave. This proved to lead to 2 avens which just seemed to return to the surface. After a quick photo of the calcite formations, which Gina informed us were 'modern' it was time to look at my entrance.

Robbie began rigging down, starting by belaying from 2 natural projections. However after this it became necessary to use bolts as suitable naturals could not be found. A couple of rebelay later Robbie called for me to follow and bring the other rope. When I reached Robbie he was very

excited – hanging on a bolt with a very black space below him and even with his Scurion there was no sign of a floor. I gave Robbie the 20 metre rope to have a look at what happened beyond the 5m diameter window into darkness, later to be named The Light of Prometheus after the ray of light that shone through, penetrating all the way to the floor. Hanging on the knot Robbie shouted up that he still could not see the floor and had also managed to lose the walls! We returned to the surface very excited for the following days' exploration.

25/07/08

The following day Ali and I started down the shaft adding 3 rope protectors on the way. Upon reaching the final bolt a y-hang was created, the 45m rope from the surface tied off, the 20m rope removed and coiled and a 65m rope hung in its place. I then set off, through the window and out into the roof of a very large chamber. Abseiling down I began to



get worried about the absence of sightings of the floor and started to worry about the amount of rope left in my tacklebag. Eventually I spotted a snowplug, which I subsequently landed on finding 3 metres of rope left in my tacklebag. I was quickly followed down by an equally excited Ali who was followed by Gina and Robbie who were surveying in. That pitch was found to be a 60m free hang. With the whole team on the floor the search for the way on commenced. The most obvious feature was a large shaft with a boulder slope



running down to it that sounded reasonably deep. To the right of this was another pitch the floor of which could be seen about 15 metres lower but with corners that went out of sight. Finally behind the snowplug was a gradually descending boulder strewn passage. This ended in boulder fill however a little way from the end

there was a small climb down that led to a promising dig where drippers could be heard and stones seemed to take some time to land. After this brief exploration Robbie and Gina continued to survey around the chamber, named The Great Hall. Ali, followed by me, rigged down the least promising of the two pitches. Reaching the floor that we had seen from above, 3 possible ways on were noted. Firstly I rigged a rope and descended a short pitch. However the only way on at the bottom of this was back under the boulder choke and all leads soon closed down. Meanwhile Ali had been looking at the other leads including another pitch and a window through precariously balanced boulders out onto a pitch. It was assumed the latter would lead to the main pitch down from The Great Hall and this was later confirmed via a light connection. The only remaining lead down here was the pitch which was left for the following day when we planned to return with more rope. Me and Ali then returned to The Great Hall where Robbie and Gina had completed the surveying and a satisfying underground lunch was enjoyed. After lunch Robbie took some photographs of The Great Hall and The Light of Prometheus pitch. Photographs taken, Robbie rigged a rope some of the way down the promising pitch down from The Great Hall, later named Oblivion. He was unable to reach any kind of floor but reported the pitch split into two parallel shafts. After this we all returned to the surface.

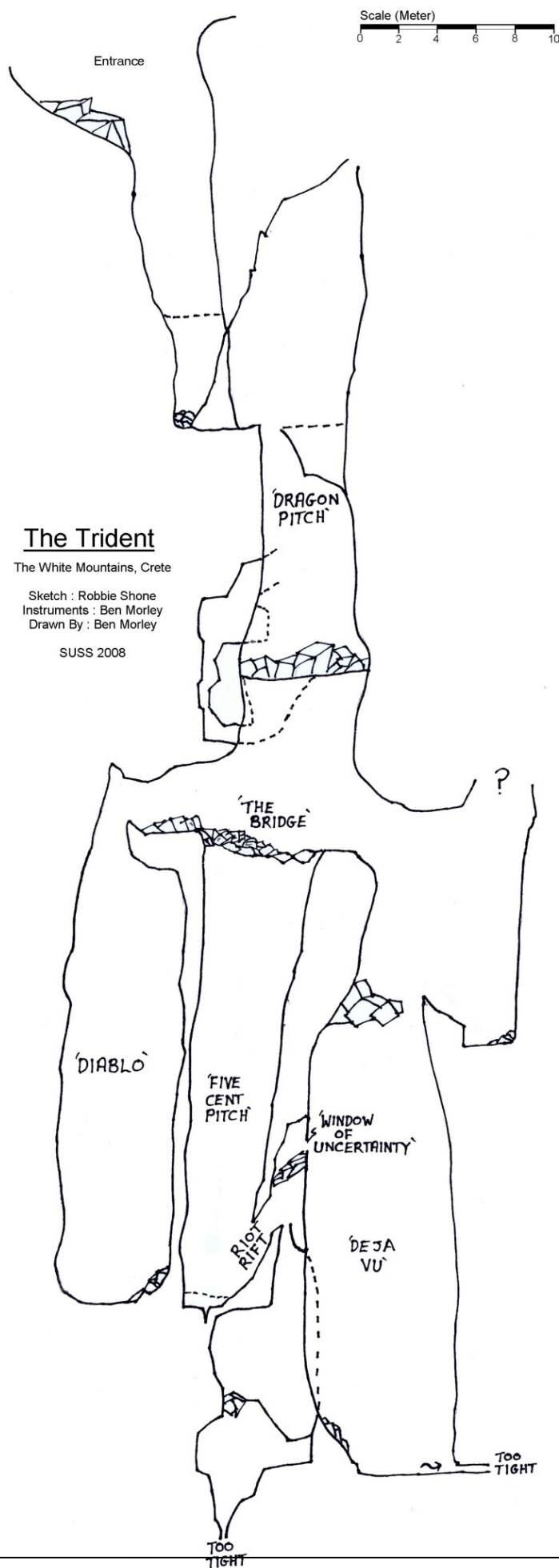
26/07/09

The following day the first task was to fully descend Oblivion. Robbie set off rigging, aiming first for the less deep sounding shaft. After both a 20m and 17m pitch he landed on a large

boulder with a boulder slope twisting away. Detaching from the rope he followed the slope as it twisted round almost 360 degrees to a boulder blocked floor with no ways on except a small hole in the boulder choke which was found to connect to the other side of the boulder choke! The slope was named The Helter Skelter. It was established that the parallel shaft dropped into the roof of The Helter Skelter also. Robbie then returned to The Great Hall where it was decided that me and Gina would survey Oblivion and The Helter Skelter whilst Robbie and Ali went to descend the other pitch left from the day before. Whilst surveying The Helter Skelter I looked up and enquired whose light I could see in the roof above me. Unfortunately it was Robbie's and therefore that pitch, named Disappointment pitch, also dropped into The Helter Skelter! We disto'd up 34m to him to complete a survey loop. After this we all returned to The Great Hall, where we had lunch and discussed the only remaining lead – the dig behind the snowplug. As decided over lunch Robbie went back down Oblivion and The Helter Skelter whilst Ali threw rocks down the dig. Unfortunately for the whole expedition, and especially for Robbie, these hit him spelling an end to the exploration of the Depths of Hades.

The cave was left rigged and the following day 6 members of the expedition undertook 'tourist' trips. The day after Robbie, Rob E, Gina and I returned to finish off photographing the cave. The Helter Skelter and Oblivion were first up and cold, noisy time was had at the bottom with almost all the flash bulbs exploding in a spectacular fashion. Following this I de-rigged Oblivion and we all had our

final lunch in The Great Hall. Robbie then photographed The Great Hall looking down from The Light of Prometheus with Rob E hanging on the rope and me stood on the boulder at the bottom (next to a huge centipede – although unfortunately not big enough to be seen in the photograph!). Photography complete Robbie and Rob continued up, followed by Gina and then me derigging. As a final goodbye to Hades some video was shot of large boulders being trundled down it.



The Trident

Introduction

'The Trident' was found on the steep well developed North West slopes of the 'Promised Land'. The entrance of The Trident was an open surface shaft about 3 meters in diameter and despite an overall depth of only 80m the cave was fairly extensive and took 3 days to fully explore. The three main shafts found within the cave all ran parallel to each other and bottomed out at roughly the same depth of 65m, interestingly the shafts were only separated by a few feet of limestone and were located directly underneath a large surface shake hole located about 20m north of the entrance shaft.

Data

Code – BM10
N – 3911429
E – 0234982
Alt – 1784
Depth – 77.5m
Length – 242.8m

Team Members

Ben Morley, Robbie Shone, Michael Soulby, Samuel Stringer

Diary of Exploration

By Michael Soulby

21/07/2008

After a typical day 'surface bashing' on the North West slopes of the Promised Land and becoming increasingly

frustrated after dropping a number of surface shafts that all proved to be blind with no ways on. We had decided to call it a day and started to make our way back to base, on the way back Sam found another surface shaft, so we decided to make this the last one before heading back.



Ben rigged and descended the entrance and landed at the base of the shaft about 20m down onto a steep sloping, frost shattered rubble floor. The slope was followed down to a short squirm under a boulder, which upon passing revealed a 3m by 5m chamber with a flat floor with two possible ways on. At this point Ben realised that we had found something that was worth pushing further so shouted back for assistance and more kit. I quickly descended the entrance shaft with more rope and kit. The first lead was a small 1m diameter hole in the floor of the chamber, which could

be free climbed down about 3m to a floor with a narrow rift running along it, the rift however was too tight to descend further. The main lead was at the opposite end of the chamber from the entrance; at this point the rift had opened up to about 2-3m wide and could be seen to descend below. Here a rope was rigged and I descended about 15m to the bottom of another chamber with boulder covered floor. This pitch became known as 'Dragon Pitch' owing to the strange rock formation at the top of the pitch which bore a striking resemblance to the head of a Dragon. Heading north about 10m from the bottom of Dragon Pitch the cave opened out to much larger proportions, after a short climb up onto the top of some large boulders I quickly came to the edge of a much larger east-west development. From the vantage point on top of the boulders I could see a ledge about 10m below me, on either side of this ledge only blackness could be seen. I shouted for Ben to come and have a look, by this point Robbie couldn't wait on the surface any longer and decided to come down to have a look. After some excitable stone throwing over the edge into the blackness and listening to the distant booms they created, we had to turn around as we had ran out of rope and it was also getting late, so we headed out the cave and back to base.

22/07/08

The same team returned to the NW slopes of the Promised Land the following day to continue pushing the 'going cave'. Sam and I lead the pushing, while Robbie and Ben followed behind making comprehensive survey notes as they went. I re-rigged the entrance pitch with a 65m rope so that Dragon Pitch

could be rigged from the same rope; Sam followed carrying the rest of the rope and kit. Once we were at the edge of the boulders where we got the previous day I started rigging a rope down the right hand side wall, after a short drop of 10m I landed on the floor ledge that could be seen from above, this later became known as 'The Bridge'. Once on The Bridge an additional way on could be seen looking back under the boulders we were just stood on. The new lead was an impressive circular shaft approximately 8m in diameter; we now had 3 promising leads to push. We decided to push the newly found lead first so I continued rigging down this impressive shaft, after a re-belay about halfway down I reached the floor about 30m below the bridge. At first it appeared that the shaft was blind but on the eastern wall there was a rift that could be followed. After a short scramble I was in the rift, after following the rift for about 5m I saw a pitch down through the rift to a mud floor. I shouted back up to the others that the cave continued. It was decided that we would stop for lunch, so Sam, Robbie and Ben came and joined me at the bottom of the newly named '5 Cent Pitch', named as Robbie found a 5euro cent piece on the floor that had fallen out of my overalls on my way down.

After lunch we continued from where we left off and Sam and I rigged the newly found pitch in the rift. After a short drop of about 8m I landed in a chamber with a mud covered floor, the chamber floor had the same rift running along it, after some poking around we could see that the cave continued on below the rift. Most of the rift was too tight to pass but we eventually found a wider section at the

end of the chamber. Robbie, being of smaller dimensions than me and Sam slid down the rift into another smaller chamber. He shouted back that there was a further way down, after a bit of a fight Sam and I managed to get through with the rigging gear into the small chamber. The way down was a small 6m pitch which Sam rigged and descended, the pitch ended in a small chamber with a soft mud covered floor. The cave now had a depth of 77m but no further way on could be seen from the small chamber. We all made our way back up the pitches into the rift, after a short break and some banter we explored the rift fully and found a small rectangular window, which was located about 5m above the head of the rift pitch. I poked my head through the window and was amazed to find a large room with darkness stretching both above and below. It quickly became apparent that we had found another large shaft very similar to that of 5 Cent Pitch. Robbie rigged and descended through the 'Window of Uncertainty', and upon reaching the floor about 20m below the window he could see a small, drafting stream crawl. After trying to push the stream crawl valiantly for about 5 minutes and making some strange noises in the process he decided it was too tight to follow, there were no other ways on at the bottom of the shaft so Robbie came back up to the window. We had now run out of rigging kit so decided to make our way out of the cave. While we had explored this new lead to a conclusion we hadn't even touched the two original leads we found the previous day, so we still felt positive that we would find more the following day.

23/07/2008

After breakfast the same team of 4 headed back to the going cave on the NW slopes of the Promised Land. By 10:30am we had reached the entrance and we all made our way down to The Bridge. We continued with the same format of me and Sam pushing the leads, whilst Robbie and Ben were going to continue with the surveying and photograph the cave.

The first of the two remaining leads was reached by rigging a traverse line around the top of 5 Cent Pitch to reach an opening at the opposite side. The opening continued into a short rift passage with a false floor of mud and boulders. About 5m in from the opening a way down through the boulder floor into the rift could be seen. I rigged and descended through the boulders, after a short distance the rift opened up into another large impressive shaft approximately 6m by 8m wide and about 30m deep. The shaft continued to widen as I descended and at the bottom the shaft was roughly 10m in diameter. The floor of the shaft was a mixture of soft mud and boulders, unfortunately despite its size no way on could be found. The shaft became known as 'Diablo' and had a depth of 64m.

After Ben had patiently modelled himself for one of Robbie's photos whilst hanging halfway up the Diablo shaft we made our way back to The Bridge for some lunch. After lunch we continued onto our final lead. From the opposite end of The Bridge a large passage continued down a couple of short climbs, the passage passed over the top of a small 1m by 0.5m hole in the floor, from which stones would

make an impressive boom when thrown down it. The passage continued for about 20m before ending at a blank wall with no continuation, this roomy passageway became known as 'Acoustic Alley' due to the fact that all we could hear down there was Sam's booming voice.

Back at the top of the small hole Sam rigged around some nice naturals and descended into the hole. Sam had only descended about 5m when he realised that this hole enters the same shaft Robbie had descended the previous day from the Window of Uncertainty,

but from the opposite side. We decided to make a quick survey loop to tie in yesterday's survey data of this shaft and then aptly named the shaft 'Déjà Vu' as it was the second time we had been there. Unfortunately we had now exhausted all of the going leads so we decided to de-rig the cave and head for the surface. Upon exiting we called the cave 'The Trident' because of the three parallel shafts found, namely '5 Cent Pitch', 'Diablo' and 'Déjà Vu'. The cave had a total depth of 77.5meters with a total surveyed length of 242.8meters.



Black Mamba

White Mountains, Crete

Explored by SUSS 2008

Code – RM01

N – 3911187

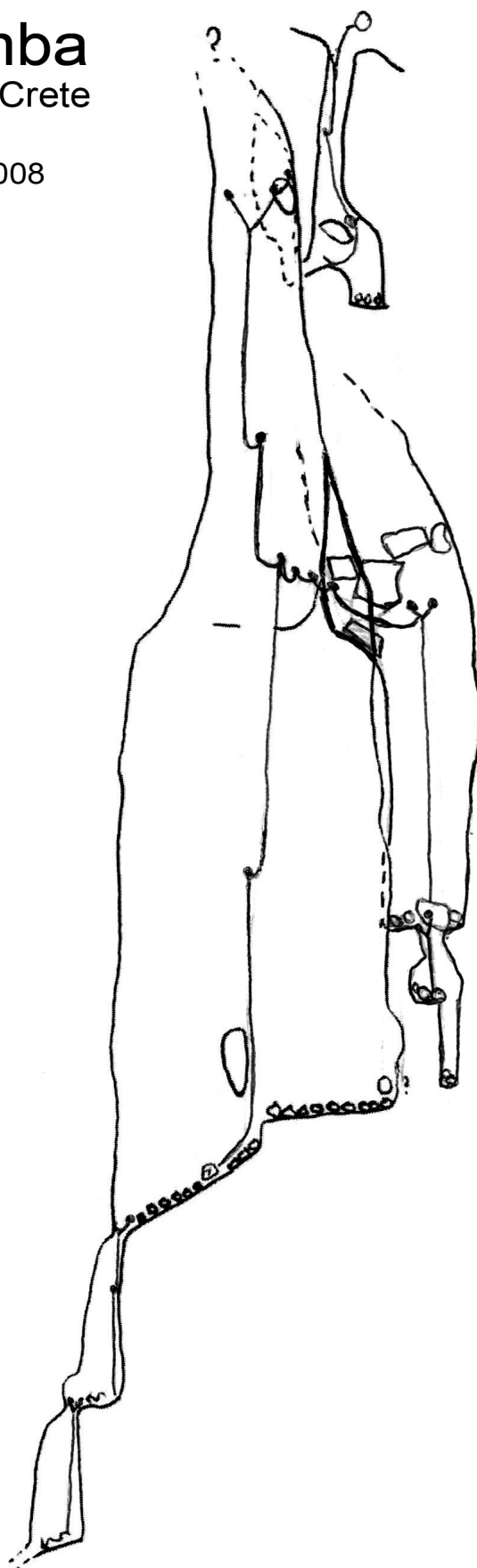
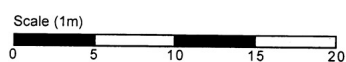
E – 0234833

Alt – 1879

Depth – 100.4m

Length – 138.5m

Facing East



Black Mamba

Introduction

Found on the first day of the expedition, it really gave us a good start! Black Mamba starts with some scarily loose chambers but quickly drops into a very large shaft formed along a prominent rift.

Data

Code – RM01
N – 3911187
E – 0234833
Alt – 1879
Depth –100.4m
Length –138.5m

Team Members

Rob Middleton, Jeff Wade, Hannah Moulton, Samuel Stringer



Diary of Exploration

By Jeff Wade & Hannah Moulton

19/07/2008 Jeff Wade, Rob Middleton, Hannah Moulton

Strangely for Crete the first hole we came across (found by Rob2) went more than a ladder length! As Rob2 approached the end of the ladder he could see the floor 8m-ish below, so I let him come back up and I went down on SRT reaching the bottom with a few rub points. It was blind and I checked carefully for ways on.

Coming back up I looked for passages and windows. On one side there was a vague slope of rubble heading into a small alcove, so I swung in, tied the rope off and went for a look. Instantly I felt a cold fluctuating draught. I passed through a small horizontal passage which then led up to a tight unstable climb up. This entered into the bottom of an aven, with a small window 1.5mx1m. I shoved my head through and peered into a 4m diameter shaft at least 20m deep! I headed back to the others on the surface.

Rob2 and Hannah followed down with drills and extra rope, and I then headed to the big pitch to help him at the unstable pitch head, where we almost blocked our exit with a 1x1x1.5m boulder perched on silt! Hannah and I then surveyed in to the window.

Rob2 carried on down and later on I took over with Hannah helping me through the pitch head window with gear. By the end of the day we had ran out of rope after going through a 40m tied to an 8m then a 10m, which

is where I stopped, but tied an extra 10m of 8mm on the end still 5m off the deck. By this point it's a huge rift 5m wide and 30m long with a rubble floor, and a roof height of 30m plus! Wowee!

20/07/2008 Jeff Wade, Rob Middleton, Hannah Moulton, Samuel Stringer

Returning to Black Mamba with more kit, I continued bolting to the floor with Jeff and Sam surveying behind. Awesome I was standing on the floor of a massive chamber where nobody has ever been before. Rob 2 came to join me and we explored the bottom of the rift. Beneath the boulders at the

downstream end of the chamber we could see blackness. Yay! Rob helped move some boulders allowing me to rig a 15m pitch. A short narrow canyon passage with a tiny stream in the bottom lead to another 8m pitch. Unfortunately in true Crete style it ended in a rift that was too tight.

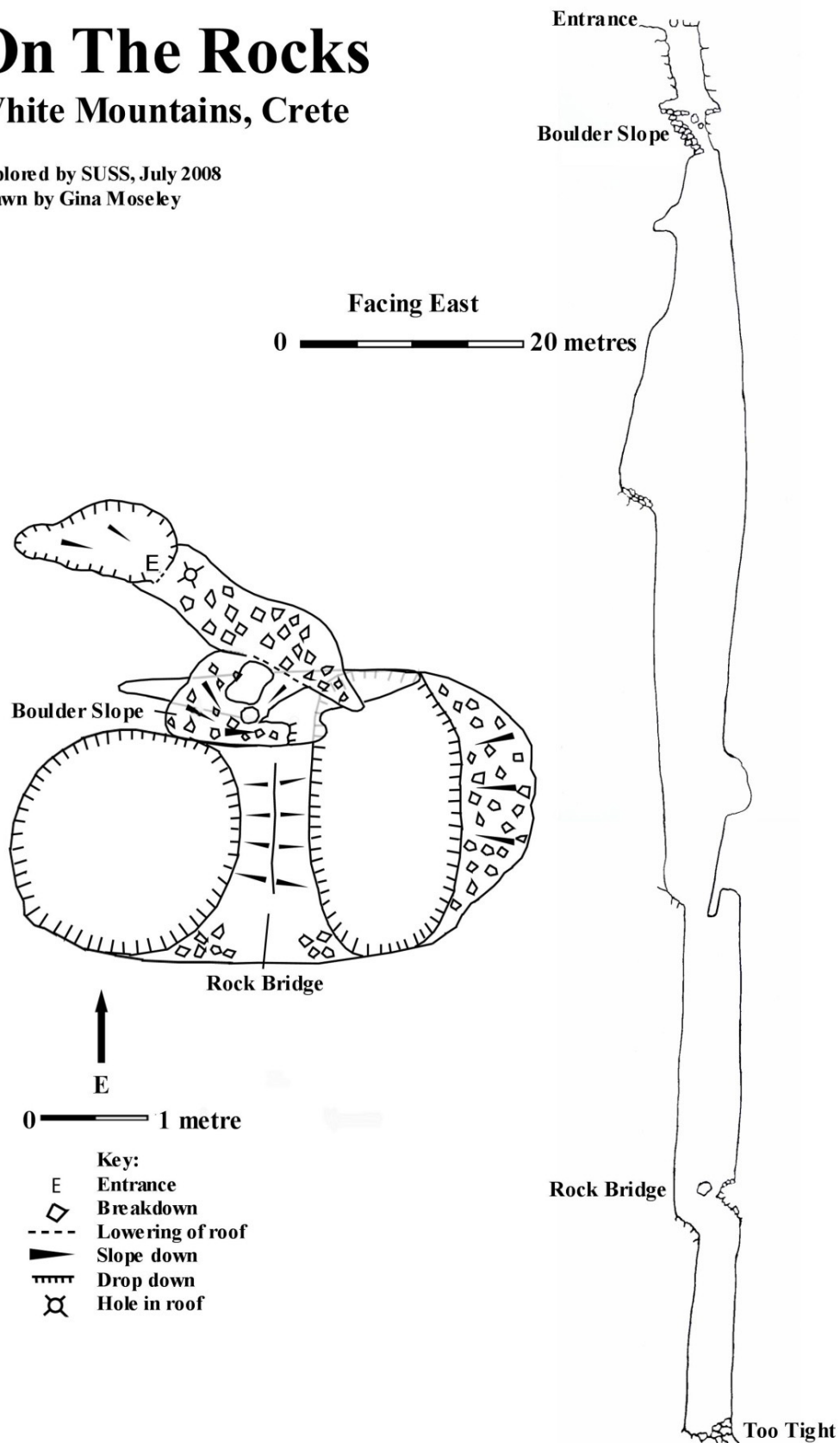
Lunch tasted really good at the bottom of the first deep cave of Crete 2008. Whilst me and rob2 surveyed to the end, Jeff bolted a traverse to a window that he had spotted 40m off the floor. This led to a parallel shaft which also ended so Jeff and Rob de-rigged. On the way out they sent the boulder that formed the window into the main shaft crashing to the floor. Scary! Nobody returned to take photographs. Total depth: 100.4m



On The Rocks

White Mountains, Crete

Explored by SUSS, July 2008
 Drawn by Gina Moseley



On The Rocks

Introduction

The day the Black Mamba team finished pushing that cave they also found the small and again loose entrance of "On the Rocks". It took 3 days to explore to the bottom of this 125m deep cave.

Data

Code – JW01
N – 3911228
E – 0234822
Alt – 1895
Depth –125.8m
Length –133.4m

Team Members

Rob Middleton, Jeff Wade, Hannah Moulton, Alisa Duncan, Gina Moseley

Diary of Exploration

By Alisa Duncan

20/07/2008

HM, JW and RM found the entrance while searching the higher portion of the western slopes of the "Promised Land". HM descended the first pitch of about 7m on a ladder and reported that there was a small chamber, with a possible further pitch at the bottom. Unfortunately they ran out of time so left it as that for the first day.

21/7/2008

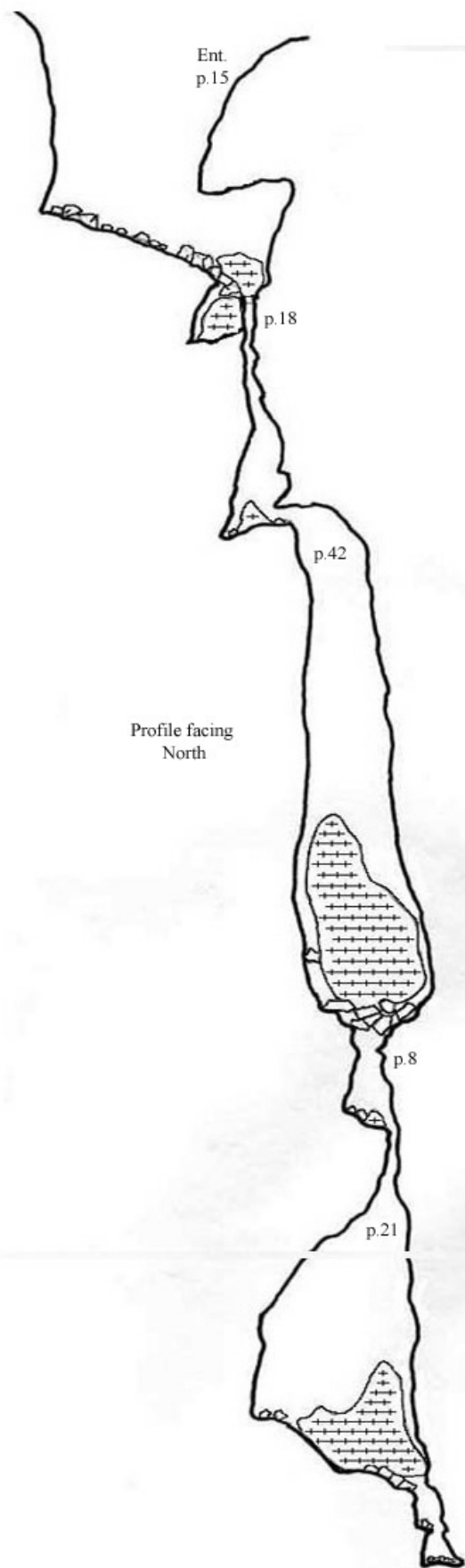
RM, JW, AD returned to the entrance the next day. AD descended the first pitch on a ladder as before. Interestingly whilst in the chamber it was necessary to find shelter from

falling rocks as JW descended. RM remained on the surface. In the corner of the chamber was a squeeze leading to a second, even smaller chamber which contained the pitch reported by HM the previous day. It had not been possible to descend the second pitch because the pitch head was partially obstructed by a large wobbly boulder. JW and AD enlarged the squeeze to the second chamber a bit and then RM came down to have a look around. They decided it was too dangerous to descend as it was so they left the cave and continued to scan for over caves for the rest of the day.

22/07/2008

RM, JW, AD, GM

RM entered the cave to secure the wobbly boulder to the wall using wires. Once this was done he then continued pushing the cave. JW followed RM in. GM remained in the first chamber and AD remained on the surface. In this way, we were all in earshot of one another. This was done because of all the loose rock and the precarious nature of the cave. Everyone returned to the surface for a lunch break. After lunch, JW went back in to rig some bolts at the top of the pitch just below the wobbly boulder. This was to allow everyone to get past the squeezey loose bit before anyone descended the shaft. This was to prevent us from accidentally injuring someone on the pitch if we dislodged anything whilst coming through the squeeze. The pitch went straight down for about 100m, with 3 rebelayes. GM and AD followed, surveying in. GM was on instruments and sketches, AD was on tape measure. RM remained on the surface. The total vertical depth of On the Rocks is 125m.



Entrance chamber plan

Pagomenosee Speelia

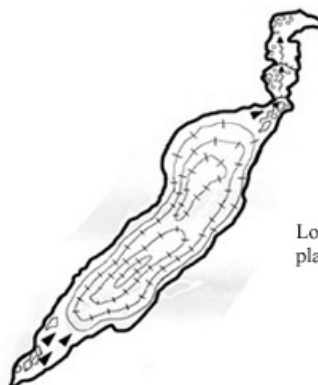
White Mountains, Crete

Explored by SUSS 2008

Drawn by Mike Soulby

Surveyed by Mike Soulby, Alisa Duncan
and Jeff Wade

Scale (m)



Lower chamber plan

Pagomenosee Speelia

Introduction

Found and explored in the last few days of the trip, this was the only cave to have 4 consecutive snow plugs in!

Data

Code – JW18
N – 3911752
E – 0234876
Alt – 1874
Depth –127m
Length –174.1m

Team Members

Jeff Wade, Mike Soulby, Alisa Duncan,
Ben Morley, Robbie Shone

Diary of Exploration

By Alisa Duncan

28 July

JW, MS, AD

We spent the afternoon prospecting, and this was the last entrance of the day. There was a large shakehole with sloping sides, so we were unable to see into it. MS rigged and descended to the bottom of the shakehole. At the bottom there was a large archway, through which there were 2 going leads. Time meant we had to return to camp before being able to explore these.



29 July

JW, MS, AD

JW pushed the lead on the left, which started off going over an ice plug. MS and AD followed. After 2 hours, we had run out of ropes and bolts and so had to return to the surface. After lunch, we sourced some more kit from another team and returned underground. JW continued pushing and AD and MS surveyed in. AD on instruments, MS on tape measure and sketches. The cave was largely vertical, with many snow plugs in it, one as tall as 10m.

30 July

JW, AD, RS, BM

Photo trip led by RS. After the photos were finished, JW went in the other lead from the archway. This turned out to join the first lead lower down. In the afternoon, GM and BM derigged.

Geology Background

By Gina Moseley

Crete is located in the eastern Mediterranean between 34°55' to 35°41' N and 26°30' to 26°14' E. Orientated east-west, the island is 260 km long and varies between 12 to 60 km wide. The topography changes rapidly with distance inland as limestone massifs rise quickly out of the landscape, forming a spine across the centre of the island. Geologically, Crete consists of a patchwork of coarse-grained crystalline limestones, phyllites, quartzites and alluvial deposits. Igneous rocks are present in few locations.



The White Mountains (*Lefka Ori*) dominate the western landscape and rise to a peak of 2452 m at the Pachnes summit. The highest locations are barren, giving full exposure to the bare rock. 'The Promised Land' or 'Pavliá Depression' as it officially known, is located at an altitude of 1700 to 2300 m above sea level within the Mavri Laki Valley. The highest slopes consist of a light grey, extensively frost shattered, dolomite and the lower slopes are a dark grey to black re-crystallised limestone abundant with deep fissures. Topographic lows within the basin contain a coarse matrix of red sands and gravels.

The major caves found during the expedition were predominantly located on the boundary between the two stratigraphic units on the west ridge. The caves were vertically extensive and horizontally limited, often containing small entrance shafts relative to the size of the main void. Smaller caves discovered also displayed a strong geological control with development predominantly along fractures. Termination of the shafts either occurred in a boulder choke or in some cases a bedrock floor with small choked up rift. Speleothem deposits were absent from the majority of caves however some contained limited amounts of flowstone. On the East Ridge a small horizontal cave (GM07) approximately 3 m by 6 m was entered via a breach in the hill slope and found to be well decorated with flowstone, stalagmites, stalactites and subaqueous speleothems. Broken calcite deposits were abundant on the surface of both ridges.



Equipment

By Hannah Moulton

The majority of the equipment taken out to Crete was either recycled from the 2006 Crete expedition, or kindly borrowed from SUSS members and other cavers. However funding allowed us to buy some new equipment, including four shiny ladders donated by Lyon. This kept the expedition nice and cheap. Other new kit purchased in England included wire strops, tape sling and 8mm rope. Some random bits were bought from shops near the ferry port in Athens, including drill bits, pots, pans, knives and a back splint come chopping board which was free! In future we should probably source a proper spinal board for use with the stretcher prior to leaving the UK. Once in the valley, kit was stored under a tarpaulin to protect against sun damage.

Kit Taken	Quantity taken	From
Screwgates	59	SUSS members
Hangers	105	SUSS members + PNG
Maillons	65	SUSS members + PNG
Through Bolts	183 x 90mm + 100 x 70mm	SUSS
Petzl hammers	4	SUSS members
Snapgates	49	SUSS members
Wires/Nuts	12	RM + AS
Hilti rod	1	JR
Trench tool	1	RE
Lump hammer	1	SUSS
Chisels	2	SUSS
SUSS wires	6	SUSS
SUSS ladders+ spreaders	4	SUSS
Rocpec	4	SUSS members
Etrier	2	AS
Pully	1	PNG
Rope Protectors	12	RS
Tackle bags	2	PNG + Dave Gill
Spanners 12/13mm	2	SUSS
Tarp 6'x8'	2	SUSS
Tape sling	40m	SUSS
3mm Cord	60m	SUSS
Generator	1	SUSS
Gang plug	3	AD
Blue 240V plug	1	SUSS
Makita Drills (3 batteries + charger)	2	RE + AE
Bosch Drills (2 batteries + charger)	2	AS + MW
Drill bit long	2	SUSS
Drill bit short	9	SUSS 7, BS 1, RS 1

Primus Stove	1	AS
MSR stove	2	JW + GS
Pans + lids	4	SUSS
Survey Gear		
Compass	4	MB, AS, AE, MB
Clino	4	MB, AS, AE, MB
Survey books	4	RS
Disto	2	AS, NW
PMR	4	JW 2, NW 2

An average surface bashing team of 4 people took onto the hill: 1 ladder, 1 drill with 2 batteries, 2 drill bits, 2 wires, 10 bolts, 10 hangers and maillons, 4 nuts, 2 tape slings, 2 ropes and some 8mm. This was sufficient to rig the majority of shafts found in one day as most could be explored quickly using a ladder/lifeline.

The tape sling was not very resilient to the sharp limestone and most is not fit for re-use. I recommend that more wire strops be used in the future, unless the tape sling is particularly cheap as it saves on weight.

We ran out of through bolts by the second week. This was because we found more deep vertical shafts that needed bolting and consequently we used them twice as fast as in 2006. Luckily we were able to purchase 100 more in Chania. 30 remain

This table shows the ropes that we took out from England:

Thickness	Length	Left in situ
10mm	400m	60m + 65m (Colosuss)
9mm	400m	
8mm	57m	

All rope was recycled from the 2006 expedition, apart from the 8mm which was mainly used to make slings. 125m of rope was left in situ in Colossus. 3 of the 9mm lengths had to be cut and shortened to remove rub points, which shows a compromise between weight and resistance to wear. Apart from this, damage/loss was minimal. 1 hanger and 2 maillons never returned, and the lump hammer is probably sitting in fern cave. 1 Hilti drill bit got bent and Harold the Hilti rod got stuck in Hermes hole.

The generator was not working in the days prior to departure. Some say this is because the generator was not drained properly after last use. However, after much fettling and a new fuel pump, the generator ran well throughout the exped, with minor hiccups. A spare spark plug would be useful in future. During the two weeks in the valley we had 20 litres of fuel, which was sufficient to run the generator for about 2 hrs a night and all the cooking. Plenty was spare at the end of the expedition.

Kit was donated to the bar in Anopoli in exchange for their hospitality. This included 10litres petrol, 2 plastic bowls, 1 knife and 4 pans. The tarpaulins, water drums and

some plastic bottles used for water collection were left de-rigged in freezer cave for future use.

Due to the experience of people that went on the 2006 expedition, everybody was better prepared. In terms of personal kit, warm clothes / sleeping bags are essential, as are proper walking boots and gloves to wear on surface. One member had his soles eaten by the Cretan limestone and had to remain camp bound in order to have enough shoe left to walk back over the ridge to the road.

Crete 2008 Surveying

By Adam Spillane

On this summer's expeditions we found over 150 new cave entrances. Most of which had a survey drawn according to the cave's importance. A sketch survey sufficed for short caves. For more significant caves a more accurate survey was undertaken. A survey using sighting compass, sighting clinometer and either a Leica Disto or tape measure, to measure distance, input to Survox and combined with a scale drawing. The locations of all logged entrances were fixed by GPS.

All caves were then added to the main Mavri Laki database (which includes other caves found on previous SUSS trips) which was converted into a master survex file. This has since been shared with the caving club in Athens SELAS, who have added this to a main White Mountains survex file.

Thanks to Mark Brown, Nick Williams, Ben Stevens and members of the expedition for the loan of surveying equipment, and to Kostas Adamopoulos (SELAS) for his work collating the data with the other areas of the mountain range.

Food Report

By Alisa Duncan

In order to cater for 15 people for 14 days, the following food was taken into camp:

Item	Unit	Quantity of units
Carrots		5 kg
Crackers	140g packets	55
Melba toast	125g packets	26
Cereal (plain)	750g bags	5
Cereal (sweet)	500g bags	25
Garlic		20 bulbs
Chocolate spread	600g jar	4
Canned peaches	820g can	1
Canned pineapple	560g can	2
Sugar	1kg bags	3
Tune	170g tin	54
Sardines	120g tin	19
Herring	195g tin	19
Mackerel	195g tin	15
Luncheon meat	340g tin	10
Luncheon meat	200g tin	3
Tinned tomatoes	800g tin	8
Tinned tomatoes	2.5kg tin	2
Instant coffee	200g jar	2
Tabasco sauce	60ml bottle	3
Dried apricots	250g tub	6
Raisins	250g tub	9
Tea	Bags	100
Chocolate powder	800g tub	1
Iced tea powder	125g (1.5l) sachet	25
Soup powder	Packets	42
Milk power	283g (5pints) bottle	14
Vegetable stock	Cubes	48
Paprika	50g packet	2
Chilli flakes	Packet	50g
Pepper	Mill	2
Lemon juice	330ml bottle	2
Oregano	Packet	80g
Basil	Packet	80g
Tomato puree	500g box	4
Cous cous	500g box	10
Mayonnaise	1000ml jar	3
Ginger		0.6kg
Olive oil	1l bottle	2
Powdered mash potato	Sachet (4 portions)	33

Rice	2kg bags	4
Sweets		1240kg
Onions		20kg
Jam	Tubs	6
Chocolate	Bars	48
Peanuts	750g bags	18

Most of the food was purchased in Athens as we had spare time before the ferry.

In addition, there was fresh bread and cheese for the first few days and again halfway through the expedition when GS and RM returned briefly to Anopolis and brought some back with them.

The Menu

Breakfast (between everyone per day)

- Cereal – 1 large bag OR 2 small bags
- 7 tea bags
- Coffee

There was plenty of cereal for breakfast, however the energy provided didn't last very long and people were often extremely hungry by lunch time. There weren't enough toast or crackers to be able to have them for breakfast as well as lunch, so there was nothing to eat the jam or chocolate spread on. However people seemed content to just eat spoonfuls of it. It has been suggested that porridge would provide a better start to the day.



Lunch (per team of 4 people per day)

- 1 packet crackers OR melba toast
- 1 small tin luncheon meat OR ½ large tin luncheon meat OR 1 tin tuna OR 1 tin sardines
- 1 bar chocolate
- Sweets (only for those who do not eat chocolate)
- 1/3 bag peanuts
- ¼ tub raisins OR ¼ tub apricots
- Cheese (when available)

Lunch was felt by some to be a bit stingy. This could be partly due to the energy from breakfast not lasting long enough, as mentioned above.

Dinner (between everyone per day)

- 2kg rice OR 5 sachets potato OR 1250g cous cous
- 5 cans herring OR 5 cans mackerel OR 6 cans tuna OR 6 cans sardines
- 800g tinned tomatoes AND 250g tomato puree
- Ginger
- Garlic

- Onions
- Carrot
- Herbs and spices
- 3 cubed stock
- 4 packets soup
- Olive oil
- Lemon juice

Dinner was always the most successful meal of the day. Rice was given in very generous portions, but the potato and cous cous portions could have been larger.

Extras

- Iced tea
- Chocolate powder
- Tea
- Coffee
- Mayonnaise (very nice with garlic and herbs)
- Jam
- Chocolate spread
- Tinned fruit as a treat, halfway through the expedition
- Powdered milk

Each person was given their own bottle of powdered milk, containing enough for about 5 pints, to use as they saw fit. This avoided arguments about tea drinking.

Medical

By Rob Middleton

Unlike the previous expedition, we did not have a trainee doctor to call on as medical officer. I was therefore drafted in to the role because I had deputised for Dr Brendan Sloan during the time he was not at basecamp on the 2006 expedition. The first aid kits were as before, but without the small doctors kit that Brendan has brought. The kit proved more than adequate, with very few medical occurrences. We also took a stretcher, neck collar, and leg splint, all of which I'm pleased to say were not needed. One thing however that did concern me on embarking on this expedition was that there were very few first aid certificates amongst the team. First aiders were Myself, Robbie Shone, Adam Spillane and Jeff Wade. This meant that it was not always possible for a first aider to be in each day team on the hill and ideally should be rectified for future expeditions.

Similar to last time, cuts and bruises from the sharp terrain were the most common complaint. These were usually dealt with independently of myself but peoples own first aid, and luckily nothing was serious.

One member managed to sprain/possibly break his thumb, and this was dealt with by splinting it for a few days, by which time it had recovered sufficiently, so that no further action was necessary.



One member also acquired a severe skin reaction (we believe a heat rash due to the particular brand of sun cream he was using). As it happened this member went to Chania to restock supplies, and so was advised to visit a chemist where he was given a strong skin cream. This helped substantially and is perhaps something to add to the first aid next time.

Other than this, medical complaints were few and I'm pleased to say very little first aid was needed.

Accounting

By Ali Mortazavi

At the first Crete 2008 meeting I was given the job of organising the accounts for the forthcoming expedition. Even though the expedition was months in the future, the job of sorting the accounts began right away.

All spends on group items were logged on a spreadsheet and the receipts kept so that nothing could be forgotten. This way at the end of the expedition it would be easy to spread the costs over all the members. Or so we thought...

As nearly all of the expedition members were students, and definitely all of the members were poor, a certain amount of external funding was required. We obtained grants from several organisations, including Lyon and Ghar Parau (see appendix), but the majority of the funding was raised from SUSS's 2007 and 2008 Naked Calendars, totalling £1900. With this in mind the expedition was planned on a budget and to secure a modicum of finance for the trip a £40 deposit was seized from all the members.

Fortunately we did not have the need to borrow / hire vehicles over in Greece, something that caused several problems for the Crete '06 expedition. This time we had two vans that could collectively carry 11 of the 15 members, leaving 4 who opted to fly out. This also helped with kit as instead of sending it over on pallets we could instead drive it with us, therefore saving money. However, because the journey would take its toll on the two vans it was decided that the owners would each receive a damage payment of £200 to cover tyres, mileage and general wear and tear.

The £1900 from the calendar funds was spent on rope and kit in England as well as booking the ferries from Dover to Boulogne (£96), subsidising fuel and ferry costs (>£650), buying expedition gear in Athens (£150) and the main food purchase.

A summary of the major remaining spends can be seen below:

Misc Spends (rope, kit, etc)	£350
Athens – Chania Return Ferry (Vans)	£390
Athens – Chania Return Ferry (People)	£770
Fuel and Tolls	£710
Vehicle Damage	£400

As expected the personal spends of the expedition members were recorded a lot better than the money spend by SUSS itself. This problem was because we had an expedition leader and a separate accounts person, in effect two people looking after the accounts in their own way. Miscommunication and misunderstandings left it tricky at times to organise the money and work out exactly what SUSS had left and where exactly it had gone.

Another problem experienced was that although both vans were full driving out, this was not the case driving back. There was a shuffle of people and one of the vans drove back via another expedition carrying 4 people while the other van travelled straight back to England carrying only 3 people, leaving 8 people to take the plane

home. This meant that even though travelling there was pretty cheap, travelling home would be somewhat more expensive. With less people in the vans, the cost would increase dramatically. Therefore it was decided that the vans should be subsidised to get home. This cost came partly from SUSS but also from all expedition members (including those flying) as the vans were carrying expedition gear. In future it would be wise to think about the logistics of driving out a lot more as it is easy if everyone does the same thing, but as soon as people start changing how they are returning it can rapidly increase the costs. The best plan is to have every cost decided upon before anyone goes anywhere! However this is not always possible...

The expedition cost, not including driving to or from Greece, was about £150 per person. It would be advisable in the future to have only one person looking after the finances and making decisions, or failing that at least have a lot more communication about where and how the money gets spent. Despite the problems that arose, the accounting went quite well and the expedition managed to keep to a reasonable budget, even if it was a little higher than some people expected.

Appendices

Flora

By Jeff Wade

The White Mountains offer little shelter for the alpine plants that take home in the Mavri Laki valley. However some do take shelter between the fractured limestone surface and many of these plants are special to the Lefka Ori area, due to the lack of human influence. The only plant that was useful to the expedition was Thyme, which was occasionally used for cooking.

Below are a few pictures of some of the plants indentified whilst on expedition. These were mainly on the South-East facing slopes of the Mavri Laki valley. Where possible the plant type has been identified from picture references.



Centaurea Calcitrapa



Convolvulus Boissieri



Euphorbia Capitulate



Glaucium Flavum



Campanula



Prunus Prostrate



Unlike many other areas of Crete over grazing has not affected the Mavri Laki to such an extent, and Lefka Ori in general, as the difficult terrain and lack of roads and paths has prevented large herds from entering the area. However groups of up to fifteen or twenty goats have been seen in the valley, especially around camp.



The plants in general seem to adopt two main types, both working around water preservation. Firstly the spine (prickly) plants that opt for thin sharp leaves to reduce surface area to minimise evaporation of water. Even the usually friendly Thyme was covered in sharp spines, which also might be a defence mechanism against herbivory. The other common adaptation was to become succulent, with highly waxy leaves that are able to expand in times of high water, in order to have a water supply during dry spells.

Sponsors:

As with all expeditions, the achievements are the result of many people's hard work, and especially that of the selfless generosity from many third parties.

From our initial trip out in 2005 the Athens based club SELAS have organised all our governmental permits and let us run reign over their luxurious hut in the centre of Athens. It was a few members of their club who generously put us on to the area in the first place, as they have been working in the mountains for many years now.



Once in Anopolis we have always been very well looked after the bar owned by Kostas Glimenakis. It is on the road out of the village that heads up into the mountains, a perfect location for all those tired and thirsty souls who undertake the 4 hours walk down from base camp straight into the bar. Kostas has not only

given us some free drinks and meals, but also exchanged some of our unwanted equipment after the trips for even more beer and wine, always a very good deal!

Also they have always been very willing to give us lifts up the mountain, often with 4 of us in the cab and all the gear and more people in the back. For this they only charge a small fee, and have even given us their mobile numbers so we can organise being collected at the end.



In 2008 we yet again got a grant of £500 from the company "Lyon Equipment" that we were allowed to spend on equipment from their catalogue. In addition to that all members were given a substantial discount on all their gear, an extremely welcome aid for a student expedition!

Also this year we received £550 from the Ghar Parau Foundation. From their website: *"The Ghar Parau Committee manages an investment fund which was created with the proceeds of a number of successful expeditions to Iran in the 1970s and Borneo in the 1980s. Since then the fund has grown with careful management and the addition of donations from other expeditions. The purpose of the fund is to provide grant aid to assist caving expeditions from Britain to all parts of the world".* They have donated substantial grants to our Crete expeditions every year and for that we are extremely thankful.



A report was published in the popular UK caving magazine *Descent*. It is in Edition 206 on Page 28:

The Promised Land

Rob Eavis has returned from a second Sheffield SUSS expedition to the limestones of Crete (see *Descent* 193), where the team found caverns, if not measureless, of significant depth.

that in the excitement he'd developed a bad nosebleed. For the last two weeks we'd been camping in Crete's biggest dust bowl, leading to the demise of many of the team's nose controls. While he tried to retain himself, I leaned over the edge and rigged the entrance shaft for him. The first 80m rope didn't even reach the first ledge. I checked the time. His nose was still bleeding. I slowly put on my caving kit, watching him closely. Still bleeding. This was becoming fun. 'You can't venture into such a big cave with a nosebleed, you might pass out,' I pointed out as I donned my SRT kit and helmet. It's funny how quickly frustration can change to despair ...

ON Sunday 13 July 2008 our eleven-strong team had set off from Sheffield in

'**ROB**, get over here now!' shouted James Rhodes from across the hillside, where he stood with an unusual look of desperation. This, I found interesting. I presumed he'd found a cave that looked attractive – and he wanted to be the first to make a descent. Unfortunately, he was travelling light and had taken no gear with him. Other members of the SUSS team were out trolling the nearby area and so, if he left to fetch the necessary kit, one of the other, better-equipped members might tackle the pitch before he could return. He obviously needed someone to help guard the entrance – and I seemed to be the closest. This all led me to think one thing: it must be a big cave.

I slowly wandered down, watching (and enjoying) the frustration demonstrated by his actions. He shouted: 'Four-second drop to a ledge, then it continues

further down to out of earshot. It's a colossus!' I looked myself and, although the entrance was only 4m across, the shaft increased to about 10m in diameter and continued down until it was out of sight.

It was growing late and this was the second-to-last day of the expedition, so time was against us. I ran around the other groups trying to find a long enough rope while James continued with his attempts at keeping others at bay. The following morning he was leaving the mountains to catch a flight home, a day before the rest of us, so this was his last chance to discover our 'promised' find and nobody was heading down this cave before him.

I returned with 155m of rope, a spare SRT kit, a drill and loads of bolts, to find

two vans, to begin the second of the recent SUSS expeditions to the White Mountains of Crete. The drive took us through eight countries in two days, although I for one can vouch for sleeping all the way across at least one of them. The four drivers did a valiant job, reaching Athens just in time to meet with Elias Kazais from SELAS, a local caving club, who gave us the keys to the group's luxurious hut within walking distance from the Acropolis. Oh, the glorious feeling of lying flat!

The next day we split into teams to collect our food and the bits and bobs that we would need during the following two weeks, before driving to the ferry for Crete that night. A quick souvlaki in Chania for breakfast and then it was straight off into the mountains. The last point of call en route is a small village called

28 *Descent* (206) FEB/MAR 2009

Anopolis, from where on it's a ninety-minute treacherous drive on gravel tracks to the heart of the remote mountain range, where peaks rise to over 2,400m high. At the end of the road we walked for a couple of hours over into the neighbouring valley, Lefka Ori, to the same spot where our camp had been based in 2006.

Our plan was to continue (and possibly complete) the exploration of the valley by working northwards over a prominent ridge into what in 2006 was nicknamed the Promised Land, a ten-square-kilometre area of untouched, entrance-riddled limestone. Beyond the northern extremity of the valley the land dropped steeply to the sea, a mere 2km lower, and with few known resurgences the potential for finding a very deep cave was obvious.

One of the main problems with camping in these mountains is, for most of the year, a complete lack of surface water. To overcome this, as on the previous trip, we suspended two large tarpaulins across a large chamber just inside the entrance to a horizontal cave. Bringing enough water to the camp for a day's use required a daily thirty-minute walk by at least two members of the team.

Obviously, all the food (minus a few wild herbs) had to be carried in on foot from the end of the track, restricting us from indulging in too many watermelons or ice creams. Instead, our evening meals generally consisted of veggie slop with tinned 'fish of the day' on either rice, instant mash or couscous. This proved to be a surprisingly good meal after a long, hard day of cave exploration.

As for the caving, because the area was quite large and held such a high density of entrances, we split the region into four with one 'leader' in charge of each. The rest of the members migrated through the groups for the duration of the expedition, so that they received some widespread knowledge of the whole terrain and, if nothing else, could check on all the leaders to make sure none were slacking.

On only the third day we completed the exploration of our first 100m deep cave. Three days later another group returned after bottoming a 115m deep cave. And these weren't just boring shafts – they were actually systems; real caves! Expectations were high for the Promised Land and it seemed to be delivering gifts from the start.

Most of the caves in the White Mountains, like many high-altitude areas of

limestone, suffer from one main problem: frost shatter and, unfortunately, the Promised Land is no exception. On average the caves we discovered were only about 15m deep and ended at a flat, pebbled floor. However, at least there were a lot of them and our enthusiasm remained high throughout the duration of the expedition, with at



least one team always exploring a good, ongoing cave.

The main cave that we investigated was named The Depths of Hades and was found on 24 July by Katie Dent, Ali Mortazavi, Gina Moseley and Robbie Shone. Here, a spacious 30m deep entrance series suddenly popped into the roof of The Great Hall, providing a 65m free-hang down the centre of an immense rift chamber. The following day exploration resumed down a continuation of the huge shaft, but at the bottom, just as it was becoming safe in terms of rocks dropping out of the surface rubble, it met an untimely, boulder-choked end at a depth of 161m. A full day was occupied examining all the remaining leads in the system but, unfortunately, the cave would not reveal its deeply hidden secrets.



Above left: White Mountains terrain
Photo: Ben Morley

Above: Katie Dent with Ben Morley below in the Colosuss shaft; the cave is still open awaiting a future visit. Photo: Robbie Shone

Left: Rob Eavis making the first descent of Colosuss. Photo: Adam Spillane

Facing page: Jeff Wade on a snow plug in Ice Cave and Ali Mortazavi collecting water drained from sheeting in Freezer Cave, the expedition's only water source. Photos: Robbie Shone

Ben Morley in one of the many entrances checked by the expedition. Photo: Rob Eavis

This was, however, a stunning reminder of the area's potential and the fact that we, a group of students, could put our mark on the map. By the final few days of our occupation of Crete the four surface teams had congealed into one sprawling mass that was spread randomly over the final square kilometre of virgin landscape, desperately looking for our 'promised' find. We had discovered five caves deeper than 100m, equalling the tally of the twice-as-long 2006 expedition, but the potential for a master system was still niggling away in our dreams.

That was when James shouted: 'Rob, get over here now!' Colosuss, as the site is now known (you get the pun!), provided us with a 150m deep entrance pitch which led to an active streamway that we pushed the following day. It contained spacious rift passages and Yorkshire-style pots, which gained us a total of 213m depth. The way on is still wide open and the draught is somewhat exciting – when you throw in the fact that the entrance lies at an altitude of 1,938m, it really is a shame we found it so late in the trip.