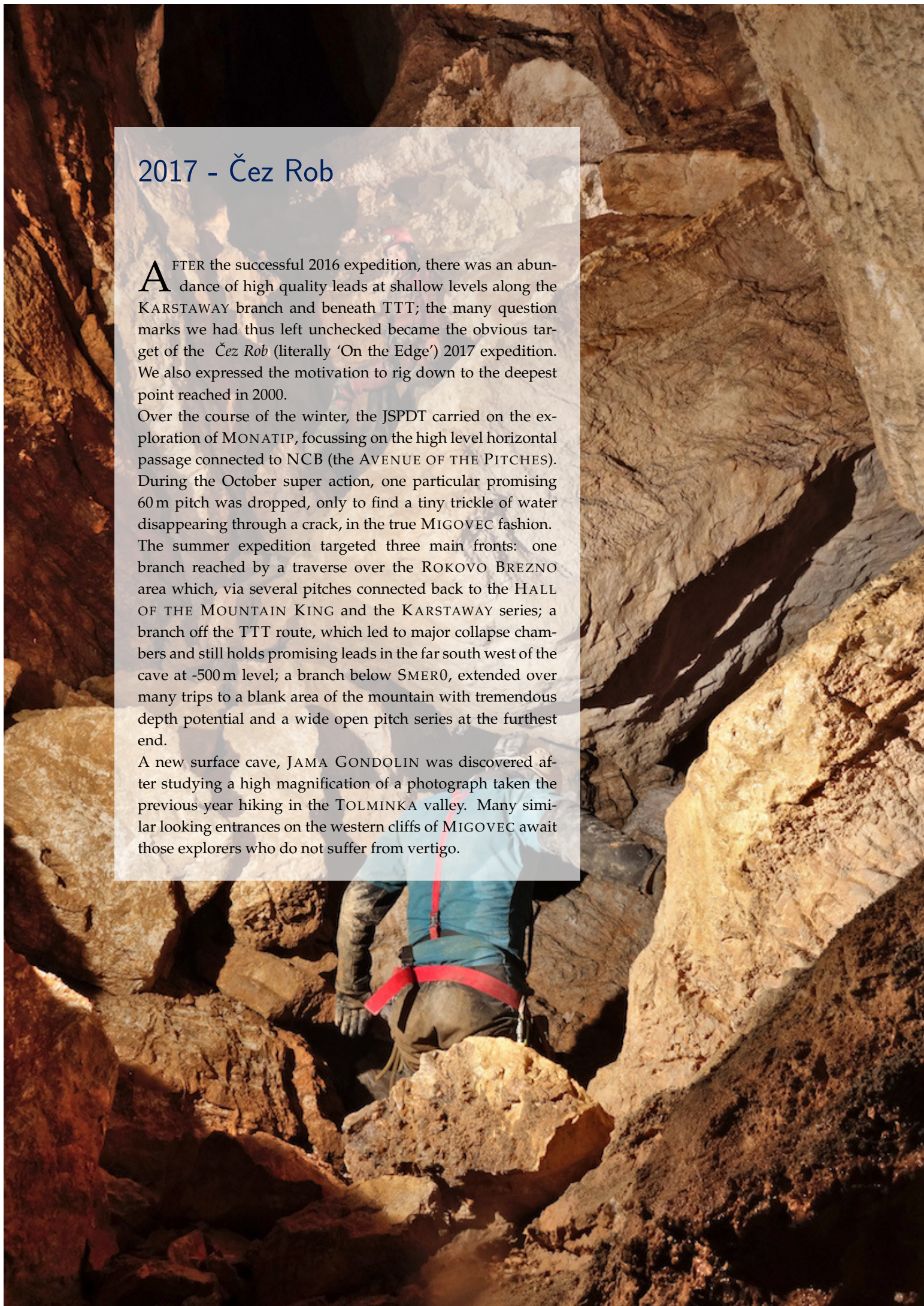


2017 - Čez Rob

AFTER the successful 2016 expedition, there was an abundance of high quality leads at shallow levels along the KARSTAWAY branch and beneath TTT; the many question marks we had thus left unchecked became the obvious target of the Čez Rob (literally 'On the Edge') 2017 expedition. We also expressed the motivation to rig down to the deepest point reached in 2000.

Over the course of the winter, the JSPDT carried on the exploration of MONATIP, focussing on the high level horizontal passage connected to NCB (the AVENUE OF THE PITCHES). During the October super action, one particular promising 60m pitch was dropped, only to find a tiny trickle of water disappearing through a crack, in the true MIGOVEC fashion. The summer expedition targeted three main fronts: one branch reached by a traverse over the ROKOVO BREZNO area which, via several pitches connected back to the HALL OF THE MOUNTAIN KING and the KARSTAWAY series; a branch off the TTT route, which led to major collapse chambers and still holds promising leads in the far south west of the cave at -500m level; a branch below SMER0, extended over many trips to a blank area of the mountain with tremendous depth potential and a wide open pitch series at the furthest end.

A new surface cave, JAMA GONDOLIN was discovered after studying a high magnification of a photograph taken the previous year hiking in the TOLMINKA valley. Many similar looking entrances on the western cliffs of MIGOVEC await those explorers who do not suffer from vertigo.



The expedition starts with a bang!



Figure 131: The famous petrol motorbike was once again put to good use. Antonio of the JSPDT ferried most of the rigging gear from RAVNE to KAL in an afternoon 📷 Antonio Ivšak



Figure 132: Other food supplies were helicoptered to KAL thanks to the Slovenian airforce, these included several kg of pasta, potatoes and onions 📷 Antonio Ivšak

The ICU Union minibus hauled itself into TOLMIN at midday on Saturday 8th July, as the thermometer rocketed through 30 degrees. Myself and Ben, who had come out a day early, drove our stolen shopping trolley, loaded with bread, sausage, iced-tea and booze. We converged with perfect timing at the old Yugoslav barracks, now the industrial estate, where one of our JSPDT friends has an injection-moulding factory.

This was to be expedition base camp, the rack of toilets and cold water showers a perfectly match. After pizza, the van was partially unloaded into a more mountain-road friendly configuration. The smelly van-people headed off to the SOČA river (10 degrees, but very clean, at least upstream of cavers) to swim and sun worship.

A crack(ed) team headed off to TOLMINSKE RAVNE (at 925 m, the trail head). There are something like 30 hair-pin bends on the single track road from TOLMIN. Rather disturbingly, about half-way up, the van started belching grey smoke out the side of the bonnet every time we braked. Not wanting to risk being stranded and blocking the single-track road halfway up, we limped our way into RAVNE.

Rather than our standard parking spot next to a barn recently filled with ≈ 50 cubic metres of wood for winter, we parked on the road surrounded by only concrete. Tentatively approaching the still smoking bonnet with fire-extinguisher in hand, we quickly located the fault. The cap to the coolant had been 'repaired' with tinfoil and rubber bands, which had evidently fallen off at some point in the prior 1000 miles across Europe. The thirsty Transit drank 8 L of the best mountain water, and with a rather more heavy-duty cap improvisation constructed from a cave oversuit patch and a cable tie, was ready for more action. We unloaded the minibus. One driver drove back to TOLMIN to save the rest of the team from the fleshpots.

Expo logistics revolve around the 'green crates', 60 L packing crates of which we can stack 18 in the back of the 9 seater minibus. This enables us to start tooling up months before the expedition leaves, duck-taped labelled crates marching around our caving stores as drills are fettled and items arrive from various corners of the country and the internet.

Somehow such ideals of organisation are never quite realised, and so sorting, relabelling, finding and prioritising objects for carrying up the hill took up the rest of the day. The whole team united at RAVNE, we took an early night, lined up on the floor of the little community common room made available for us this year.

An extreme storm started at around 10:00 pm. The rain was so heavy and so driven that it slipped under the door, forming a 3 m diameter lake (sleeping bags evacuated by Tikka light), before slinking off into the toilet and disappearing down a drain.

Everyone was up at dawn, keen to avoid the heat of the climb. Most people were heading up the hill at 6:00 am, and so by 10:00 am the plateau (1850 m) was already dotted with tents. We spent Sun-



(a)



(b)



(c)

day in the BIVI. This is where we store gear and food in large Daren drums and 200 L blue plastic barrels over the winter. Our advanced party had unpacked these barrels, and setup our Tarpaulins which serve both to shelter the cooking and sitting area, and channel drinking water into the barrels. In spite of no one being present to tune the guy lines, we had a good few hundred litres of water already gathered. This we spent during the day on scrubbing and sterilising the pots, pans, containers and gear which we had left up over the winter.

Figure 133: (a) The 16 green crates ferried by minibus contain the bulk of our metalwork, rope and food supplies for a four week expedition 📷 *Jarvist Frost* (b) Solar power harnessed with two surface solar panels 📷 *Tanguy Racine* (c) A violent thunderstorm is enough to fill the four barrels and provide two weeks' worth of water supply for the expedition 📷 *Rhys Tyers*



Escaping mountain 'Clag'

Back up at the bivi after a beautiful day down from RAVNE to the ZADLAŠČICA – the water was quite refreshing, the current rather forgiving so a pause by a plunge pool at around midday inevitably ended with a bath. I am quite amazed at the coincidence which brought Tim, the German geologist to RAVNE. He met with Janet, explaining his plan to recce geological locations for a fieldtrip. We therefore set off together from the plateau, stopping here and there, chatting and taking in the geology along the RAVNE-TOLMIN switch back road. After taking plenty of notes at the outcrops of the SLOVENSKA GEOLOŠKA POT (Slovene geological path), getting lower and lower until midday.

At the bridge, next to the hydro plant, the air was so hot we climbed down to the river level, hopping along the inclined bedding. Blue water sinking past us, goats on the other bank, what was not to like about this little spot of paradise?

We stripped down and went in the deep pools, taking photos and cooling down. It was perfect. The only downside was the walk back to RAVNE, during which all our efforts to stay dry, fresh and non-sweaty failed miserably. Back at RAVNE I ate most of the “Apéritif” crackers (Smoki’s), drank tea (courtesy of Ben) and took a karimat out to lie down in the shade. By 4:45 pm, we were raring to go and started the long ascent to the BIVI. There awaited the best surprise of the day: food, though Antonio’s sweet apricot schnapps came a close second.

I undersigned Tanguy Racine, self-respecting cook and amateur gastronome declare my papillae ‘blown away’ by the onion soup and chips which were left for us to eat.

Tanguy Racine



Figure 134: The ZADLAŠČICA river, just upstream of hydro-electrical station and the confluence with ZAROBNICA offers a profusion of sunlit riffles and pools 📷 *Tanguy Racine*

The previous week a helicopter lift had been made by the Slovene cavers - bringing expedition essentials of petrol (to cook with), pasta, rice and cooking oil. It also brought luxuries. We marvelled at the string bags of potatoes and onions (fresh vegetables!). We also knew of the existence of 20 L of wine (a substance considered too lacking

in proof to be worthy of a carry by human). This was then hidden, discovered, and re-hidden over the next few weeks, as various expedition members played the angels and devils of our collective conscience.

More carries on Monday and Tuesday followed. We were mostly set up for caving, and teams had been to start the chin-scratching challenge of rigging the 150 m Abseil from the plateau to the cave entrance. This is problematic as it continuously varies from about 45 degrees to sheer. A vast quantity of scree is barely held back by scraggy grass and clumps of dwarf pine. Any scree knocked loose tended to bound its way down, making a terrifying *'thrp-thrp-thrp'* as the uneven boulders tumbled their way to a terminal velocity. As well as this objective danger, the surface abseil was subjectively scary, being above the kilometre deep POLOG valley.

Perhaps the worst situation was when the mountain was partly enveloped in cloud. It is very strange sensation to see a house appear through the fog a long way below, while at the same time a peak of the KRN massif winked at you from above.

One problem was that we were already running low on water. Tuesday brought successively heavier rain storms. With frantic effort we tried to gather every drop, belaying the tarps by hand if necessary, siphoning water between barrels. By 4.00 pm, it was clear that supply was going to outstrip storage no matter what we did, and we soon had four brim full barrels, and replenished sealed 20 L containers of water. Perhaps 800 L in all - plenty for two weeks.

The weather did not get the message that we were sated, and redoubled its efforts. Along with the incredibly heavily rain, there was an increasing cacophony of thunder and lightning. Cavers arrived in the Bivi from their carries with overflowing boots. By 8:00 pm everyone was on the mountain, fed, watered and frankly bored. People sat around on the drier side of the stone circle, drinking tea in their waterproofs.

The rain had lessened considerably, and the booming had moved off to the next set of peaks. Up on the plateau, rain was still falling, but it was pleasantly still. The occasional jagged line cut through the sky, touching the ridge many kilometres downwind. Tanguy dashed to his tent: *'You can't outrun lightning!'* I shouted after him. Such japes! A recurrent strike hit a mountain not so far away, and at least 500 m below us. Troubling. Soon after there was a little strike on MIGOVEC itself, roughly our altitude and more importantly, upwind. It was time to return to the safety of the Bivi.

The event was not noise or light, but all at once. Even the dark green dwarf pine was lit so bright it became white. It felt like I'd been hit very hard over the head with a cricket bat. This was replaced by a sense that my head and hair was on fire. Rubbing at the fire frantically, I was amazed to find all my greasy locks were still there. My hat was missing (magically to be found later in my pocket). My head was full of white noise, and horrible black puddles of amnesia. Had I hit the ground? How long had it been? I was staring at my

...By 4.00 pm, it was clear that supply was going to outstrip storage no matter what we did, and we soon had four brim full barrels...

...The weather did not get the message that we were sated, and redoubled its efforts...



Figure 135: Lightning often hits the plains of Italy, making for a beautiful display of light and shadows 📷 *Arun Paul*



Log entries

It just came with a white glow and a deafening blow and the next moment I realised I was on the floor with both my legs feeling numb.

Larry Jiang

There was a loud bang and my right leg exploded in pain. I flung myself back, and my left arm hit the rock. Everyone was screaming.

Jack Hare

I'm alternating between an odd giddy joy, dumbstruck and vague existential dread. Struck by fucking lightning! Tick that one off the bucket list.

Rhys Tyers

So, I found a four-leaf clover...
AND THEN WE GOT STRUCK BY
LIGHTNING?
Felt like sleep paralysis.

Rebecca Diss

tingling hands, amazed that they were there and functional.

As my hearing returned, I could hear the screaming - multiple voices overlaid. It gave me something to focus on. I stepped up to the Bivi and gazed down on pandemonium.

I knew lightning was involved, but my first thought was that the petrol lantern we use for evening light had exploded. The stone circle we sit around was empty, people having thrown themselves backwards and outwards. About half the occupants were walking wounded, a quarter writhing on the floor screaming and clutching legs, and a quarter ominously still and quiet. Everyone had been effected.

It was impressive to see the walking wounded stagger around with numbed legs, swallowing down the stress, calmly shouting over the thunder-clapped deafness, to follow their first aid training to assess, triage and treat. Everyone was confirmed as breathing. Casualty reports of burning legs showed no surface wounds. There was nothing we could think to do to deal with the reports of leg paralysis. So those unable to move we reassured, and bodily lifted out of the rain to place them back on the insulating carry mat of the stone circle.

We retreated into the driest corner of the Bivi, to wait out the lightning with fearful eyes. We sang songs and rubbed numb legs. After four hours, the lightning was long gone and we cautiously headed to bed. The two worst effected were still incapable of standing unaided. They were carried to bed between two helpers. Most people sleeping rejigged arrangements to acquire a tent fellow. The key question - how much of a Faraday cage do you reckon your tent is?

By the next morning, everyone could walk again. Some people (but

 Hare Cave

Gosh, what a day! Overcome by ennui, I had to break free. Rhys agreed to accompany me to 'Hare cave', last pushed in 2004 by Jarv and Ben Ogborne. It terminates in a dog-leg in a human-sized phreatic. The clag was thick, the far side of every shakehole just a vague outline. We dropped down into it and I went through into a collapse chamber filled with debris. After a bit of hammering in the rift I kindly sent Rhys first.

Jack Hare

Wiggling up was now significantly easier and I was quickly lying prone in the meander. One arm forward and one back I *reptated* forward. The tube is exactly body sized and there are two body lengths before a dogleg that stopped the previous team. Bending my back round the first corner, my head cleared the second.

The cave died in that moment.

Rhys Tyers

not necessarily correlated with the worst effected) had amazing fern-like and starfish patterns burnt into their legs with burst capillaries. One person had an extensive pattern on their legs, and a matching mirror image in silver written in their black synthetic leggings. One expedition member left for London the next day, no longer feeling safe on the mountain top. The weather was thankfully thunder free for the next week, otherwise I suspect considerably more members would have left.

The leg numbness slowly went away over a week, people were still staggering as their nerves slowly came back on line. Everyone seems to have made a complete recovery. Our cheap *Survex* laptop did not work. One of our survey compasses (kept in a metal ammo box) had a +90 deg error. We can't be certain these were due to the lightning current, but we only discovered them after the strike.

Perhaps unsurprisingly, the lightning strike definitely slowed down the rate at which we got properly underground. The main effect was, of course, psychological. I certainly found it difficult to be planning trips with people I had just a couple of days previous been uncertain whether they were dead or alive. The beautiful plateau with its adders and rock falls, and the cave with its loose choss and uncertain rigging, took on a distinctly sinister air.

Nevertheless, by the end of the first week, the first newly explored survey data was coming back from the cave.

The mountain-top life continued much as it does in any other year. Ukulele and guitar lessons were given and received. Rewording of songs to give them a caving meaning an ever popular past-time.³¹ Experimental cooking took us to savoury doughnuts, filled with cheese. The helicoptered bags of potatoes were chipped and deep fried, the soft onions souped.

Jarvist Frost

 More logbook extracts

We collected ourselves around the stone area, deeper in the bivi. There was some talking, mostly shocked and a bit shaken, trying to determine what had happened and who had been where and the damage done. Wine and Laško were passed round and we sang songs, which was a grateful distraction. –

Celia Tinsley

I have a lovely burn on my bum, and most of the damage isn't cellulite.

David Kirkpatrick

'Where were you when the lightning struck the bivi?'
'In the bivi!'

Jack Hare

Months later: I still have mild tinnitus which started in one ear and is now affecting both, and seems unlikely to go away.

Dave Wilson

³¹ Leonard Cohen's 'Hallelujah' a fitting favourite this year!

 Gondolin

- Tanguy Racine
- Jarvist Frost
- Benjamin Honan
- Jack Hare



Figure 136: MINK cave, a short alcove eventually connected to Hare cave thanks to Jack Hare and Rhys Tyers' digging effort. A magnificent 10m through-trip 📷 *Jarvist Frost*

The fall of Gondolin

The joy of finding a new cave passage, naming it, surveying it is part of the reason why, year after year, I travelled back to Slovenia to live on the mountain with fellow cavers.

There would generally be a couple of weeks before leaving the UK, when, with a keen eye I would comb google earth imagery or LiDAR data and try to find likely new entrances. These sessions generally end staring at a rotating survey and speculating wildly about unlikely but cool connections. As a result, finding a new, going cave played on my mind for a couple of years, but there was little room for this in the vicinity of the plateau, where many shakeholes have been recorded, some descended, a few declared dead. Most are question marks, pending further investigation, for which there is little enthusiasm, time or even manpower. Why? Because it is hard to trade a going lead (even if it means a twelve to fourteen hours trip to properly push) for uncertainty. And so my little list of possible surface projects grows longer every year, why, even this year I only spent four to five days exploring caves which weren't PRIMADONA.

But this year was a little different too: whilst browsing the previous year's photographs I spotted the abseil cliff face. It had been a full week's job to find the right valley and bolt the abseil to the entrance of PRIMADONA. One of the days, Jack and I walked up the 1500m contour path to KRN, passing several valleys before seeing a magnificent rock bridge spanning the gorge. We knew then that PRIMADONA would lie around the next buttress of grey rock. This bridge was visible on the photograph, so was PRIMA's gaping entrance and the buttress. Moving further north I spotted MONATIP, B9 and PLANIKA. All of these had been entrances to going caves, all had been abseiled to from the western edge of the plateau. Further north was another valley with a cave-looking recess. Could this be another PRIMA? or another MONATIP?

There was only one way to find out. The first step was to retrace the valley, and thankfully, I could work on the back Jarvist's really useful 2006 reconnaissance trip. The chance to go with him to V08 arose on a very foggy day. Roused from bivi apathy by Jack's opportune appetite for splitting rock apart in a surface dig, five of us wandered over to Hare cave, which is part of a series of deep shakeholes between Sunset Spot and the edge of the Plateau. Jarv and I raked the place over in search of the previously GPS'ed entrances. Leaving Rhys and Jack to their feathers and wedges, Jarv and I wandered north via the KUK path, thence west past the B10 surface dig and down a scree filled hanging valley.

This, we recognised immediately as the right way down: Jarv spotted the cave entrances he had logged a decade previously. On the southern side of the valley were two very large inviting entrances, connected by a short through trip, but choked with the present boulder floor of the valley. Further out, was a hole in the cliff which rather looked like a small meander exposed by the cliff formation.



(a)



(b)

Further out, and beneath an overhang I knew lay the recess spotted from the photograph. I'd taken the picture a very long way down, at the sources of the TOLMINKA, which we could sometimes see as clouds whirled around us. I much preferred the thick blanketing fog and blissful ignorance, to the vertigo inducing dipping beds!

This done, the next step was to bolt down to the cave. Surprisingly, no one seemed keen to come down with me, although Janet did offer to check up on me. Gathering a bolting kit, some rope and a good deal of self-confidence (maybe too much?) I started down the valley. Securing myself with two slings, I started bolting. Hand-bolting took a little bit of time to get used back to, but the difficulty increase was only gradual. The first bolt was put standing on a nice fat ledge, the second kneeling on sloping grass, the third on a foot-wide ledge, with a kilometre drop underneath.

Then I dithered for a what seemed a long time, conscious both that I was secure on well-placed bolts, that it was no different to being in a cave, on say a large pitch like CONCORDE, but that no one had abseiled that way, ever. Finding a comfortable spot on the very last footholds before the overhang, it slowly put in the last bolt. When this was done came the moment of truth: descending slowly I looked up at the recess and blinked.

There was indeed a cave entrance, and after scrambling up the slope to a scree ledge where I added a bolt, I slowly crawled into

Figure 137: (a) The V08 valley with a cave riddled southern wall and massive scree on a foggy day 📷 *Jarvist Frost* (b) Rigging the abseil down to GONDOLIN cave from the V08 valley 📷 *Jack Hare*

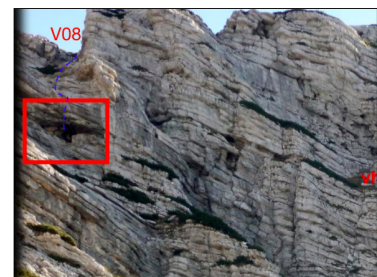


Figure 138: The entrance of Gondolin cave 📷 *Maks Merela*

the cave. The rock was very shattered and loose and there was light draught issuing from a circular hole. Poking my head in, I swallowed a cry of joy: a cave of good dimensions, with a pitch. A real cave, which I named GONDOLIN.

I had then expected to go up to a packed bivi, announcing the good news - and getting a large pat on the back by the by. Unfortunately there was not a soul there, where was Janet? It was mid-afternoon, so cavers wouldn't be out for hours, and I had no idea where everyone else had disappeared off to. It was only when finishing the report in the logbook, that Ben came down into the bivi. He was quite excited at the news, so we set off to surface survey to the entrance of the cave from the big cairn.

The next day, Jack joined us for the pushing of 'GONDOLIN', the 'Hidden Stone' realm from Tolkien's legendary middle earth. Also, doesn't 'doline' also mean valley in Slovene? ³².

The rigging of the abseil was such that it necessitated a five metre pendulum over the TOLMINKA valley - *Tanguy, you are insane!* said Jack - but afterwards, the cave got better and what followed was a good day of exploration, filming and surveying. We checked leads methodically and declared them dead as we went.

GONDOLIN fell after the third pitch but it certainly had us going. The top of the last pitch, looked, after extensive gardening, draughty, spacious in short very promising indeed. Some inventive sling geometry for a deviation enabled us to descend the drop - we had run out

*...Ben came down into the bivi.
He was quite excited at the
news...*

³² that is corny, but I challenge anyone else to make sindaro-slovene puns



Figure 139: Ben Honan ascending the 5m pendulum in and out of GONDOLIN cave 📷 Jack Hare



of bolts by then - on a large scree pile. At the bottom was a chamber with several cupolas in the ceiling and a large, but soon choked up, 2×6 m passage.

The remaining lead was a tight meander Jack had previously inserted himself into, whilst Ben rigged and bolted. It was furiously draughting too, and so remained our only hope for downwards development. After several doglegs I saw a light in front of me. 'hey ho' I shouted, a little confused that somehow I had got turned around or that Jack who had seconds ago been behind in the rift had found a quick bypass.

An answer came back, but from behind, in Jack's voice and certainly not from the light I could see so clearly in front. Then it dawned on me that it was a small hole connecting with the surface which, seen at a distance of ten metres had fooled me. The draught was explained, but I had no real desire to investigate the opening. Sighing with disappointment I explained the situation to the others and we carried on the survey out of the now nearly dead cave.

Before our final ascent into the sunlight, Jack interviewed us and documented the cave with photographs. The siege of GONDOLIN was thus finished, and saying goodbye fondly to this little 113 m long cave, I looked further along the cliff face, where another dark recess beckoned. Next year...

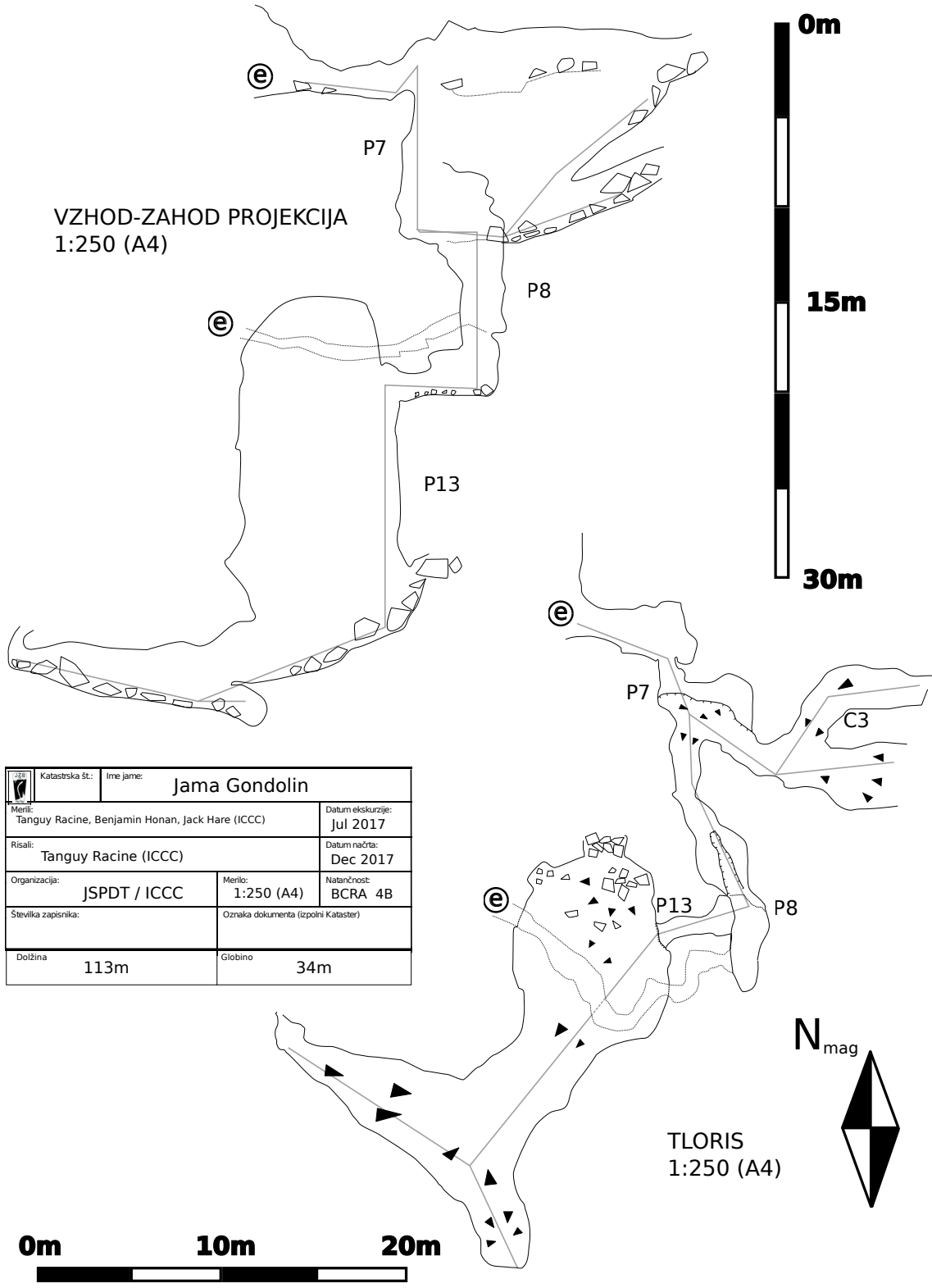
Tanguy Racine

Figure 140: Looking out at the lights of Italy from the SUNSET SPOT 📷 *Jarvist Frost*

...it was a small hole connecting with the surfac...

Jama Gondolin

VZHOD-ZAHOD PROJEKCIJA
1:250 (A4)

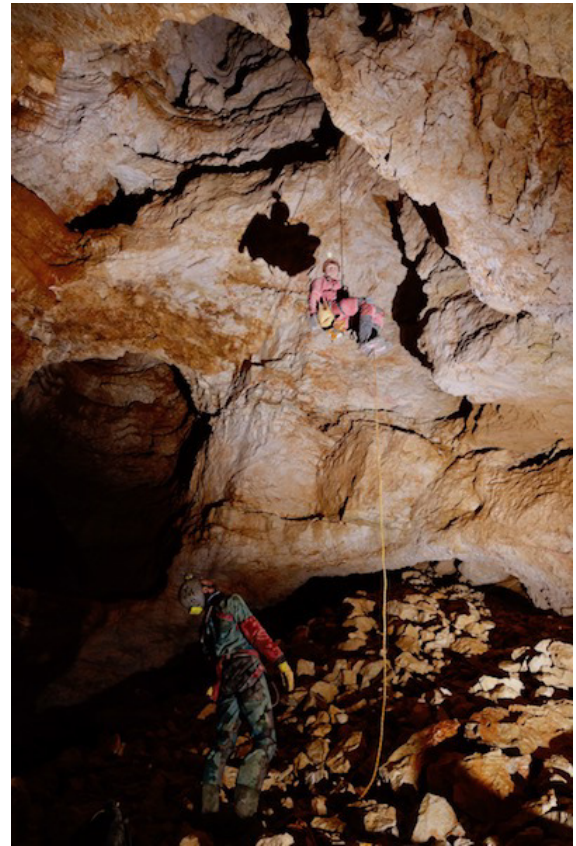


Katastrska št.:	Ime jame: Jama Gondolin	
Merilo: Tanguy Racine, Benjamin Honan, Jack Hare (ICCC)	Datum ekspurzije: Jul 2017	
Risali: Tanguy Racine (ICCC)	Datum načrta: Dec 2017	
Organizacija: JSPDT / ICCC	Merilo: 1:250 (A4)	Natančnost: BCRA 4B
Številka zapisnika:	Oznaka dokumenta (izpolni Kataster)	
Dolžina: 113m	Globino: 34m	

Survey 35: Extended Elevation and plan view of GONDOLIN // Tanguy Racine, bivi logbook



(a)



(b)



(c)

Figure 141: (a) Ben Honan surveying at the permanent survey station (bottom of GONDOLIN) (b) The third pitch in GONDOLIN, with several side avens and cupolas lands on a large rock pile. (c) Although promising looking, the bottom of GONDOLIN was choked with frost shattered rock piles 📷 Jack Hare



Electric Dreams

- Jack Hare
- Dave Wilson II
- Rhys Tyers

³³ Due to some confusion at the time of pushing, we called it KARSTAWAY pitch, it had been surveyed previously as ROKOVO BREZNO, the name which appears on the survey



Figure 142: Early on in the 2017 expedition, a rebolting project for the surface abseil to PRIMADONA took place; here Kenneth Tan takes down a tackle sack of new 11mm rope for the job 📷 Rhys Tyers

Playing the traverse game over Karstaway

Electric Dreams

My favourite pushing trip of 2016 was KARSTAWAY, a 30 m undescended shaft left unexplored by the JSPDT ³³ which yielded a huge amount of passage and a connection into the TTT branch. But the survey showed that the Slovenians had actually passed over the top of this pitch and into passage beyond. They left more undropped shafts, but they were sure it connected into TTT.

I identified Davie Dubz as a man who would enjoy sitting around for hours whilst I bolted a route up above the huge pitch. Equipped with drills and rope, we set off down to the pitch head, and I helpfully pointed out facts and cave trivia to Davie, like where Arun and Will waited for rescue last year.

At the pitch head, I was suddenly unsure. The drop is large, and there was no obvious way up over it. Surely the Slovenians hadn't just free climbed over a 40 m drop (they had done just this, it turned out.) I back tracked, found part of the rift that I could free climb up in, and began placing bolts. First I dropped a rope for Davie, who joined me on the upper level. He dug a small hollow in the soft mud and lowered himself into it for warmth, pronouncing himself completely content. I began to bolt.

The first few were easy, with passable foot holds as the false floor dropped away. Then I encountered a huge slab wedged in the passage. Careful inspection showed that the left wall was also about to flake away, so I carefully crawled over the wedge boulder, bolting only on the right wall. After this I regained a false floor with no way on but a pitch down. Dropping this pitch a few metres landed me in a small chamber, containing a rusted steel bolt.

The Slovenians had been here, and I could see the pitch head of KARSTAWAY through a hole in the floor. Concois that the entire floor was probably just propped boulders, I placed a new bolt in this chamber, put the rope in and then abseiled down to KARSTAWAY pitch head.

Now I had a problem - my rope started all the way back in the bottom of the rift, but I needed to derig it all without stranding myself or Davie. After significant thought, I worked it all out, and chopped the rope at the right point before derigging back into the rift above KARSTAWAY.

The trip had taken the whole day, I waste twelve lovely new stainless steel bolts that will never be used again, but we had done it - the way into the route over KARSTAWAY was done. We had walked down the good sized passage until the next pitch, then turned round and headed to the surface, excited to (re-)find a storming lead.

The next trip Rhys opted to join us, lured by promises of 500 m of good walking passage and equipped with his photography kit. Davie rigged the first pitch, a steep slope covered in loose rock. At the bottom was a tight, tall rift full of sharp rock that gripped and tore at



our oversuits. I swung blindly with the bolting hammer, clearing the way as we advanced, cursing all the rope we had with us. I spotted a few boot prints deep in the mud underwater, proof we were merely retracing the steps of others.

Soon we came to a pitch - just a short one mind, but far too deep to free climb, and I perked up at the prospect of finding something new. A Y-hang got me down five metres to a chamber split in two by a large rift. Cautiously I approached, then whooped at the size of the shaft below. I bolted an epic Y-hang on opposite walls (a signature rigging piece, qv. HALL OF THE MOUNTAIN KING) and dropped down to a ledge which contained a large, crystal clear pool.

Rhys and Davie soon joined me, and I stranded them on this ledge as I swung out to drop the rest of the shaft. Davie tried to push a tight phreatic tube behind the lake, but couldn't quite fit, and soon they joined me in the good size, flat bottom chamber at the bottom of the shaft. Lots of water flowed down into this chamber, and one entire wall was missing, leading only into the void.

Rhys took over bolting here, and quick made it out onto a ledge overlooking a large chamber, with plentiful leads at every level. He rigged down, and we dropped into the boulder floored chamber. After quickly checking out a grim looking lead in the floor, we took the obvious way on at the far side of the chamber, through a winding, walkable rift. At the far end we found only darkness - another vast chamber.

The day spent rigging the traverse was worth-while, and we photographed our great find as we prussiked out. In honour of our recent brush with lightning, we named it 'ELECTRIC DREAMS'.

Figure 143: Jack Hare and Dave 'Davie Dubz' Wilson at the bottom of the ELECTRIC DREAMS main pitch 📷 Rhys Tyers

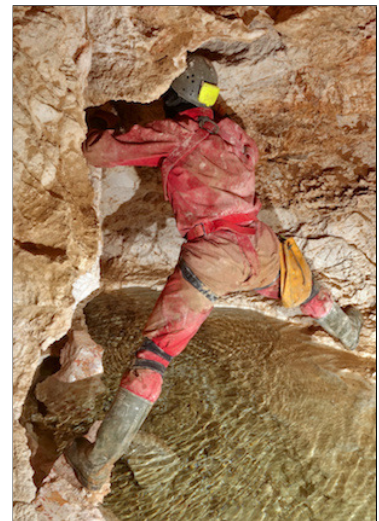



Figure 144: Jack Hare and Dave 'Davie Dubz' Wilson at the bottom of the ELECTRIC DREAMS main pitch 📷 Rhys Tyers

...with plentiful leads at every level...



Figure 145: Dave Wilson standing over the clear pool attempts to push a very tight rift 📷 Rhys Tyers

 Stranglehold

- Jack Hare
- Dave Wilson II

...Davey joined me, and we soon realised the rift was too tight for any progress...

Stranglehold

The lure of ELECTRIC DREAMS was strong, and soon Davie and I returned. The rift crawl didn't seem as tough this time, and we were soon down in the large chamber. Turning to Davey, I asked a question I instantly regretted - 'Which lead do you want to push first?' Instead of opting for the obvious vast chamber down the walking size rift, he plumbed for the tight, scrotty hole in the floor. 'When it dies, we can push the nice lead.' he offered, pragmatically.

One short handline later, we were into an streamway of brown, fragile rock that enjoyed breaking off then stabbing you in the knee. Davey enjoyed himself immensely, and gave up several times before I pointed out bypasses to the various sumps and ducks. After much thrutching, we broke out into a small pitch which I inadvisably free climbed before going back for the drill.

To keep Davey warm, I set him off putting up survey cairns for the way back out. I was soon down at the bottom of a shaft that broke into a narrow, hading rift. Davey joined me, and we soon realised the rift was too tight for any progress. Fortunately there was a phreatic tube a metre or so off the floor, and after crawling through this we broke out above the rift.

The draft was strong, and the rift opened into a boulder collapse chamber, entered via a short free climb down. I was quite sketched

out when I got down - huge stacked boulders, seemingly unsupported and ready to fall, so I asked Davey to stay put whilst I checked it out. I hurriedly looked into every likely lead, but they were all too tight and too sketchy. We back tracked, and named our find 'STRANGLEHOLD' - a phreatic tube ended by a choke.

Not ready to be done yet, I realised that the passage continued on the other side at the top of the shaft. I hastily converted the long hang into a very silly swing pitch (2m down, 5m sideways...) ³⁴ and reached the passage on the other side. The passage was tight and sharp, but dry. We free climbed a few drops that we later put handlines on, and squeezed and grovelled through some tight bits.

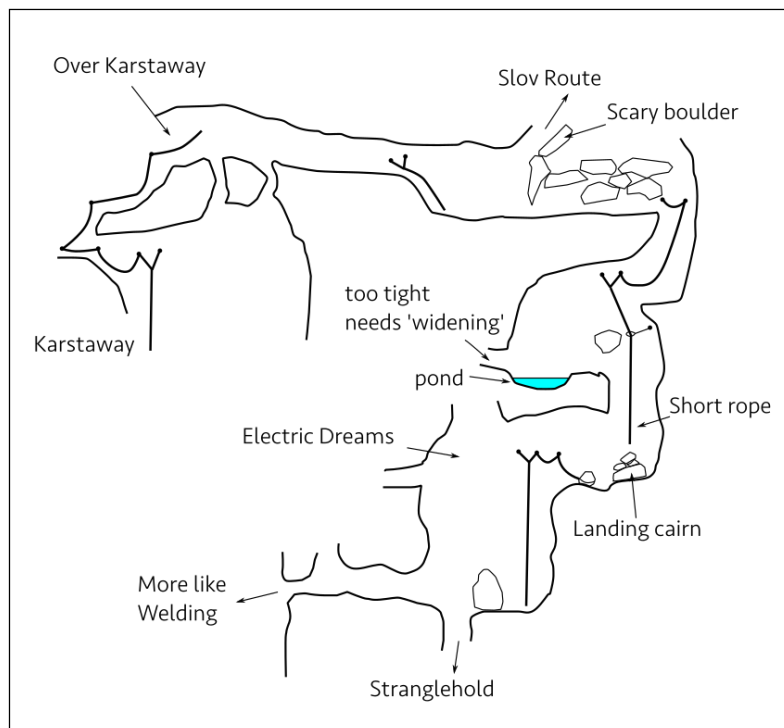
At the bottom of short pitch I tapped a blade of rock with my foot as I climbed down. It rang out with a perfect, clear note that took a long time to die away - a natural tuning fork, formed by nature, and found by us. Only Tanguy has also heard it, so that's three people in the world. Such events are the true beauty of cave exploration.

Onwards, and we broke out into a huge rift. We arrived at the top of a large pile of rocks, and after bolting a traverse down some of the way I backtracked and began to garden. Using my feet (steel toe capped wellies are great) I progressively eroded the slope of very loose, large rocks over the course of thirty minutes. Davey gawped at the noise and the sight of so many rocks disappearing down the rift below.

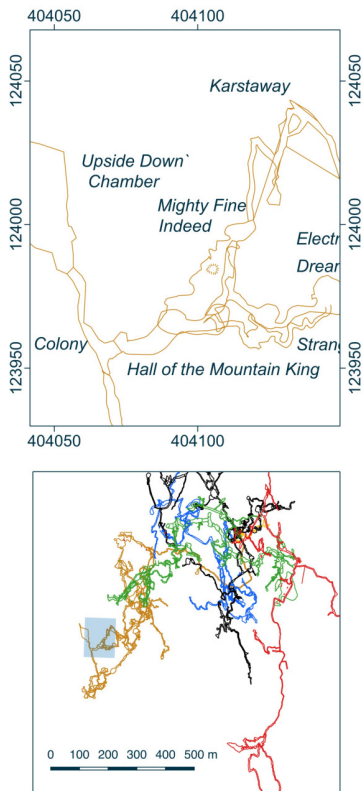
Eventually I was happy to continue down. There were huge wedged boulders the size of houses on either side, but I tried to find some true wall in which to place my bolts. One good Y-hang and I started down.

³⁴ Note of the editor: the eventual connection of STRANGLEHOLD with the HALL OF THE MOUNTAIN KING cancelled the need for this obstacle

...It rang out with a perfect, clear note that took a long time to die away - a natural tuning fork...



Survey 36: Extended Elevation of Electric Dreams series *Jack Hare, bivi logbook*



Survey 37: Plan view of the Electric Dreams and Stranglehold extensions over the top of the HALL OF THE MOUNTAIN KING. Slovenian National Grid ESPG 3794

³⁵ This intuition was nearly correct, as HALL OF THE MOUNTAIN KING was accessed from the next pitch down.

...I collapsed, lying on the floor until someone shoved a mess tin my way...

Soon I realised the size of this rift - at least thirty or so metres down, and reminiscent of HALL OF THE MOUNTAIN KING, which I'd also found last year. But I could see no familiar markers to confirm that it was HOTMK, and as I descended I became more sure it was somewhere new.

The rope began to twang above me, never a good noise when you're dangling some ten metres above the ground. I looked around for somewhere to put a deviation, out of bolts and maillons. I spent some time swinging around before I realised I was too tired, and too freaked out to continue.

Reluctantly, I dropped my rope to the bottom to check it could reach, and then prussiked out, leaving it there. I figured if it was HALL OF THE MOUNTAIN KING then someone else might find it there and confirm where I'd dropped into³⁵.

Reunited with a very cold David, we began to survey out. It took a very long time, and David's survey station placement near the end left something to be desired. I taught him a few tricks to speed things up, and finally we were done.

As we hurried out of the cave, I realised we would miss our call out. I was furious with myself, as I was always hard on others who did that. I pushed myself as hard as I could to get to the surface, my vision swimming and head pounding as I prussiked up the cliff abseil. DW saw our lights at 9:58 pm, effectively cancelling our call out with two minutes to go.

Back at the bivi I collapsed, lying on the floor until someone shoved a mess tin my way. I ate mechanically until I'd recovered enough to tell the others (worried at my uncharacteristically quiet state) what we'd found. Probably my best pushing trip of 2017, and props to Davey for choosing to push the shit lead.

Jack Hare

Pushing a stream passage to its natural conclusion

'RAOUL BOLT'S BIG SHAFT' said Rhys, grinning.

'Eh?'

'Here... He pointed at the extended elevation print out, next to a pickle splodge. The greasy fingernail stopped on an undescended shaft along the SMER0 gallery.

Ben stepped in 'Yes, that's where we're going today. We're taking a drill and loads of bolts. Raoul Bolt's Big Shaft is going BIG.'

I remembered Rhys asking about the lead over email a couple of months previously, when it was still marked as a large undescended shaft at a shallow level of the system. The conversation had concluded along the terms of 'someone definitely needs to check this out during the summer'.

'So actually Rik went there back in... 2006, I think it was, Jarv said, it was on the October super action pushing trip. There were a dozen Slovenes, and one driver between them. Jana and I went exploring a little maze of phreatics just above the shaft itself while Rik bolted, otherwise we'd have got very cold. There were some Italian climbers, one of them bolt climbing into SMER1 who dumped a shit right at the top, probably as consequence of the adrenaline rush. In the end Rik dropped the rope but never went down. Ongoing.'

I wished them good luck as they exited the bivi, laden with tackle-sacks and a small amount of rope. SMER0, a large, old phreatic trunk passage could be found at the bottom of KNOT VERY GOOD, and reached via several ways: a bolt traverse step from the top of boulder pile into the muddy window, or a muddy crawl (THE STILE) which connected further with the main passage. From then on, I tried to visualise where Rhys and Ben would go: the tube had been undercut by a vadose streamway, offering a variety of options, some saner, some more spacious than others. Mainly, there were climbs onto thick sediment banks: in some places the trunk passage had been filled almost to the roof.

That was before the gallery took a turn toward the north (direction 0, hence the passage name), where it intersected a fracture: this meant the cave double back underneath the main PRIMADONA entrance series. There the roof lifted in what appeared to be a multilevel rift with major breakdown. At the top of a certain boulder pile, Rhys and Ben would spot a rope leading up, the climb into SMER1, and further along, with the rift widening, they would be forced to climb down between large slabs of rock to face a zone of greater collapse still.

It later transpired, as they straggled back towards the sunset spot, that this was as far as they had got, more information on page 253 espying a carbide marking (39) on the wall. Failing to find the start of this bolted but undescended pitch, they had chosen instead to push a less promising looking lead, that yielded some pitches nonetheless. The big shaft had to wait...

'I'm caving tomorrow' said Jarv, 'my last trip in PRIMADONA this year'. I took him up on the offer and we concocted a plan to find Rik's



Smér0

- Tanguy Racine
- Jarvist Frost



(a)

(b)



(c)

Figure 146: (a) SMER0 passage near KNOT VERY GOOD pitch, where phreatic solution cupolas are still visible 📷 *Rhys Tyers* (b) Sediment back up in one alcove 1-2m above the sump level. Phreatic solution pockets visible in the (low) roof. (c) The perched sump (-390m below M2) in JACK OF HEARTS approximately 1m deep and crystal clear 📷 *Jarvist Frost*

pitch at last, and descend it. Choosing a 7am callout to give us plenty of time, we entered the cave brimming with confidence and that sort of determination which so often characterises one's 'last opportunity to push' in a given year.

As we arrived at the carbide mark in SMER0, we looked for the way on, which was to be found after a little climb into a tight rift oxbow, bypassing the zone of collapse altogether. On the other side, the glistening walls of a continuing rift beckoned. The familiar sight of a 'Y-hang' greeted us on the edge of dark chasm. This was Rik's pitch without a doubt, as described back in 2006. Supposedly, SMER0 passage continues beyond the pitch to a vast aven chamber (SALOME

VIADOS), but in the absence of traverse line over the chasm (no need apparently, since a climb up into the rift leads to the maze of phreatic passages Jarv had described previously).

Well, here was a rigged pitch, the anchors looked solid, the rope rigged to acceptable standards. On the way down, I passed a rebelay I reajusted immediately, then zipped down to a sprayed boulder pile. Next to my landing was a large pile of rope all nicely coiled up, just waiting to be used: the perfect find. This auspicious sign could only mean that we were about find pitches without end and caverns measureless. Jarv joined me, and we started rigging the streamway pitches that followed: small chamber after small chamber followed, each more beautifully equipped than the last. All the while, Jarv filming our progress, detailing the more menial tasks necessary to the smooth running of a push.

At last, Jarv went down, landing a pristine puddle, at the start of what seemed a well-scalloped meandering stream passage. As I followed, I could hear the excitement in his voice, an excitement no doubt palpable in the corresponding 'vox populi' he filmed then. The stream had a reasonable amount of water, and there was a slight draught due to the waterfall pitches we had encountered. A couple of twists and turns later however, the water plunged noisily in a deep pool (by which unavoidable welly filling is meant).

'Do you have the compass Jarv? I'd be interested to see in which direction the passage is heading.'

'Weren't you supposed to have it?' came the answer, followed by the rustle and scratch of an oversuit opened up. 'I don't have it on me, let's check the darren drum... hmm, no. Not in there'.

'Okay, we definitely brought them down, since you surveyed the blind pit we rigged first'.

It later transpired (again) that I had taken the instruments out of a darren drum whilst looking for the rope cutting kit.³⁶ They were now several small pitches behind, by a pool of water: not my finest moment!

But the passage continued for a little past the pool, all the while getting smaller and gloomier looking. A minuscule inlet sprayed water everywhere, like the pissing boy in Brussels, it was aimed directly at a bench of limestone on the opposite wall. After that, an awkward squeeze where it just about possible to avoid dipping a knee in the stream.

Finally round a corner, the end was reached where the ceiling of the passage lowered inexorably to meet the edge of blue-green pool of water. My first sump!

'We've lost the draught entirely, but there's *always* a sump bypass isn't there?' I asked tentatively. 'That's not a water level sump' confirmed Jarv. 'Looks beautiful actually, do you mind holding the flash? The water's very still except when the droplets hit the surface so we'll try to capture that.'

After the photography session, we looked in vain for a sump bypass and resigned ourselves to restart the surveying. Jarv noted that



Figure 147: Tanguy bolting in JACK OF HEARTS streamway

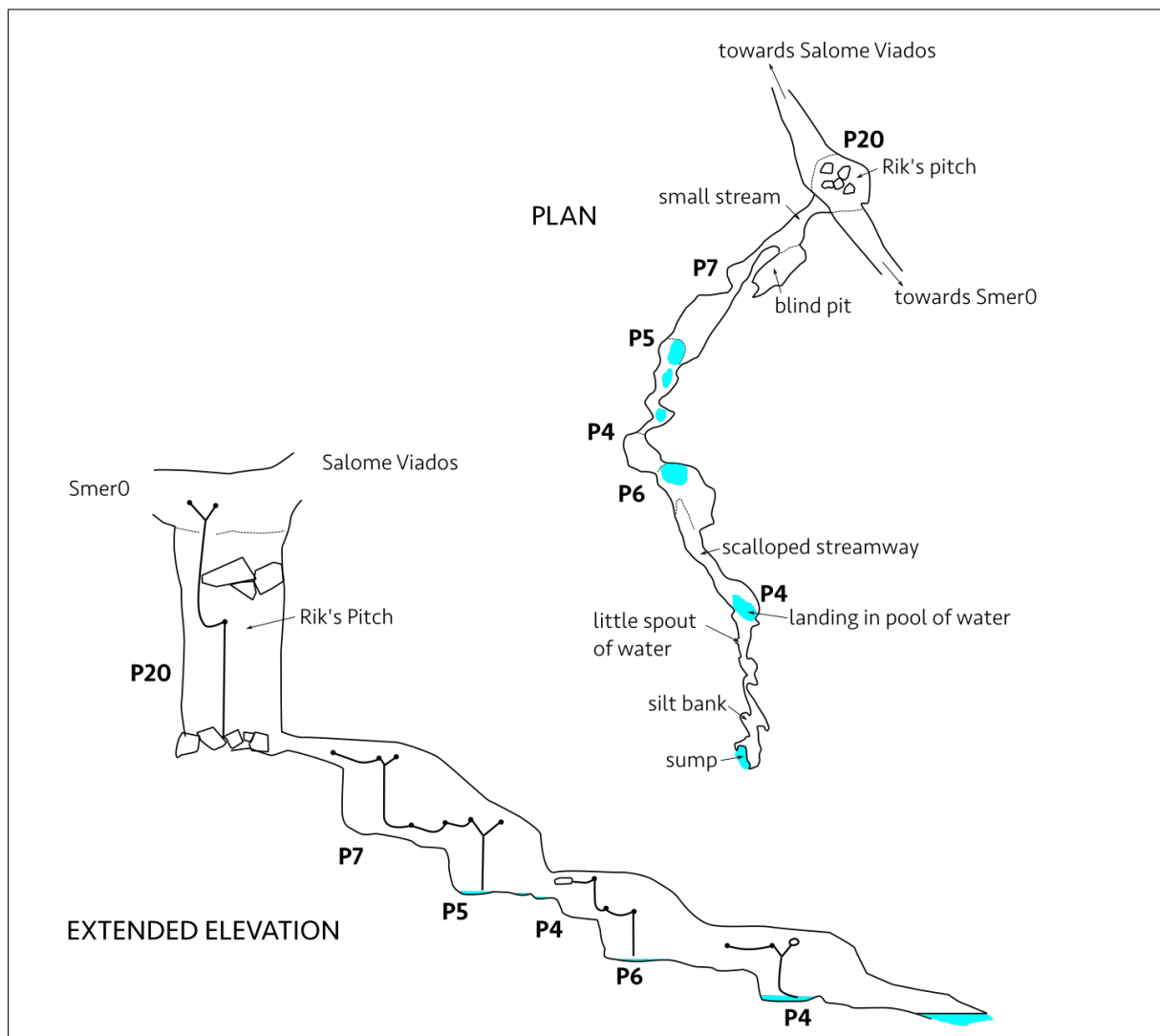
📷 Jarvist Frost

³⁶ the rope cutting kit usually comprises a lighter, a knife and some brightly coloured electrical tape; this enables the loose nylon strands to melt and blend under the heat instead of unravelling like a pom-pom.

the name of station in *Survex*, our digital survey software need not be a number but could be any string of characters. He therefore called our first station 'SUMP'. What followed was a serious session of mapping (though nowhere as long as our first resurvey of the TTT branch, which had necessitated 47 stations in total).

With no leads, inlets or tubes along the way up to SMER0, we decided to derig the entire series, which had dropped some 70 m vertically, and brought the ropes back to MARY'S CAFÉ. By the time Jarv rustled up a morale boosting mix of crushed oatcakes and sardines, it was well past midnight. Calling it a day, we ascended out to the sight of stars vanishing in the east.

Tanguy Racine



Survey 38: Extended Elevation of JACK OF HEARTS series // Tanguy Racine, *bivi* logbook

Explorations of the TTT branch

A mind-bending survey trip near Mandare

I hadn't yet gone caving properly with Diss this year, and only once with Larry earlier in the expedition — the aim had been to retrieve SIMON, a tackle sack I accidentally let fall down GLADIATORS TRAVERSE in 2016. The first trip had mainly served to put a couple of bolts in the far wall and descend a bit towards a ledge overlooking MIG COUNTRY, while Larry tried to keep warm in a makeshift tent higher up, in Hotline, possibly the breeziest passage in the SYSTEM. It took a second day and further bolt to retrieve the bag, and third trip to bring it to the surface — all thanks go to Jimmy Dubz there...

It was midway through the expedition, I'd gone on two long trips with Jarv and was keen to do something different. Carrying on with the resurvey of the TTT branch seemed a good place to teach the technique to both Diss and Larry, and I knew of one passage which didn't appear on the survey, although it had been trodden before, and it was near MANDARE junction, a place which has fascinated me since the trip with Clare in 2016. I was much more of it this year, and yet it still holds an air of mysterious significance. Maybe because it looks so like a cross-roads, has water disappearing and an unexplored, SE trending bolt climb.

I resolved to make an end to the mysteries of MANDARE, and look at the STARA JAMA or 'old cave' branch as well. Down we went, Larry, Diss and then I — I dislodged far too many rocks on that trip, but Diss remained calm as ever. Over those two years, and either because I sold it so after the 2016 expedition or because most of the trips there seemed to involve an exit in the small hours of the morning, the TTT branch built a reputation of being tough and scary. It undoubtedly is, I have no doubt, but the variety of passage, from dusty white



- Tanguy Racine
- Rebecca Diss
- Larry Jiyu Jiang



(a)



(b)

Figure 148: (a) Passage with grape-like formations near POVEZAVA aven (b) MARY'S CAFÉ 📷 Jarvist Frost



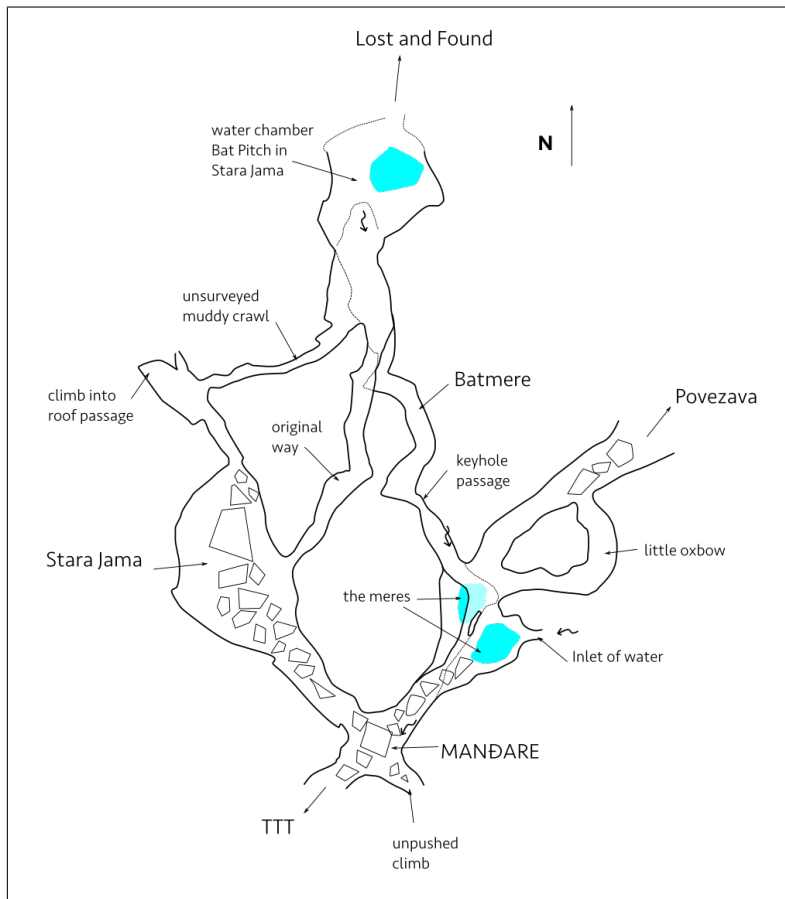
(a)
 Figure 149: (a) Peculiar calcite formations in the POVEZAVA branch, at the highest level of the rift (b) The POVEZAVA passage 📷 *Jarvist Frost*

MLINOTEST passage, improbable pools and entertaining squeezes to traverses and big pitches makes for adventurous caving where there is no chance of getting bored.

The place I wanted to survey was not far from MANDARE, but since I knew the cairn at the junction was a PSS from 2001, we started there, dropping down the drippy chamber to the mid-level of rift, back towards POVEZAVA aven. Upstream, we dropped to the water level, and a few metres on, were in a small chamber with a pool. The body of water is fed from two inlets: one comes in through the roof and cascades down — this water we passed on the way to MANDARE when staying at the highest level of the rift. The other emerges from a typical keyhole passage. Climbing up and upstream, we carried on along the twisting passage; it had a beautifully scalloped ceiling, such as DÉJÀ VU. But then it degenerated: sharp protruding blades of rock, and the necessity to squeeze and climb.

We emerged in a big space, or rather could hear the echo of a large chamber, the exaggerated gurgle of water cascading down. And still we could see footprints, traces that someone had been there before. Were they Jarv and Clare's, who had had some trouble on their way back from MANDARE? — it is so easy to miss one level of the rift, a mistake compounded by the presence of the two, near identical puddles at different levels.

I climbed up higher in the rift, dislodging clumps of red mud and pebbles of white rock, trying desperately to find a way into the waterfall chamber, or at least to find the draught. Indeed, on the side of muddy ledge, where someone had obviously climbed, a muddy tube led off, draughting faintly. I followed this eagerly, knowing that this was not on the survey at all, keen to find out where it led off and why it hadn't been surveyed.



Survey 39: Batmere grade 1 plan and extended elevation
✍ Tanguy Racine, bivi logbook

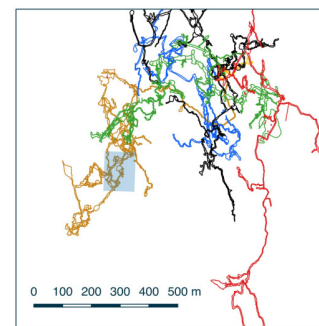
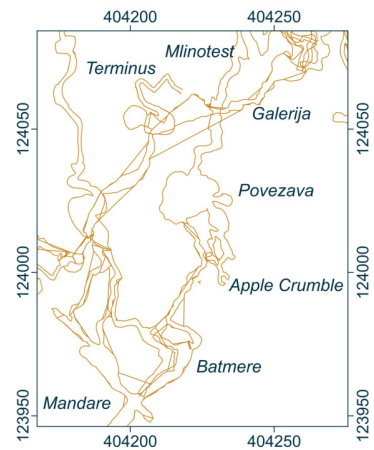
Eventually, I reached a small climb down into a fault controlled, clean washed chamber. At the time, I couldn't find any possible way on, except for a tricky climb up, which doubled back over the tube. Leaving this for another day, and thoroughly disorientated, I went to see the others. Diss had kept the book, while Larry chose survey stations and took the tape. I handled the compass and inclinometer.

Struggling for a name, we chose to christen the pool 'mere', and since the only inhabitants of the cave who could make use of the amenity were the local rhinolophids, it became the 'BATMERE'. A couple of days later, I went back with James Wilson and we found two connections between the BATMERE and STARA JAMA. We also found that the entire MANDARE junction is built over four different levels, with a degree of connectivity which defies any description. What an odd place!

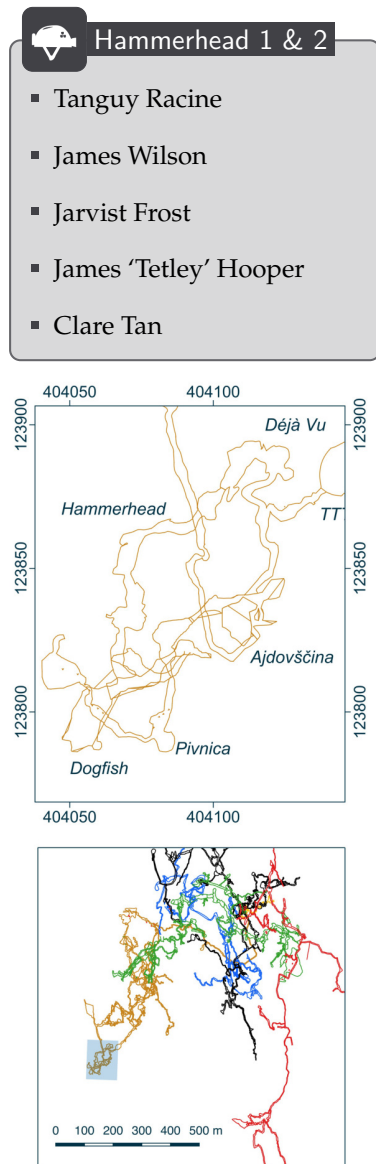
Tanguy Racine

Pushing Hammerhead2 and Dogfish

Having left Jarv and Clare in the HAMMERHEAD branch last time, we were anxious to get back down there and find out what happened



Survey 40: Plan view of the MANDARE junction between STARA JAMA and TTT branches — EPSG 3794



Survey 41: Plan view of the HAMMERHEAD passages, Slovene National Grid EPSG 3794

...It just kept going!...

on the other side of the scree slope. With Tetley now convinced I was capable of a proper solid trip, we planned to leave early and get as much time at the pushing front as possible before turning around for a next-day callout. I agreed to the plan, slightly nervous about the possibility of being underground longer than I'd ever been before (again), but hungry for more leads. Anyway, we could always just eat loads of smash on the way out.

We probably left around 10:30 am, faff streamlined by packing the night before. The entrance abseil and first hour or so to MARY'S CAFÉ were going quicker now I'd done a few trips. We had a brief stop off to pick up some more gear and slings 'n' stuff for speedy (not shonky) rigging. On the way down, we decided to rig the 'SMALL STEP' in the TTT passageway as Tetley got sketched out by the big hole in the floor. This gave me an opportunity to try out hand-bolting for the first time. It took a while, but now that I've tried both ways of bolting I appreciate that it has its uses. We put some signs down in the TTT passageway as well, so we knew where to climb up and down in the rift.

We got down to HAMMERHEAD a bit later and started going down our questionable rigging from last time, preparing to enter unknown territory once more. I climbed up the scree slope at the end of the passage which was manageably loose. The draught continued, with Jarv's PSS paper gently fluttering in the breeze!

Down the other side of the slope about 10 m on it seemed there was a short 2-3 m pitch but it was overhanging so not free-climbable. Tetley let me put the first bolt in to keep warm so I got going. Whilst Tetley was putting the next bolt in, I had a hairy moment whilst changing my batteries – I dropped my helmet and it fell down a crack in the boulders, getting just wedged above an unreachable hole in the floor – phew! I realised the disadvantage of hand-bolting was that we had spent 25 minutes on a pitch we probably could have jumped down although I was happy to carry less gear. I made some nice sandwiches with good thick slices of salami while I waited, but Tetley set his down on a ledge and accidentally gardened it down the pitch.

We got down and landed at the bottom of a scree slope in another large chamber. After a quick search for the sandwich (RIP), we explored the chamber. We went up the slope and found another 10 m pitch to a boulder ledge, and could see further still. It just kept going! We decided to survey this section, adding in a cheeky virtual leg for a pitch that I'd found a long way round to the bottom of. After this, we put the first bolt in for the next pitch when Jarv and Tanguy arrived from AJDOVŠČINA or somewhere like that. As they'd gone for the more modern option of an actual drill, Tanguy offered to help us out and we got down this pitch much quicker.

I went down first and found that the next pitch led down a collapsed boulder slope, but there was a much nicer way down through a pulpit-like window on the left of the chamber. Tanguy bolted and began rigging down whilst Tetley and I surveyed the previous pitch. Jarv did some filming and we made some tea to stave off dehydration.



(a)

(b)

With all four of us working in the chamber, there was an a-team like atmosphere and we soon progressed. Next was a chamber filled with large boulders. There's another way on down in between them in the floor here. The way on was found round to the left of a van-sized rock in the middle, halfway up the slope.

Squeezing round the boulder led to a small chamber with the draught coming straight through the middle of it, with options to go left and right. We picked right first and crawled under a house-sized boulder into a really big chamber. Jarv did some more filming as we looked around but no way was found, we think the draught disappears off into the ceiling in here somewhere.

Tanguy went left and got into a small chamber with a tiny twatty mini phreatic at the end of it, the first difficult bit in the entire section (HAMMERHEAD is pretty airy). He was really happy to find another pitch at the end of this and called us over. By now midnight was approaching and we were reaching turnaround time. As we surveyed the two chambers, it was agreed that sadly we had to start going back as our callout was earlier than Jarv and Tanguy's. We left them at it and began ascending. I'd forgotten how much of HAMMERHEAD we had to get through before we got back to the familiar route back from DÉJÀ VU.

I'd now been awake for a long while and the first wave of tiredness was beginning to hit, so progress on the way out was slow, but steady. After two hours we reached the café, and I was grateful for a rest. Tetley set about food, a combination of citrus kick couscous and tuna. The lime in the couscous mixed with the fish oil, resulting in a layer of bright green oil on top of the food. It didn't look great but it tasted good enough. We left the rest of it for Tanguy and Jarv to discover later, so I think it's also now on film. I'd also been fending off a shit for 5 hours now so I was get keen to get a move on out. Sleepy, but determined, we made our way through the entrance series, pleased

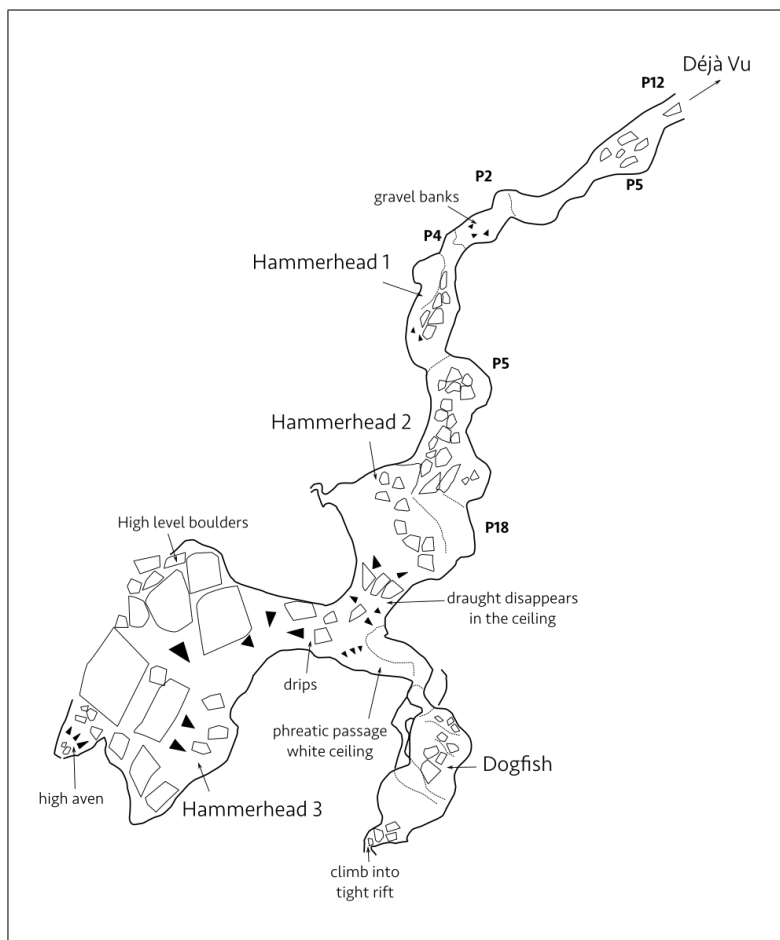
Figure 150: (a) HAMMERHEAD2 chamber is situated at the SW end of PRIMADONA, crossing straight over the deep end. (b) The rigging of the largest HAMMERHEAD2 pitch (P18) starts with a small window on the left-hand side.

📷 Jarvist Frost

...we think the draught disappears off into the ceiling in here somewhere....

...I'd also been fending off a shit for 5 hours now so I was get keen to get a move on out....

Survey 42: Hammerhead (grade 1) *Tanguy Racine, bivvi logbook*



to find that several parts of it had been rerigged since we went down to make them much easier.

Finally, we got to the gaping mouth of PRIMADONA and looked out at the night sky. The cliff abseil in the dark on a clear night is beautiful. We reached the top at about 5:30 am: a 19 hour trip, my longest ever. Guided by DW's flame-grilled stakes we found our way to the BIVI where doughnuts were quickly found and wolfed down after a long-awaited trip to the pit. We had a celebratory Laško, I wrote a one-sentence log entry and went to bed. My favourite trip of expo. Pushing with four people is really fun!

James Wilson

The Lead That Wouldn't Die

All year a particular lead had played at my mind. PRIMADONA is still a bit unknown to us, we had only visited one very small branch last year, and so we have little to go on but the drawn survey. Mostly drawn by people who had never been there and based on creatively acquired surveyed data. However someone had drawn an undescended shaft. It looked like it could be 10 m wide, and had no bottom drawn on so presumably a few hundred metres of pitch was sure to follow. The navigation looked easy, a wander up a large phreatic gallery until the obvious hole in the floor.

So, on my first pushing trip this year I recruited fellow glory seeker Ben and off we went delighted at our machination to steal the best lead in the system. We zipped down 150 m of cliff and then a further 200 m down the cave. We made our way up the gallery (SMER0), now beyond my limited knowledge of the cave, and immediately got lost.

Climbs, crawls, different levels in the passage. Mysterious ropes into the ceiling, strange markings on the wall, a countdown of survey stations scrawled in carbide. Certainly not the amble to fame and greatness that I had promised myself. My bag bulged with a drill, two lions (batteries not cats) and enough metal to get to -1000. Ben's bag strained against the tightly packed pressure of 100 m of rope (it would've been a pull through of course). It was a fairly unpleasant slog. After an hour or so our progress was halted by an impassably small rift with the number 39 written mockingly in huge digits on the wall implying a further 38 survey legs worth of cave somewhere beyond. more information on page 243

Denied our 1000 m deep shaft I was unwilling to return to the surface with no metres in the book so I proposed we bail and go to a lead that I had left last year because it was too unpleasant. Back at the start of SMER0 is a large chamber known as KNOT VERY GOOD. Two streams fall into the chamber from opposite ends, high up in the roof, and disappear under the boulder floor. Last years through a series of unpleasant wet, sharp crawls under the boulders I had found an immature streamway, which eventually led to my lead; a small undescended pitch.

I was not excited by it due to the general habit of all water in the system to disappear into tiny cracks, especially water in already small streamways. Still, it was close and we were desperate.

Tanguy has also explored in the same area and had found an alternate way to my crap streamway through a series of horrifically muddy crawls. I chose the mud, as it was slightly more pleasant than the sharp crawls. I went the wrong way and Ben and I ended up doing both the muddy and sharp crawls.

As well as being crap my route finding was also rather inauspicious. We ended up going right by where I assume Arun had his injury last year. I chose not to mention this to Ben at the time, keen to maintain the small amount of morale we had.

Eventually, covered in cuts and mud, we arrived at the pitch head



Fenestrator

- Rhys Tyers
- Ben Honan

*...My bag bulged with a drill,
two lions (batteries not cats) and
enough metal to get to -1000....*



(a)

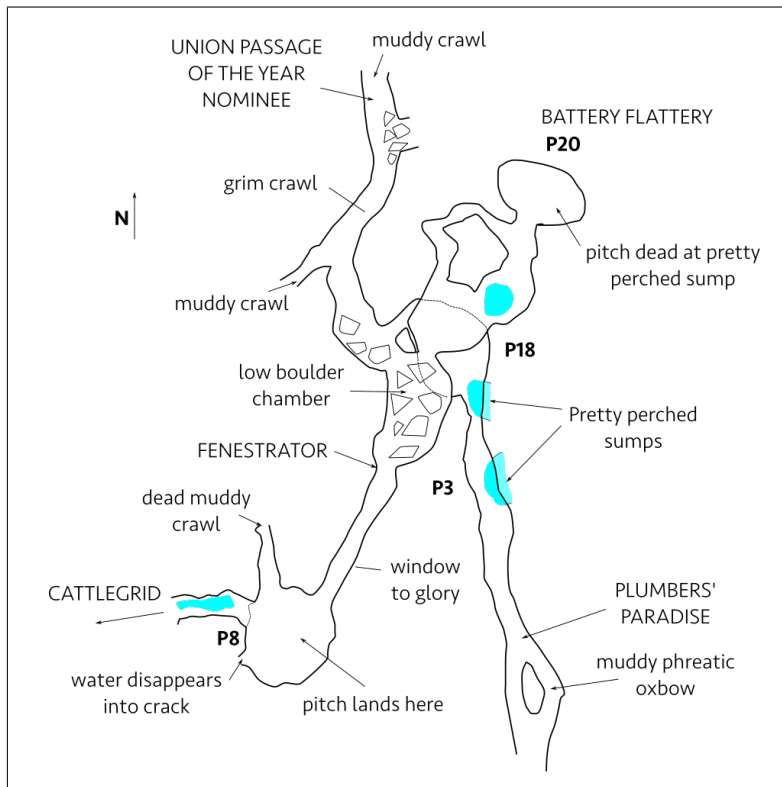
(b)

Figure 151: (a) Rebecca Diss starts the descent above KNOT VERY GOOD pitch. (b) Dave Wilson and Jack Hare illuminate the wide pitch base where GALERIJA and SMERO passages branch off 📷 Rhys Tyers

and we got to work. This was Ben's first time placing drill bolts. I supervised him for the first couple and then went to scout out a less shit way out / avoid dying of hyperthermia as he placed a couple more. I returned to a classic traverse out to a Y-hang. We dropped 7 or 8 m to the floor below.

At the bottom I was tragically proved right. The work-shy streamway had given up carving an anthropic passage and contented itself with a 5 cm wide crack. Ben forced his way into an awful muddy tube nearby desperate to find a way on, finding only disappointment. Whilst he extracted himself I scanned the walls of the pitch. An incredibly obvious window presented itself. I did an awkward climb up to it and scraped into the awkward passage beyond. A narrow diagonally slanting tube led off. A few metres on I could see an enlargement. I popped out into a small collapsed chamber and called back for Ben to follow. 'It goes! Come up!'

The obvious passage lead off through a couple of small chambers with crystal clear pools before, at a constriction, diving down a pitch. The angle was awkward and we couldn't see down but it was obviously bigger than what we'd come in one. Not bad for a shit backup lead we thought. Our celebration lasted until we remembered the shit we'd crawled through to get here. Still, with an inspiring shaft to return to, we made it out eager to spread news of 'FENESTRATOR'.



Survey 43: The topology of the FENESTRATOR branch *Rhys Tyers, surface logbook*

A few days later we I returned, this time with Clare and Diss eager to show off our fantastic lead. In the spirit of the expedition we'd done a few good works on the way. Bolting some small free climbs and making them into safe little pitches. Our debts to the caving gods paid up front, we thought, we were sure to find something big. We arrived at the top of the pitch and Ben set to work. Half a bolt later the drill starting whining in a sickeningly low note. The battery was dead! We'd been lulled into a false sense security by the general reliability of the batteries and this was the first time we hadn't brought a spare. We suspect this battery was misfiled into the full pile. Accident or sabotage? Despite my best efforts no one was interested in a witch hunt so the answer is lost to time.

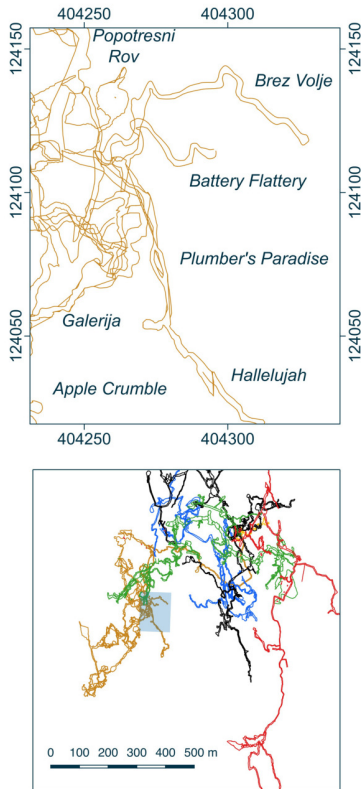
If the good works were not enough then we clearly had moral deficiencies to repent for. Pushing a grim crawl is the obvious way to do so. (Un)luckily for us there was one adjacent to our pitch head. Clare and I, connoisseurs of small passages, dived into the body sized tube. We were reluctantly followed by Diss, with Ben electing to guard the top against cave bears.

Clare lead for a few metres before stopping, giggling nervously. Ahead the passage was lined with dry mud, got tighter and turned a corner. She graciously allowed me the first go at it and I slipped down. I arrived in a delightful u-bend and carried on. The passage continued, deliciously body sized, showing no sign of improvement. It was now my turn to giggle nervously as I approached a second u-

Battery Flattery

- Rhys Tyers
- Ben Honan
- Clare Tan
- Rebecca Diss

...Clare and I, connoisseurs of small passages, dived into the body sized tube....



Survey 44: Plan view of the HALLELUJAH branch. Slovenian National Grid ESPG 3794



bend almost full of soft mud. Clare's echoey voice egged me on and I slid down. It was surprisingly dry and pleasant, and easy to wallow through. On the other side the passage continued. Another corner, a final u-bend brought me into a chamber! I called back that it was going, encouraging Clare to join me. Then I heard Ben. 'Where are you?' I called. 'Here' he called back, helpfully. Rounding a corner I find him standing next to our body sized tube. Two leads crossed off for the price of one then.

Another lead beckoned and this time we encouraged Diss to take the first steps. A squeeze down into a slanted stoop that gradually deteriorated to an awkward crawl. A collapsed chamber offered us no easier going and I overtook Diss eventually finding another muddy crawl with the same soft, dry mud. There was not enough airspace above the mud to fit into but it was soft enough that a sort of breast stroke motion was enough to make progress. 10 metres in I could see the passage continuing for at least as long in front of me with no sign of improvement. Visions of a hell in which I was forced to swim through mud for eternity flicked across my mind and I decided I'd had enough, despite an encouraging draught.

We surveyed out, naming our find 'UNION PASSAGE OF THE YEAR NOMINEE', in recognition of a similar honour we had received from the Imperial College Union. On our way out Clare and I noticed a hole in the wall of the crawl, that popped out into a medium sized pitch and agreed that it should be checked out on our next visit. In total we'd left two undescended pitches and two going crawls. Not bad.

Ben Clare and I returned the next day. With two batteries. Ben dropped the pitch we intended to drop the day before. Twenty metres down we landed on a rocky floor, a phreatic tube leading off behind some collapsed bits of wall. Ben had disappeared into it by the time Clare and I arrived so we scurried after him. We found him a few metres on. The tube was walking height and about the same width, very pleasant. The walls and floor were covered in the same sort of dryish mud we'd been wallowing in yesterday. We excitedly shook hands and stomped off down the passage.

Our elation was not to last though. We quickly arrived at a sump with no way on. The sump was beautifully clear, shimmering with a blue green tint but it represented the end of the lead for us so we were perhaps less awed by it than we should have been.

Ben and I surveyed out and Clare went to begin bolting the other pitch we'd found, off the crawl. Regrouping with Clare a little while later we found ourselves in a lovely clean shaft. Clare, with a classic 'how is that even attached' deviation, threaded the rope down the pitch. At the bottom an awkward climb and grim crawl under a scary boulder rewarded the keen caver with another sump. This one had a 'canal' like feel as we couldn't see the end from our vantage point. Clare tried to encourage me to wade in and check out the end but for some reason I wasn't too keen.

We were tired and unenthusiastic at this point. The only way on



(a)

(b)

Figure 152: *a* Dave Kirkpatrick bridging the stream canyon of HALLELUJAH *b* Rebecca Diss and Dave Kirkpatrick standing in PLUMBERS' PARADISE passage 📷 *Rhys Tyers*

we could see was a barely human sized section in a rift halfway up on the opposite wall. I think we were all ready to call it a day but we had 4 bolts left and I'd rather stick them in the wall than carry them out. I climbed up the wall on one side and rigged a traverse into the rift, showering Clare, who was relieving herself directly below me (better than the other way round I guess), with rock dust. It was tight and the rope was mostly for protecting this initial entry. Within the anthropic level continued for 4 metres before narrowing. Just before this though the rift below opened up just enough to get through, and a larger space beyond called to me. With my final two bolts I rigged a Y-hang in a place barely big enough to get the drill in horizontally. It's really a collectors piece of a pitch head. The top is sort of hourglass shaped. You squeeze down to a sitting position below the rope, wiggle out along the rift a bit and carefully hold yourself in the widest bit as you descend. I was quite pleased when another of the expeditions experienced members said that it made him rethink what was possible to bolt.

I dropped a couple of metres to the floor and wandered forward. Another pitch! But about 10 metres down I could see water and I suspected it was the same water as the sump on the other side. I was out of bolts though and was about to turn around when I saw that the passage continued over the top of the pitch. A razor of rock sticking



Figure 153: Rebecca Diss negotiates a climb above the stream canyon in HALLELUJAH

📷 Rhys Tyers

Hallelujah

- Rhys Tyers
- Dave Kirkpatrick
- Rebecca Diss

...being the good little cave explorers we are, we do not push without surveying...

out from the wall as a step allowed me to carefully traverse over to it, still trailing the rope from my previous pitch behind. In front of me was another muddy phreatic tube! I was able to tie the rope off round a large pillar and called for the others to follow.

Having failed to learn from our previous mistakes we shook hands once again. We were sure this was it, hundreds of meters of easy walking passage straight to the lower entrance. We scurried along the stooping tube, excited as it enlarged to walking size. Then the sound of running water! We popped out in a stunning, white, clean streamway. About a metre wide and maybe 15 metres tall.

Here we quickly checked out upstream, finding a small muddy chamber above the stream and being unwilling to do the wet crawl required to follow the water. Then downstream. A lovely series of cascades led us to the end of our trip. The water did what it always does and disappeared into an impassable crack. Beyond the crack was a big space, and the water could be heard falling quite a distance on the other side so we consoled ourselves with the possibility of bring the plugs and feathers or heavier equipment here to break through.

We surveyed out, leaving the rope in because I promised to come back (Clare and Ben were both leaving in the next few days) and kill or continue it. As we surveyed out I pointed out that there could be ways on in the roof, it looked traversable higher up in the passage (oooh, foreshadowing). We named the streamway HALLELUJAH and the rest PLUMBERS' PARADISE.

I did return, several days later. Each day though weakened my resolve to break through the crack, each day it grew tighter and more impenetrable in my memory. The trip I ended up leading was a photo/derig trip as I had abandoned the plan to get through this year. Dave, Diss and I bimbled down to the pushing front taking photos along the way. As we prepared to derig I pointed out to Dave the place in the roof I thought might be traversable. Unusually he climbed the 2 metres straight away and without cajoling (he is normally very lazy). Once up there he nonchalantly called back 'It goes. I think'.

Diss and I shot up after him and, sending Diss in front, we found that it did indeed go. The ledges we climbed up on closed into form a solid floor, distinctly separating us from the streamway below. We rounded a couple of corners to confirm it didn't die but it looked like we had a solid lead. Unfortunately we didn't have a complete surveying kit and being the good little cave explorers we are, we do not push without surveying. We were excited though. Mostly because it meant we didn't have to carry any rope out.

Two days later I was back again. Diss and I, armed with drills, rope, and surveying kit were ready. I was certainly ready for a reward for all our efforts over the past few trips. The passage continued from where we left it, consistently about 3 metres high and a couple wide. Down a small climb (which on the way back required some combined tactics and a self-destructing escape cairn to climb

up) we came to a pitch.

The passage intersected a large chamber. We dropped the 5 metres to the floor. Ignoring an obvious hole in the floor (still a lead!) we walked into the chamber and followed the passage on the other side. An alcove of stunning mud formations presented itself as we walked and we eventually came to a junction. The obvious continuation of the passage veered off to the right but a pleasant looking crawl headed straight on, due South. I was more interested in the crawl. South means blank mountain. South means the lower entrance (eventually).

We popped up into the crawl. We encountered a vertical junction. Below, a lovely little canal which we elected not to explore and above a sandy squeeze. I do like a good squeeze and this was a stunning one. Smooth rock, sandy floor, just bigger than my Ecrin Rock on its side. Diss was leading up until that point but kindly let me go through first (seems to be a pattern). On the other side we found the other end of the canal (I think) and a small chamber, 1 metre high and 4 metres in diameter. Ahead the passage continued at stooping height, stunningly white and sandy, a series of stepped ledges leading off into the distance.

We turned back here. It was my last pushing trip of the expedition. One more team has been back (see Tanguy's report on ALABASTER).

I don't understand this lead at all. So many times it could have died but there was always a way through! Following an immature stream that disappeared into a crack we find a small window in a pitch. Here the obvious way on dies at a sump but a crawl has a tiny window into another pitch. The bottom of this pitch is sumped but there is just barely a passable level in a rift on the other side of the shaft. Beyond, it's just possible to traverse into a passage that inexplicably becomes a muddy phreatic, which happens to join an active streamway! The streamway of course dies, but there happened to be a higher level! And straight into blank mountain!

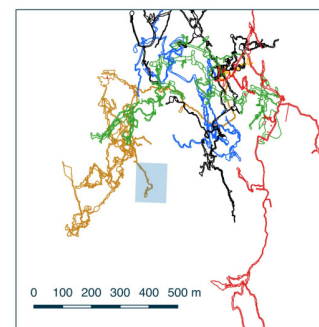
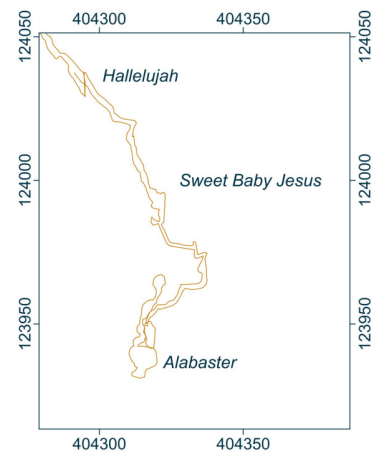
This lead will certainly haunt my thoughts (and talk at the pub) until next year. Only 300 or so days to go.

Rhys Tyers

*...South means blank mountain.
South means the lower entrance
(eventually)...*


Sweet Baby Jesus

- Rhys Tyers
- Rebecca Diss



Survey 45: Plan view of the HALLELUJAH branch. Slovenian National Grid ESPG 3794



Figure 154: Rebecca Diss at the bottom of the first pitch (P6), in the entrance series of Primadona 📷 Rhys Tyers

Life of Diss - an underground odyssey

My first experience of the Slovenia expedition was an exciting one. Partial credit for that does go to the unforeseen weather events (cue crack of lightning) but also to being able to go pushing for the first time. I admittedly didn't go caving all that much but just being on the mountain is awesome.

The first carry up MIG was painful (I think it took us around 4 hours) but we did have lots of breaks and it was fun nonetheless. Comparing this to a later carry during a lightning storm (correction: THE lightning storm) which took 2.5 hours, I think you really do get fitter when you're there. Although perhaps the speed had something to do with the fear of being struck by lightning on the way, who knows. Most of my carries were spent with DKP and Celia who introduced me to the game 'Who Am I' which helped pass the time.

BIVI life is the best life. Unlimited crackers and biscuits with cheese and mysterious sauces that are god knows how old, plus the infamous Vitaminski (really called Čedevita). There is debate over which flavour is the best. Anyone who says anything other than lemon is likely incorrect.

I spent many days in the BIVI (who likes actually going caving anyway?) cooking mysterious desserts, writing terrible parody songs and learning to play the Ukulele. My best creations in the BIVI kitchen were coined 'Diss Balls' and 'Diss Cake'. Neither contained any Diss. The Ball variety were balls of deep fried bread filled with either chocolate or cheese and the cake was a BIVI-fied cheesecake (aka angel delight on biscuit base). Joleen was a popular choice for parody-afying and several were written, the best ones not by me. My best work was a parody of *I Will Follow You Into The Dark* and is now sung quite frequently in caves (admittedly by me for the most part) – see below. more information on page 271



LEAD OF MINE

Lead of Mine

Someday you will die

But I'll be close behind

I'll follow you into the dark

No headtorch light

Or pitches to streamways wide

Just my bum wedged so tight

In a rift that's really sharp

Chorus

If the caving gods decide that they are satisfied
Block the entrance pitch with a mighty landslide
If there's no way beyond when we reach the front
Then I won't turn back oh no I won't

At imperial

I drank to much alcohol

I got liver damage
From a dodgy home brew

And I held my tum
As they told me hon
Beer is the heart of caving
So I never looked back

Chorus

You and me
Were the last ones to see
That pitch so dangly
With no hope to push on

And now we're all worn down
The time for slop is now
There's nothing to cry about
Cause we'll be in the bivi soon
Under the brightest of moons

Chorus

Now onto the caving. I think I went on six trips. My first was with Tetley down M16. Tetley is a madman and practically prussicks with a cigarette in his mouth. I did the same trip again with Celia and Dave which involved an hour or two of lying just inside the cave entrance at the end of the trip, desperate for the loo.


I then did a few trips in PRIMADONA, my favourite of which was pushing HALLELUJAH with Rhys. After passing the usual entrance series, we reached the awful tight pitch, later named 'SON OF A PITCH' before HALLELUJAH.

At the pushing front, I was excited. There was walking passage, a pitch, mud formations, tight crawls, and the best part – more to explore. We didn't have time to keep going so surveyed out – very satisfied with our findings. After much discussion, Rhys came up with the name SWEET BABY JESUS for the pitch. It fit well with our exclamations of 'gosh' and 'Jesus' etc. when it was found. On the way out, Rhys carried a speaker so the ascent was improved massively by the top hits of the 80s being blasted out until we reached the surface.

I mustn't forget to mention MARY'S CAFÉ, the excellent pit stop halfway into the cave. Kitted out with all the essentials – food, bannin' tunes, a candle and a Trangia for chocolatey tea and cheesy-fish concoctions. I don't think I'd have enjoyed any of the trips half as much if it wasn't there – a real morale booster.

NB: Slov. without a pantin is painful, would definitely recommend acquiring one beforehand.


Rebecca Diss

 Hallelujah branch

- Rhys Tyers
- Rebecca Diss
- David Kirkpatrick



Figure 155: Rebecca Diss at the bottom of the first pitch, in the entrance series of Primadona

 Rhys Tyers

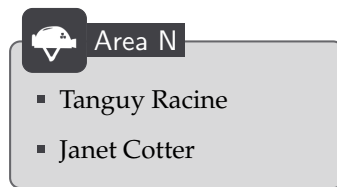


Figure 156: View of the three peaks of the ridge. From right to left: TOLMINSKI KUK, ZELENI VRH, VRH NAD ŠKRBINO 📷 Tanguy Racine



Figure 157: Possible cave entrance underneath the rock bridge on the east flank of ROB 📷 Tanguy Racine

Beyond the ridge - trying to outrun a building thunderstorm

At last! I was finally going to AREA N, going to the other side of the ridge, a side which had commanded respect and admiration for several years, as I, like many others before stood looking north from the summit of TOLMINSKI KUK. The landscape rolled before us like a great tapestry: little white peaks dotted around, with grass green aprons and tufts of dwarf pine offering their darker shade lay at the foot of the ridge. But further out was a large forest, growing all the way to the foot of the TRIGLAV massif, which was ringed in precipitous cliffs. Rocks of a great size had gathered in a bowl before us, some were the usual grey shade of limestone, others had a redder tint: it was a landscape of desolation.

AREA N had, for me, grown into a sort of legend: a land of storms and biting winds, where the whole fury of the north was unleashed, a kind of Tartarus. I was keen however to spend a day there to learn more about it than hearsay let slip. Janet, who had recently come back from her annual pilgrimage there was delighted to offer company on this trip, a chance, since her ground expertise and collection of maps would save me much time and trouble. I also took a GPS, intending to locate N09, a cave with conflicting reviews and ambiguous potential.

Following Janet's lead we descended from TOLMINSKI KUK, following the blazed trail to a grassy saddle. This first part of the journey made me appreciate the logistical difficulty of exploring the area as most of the path was steep, littered with loose cobbles and confusing. Perhaps due to the number of hikers who pioneered their own interesting (and not altogether safe) routes, finding the best way down or up would prove difficult in any weather other than clear blue skies.

Once on the other side of TOLMINSKI KUK, we followed a route roughly circumventing 'ROB' (a small hill) which passed via N09 to N07. The weather degraded during the afternoon and we had to curtail our trip, racing a powerful hailstorm back to the bivi, but it did not prevent us from making several interesting observations or noting a few, un-GPS-ed potential cave entrances.

33T 403722 5124054 – *an obvious shakehole 500m west of Kuk* This first one I spotted on the descent from TOLMINSKI KUK, being a typical, oval shaped shakehole (×10 m). Interestingly, the hole straddles the boundary between a large scree slope directly underneath the grassy saddle we stood on and a green, dwarf pine free meadow. The depth potential this far north is large! Access to the shakehole would probably be easiest from the 1500 m KRN path to the west of MIGOVEC, followed by an ascent up a gully.

33T 404491 5124240 1840m – *Elephant's foot rockbridge* This feature is not a cave as yet, but looked like a possible cave entrance, underneath a large rock bridge. The name comes from one end resting on a small rock buttress: weathering above and below the fracture plane left a

much thinner pillar supporting the larger bridge. Underneath it, and parallel with the fracture plane is black space, possibly a new entrance in AREA N.

33T 404446 5124051 ($\pm 10m$) – Cave prebolted and also spotted by Ben and William This one was puzzling: an elongate shakehole closer to KUK, within the area of total devastation. A descent over boulders led to a large opening with a single through bolt on the left hand wall. A snowplug was visible underneath, but the cave itself was not recorded on the 2016 GPS data. In the absence of a record of exploration this remains one of the best potential leads in AREA N, which can easily be identified and checked out.

The ridge between Tolminski Kuk and Veliki Bogatin A section of well exposed limestone beds, within the same block as KUK and TOLMINSKI MIGOVEC is exposed to the northwest of the ridge in several tiers. Although we did not investigate this region, an examination of the photographs reveals several intriguing dark spaces within the rock mass. The orientation of bedding (dipping into the mountain) is favourable to the preservation of cave passage. These possible entrances are furthest NW from SISTEM MIGOVEC, but easily accessible once on the AREA N side and could well be investigated on a day trip.

Tanguy Racine



Figure 158: Shakehole spotted from the KUK - VELIKI BOGATIN path 📷 Tanguy Racine

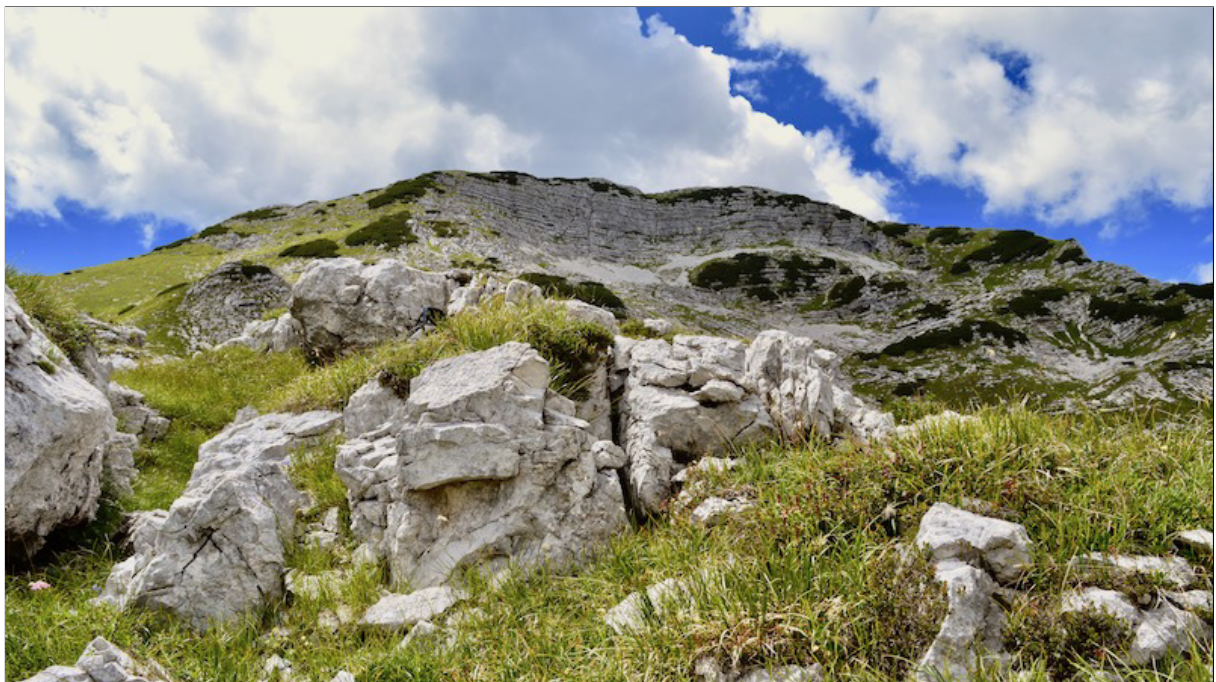
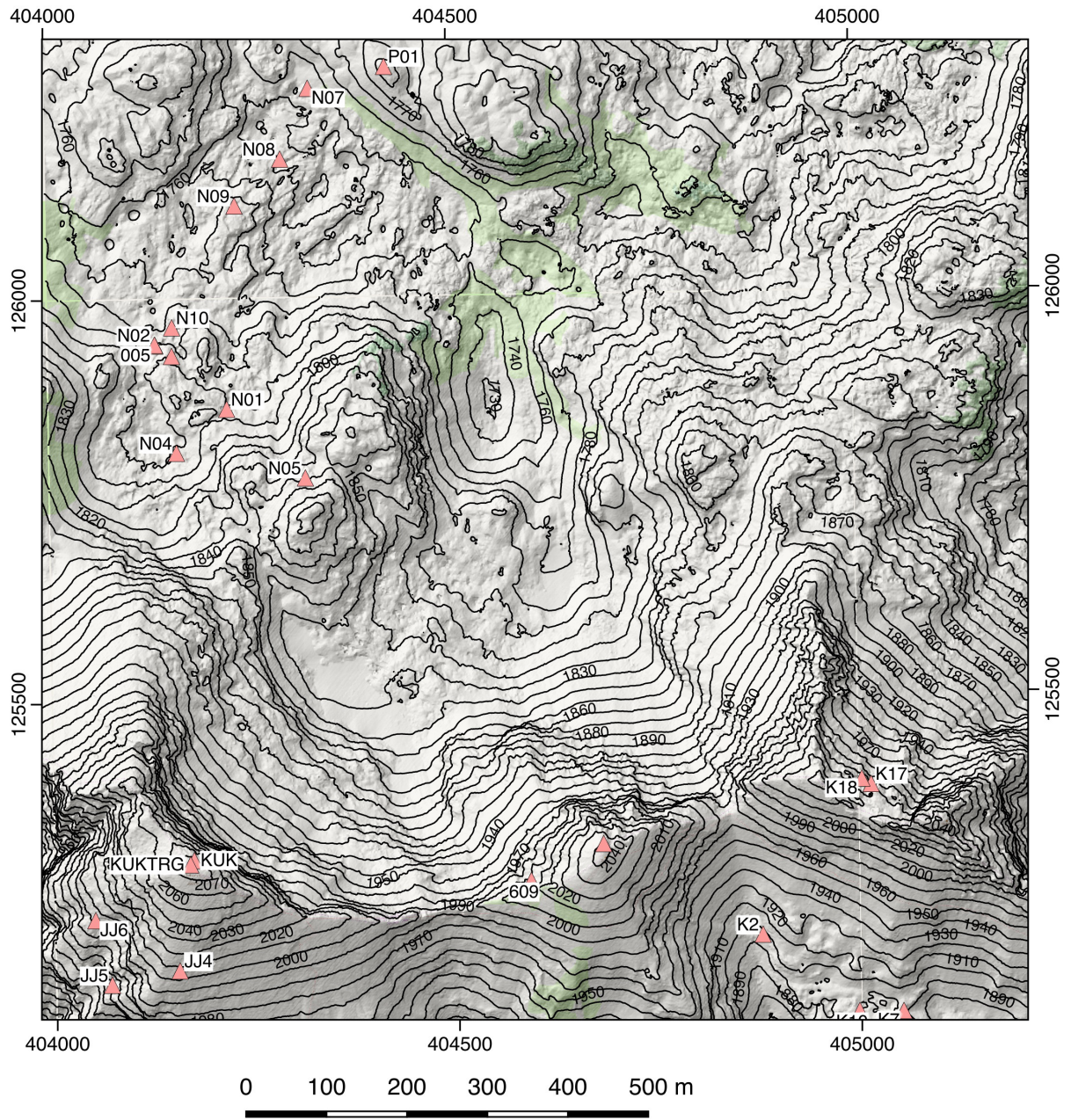


Figure 159: The ridge between TOLMINSKI KUK and VELIKI BOGATIN 📷 Tanguy Racine



Map 6: Topographic map of Area N, beyond Tolminski Kuk. Slovenian National Grid ESPG 3794

New beginnings at the end of the Fenestrator branch

It was with a broad smile that Rhys told us of the new findings in the FENESTRATOR branch he had been pushing this year. That discovery had been serendipitous, as he and Ben had gone searching for a rigged but undescended pitch in the SMERO gallery, at 250 m depth in PRIMADONA. Failing to find it, they fell back on their plan B: pushing the CATTLEGRID pitch.

The way on was a collection of outrageous, unlikely holes, passages, windows. Wherever the cave seemed to end, looked like it would not go any further, a cursory glance would reveal an ever more obscure passage. It was never tight for long though, a hundred of metres or so of fairly easy passage would ensue, ending at yet another unlikely junction, pitchhead or squeeze. The pushing trips had progressively added more length to the branch, and it was now over 400m long, heading towards the mythical southeastern direction, into blank mountain. In Rhys's words, 'a couple of hours round trip', now at a stone's throw from the underground café (more information on page 258)

Two days after an ambitious TTT-KARSTAWAY exchange, the possibility to push the new branch arose. William was first up and around in the bivi and agreed to accompany me. By this time in the expedition, we knew the route to MARY'S CAFÉ like the back of our hand.


It spoke highly of the effort put in by all the rerigging teams up to that point that PRIMADONA felt like a Yorkshire cave, all expedition rigging had been exterminated, replaced with friendly Y-hangs, long traverses and back-ups. Only the sharpness of the walls, the odd colour of the rock and the conspicuous absence of a streamway reminded us that this was still an alpine cave.

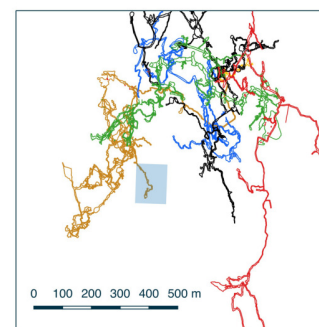
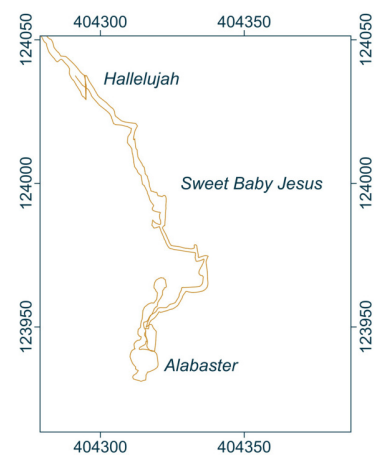
I quickly learned why it had taken so many trips to push and rig this part of the cave. The mud was the worst aspect. The rocks, white and glistening, sprinkled with ochre clay — such was my memory of the trip down THE STILE with Arun — had been plastered with a brown, sticky mess. The pools of water, which had a beautiful blue tint before our passage were a nebulous grey.

The window to glory turned out to be an awkward sideways crawl, the next pitch hidden behind a squeeze through boulders, the aptly named PLUMBERS' PARADISE relented at a junction where a sizeable stream came in from the right-hand side. Here I checked the little piece of paper Rhys gave me, followed downstream as per the instructions into the larger HALLELUJAH passage, whose dimensions prompted me to realise the elation its discoverers must have felt. There was a high rift passage, headed along a fault plane and away from the main PRIMADONA network.

Soon enough, we started seeing little notes 'Unexplored' pointing in different directions off the main passage. Again looking at the instruction sheet, we carried on into a lovely small phreatic tube, then through a sandy squeeze into the terminal chamber of 'SWEET BABY



Figure 160: Larry Jiang on the PRIMADONA abseil, a kilometer above the TOLMINKA valley  Rhys Tyers



Survey 46: Plan view of the HALLELUJAH branch. Slovenian National Grid ESPG 3794

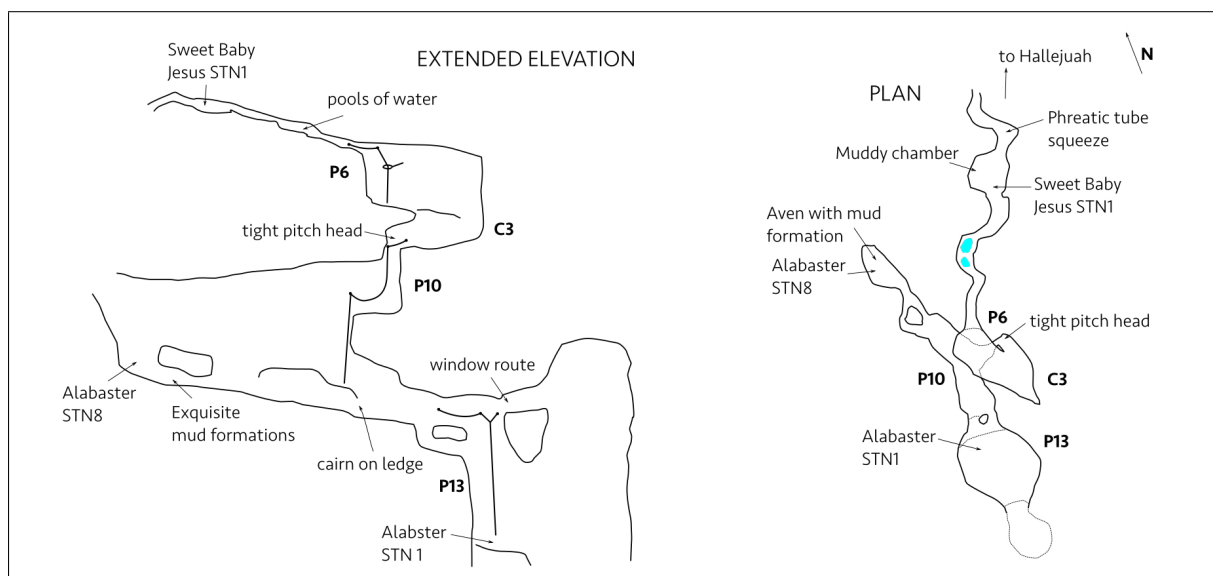
JESUS', the termination of exploration. The way on, the 'unknown' was a simple passage leading off from that small chamber. Gathering our kit, discarding what we thought would be unnecessary from here, we stepped off along the stooping, white horizontal passage.

I had a little apprehension concerning what would follow: it seemed every lead my hand had touched this year degenerated or ended. I'd seen a too tight muddy squeeze, a blue sump at shallow level, a flat roofed chamber filled with scree and a drippy boulder choke with no way out. But after each corner, the passage continued, at a shallow gradient, dotted with deep pools and sharp bends where it was necessary to crouch near the water level to pass through. It continued until we hit pitch head. It was maybe 6m, no more, bending towards the left and away from PRIMADONA, which was a good sign.

This was quickly bolted and at the bottom we were confronted with a fault controlled passage again, which seemed to close down ahead. There was a deep trench in the floor, through which we could see another chamber of similar size. It was possible to climb down and double back underneath, which I did without great enthusiasm as I could see no way on at either end of the chamber. I cursed and went to the far side as a matter of fact to ascertain that the way on was elsewhere. To my surprise, the far rift had a continuation at right angle to the chamber, and from my vantage point, I saw another pitch head, ready for bolting.

...To my surprise, the far rift had a continuation at right angle to the chamber...

It looked for the first time as though it could grow to be a big find, as the pitch got spacious towards the bottom. The wall rocks, white or pale grey became more rugged and solid. At the base of the next drop, we looked around to gauge what kind of passage might lead off. We were now in a rift of respectable dimensions, the way down wide



Survey 47: ALABASTER grade 1 plan and extended elevation // Tanguy Racine, bivi logbook

open at a larger pitch, perhaps 20 m, split two-thirds of the way down by a large ledge. William also scurried off upstream of the passage to an aven (ten metres), the floor of which was a circular room with deep mud banks on either side. Where small pebbles had landed on the mud, they had shielded it from the winnowing action of the water and now stood a centimetre above the mud. All of them looked like an army of little lead soldiers, each with a distinctly coloured hat.

We set about rigging the larger drop, putting a Y-hang above a little parallel shaft which rejoined the main pitch at the ledge. Carefully feeding as much rope as I could through the knots, we managed to reach the ledge, but just. Then, out of rope, we looked at the continuing pitch. Unfortunately, there were only a few stones on the clean, white ledge and we only had a couple of attempts each at judging how far down the next pitch went.

There certainly was a storming continuation to the passage, and looking at the survey, it is still headed towards blank space, with the rest of PRIMADONA around 150 m to the west. This had been made possible by the perseverance of the previous teams who hadn't turned back at the first hurdle or declared the passage 'terminated, too tight, dead' and gone back day after day to lengthen the branch. Thanks to their effort, Will and I had a really good trip and left the lead better than we found it. We called it ALABASTER, after the pristine, creamy white colour of the walls.

Out of rope. Admittedly we hadn't taken a huge amount (around 50 m), but it was still a little frustrating to be short of finishing the pitch, especially since it was unlikely to be revisited this year. With that in mind we pulled up the last rope, the other pitches being bone dry were left rigged, and surveyed back to 'SWEET BABY JESUS'. When we finally tied in our survey to the PSS, it was getting late and since we had to cave the next day to start the derig, decided against further pushing.

Back on the surface, when asked by Tetley what had happened, the description came in bullet points as exhaustion and hunger prevented me from stringing words into a sentence. We were soon presented with mess tins full of hot tasty food, and as the tiredness ebbed away we entered the survey data into the surface computer. The realisation that we were still going and had lost around 40 m of elevation, with more depth to come completed the feeling of elation after what had been, for me personally, a reward for so many harder exploration trips.

Tanguy Racine



Figure 161: A well earned rest day serves to look after footwear, as well as airing up the tents and sleeping bags

📷 Janet Cotter

...looking at the survey, it is still headed towards blank space...

...we were still going and had lost around 40 m of elevation...



Galaktika

- Jack Hare
- Dave Wilson II
- Rhys Tyers
- Clare Tan

...Rhys' echoing voice informed us he was out of rope...



Figure 162: Clare Tan on the impressive pitch on the way to the even more impressive GALAKTIKA 📷 Rhys Tyers

Revisiting Galaktika after 16 years

Getting to the Galaktika Shaft

GALAKTIKA! What a name, what a legend, what a place! The biggest chamber in the system by far, visited by only the oldest lags and featured at the beginning of the Hollow Mountain Vol. 1. Was it even real? Was it really as big? Having pondered these questions for years, we decided to find out.

A rare lack of keen freshers left Rhys, Clare and myself free to have a bimbly by ourselves. Down, deep into M16 we went. The hangers are loose, the spits seized, and the rope thick and gritty. The new bits (for me) in TA MOKRA were impressive, with huge swings and lots of falling water. At the bottom, through a boulder choked rift, to a vast blackness, Rhys bolted down and announced this was not GALAKTIKA – it was merely the prequel, the foreplay, the hint-of-what-was-to-come.

We climbed over house-sized stacked boulders, trying to find where to bolt down. Eventually we found the way, by hugging the left hand wall. Again Rhys bolted down, quickly fading from view and hearing. Clare and I settled in for a natter, until Rhys' echoing voice informed us he was out of rope. It was either that, bolts, battery or courage, and rope was the most honourable way out. We left, taking photos, only 90 minutes to the surface.

Onwards to Galaktika

It took several days to organise a return to Galaktika. In that time, Davey Dubz and I returned to M16, rebolting much of the entrance series to replace some seriously scary spits.

With that in place, Rhys, Davey and I made rapid progress down to GALAKTIKA proper. Davey and I huddled in the shelter as Rhys bolted the final 5 m down. Descending, I contemplated the vast scale of the shaft. It is roughly circular, some 70 m deep and around 20 m in diameter. The walls are smooth, though with loose flakes of rock, and the floor is littered with massive boulders.

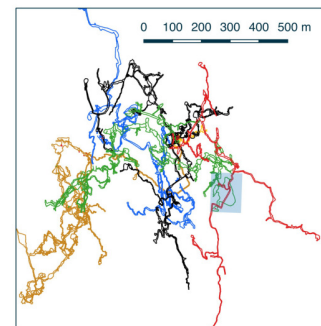
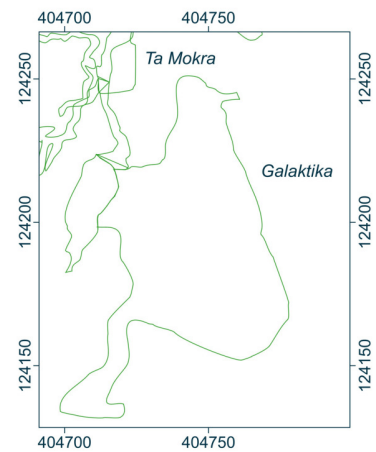
We regrouped, and looked for leads. At the lowest point of the chamber there was a promising crawl which went on for a while over soft mud, before choking with no way on. It lead towards the GALAKTIKA Chamber. We returned to the shaft and found a potential lead — crack in the wall by the water, blocked by a torso sized boulder.

We knew now that this was simply the shaft, and the chamber was next to it, separated by a large rock wall that extended half the depth of the shaft. We derigged the shaft as Rhys photographed us, and Davey kicked a huge flake of rock off which whistled silently past Rhys, only a few metres away.

Rhys kindly let me rig down to the GALAKTIKA chamber. However, dangling on the rope above the abyss, terrified for the obviously loose rock, I only placed one bolt before giving up, and let Rhys take



Figure 163: GALAKTIKA chamber is accessed by a large pendulum across the GALAKTIKA shaft 📷 Rhys Tyers



over. Davey and I again sat in the humid, but warm shelter, listening to tunes as Rhys did all the hard work. Some exciting rigging later, involving sloping ledges and he was down to the dividing wall and out of rope.

I popped down with more rope and bolts. The swing across the to the top of the wall was immense, made more so by the further 30 m or so of drop into the shaft below. I helpfully pointed out massive, unsupported boulders as Rhys rigged the final traverse and drop into the chamber.

The chamber is massive. I walked away from the others, and then sat in silence, watching them in the far distance, barely able to hear their voices. After circumnavigating the chamber (which takes 30 minutes or so) we met up, and Davey and I began to free climb down

Survey 48: Plan view of GALAKTIKA chamber — Slovenian National Grid EPSG 3794

the boulder choke at the lowest point of the chamber. This is quite unpleasant, and at the bottom we found 'ICCC 1994' spray painted on a wall, with no possible way on.

We found several fossilised turds, plum stones, grape stalks and all manner of archaeological evidence. Rhys took loads of great photos and we left in good time. The route is still rigged, and this is a superb cave for everyone to visit, from novices in training to old lags who want to revisit their glory days.

Jack Hare



Figure 164: Another view GALAKTIKA chamber showing a large, unclimbed aven on the southern side
📷 *Rhys Tyers*

Other findings

Codeine — to the tune of Jolene (Dolly Parton)



Codeine, codeine, codeine, codeine!
 I'm begging of you take away my pain
 Codeine, codeine, codeine, codeine!
 Please just numb this feeling in my brain.

As a powder you're beyond compare
 Effervescing when there's water there
 Your bubbles rising, bursting with a gleam

In tablet form you taste so sweet
 Though I really shouldn't eat you neat
 But I cannot resist your lure codeine

(chorus)

The constant ache within my bones
 The bruises which induce my moans
 You take it all away from me codeine.

Every day and every night
 I cannot live without the sight
 or smell or taste or feel of you codeine.

But my prescriptions running low
 Just fourteen packets left to go,
 Two sheets per pack right now, then let me see...

There's eight of you sealed in a sheet
 That's 2-2-4 left for this week
 And then I'm on my own again codei... ne

Celia Tinsley

S1

Tetley and James 'Jimmy Dubz' Wilson went on a reconnaissance mission in S1 to find the origin of its freezing draught. The known end of the cave is an ascending boulder choke, which is incredibly difficult to dig. Over the years, piles of old tent poles have been left at this front, as successive explorers failed to progress any further.

The motivation behind this cave is that it is within 110 m from the eastern end of HOTLINE in MIGOVEC, a freezing tube which had proved key to several early connections. Inside the cave, the pair also decided to have a look at a slightly deeper lead. Some further pushing by the Wilson brothers resulted in marginal progress over a tight rift, as well as the loss of the 2.5 kg lump hammer.

Apple Crumble

Spurred on by the need to 'go left into blank mountain', Jimmy Dibz and I traversed across the POVEZAVA aven on the TTT route, gaining

a large window above the shaft floor. The up-and-down rift passage quickly degenerated to a rabbit warren of tight, crumbly mud crawls with little draught.

A small drop into a very immature streamway led to a bizarre cylindrical window into the roof the main TTT route, downstream of POVEZAVA aven: an unfortunate connection. The trickle of water disappeared downstream in a small crack. It is my belief that the water reappears as the spout above BATMERE. It's just too bloody tight to follow!

Tanguy Racine

High and Dry

William French, Jimmy Dubz and I went back to the HAMMERHEAD area to inspect the undescended pitch beneath DOGFISH. After some intense gardening of the conglomerate layer at the pitch head, I sent Jimmy down first who shouted back 'At least it's not dead'.

Landing in a rift of sizeable dimensions, we found a P20 landing on precarious boulders and increasingly sketchy climbs under all this shattered rock mass. We called it HIGH AND DRY as it was anything but, and surveyed out. At -501 m it was my deepest point in PRIMADONA this year, and what a dead end it was!

Tanguy Racine

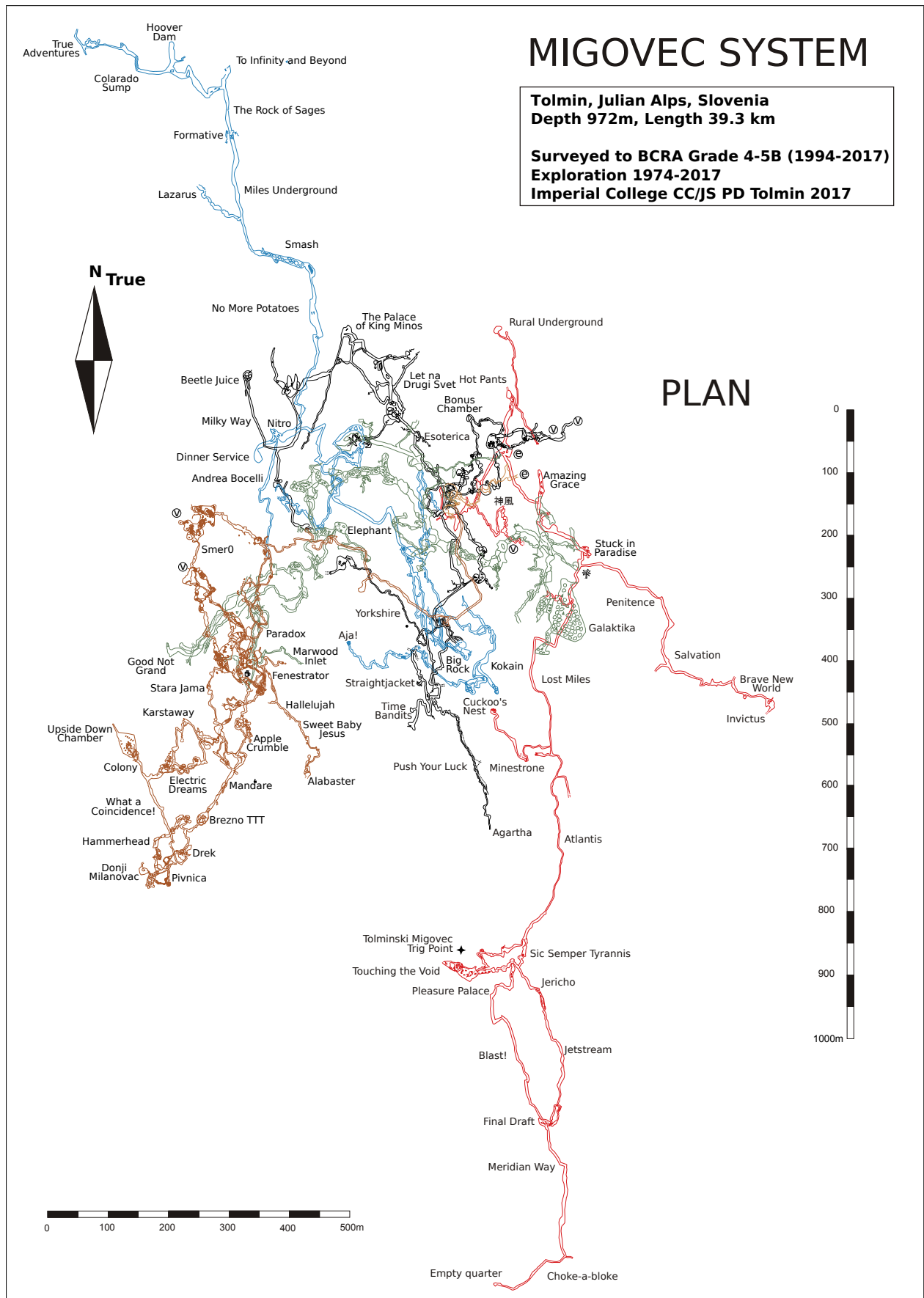


Figure 165: The team at the end of the Čez Rob expedition *from left to right* David Wilson, Slavica Klobučar, Larry Jiu Jiang, William French, Andy Jurd, Tanguy Racine, Kate Smith, David Wilson II 📷 Janet Cotter

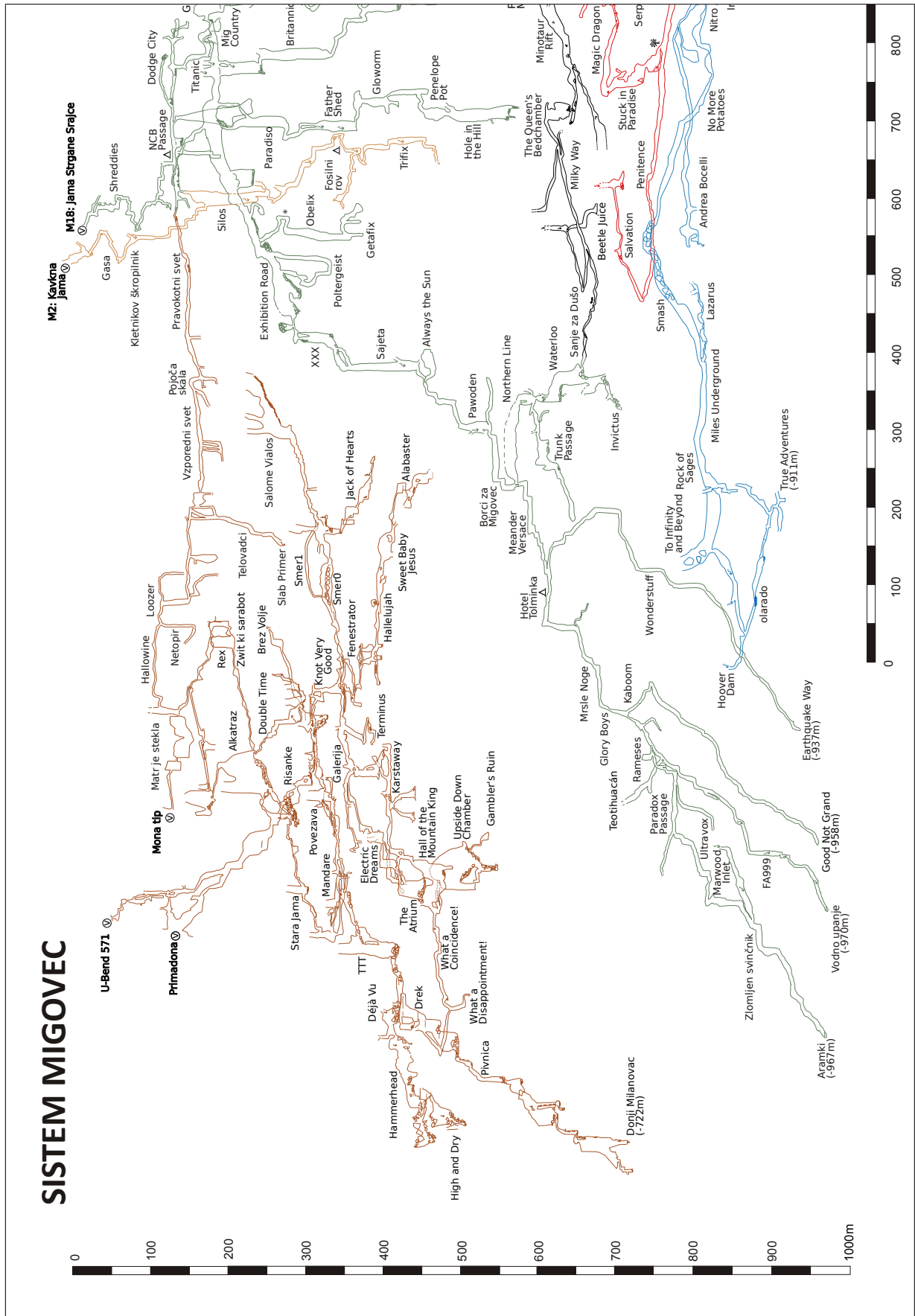


Number Crunching

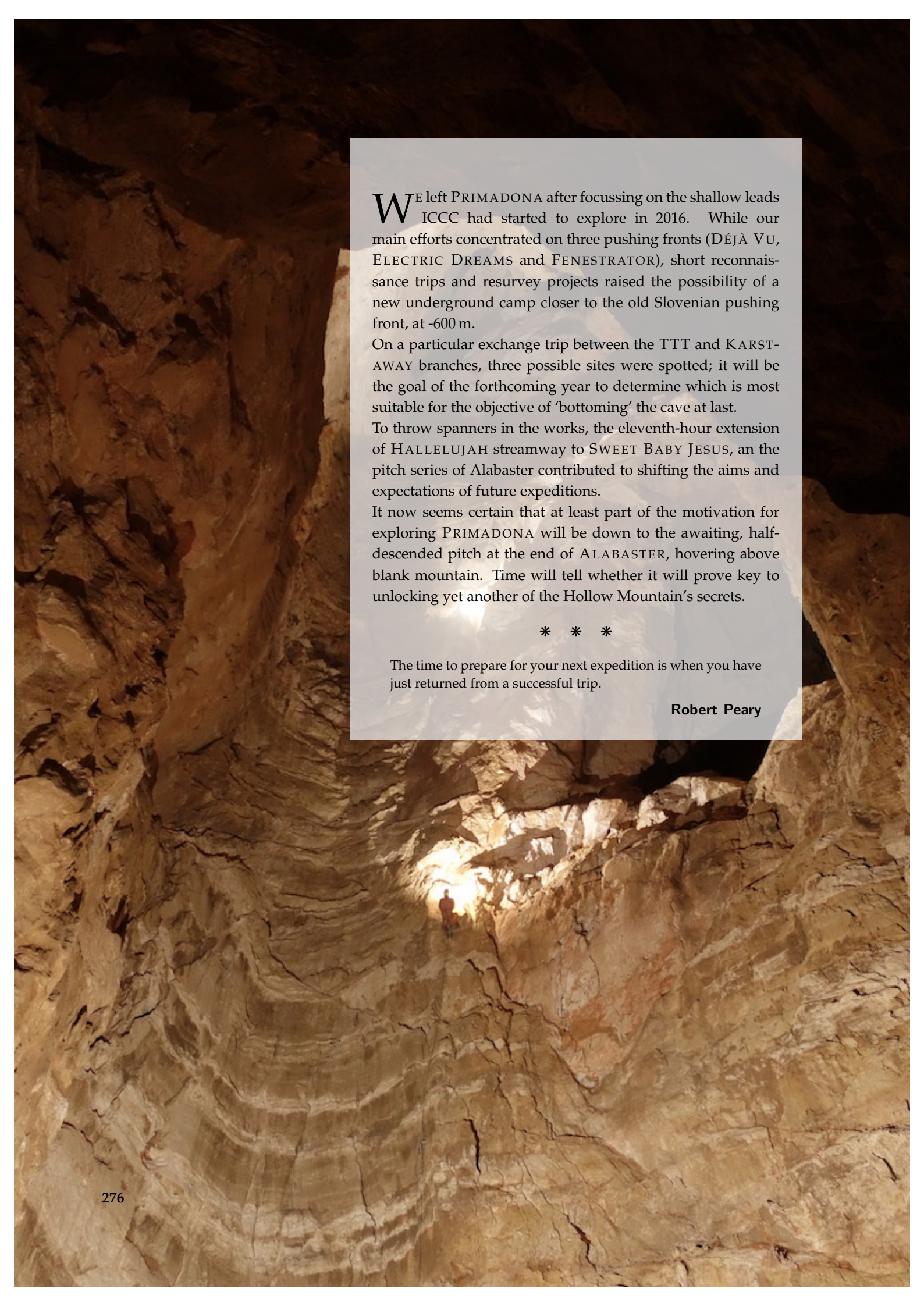
Sector	Passage name	Survey length (m)	Stations	Average leg (m)
Alkatraz	Testing the Waters	–	22	–
Déjà Vu	Dogfish	35.6	11	3.56
	Hammerhead	58.63	10	6.51
	Hammerhead2	159.99	25	6.67
	Hammerhead3	22.72	6	4.54
	High and Dry	57.69	13	4.81
Fenestrator	Alabaster	113.61	27	4.37
	Battery Flattery	63.42	12	5.77
	Fenestrator	51.24	12	4.66
	Hallelujah	34.46	11	3.45
	Plumber's Paradise	107.67	26	4.31
	Sweet Baby Jesus	105.17	24	4.57
	Union Passage of the Year Nominee	32.16	14	2.47
Karstaway	Electric Dreams	151.6	26	6.06
	Entirely my fault	78.54	20	4.13
	More Like Welding	87.37	17	5.46
	Stranglehold	123.22	34	3.73
	The Atrium	77.78	10	8.64
	What a Disappointment	39.17	10	4.35
M16 entrance	Death by 1000 blows	17.32	11	1.73
Mandare	Apple Crumble	97.62	27	3.75
	Batmere	66.33	13	5.53
	Buckwheat resurvey	–	9	–
	Mandare Resurvey	–	8	–
	TTT_resurvey	–	48	–
Smer0	Jack of Hearts	191.93	36	5.48
Surface	Gondolin	113.08	16	7.54
Total		1886.32		



Survey 49: 2017 Plan Survey



Survey 50: 2017 Extended Elevation



WE left PRIMADONA after focussing on the shallow leads ICCC had started to explore in 2016. While our main efforts concentrated on three pushing fronts (DÉJÀ VU, ELECTRIC DREAMS and FENESTRATOR), short reconnaissance trips and resurvey projects raised the possibility of a new underground camp closer to the old Slovenian pushing front, at -600 m.

On a particular exchange trip between the TTT and KARST-AWAY branches, three possible sites were spotted; it will be the goal of the forthcoming year to determine which is most suitable for the objective of 'bottoming' the cave at last.

To throw spanners in the works, the eleventh-hour extension of HALLELUJAH streamway to SWEET BABY JESUS, and the pitch series of Alabaster contributed to shifting the aims and expectations of future expeditions.

It now seems certain that at least part of the motivation for exploring PRIMADONA will be down to the awaiting, half-descended pitch at the end of ALABASTER, hovering above blank mountain. Time will tell whether it will prove key to unlocking yet another of the Hollow Mountain's secrets.

* * *

The time to prepare for your next expedition is when you have just returned from a successful trip.

Robert Peary