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**Front Cover:** Cavers descending pitch 6 in IB11 Midnight Hole. *Photo by Danny Wilkinson* 

STC was formed in December 1996 by the amalgamation of three former southern Tasmanian clubs: the Tasmanian Caverneering Club, the Southern Caving Society and the Tasmanian Cave and Karst Research Group. STC is the modern variant of the oldest caving club in Australia.



# Speleo Spiel

Newsletter of the

# Southern Tasmanian Caverneers Incorporated

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# **Editorial**

Last issue's little birdie has been fired. We still need a new Editor. The new little birdie reckons Bunty would never let the truth get in the way of a good *Spiel*. (Even if you only do it for a year, Steve. It'll be great practice for meeting deadlines and doing reports for your 2017 return to university.) Failing that, the fifth person to walk through the door at next month's AGM wins the prize.

Apparently Janine's the only person going caving. She's in every trip report in this issue and wrote all but one of them. And then there's more bloody sandstone from Greg. Pathetic really.

Warning – page 13 contains an image that may disturb some readers (other than those freaked out by sandstone 'caves' alone). Those who are scared of headless, handless zombies should look away.

Alan Jackson (Acting Editor)

# Stuff 'n Stuff

# **AGM**

Tuesday 1 March is the AGM, commencing 8 pm. The meeting will be held at the Civic Club, 134 Davey Street, Hobart. We need a new President, Secretary and Editor but hopefully we can recycle most of the other positions. Non-attendance will be interpreted as volunteering for all vacant positions.

# MADPHIL COMES AND GOES

Mr Phil Rowsell made a brief cameo recently. He and Rick Stanton (of [considerable] cave diving fame) arrived early January to embark on a circumnavigation of the state in sea kayaks. I eventually removed them from my house and pushed them into the sea at Salamanca after five days of frenetic preparation. Things didn't go exactly to plan and Madphil bailed after reaching St Helens, leaving Rick to continue on solo. He reckons he might show up again and do some caving around the 2017 IUS conference, so don't say you haven't been warned.



All I saw of Madphil for a week: his arse protruding from a sea kayak. Note the shade I had to create with the clothesline to prevent the poor little darlings from wilting in the 34°C heat of that day.



Madphil goes through all the boxes of crap he left at my house ten years ago (it was like Christmas).



Finally rid of them at the Brooke St Pier – the beginning of a beautiful (albeit brief) relationship.

Alan Jackson

# **Trip Reports**

# Candle and Cake in Dwarfland Janine's 60<sup>th</sup> Birthday in JF14 Dwarrowdelf *Janine McKinnon*20 December 2015

**Party:** David Butler (NC), Alan Jackson, Janine McKinnon, Grant Rees, Ric Tunney.

I wanted to celebrate reaching 60 years old with a trip down a fun cave. Ric had marked his 60th in the bottom chamber of Dwarrowdelf/KD, so I thought I'd save myself the bother of employing imagination and repeat the idea. And, as Alan no doubt will be quick to observe, this cave is an appropriate venue for a person of my stature to visit on a significant anniversary.

As usual, there were the late drop-outs, including the promised home-made cheesecake (that I was so looking forward to) supplier. Not to worry, with commercial fruit cake replacement, five of us left Alan's place at the usual time of 7.30 am, on a lovely morning.

I must say Alan was a bit of a surprise attendee. I didn't expect him to come to a purely fun trip ... until I discovered that he had left his emergency bag in KD on the recent cave rescue exercise. Double agendas aside, it was nice to have him along. He would be close to my oldest caving buddy of the current era. It must be 15 years now.

Anyway, the trip down was smooth and quite quick. I rigged, with Alan providing direction on the whiz-bang new knots that are all the rage (and acerbic comments, of course). Yes, I know we started using them last year, but I am old, and thus a bit slow with new technology.

The cave was a bit drippy, which was a surprise after a week of no rain. This cave definitely takes more water than it did a couple of decades ago. It is no longer to be classed as a "dry" cave.

On reaching the bottom of the cave, we decided to have our party on a shelf overlooking the main chamber. It would have been a lovely view if we'd had some daylight. Scurions are good, but not THAT good.

We had a sumptuous feast, or the best that we non gourmands could get 280 m down a vertical cave, consisting of:

- A selection of cheeses, courtesy of Grant.
- Previously mentioned fruitcake, with '60th' candle supplied by Dave.
- Ferrero Roches.

- Fruit mince pies. Commercial again. Sorry. I am not a cook.
- A bottle of champagne.

(Not) a very healthy and nutritious lunch. Dave did have a sandwich and banana, so that was healthy (although I saw the banana at the end of the trip).



A toast to the old bat. It was a red theme.

After lunch Ric started up while the rest of us went for a short tour of the bottom of the chamber. Neither Grant nor David had been down Dwarrowdelf before. Alan and I lacked the enthusiasm to take them all the way to the second sump though. Crawling after lunch seemed inappropriate somehow.

The trip out was equally smooth, at least from my perspective. I got to cruise up with only a moderate pack, whilst Alan came out with the bottom rope, and Grant and David de-rigged.

Alan, of course, reached the surface at the same time as me, more or less. We decided that he would zip around to KD and see if his bag was where he thought it was, whilst I waited for the boys de-rigging to arrive with a 30 m rope. Then I would follow in case he needed it to drop a hole or two looking for his bag where he didn't think it was (clear?).

Luckily for me, I was saved this task, as he arrived (with bag) back at Dwarrowdelf before the boys had appeared with the other ropes.

We were even early enough to buy raspberries at Westerway on the way home.

Thanks to the guys for coming along and giving me such an enjoyable and memorable 60th birthday trip. I literally couldn't have done it without you.

# JF4 Khazad-Dum 'the Wet Way' - Damp, Bordering on Moist

Alan Jackson

1 January 2016

Party: Alan Jackson, Janine McKinnon

I'd been thinking about doing this for years, just for jollies, but I got more serious about it after tarting up the p-hanger situation in the rest of the cave during 2014-15. It seems ridiculous to me

that essentially the best, most sporting trip in Australia doesn't have the option of following the water all the way unless you're a bolt-toting maniac. Initial exploration abandoned the water as soon and often as possible, to keep drowning on ladders to a minimum. The Eberhards had a bit of fun in the '80s (Eberhard 1988, Hume 1989) but even they failed to do it properly, with only a partial attempt made on the third proper wet pitch. And then there's the last pitch; Kevin Kiernan is the only person to attempt the final pitch following the stream and he didn't make it all the way (Kiernan 1971).

My plan is to p-hanger all the remaining wet pitches to a standard that allows relatively dry passage in all but the wettest conditions. To achieve this requirs knowledge of the cave under the various conditions, so a methodical and patient approach is required. Janine and I trundled along on New Year's Day to start the process, with the aim of making it down the three ~30 m pitches to the start of the traditional streamway section (i.e. the bottom of the 'dry 70 footer').

Water levels were pretty low, which was both good and bad. The first obstacle was the ~4 m step ten metres past the Scaling Pole Pitch rope. This is climbable on the left with the water, but wouldn't be under higher water levels. After much sounding out of rock (not all solid ...) we chose a spot on the right wall to drop it as a pitch. This spot looks as though it takes water when the stream is really pumping but should be dry enough. Shortly after is the first ~30 m pitch. A handy large natural mid-passage is well placed for an approach line and then we hugged the right wall (left when abseiling) so we could duck around the arête down where the pitch goes vertical and keep well out of the spray zone. Unfortunately this wall was pretty fusty (pockets of deep mud and slop over good rock), which means it doesn't get blasted with water (good) but is a bit muddy (bad). The ledge about 10 m down was reached and then it got difficult to stay out of the water. Hugging the true right wall again, I managed to tension-traverse around another arête and get a rebelay in round the corner while hanging off a skyhook. This manoeuvre was repeated a few metres further down to once again avoid the splashes. This gave a dry hang to the bottom (but would probably get wet in higher levels and might require one more pendulum).

I'd been to this spot before (Jackson 2011) via the dry route. One can scramble along a ledge on the left and access a dry fossil passage (via a short pitch) to a balcony looking across to the bottom of the 'dry 90 footer'. Instead we climbed down the ~2 m slot climb, tiptoed across the pool (almost wet gumboots) and assessed the next pitch. It started as a ~2 m drop/chute then turned left and tumbled over the edge properly. This one looked very wet. We tried a mid-level approach but after getting a good look round the corner we opted for higher. We re-rigged up close to the roof and bolt-traversed around the corner, over the pitch proper, then back to the right and up on to a small ledge perched in space (a bit sphincter tightening). From here a great hang could be achieved around the corner from the waterfall proper. I bombed halfway down to suss the width of the spray zone (there was so much mist in the air that a clear view of the bottom wasn't possible from the top). The rope proved to land in the wet zone (i.e. drown zone at high levels) so I popped back up for the bolting gear. About 8 m down I spotted a delightful side pull a few metres across that would take a skyhook while I bolted. Then a further ~8 m down it was clear I needed to go again but the rock was a lot smoother. After a few wild swings I managed to hold on long enough to get the skyhook in and free up my limbs. This second rebelay landed me very nicely away from the wet zone. It was quite novel watching the 'dry 90 footer' landing zone sail past on the way down. I've spent a lot of time over the years sitting there waiting for people to ascend the pitch, gazing at the top of the adjacent waterfall wondering what was going on down there.

The bottom of this pitch was spacious and wind/spray lashed. Some of the places leaves and sticks were sitting gave me the willies. Following the water (not the dry option) we negotiated the little climb (probably nasty in high levels and might need a rope) and then ambled down the stream canyon to the next drop. This is Stef's 'animal' pitch which to my knowledge has never

been fully descended. We'd run out of useful lengths of rope by this stage and time was getting on so we just had a think about how we might rig it in the future and turned around. Back at the base of the previous pitch we clambered down the dry option (this is the route Bunty and Rolan took in Bunton (1990)). We found a forgotten carabiner rotting away on the ground (Rolan is a vandal) and a plastic keeper in a single spit at the head of the impressive pitch head.



Janine desecrating KD.

On the way out we pulled up the rope on the second pitch, left its approach/traverse in place and then derigged all the other rope and gear (other than hangers).

It'll be nice to do another trip, hopefully with a bit more water, to get the top section sorted out and take a few others along to get their opinions on how it should be finally rigged (with glue-in p-hangers) — we need to get it right. Then there's the bottom pitch (which will probably require a term greater than 'animal' to describe it and maybe some SCUBA). And then there's the survey; this is the only stuff Jeff Butt didn't resurvey back in the late '90s. A proper map of KD is on the 'to do' list (after Kubla, Constitution Hole, Voltera, Sesame and Ring Hole ...)

### **References:**

Bunton, S. 1990 Another obscure record – Khazad-Dum. *Speleo Spiel*, 257: 2-3

EBERHARD, R. 1988 Khazad-dum: Down the water. *Speleo Spiel*, 238: 7-8

HUME, N. 1989 A vertical swim in Khazad Dum. *Speleo Spiel*, 245: 7-8

JACKSON, A. 2011 JF-4, JF-40, JF-562 & JF-563. Speleo Spiel, 383: 10-11

KIERNAN, K. 1971 Khazad-Dum Expedition 27/2/71-1/3/71. *Southern Caver*, 3(2): 6-9

# JF31 Tom Smiths Cave: Another grotty dive ticked off the list

Janine McKinnon

3 January 2016

Party: Janine McKinnon, Ric Tunney.

Last April I checked out a small water-filled hole near JF8 (McKinnon 2015). Now I was back to dive it, and survey it for posterity. Why, I don't really know, as it looked like another go nowhere shit hole.

I started the dive at 10.50 am. The water was not flowing and the passage was narrow and not deep, so stirring up silt as I headed in was inevitable. I had visibility ahead of me for the first few metres, which was convenient as I soon reached a restriction. I could see it widened back to 0.5 m on the other side, so I would be able to turn around if need be. It took a couple of attempts, turning sideways, and some gear rearrangement, to get through, but this didn't take more than half a minute. The cave did almost a 90 degree turn soon after and several metres further on I surfaced into dry passage.

Dive time: 4 mins.



Janine commencing her dive.



The Tom Smiths Cave monster.

I took off the tanks and walked the ten metres to the end of the passage. There was another very small pool here, on the right, and a wall of mud at the end. About 5 m up the mud wall I could see a continuation of dry, mud-caked passage (as everything was

mud-caked here). It looked very narrow. I could not see a way to climb up alone. All the walls were smooth and covered in dry mud. There was no breeze detectable.

I looked in the pool and saw a very tight (too tight to fit) restriction just below the surface, heading in the straight line direction of the dry passage I was in. Below the restriction it widened a little but there wasn't a lot of room in there. I doubt it is passable, however I didn't actually try to dive it. Given the location of this cave, the nature of the passage so far, and the appearance of this very uninviting little puddle, I decided it wasn't worth my effort to go and get my tanks to try and fit into it. Maybe someone very small and highly optimistic can give it a go some time.

I started my survey from here. I had been going to use a silt stake to tie the dive line if there were no decent tie-offs (which there weren't), but the two I had brought with me had been knocked out of my wetsuit bootie and boot as I squeezed through the restriction. I only realised when I reached the air space. Finding them in zero visibility now was not going to be easy. I cut the line and tied it carefully to a solid looking clump of particularly thick mud (yes, I am joking about the solid bit). It would at least work for a survey line and guide line to get out, if I was very careful.

Survey was counting knots, compass and depth gauge for the wet bits. The passage was horizontal for the dry bit.

I had zero vis once I started the dive, so survey legs were done by counting knots and taking a bearing as I entered the water, counting knots to the bend, and then from the bend to locate this, and from the entrance looking back along the line for that compass bearing. There were no other direction changes in the underwater passage. Depth was taken from computer log. [See survey on page 24.]

Dive time out: two minutes. I managed the restriction more quickly this time, even in zero visibility.

So I had a total time underwater of 6 minutes. What an epic dive.

Water temperature: A balmy, summer 9°C. Not that I was in it long enough to notice.

Air consumption: Not enough to move the gauge needle noticeably.

I was back and finished not long before midday. So yes, all the rest of the time was spent getting gear off and on, trying to climb up to the higher stuff, surveying the dry bit and pondering the puddle.

I did feel for the lost silt stakes as I came out but with no success. Everything long and thin I felt turned out to be a branch. I will have to think of a much better way to carry silt stakes.

The line survived in situ whilst I felt my way out, but I made the mistake of trying to tighten some slack in it at the entrance, and gave it a tug to see if it was still in place. Not after that it wasn't. So we pulled it out.

# Dive Kit:

7 mm semi-drysuit. 2X3 L tanks. 2X Apeks XTX 50 cold water regs (+SPG's), Boots (no fins), Razor harness with small UTD wing, 1X Petrel computer, helmet with dive Scurion, 2X emergency helmet mounted lights, Finn dive light, survey slate, three cutting devices.

### Note:

I have trouble reconciling what I found here with the original trip report. It talks about John Parker walking in head high water for 30 m to a tight squeeze he couldn't fit through. I again, as per last visit, found the cave sumped at the entrance, which is at river level. The whole cave was only about 30 m long, but with totally dry passage for half of it (see map). Even if this cave was explored in very, very dry conditions, then the second part of the cave is dry.

I must say, I don't have the same belief that this is part of an underwater system measureless to man that the first report imagines (Annan 1977).

### **Tagging**

Neither Alan (Jackson 2015), nor ourselves last visit (McKinnon 2015), had been able to find either the tag for this cave or JF30

nearby. We had come prepared with new tags for both. Whilst I dived Ric had gone and installed a tag for JF 30. I now placed the new tag for JF 31 before I got out of the water.

We had tagged according to Alan's (Jackson 2015) assessment of the cave numbers.

### **References:**

Annan, A. 1977. Exploration of the Junee River Caves JF 30 & 31. *Speleo Spiel*, 121: 3

GOEDE, A. 1971. Club news, cave numbering. Speleo Spiel, 61: 2

JACKSON, A. 2015. JF 30 The Letterbox, Speleo Spiel. 407: 3-4MCKINNON, J. 2015. Checking out JF 30 & 31. Speleo Spiel. 407: 6

# **IB11 Midnight Hole**

# Janine McKinnon

# 15 January 2016

**Party:** Jasmine Landertshammer, Janine McKinnon, Andrew Thomas, Greg Tsaplin, Ric Tunney, Brett Wiltshire, Danny Wilkinson.

Some boys from Western Australian Speleological Group (WASG) that we had met at the ASF conference in Exmouth in June were over for a caving holiday. They had selected a few caves they wanted to do, with our help, and MH was the first off the rank. Co-incidentally we had a couple from Austria visiting. We had never met them but Jasmine was in the caving club we

had caved with, in the Ebensee area of Austria, so with a good reference from a caving friend over there she joined the trip.

There is nothing much to say about the trip really. All went smoothly, we ran multiple pitches at a time until the last two, to save all that boring standing around with a large group.

Two [Three! - Ed.] reasons to record the trip really:

- 1. The log book is totally full. So anyone going there should take a replacement. If you don't know how to make one (waterproof paper required) please contact me in advance to arrange to get one.
- 2. Danny took a couple of the best photos I've seen of the cave, so this is a chance to showcase them.
- [3. Every trip should be properly recorded Ed.]



Looking up into the vadose canyon between pitches five and six.



Growling entrance cascade (without the water).

# JF337 Slaughterhouse Pot – JF36 Growling Swallet Through Trip

# Janine McKinnon 16 January 2016

**Party:** Jasmine Landertshammer, Janine McKinnon, Andrew Thomas, Greg Tsaplin, Ric Tunney, Brett Wiltshire, Danny Wilkinson.

Day two of our cave tour guiding saw the party heading for this JF classic; another good pick from the WA boys.

They found the entrance to Slaughterhouse Pot interesting, and the rock pile even more so. We had a quick visit to the trapdoor waterfall and Greg, Jasmine and I went to the start of Herpes III.

Windy Rift proved challenging for a couple of the boys and we passed packs through.

The streamway was very disappointing; so little water. The Cascades were dry; totally. There was flow in The Yorkshire Drain though. In fact nearly all the water was going that route.

We climbed out the dry bypass route anyway 'cause it's fun. Everyone managed to free climb it all.

The logbook in Slaughterhouse Pot is full. So anyone going there should take a replacement. If you don't know how to make one (waterproof paper required) please contact me in advance to arrange to get one.



Cavers in a cave (presumably Growling).



Yawning, queueing cavers at the bottom of the second pitch, Slaughterhouse Pot.

# JF4 Khazad-Dum Janine McKinnon 18 January 2016

**Party:** Janine McKinnon, Andrew Thomas, Greg Tsaplin, Ric Tunney, Brett Wiltshire, Danny Wilkinson.

The third in our caving forays with the boys from Western Australian Speleological Group (WASG). This cave was our choice for a change. We thought they really couldn't come caving to the JF without sampling KD.

Our plan was only to go to the top of the first streamway pitch. They aren't used to lots of up and down ropes, so this seemed a good distance down the cave to go. Danny wanted time to do photos too.

Ric rigged down the pitch beside the traverse after the first down pitch (I could probably describe that better). Greg followed me across the traverse whilst the others took the pitch route. All went smoothly to the bottom of the 70 footer, although it was slower than I had anticipated. Photos were taken and the exit commenced.

Water levels were extremely low, as one would expect in the current conditions.

Here is another chance for me to put up one of Danny's photos.



# JF14 Dwarrowdelf – SRT Training

# Janine McKinnon

# 31 January 2016

**Party:** Phil Croker, Chris Edwards, Pat Fitzgerald, Ryan & Victoria Kaczkowski, Janine McKinnon, Ric Tunney.

A few cave divers from the mainland have wanted to come down here and do some SRT training for a while now. They have several dives at Mt Gambier that have rope access to the water, and dry caving itself has been appealing to them too. I met Ryan several years ago and he has been threatening to come ever since. Pat is a diving buddy of mine, and he organised the rest of the crew for this little jaunt to Tassie.

After some time getting their gear adjusted (for those with their own kit) and the usual Fruehauf training Saturday, we headed to Dwarrowdelf for our first real cave practice. I like this cave for vertical training as it isn't too long or hard a walk to get there, and there are plenty of rebelays, and a couple of interesting pitch heads, to test out those new vertical skills. It is basically straight down, and I think if you are after moderately advanced vertical training, then there is no point spending a lot of time in horizontal bits of caves.

All had done very well at the quarry so I wasn't expecting too many problems in the cave.

There was more water than I expected after this dry spell, so some of the rain we have had in the east of the state had made it there. It was overcast and drizzly too.

The trip down to the bottom of the 55 m pitch went fairly smoothly, if a little slowly. I rigged down, with Ric at the back of the party. Everyone made it down without any dramas, so all was good. There were quite a few comments about what "dry cave" meant in Tassie though.

After lunch I started up first, with Ric to do the de-rig. Ryan, Vic and I stayed together and exited the cave by 3:15 pm. We then waited more than an hour for the others to appear. I'm not sure why, but it didn't really matter. A warm, sunny day rather than cool with drizzle and rain would have been nicer for the wait but this is Tasmania after all.



Pat and Vic at Dwarrowdelf.

No-one had problems beyond what you would expect for beginner SRT cavers in that situation, and they all solved their problems themselves calmly and relatively quickly. Ric and I were impressed with how quickly all of them had picked up skills.

They had bought cider and beer for the carpark change time, which was very nice.

# **JF2 Cauldron Pot**

# Janine McKinnon

# 1 February 2016

**Party:** Chris Edwards, Pat Fitzgerald, Ryan & Victoria Kaczkowski, Janine McKinnon, Ric Tunney.

Day two of the "practical" training in a cave was a trip down the entrance pitch of Cauldron Pot. With six in the party, four of them new to SRT, and Pat with an evening flight back to Melbourne, we wanted a cave that would have lots of rebelay practice but not take too long. Cauldron has a magnificent entrance as well, so well worth a trip.

It was a warm sunny day and the light streaming into the pitch was beautiful.

Ric rigged this time. Most of the party found this a more intimidating trip than the previous day because they could clearly see how far down it was. A couple of the rebelays are a bit interesting too, which makes for great practice, particularly when you can talk to each other as you are staggered down the pitch on different sections between the rebelays.

Pat had a few issues on the third rebelay with loop lengths, which Ric had made VERY long. He sorted himself out though, which is what it is all about really. The others were taller and loved the loop lengths. So you can't please everyone with loops.

Ryan and I did a quick trip down Bills Bypass to the end, at the reappearance of the stream. I had managed to leave my trog suit and some undergarments at home, a first for me (I blame chaos in the garage – it's always good when you can shift blame from yourself), so I was working on not tearing anything. I must say, I was quite proud of myself when I achieved it.

By the time we got back, the others had finished looking around the entrance chamber and started up. The last one was almost at the bottom rebelay, so we had planned that well (my story and I'm sticking to it).

Everyone managed the prusik out smoothly and with no problems.

More cider and beer at the cars in the sunshine and home in plenty of time for Pat's plane.

As a final comment, Ric and I were impressed with how quickly all the group picked up SRT skills, how well they performed in the caves and how much fun they had along the way. It was a pleasure to train them and go caving with them.

A short video of each trip will appear on Vimeo eventually for anyone interested in viewing moving pictures.

### TRACK NOTES:

There has been a tree fall not far along the KD track and another big one on the Cauldron track. A trip to examine these is needed and we will get to it eventually unless someone beats us to it.

# **Other Exciting Stuff**

# JF-14 Dwarrowdelf Rigging Guide

# Original Alan Jackson 2005 (SS350:12); modified Ric Tunney 2012, 2015

Pitch 1 (22 m) 31m rope – Start around the Sassafras tree a few metres from the entrance and abseil out to reach two bolts on the back wall (just below the contact). About half way down the pitch an obvious natural spike of rock will be encountered (probably tearing the bum out of your suit if you're not paying attention). Bang a 3m trace or tape around it and rebelay to the bottom.

Pitch 2 (21 m) 30m rope – There are three p-hangers and a natural to play with. The natural is a knob up high on the right (as you stand looking down the pitch). An additional back-up/approach anchor is available in the form of a p-hanger on the left wall (at about waist height). Leaning out over the pitch you should then be able to reach two further p-hangers that form a y-hang from either side of the shaft.

Pitch 3 (55 m) 64m rope - A back-up hanger is located at the base of the previous pitch, at the entrance to the tube that leads to the third pitch. At the other end of the tube two hangers have been installed in the vicinity of the multitude of existing spits and carrots. One hanger is on the left wall and should be easy to find, the other is theoretically on the left wall also, but up high, across to the right and slightly hidden (one could almost say it is in the roof). It sounds difficult, but you should locate it easily enough – it has a reflective marker, as do all the other hangers in the cave. About 6 metres down the pitch turns a slight corner and a rebelay hanger is on the left. Various natural anchors abound for the second rebelay about 15 metres off the floor. Take a long tape. A redirection about 6m above the floor clears some sharp rubs. This pitch should be tied into the previous pitch (and the one continuous rope could indeed be used). Tie the rope to the top of the next pitch.

Pitch 4 (14 m) 20m rope – This pitch immediately follows the previous one. A p-hanger is located at about chest or head height

on the left wall, slightly out over the pitch (you'll need to be on the rope from the previous pitch to reach it safely). A second hanger is located a few metres down for a rebelay.

Pitches 2, 3 & 4 - These can be done using one single 110m rope.

Pitch 5 (37 m) 43m rope – Back up off one or more of the boulders in the floor. A p-hanger is located on the right hand wall at the edge of the pitch. A second hanger is located a few metres down on the same side. There is a further rebelay p-hanger 15 or so metres down from here.

Pitch 6 (67 m) 75m rope – Two p-hangers are located on opposite sides of the shaft and are quite a long way apart, thus resulting in quite a rope-hungry y-hang. Consider tying to higher hanger with an alpine butterfly to reach the lower hanger.

There are two p-hangers LHS above the last pitch as a safety approach line for people who get off here and wait. It is not necessary to use these to travel between pitches 5 and 6. An extra 8 metres of rope would be handy if you intended using these two p-hangers. There are also two spits here.

You have now reached the bottom of Dwarrowdelf – congratulations! However, depending on how confident/capable you are, it may be worth taking a 30 m hand line for the descent into the final KD chamber.

P2, P3 & P4 should be tied together if individual lengths are used. Similarly P5 & P6 should be joined.

All p-hangers have a reflective marker. You have to find the naturals for yourself; we can't take all the fun out of the cave!

As mentioned, the rope lengths suggested above are not necessarily perfect. It is always better to have a few metres of unused rope at the base of a pitch as opposed to having to free climb the last four metres of a free-hanging pitch.

All directions looking down.

All up the cave will require about 26 carabiners, 1 wire trace (or sling) and 6 slings.

JF-14 Dwarrowdelf	gear summary
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Pitch	Length	Rope	Rebelays & redirections	Carabiners	Trace	Tape	
P1	22	31	1	4	1	1	
P2	21	30		4		(1)	
P3	55	64	3	6		2	
P4	14	20	1	2			
P2,3,4		110					
P5	37	43	2	4		1	
P6	67	75		2			
		8		3			P6 approach line
		30		1		1	Hand line
				26			

# The Staak Sandstone Caves near Quamby Bluff

# Greg Middleton and Chris Sharples

# **INITIAL INVESTIGATIONS**

While documenting the Golden Valley Karst of Northern Tasmania in November 2011 (Wylie 2012), John Wylie, Jill Bennett, Henry Shannon and Greg Middleton learned of some sandstone caves in the vicinity of Quamby Bluff. On 23 November, they drove up Lake Highway to the property of John and Amanda Staak where they were welcomed and given directions to the caves.

On the way to the caves they came across an isolated sandstone outcrop about 15 m high with vertical sides – a sort of 'minimesa' or butte. Metal pins driven into a tree on the northern face indicated where someone had climbed the feature in the past. On a trip in January 2012, David Butler tested these pegs but decided against trusting them (Bennett 2012).

Continuing south, the group came to another sandstone cliff line, evidently part of a much larger mesa-like sandstone outcrop. Following these cliffs to the south they came across a small slot cave, probably formed by a large slab of sandstone being undermined and slipping down, eventually resting against the cliff. While it's necessary to scramble a bit to enter Staak Slot (as we subsequently decided to call it) (Photo 1), the roof immediately rises to at least 3 m and is open to the sky in places. The passage is straight, running almost north-south for ~15 m. It widens towards the southern end; there is a large boulder on the floor (Photo 2) and a larger one suspended above, with a daylight hole just short of the southern entrance. It took the group only a couple of minutes to examine this cave.



Photo 1. Simon in entrance to Staak Slot, CN3.

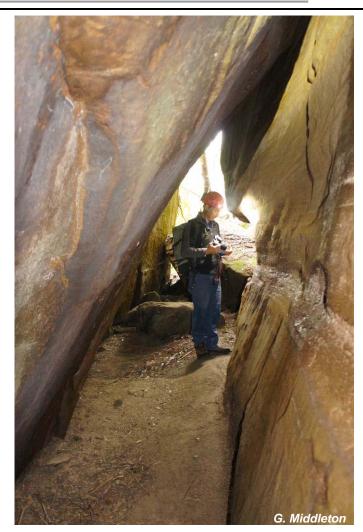


Photo 2. Rolan near end of Staak Slot, CN4.

They continued in a south-westerly direction along the cliff line and soon came to an entrance which required a bit of clambering (subsequently numbered CN5). John was first up into this entrance (Photo 3) but it was quickly evident that the next entrance (CN6) was of easier access (Photo 4). Once inside they soon appreciated that this was no ordinary sandstone cave – it has much more the appearance and feel of a karst cave (Photo 5). While there are breakdown blocks, most of the walls are not flat, but rather rounded as they might be if created by solution.

The group continued exploring what was evidently the main complex (subsequently called Staak Labyrinth Cave), finding more entrances, daylight holes and, at the far western end of the system, a tapering bedrock column which hung down like a huge fossilised uvula at the entrance to a human throat (Photo 7). It is actually a separate joint-bounded block of sandstone that has been eroded by cave development processes from several sides to produce its tapering shape.

Henry Shannon, who's experienced more than his fair share of caves around the country, was subsequently moved to write "These caves were, as sandstone caves go, pretty remarkable" (Shannon 2011). Elaborating on the formation of the network, he wrote "The passages follow a joint system and the typical styles of rock-shelter formation, in which the insides of joint blocks are hollowed out by granular disintegration of the rock were nearly absent."

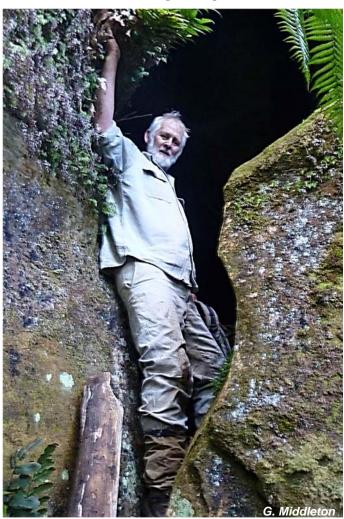


Photo 3. John Wylie in CN5.



Photo 4. Chris in second entrance to Labyrinth Cave, CN6.

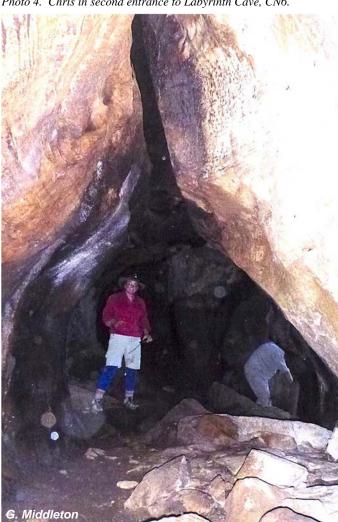


Photo 5. Jill in the main passage of Labyrinth, which has a karst-like form, as though a joint has been widened by solution.



Photo 6. Asymmetric passage form in Staak Labyrinth Cave, resulting from LHS joint block dropping relative to RHS block.

Further west were a series of other small caves which the group investigated briefly. Last in the sequence is one which GM called Staak Windows Cave because two small 'windows' open from it to the west. The smaller of these (Photo 8) immediately reminded him of an 1894 diagram explaining the formation of joint-controlled solution passages, reproduced in Shaw's History of Cave Science (Shaw 1992) (Fig. 1). The similarity is quite striking. (The figure has been flipped about its vertical axis to give the same orientation.)



Photo 7. Joint block basal pedestal, inferred to be the final stage of basal undercutting in a relatively small joint block, before the pedestal fails and the joint block drops to produce the asymmetric passage form shown in Photo 6.

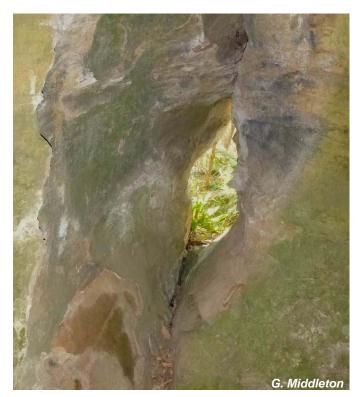


Photo 8. Looking out the smaller of two 'windows' on the western side of Staak Windows Cave.

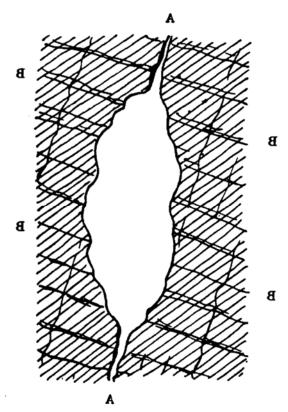


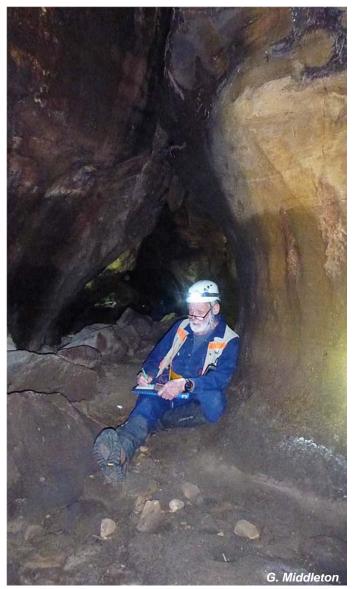
Fig. 1. "Diagram by Dupont [1894] showing cross-section of joint-determined cave passage formed by solution ..." – Shaw (1992, Fig. 67).

# SURVEY TRIP I

A number of the original group were keen to survey these interesting caves so, on 22 January 2012, a group returned to the caves for that purpose. Henry declared his wish to carry out the survey so GM agreed to assist him, as did Jodie Rutledge and Jill Bennett (Bennett 2012). John Wylie took others off to see the Golden Valley caves (Butler 2012).

Relatively slow progress was made, due to Henry's meticulous plotting (Photo 9) but by day's end they had finished the main complex and started on the furthest in the series, Staak Windows Cave (Photo 10). They checked the other caves, including Green and Fern caves (which have large parts of their walls covered by moss and ferns – Photo 11). It was agreed to continue surveying on 23rd.

Next day they didn't resume surveying until about midday but by 17:30 the job was finished. Aided by Jodie and Jill, GM had also taken a few photos, attempting to capture some of the distinctive form of the passages (Photos 12, 13).



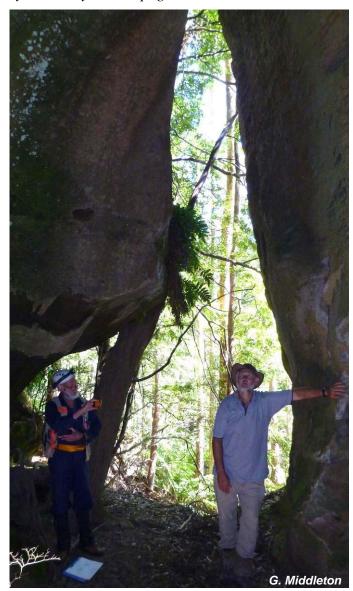


Photo 9. Henry recording survey details.

Photo 10. JW & HS in Windows Cave entrance.

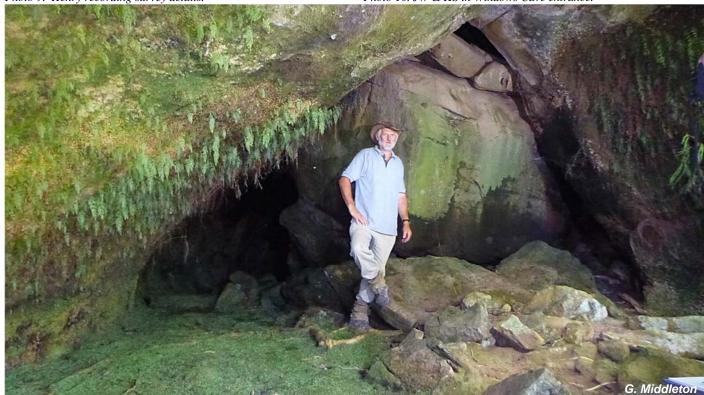


Photo 11. John in outer part of Staak Green Cave.



Photo 12. Jodie in typical section of the main passage in Staak Labyrinth Cave.



Photo 13. Jill further along large main passage, Staak Labyrinth Cave.

# SURVEY TRIP II

What became of the survey is not known but with the approach of the second anniversary of the first survey trip GM decided to go back and carry out a new survey of the caves.

On 19 December 2013, accompanied by Simon Bland, GM returned to the Staak property and resurveyed the entire series of caves. The results are included here in the order in which they were surveyed: Staak Slot CN3-4 (Fig. 2), the main network,

Staak Labyrinth Cave CN5-12 (Fig. 3), Staak Windows Cave CN13 and Staak Tunnel CN14-15 (Fig. 4), Staak Green Cave and Staak Fern Cave (Fig. 5). The very small Staak Mini Cave is shown in Fig. 6, which shows the relative positions of all the caves.

GM spoke to Amanda Staak after the survey and confirmed that the owners would be happy for him to return later with other interested people.

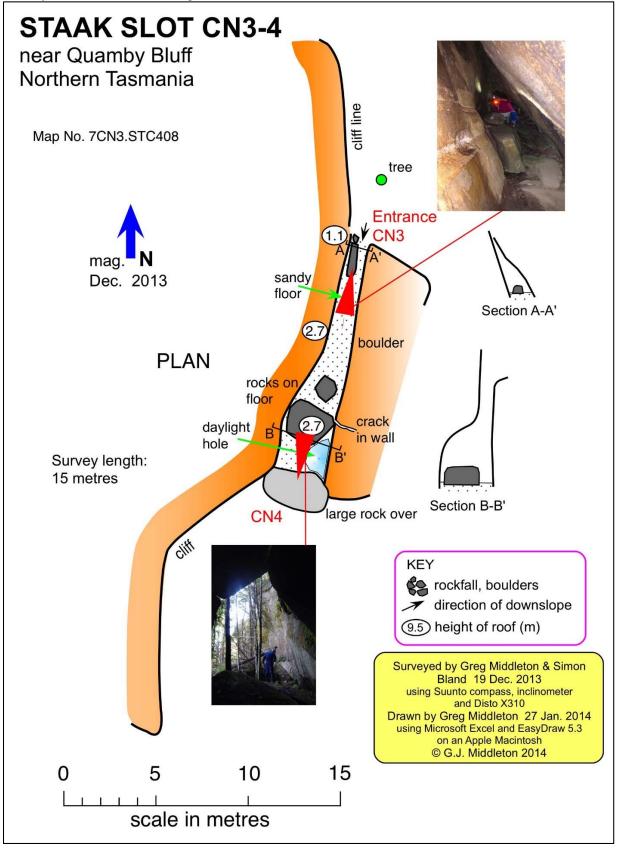


Fig. 2. Plan and cross-sections of Staak Slot CN3-4.

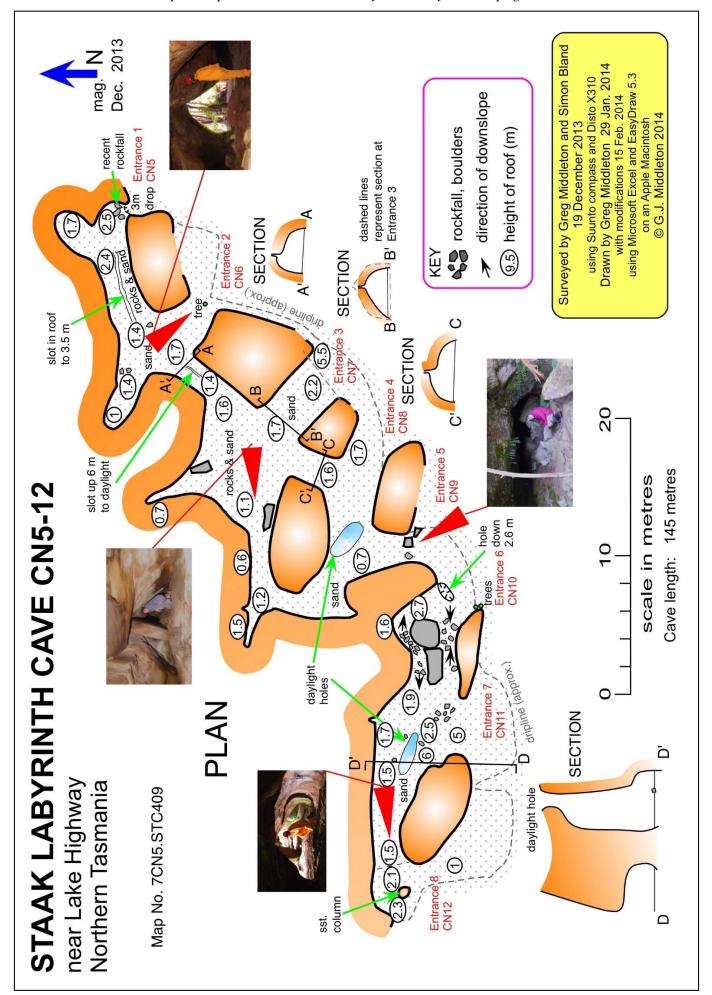


Fig. 3. Plan and cross-sections of the main Staak Labyrinth Cave CN5-12.

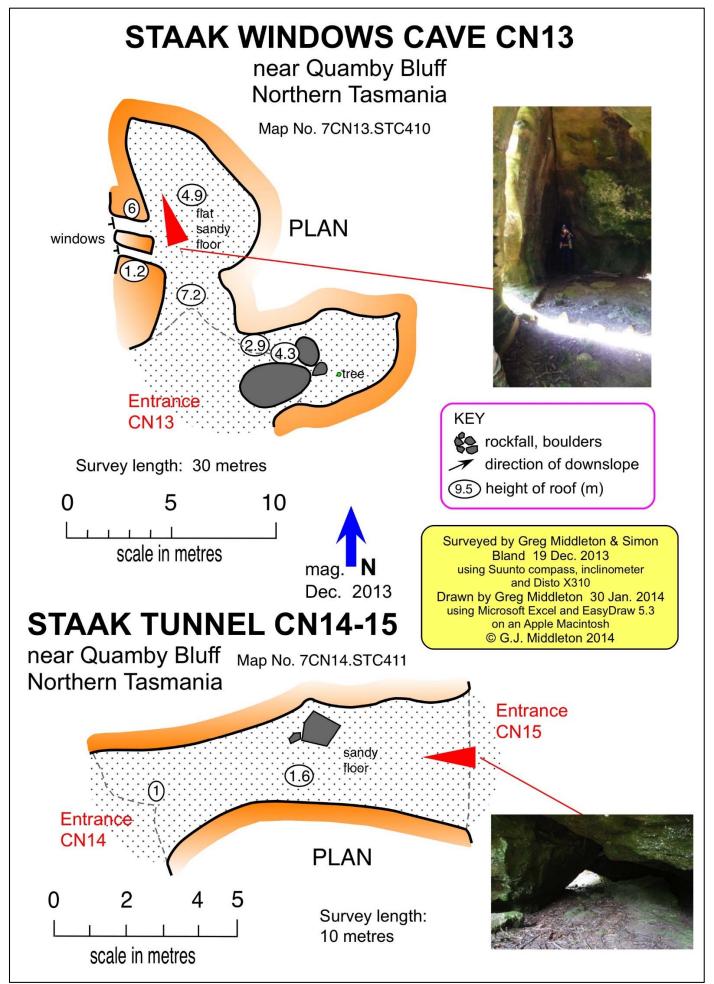


Fig. 4. Plans of Staak Windows Cave CN13 and Staak Tunnel CN14-15.

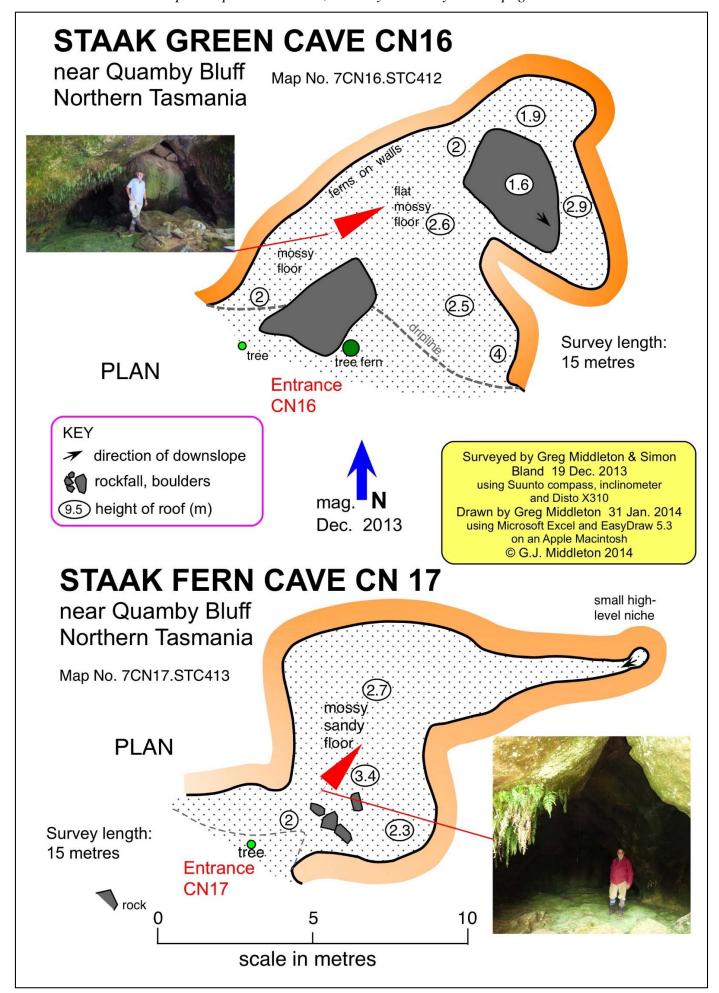


Fig. 5. Plans of Staak Green Cave CN16 and nearby Staak Fern Cave CN17.

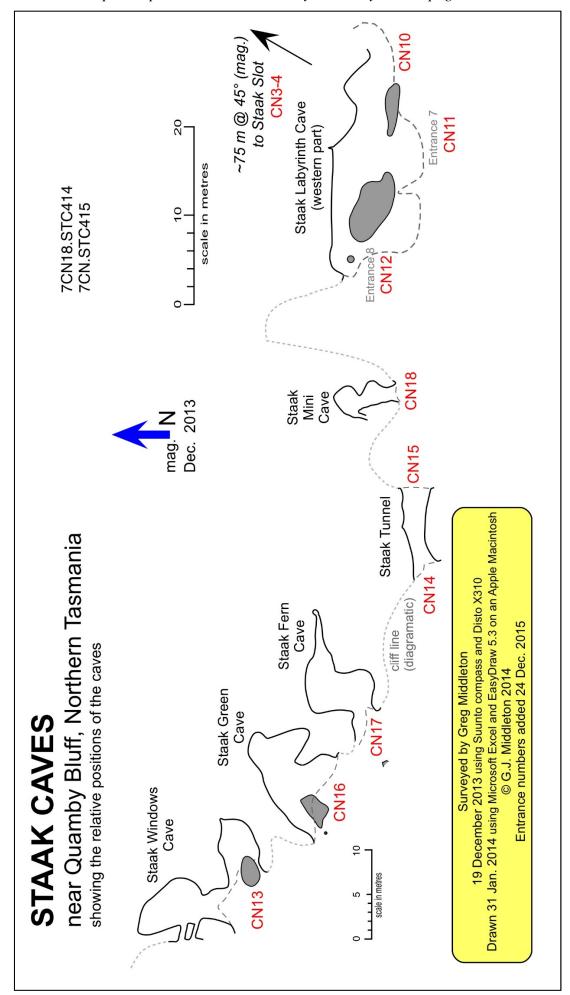


Fig. 6. Plan showing Staak Mini Cave CN18 and the relative locations of the Staak Caves

#### ASSESSMENT TRIP

When Rolan Eberhard, Karst Officer at the Department of Primary Industries, Parks, Water & Environment, learned of the unusual caves near Quamby Bluff, he was keen to investigate them. This followed an earlier proposal to list sandstone landforms in southern Tasmania on the department's Tasmanian Geoconservation Database (TGD). A site visit to Quamby Bluff was an opportunity for Rolan and consultant geologist Chris Sharples, both of whom are members of the expert panel that reviews proposed TGD listings, to get further context on this class of landforms. The TGD is "a source of information about earth science features, systems and processes of conservation significance in the State of Tasmania," the principle aim of which "is to make information on sites of geoconservation significance available to land managers, in order to assist them manage these values." (DPIPWE 2012) Listing on the database is independent of tenure and has no impact, of itself, on land use.

Arrangements were made on 13 February 2014 for a visit to the site by Rolan, accompanied by Chris and guided by Greg. We visited each of the caves and Greg was able to make some improvements to his survey of the main part of the system.

Rolan and Chris were suitably impressed by the size, complexity and form of the main passage network and agreed that solution processes were likely to be at least partly involved in the formation of these sandstone caves.

### PRELIMINARY THOUGHTS ON SPELEO-GENESIS

The Staak Caves do not have the characteristic features of the common "tafoni" style of cavernous sandstone weathering, which produces large rounded cavities at different levels in sandstone cliffs, with characteristic soft 'sanding' rounded and alveolar internal walls. This style of tafoni cave development has been attributed to salty groundwaters or aerosols causing granular disintegration of sandstone surfaces through a combination of mechanical disaggregation by salt crystallising in sandstone pore spaces (producing a 'sanding' wall texture), together with a chemical enhancement of the solubility of quartz and clays in the presence of salt (Young & Young 1992, pp. 69-77).

In contrast, the Staak Caves have characteristically developed at the base of a sandstone cliff line (Photo 14), and the cave walls are hard coherent surfaces. The cave passages have formed along intersecting vertical joint fractures in a crudely rectilinear pattern, producing a network of passages both parallel and perpendicular to the cliff line, which is unusual for sandstone caves. It is also notable that the passages show a distinctive sequence of passage cross-section forms as they get larger. The passages appear to begin as narrow lenticular slits (Photo 8) developed along vertical joints, which then subsequently become wider towards the base, developing tear-drop (Photo 15) then bell-shaped passage forms (Photo 16) as the passages widen. This sequence is suggestive of groundwater seepage not necessarily salty – that is concentrated along permeable joint fractures causing weathering and passage formation by a combination of solution and mechanical removal of loosened grains in water. As the passages widen, groundwater seepage and its weathering effects would become more concentrated at the base of the widening fissures, leading to the sequence of teardrop to bell-sectioned passages. Some of the larger bellsectioned passages show a strong asymmetry on either side of the joint fractures in their ceilings, with one side of the passages having evidently dropped a metre or so relative to the other

subsequent to a bell-section having developed (Photo 6). We interpret this as the result of passage basal widening eventually reaching a point at which some sandstone joint blocks are supported only by a narrow pedestal, which eventually collapses causing individual joint blocks to drop a short distance. One narrow pedestal remaining intact in the caves (Photos 7 and 17) is interpreted as the pedestal of a smaller joint block which has yet to fail.

Fig. 7 provides a schematic interpretation of the sequence of cave development processes proposed above for the Staak Caves.



Photo 14. Rolan under a basal undercut on the outer cliff-line, showing the same form that has developed in the passages along the internal joint fractures.



Photo 15. Cross section of main passage in Staak Labyrinth Cave reflecting joint control and showing a characteristic tear-drop form.



Photo 16. John in the spacious Entrance 3 to Labyrinth, showing rounded walls and joint-controlled ceiling, with the bell-sectioned form characteristic of the larger passages.

# Inferred Sequence of Cave Development Processes Profile view Plan view Passage Profiles Earlier Earlier [رم B Later Later Key Passage overhang outline C. Sharples

Fig. 7. Schematic diagram illustrating inferred cave development sequence for Staak Labyrinth Cave (see text for explanation).



Photo 17. Henry examines the outside of the joint block basal pedestal.

# WHAT TO NAME THESE CAVES?

Everyone who has seen them agrees that these caves are unusual and interesting - and definitely deserving of names, though they appear never to have been named by locals. The problem for us and John Wylie had been to come up with suitable names. Things like 'Quamby Bluff Caves' or 'Jackeys Marsh Caves' have been considered, in an effort to associate them with local features but they are not located in the immediate vicinity of these places - and where they are located does not have a distinct local name. The landowners themselves, the Staaks, do not know of any name having been given to these caves. We have been left with little alternative other than to refer to them as Staak Caves (though with considerable reluctance in view of the modern convention to avoid using the names of living people). However, it has been a common practice in Tasmania, and, indeed, throughout Australia, to name geographical features after the relevant landowners. At nearby Mole Creek a number of caves are named after people who, at the time, held title to the enclosing land; for example: Baldocks Cave, Herberts Pot, Howes Cave, Lynds Cave, Scotts Cave - so there are plenty of precedents. In the present case, while using the owners' family name, we are expressly not adding an 's'. We have included 'Staak' in each of the individual cave names, as well as the group name. GM has allocated

numbers to these caves in accordance with the recently established regions for the recording of non-karst caves in Tasmania. They fall within the Central North region. It is not anticipated at this time that they will be physically tagged.

### REFERENCES

BENNETT, Jill 2012 Sandstone caves, Liffey Falls area and Golden Valley limestones. *Troglodyte*, 22(1): 10-11

BUTLER, David 2012 Golden Valley. Troglodyte, 22(1): 11

DPIPWE 2012 Tasmanian Geoconservation Database. Dept. of Primary Industries, Parks, Water & Environment www.dpiw.tas.gov.au/inter.nsf/WebPages/LBUN-6TY32G?open

SHANNON, Henry 2011 Golden Valley trip 1. *Troglodyte*, 21(2): 11-13

SHAW, Trevor R. 1992 *History of Cave Science: The exploration and study of limestone caves, to 1900.* (2nd Edn.) Sydney Speleological Society, Sydney. 338 pp.

WYLIE, John 2012 A known karst area with new beginnings. Caves Australia, 191: 10-15

YOUNG, Robert, & YOUNG, Ann 1992 Sandstone Landforms. Springer-Verlag, Berlin, 163 pp.

