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CAVER

*NUMBER 56
NOV 93*

SOUTHERN CAVER

November 1993

ISSN 0157-8464

Number 56

Price \$4.00

Published by the

SOUTHERN CAVING SOCIETY
P.O. BOX 121, MOONAH 7009

OFFICE HOLDERS

President	Andrew McNeill	252063 (H)	207446 (W))
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MEETINGS

The Society meets on the 2nd and 4th Wednesday of each month at 8pm at the Wheatsheaf Hotel (314 Macquarie Street). Visitors and prospective new members are welcome. Further details of our activities can be obtained from any of the above Office Holders, or by writing to us at the address above.

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Disclaimer: The views expressed within are those of the Authors, and not necessarily those of the Society.

Cover Photo: A sample of the formations in Welcome Stranger Jeff Butt

EDITORIAL

In a recent Editorial I saw words to the effect that "cavers are a strange bunch" with reference to the ups and downs of clubs and their publications. SCS and the publication of the "Southern Caver" seem to have fallen squarely into that category. In March 1989 a spiffing Southern Caver (Number 55) went out and lots of goodies were promised for forthcoming issues. Number 56 was destined for publication in September 1989, hot on the heels of Number 55. It's hard to say exactly what happened and why, but the net result was that everything languished in a very big way. In that period there were sporadic bursts of enthusiasm for getting the magazine out, but somehow until now, the task was larger than the enthusiasm. Maybe it's a sense of over-riding guilt, or the realisation that our slackness has been extreme that has motivated us now. However, the reason is irrelevant, it is just great to finally see the appearance of the ill-fated Southern Caver Number 56. It is fortunate that our caving activities over past years didn't follow suit. For the future there is hope that there will not be such a long break between issues. Certainly the material for many issues each year is being produced, it's just a matter of guiding and harnessing our enthusiasm to ensure that these surveys, articles and trip reports get published. More importantly it is going to be a lot easier if we never let the task get out of hand again, timely small efforts are a lot easier and more successful than those single hit big efforts.

Many thanks go to Phil Jackson, Bruce Morley, Andrew McNeill and Jeff Butt for getting this issue of the Southern Caver out to the wider world.

AREA REPORTS: APRIL 1989-APRIL 1991

Over this period a total of 84 trips were recorded in the club minutes book. On an area by area basis there were:

29 trips to the Junee-Florentine

27 trips to Ida Bay

18 trips to Hastings

4 trips each to Mole Creek and Mt. Weld

and 1 trip to each of Jane River and Frenchmans Cap.

As noted in the last Southern Caver, the number of trips to Mole Creek is down dramatically on previous years, indicating that access problems to caves such as Herberts Pot are continuing. However, the level of activity in the Hastings area has been much higher than usual, reflecting in large part the work Phil Jackson has been doing. Highlights from each area are as follows:

FRENCHMANS CAP Two small caves were located in Precambrian dolomite near Lake Tahune. These will be described in the next Southern Caver.

IDA BAY As usual Exit was the most visited (11 trips including an Old Ditch Road a Mini Martin and two Valley Entrance through trips) with seven trips to Mystery Creek and visits to Big Tree pot, Milk Run (two trips each) and Cyclops pot as well as the inevitable surface bashing on Marble Hill.

JUNEE-FLORENTINE As well as the usual caves; Growling Swallet (six trips), Slaughterhouse Pot, Rift Cave (two trips each), Owl Pot and Dwarrodelf, JF341 was visited four times and both Burning Down The House and Troll Hole were surveyed. The KD-Satans Lair area was surface trogged and several pots tagged.

HASTINGS Wolfhole seems to have become a favourite for easy trips (five visits) although some surveying was also done. Newdegate-Binney Tunnel was visited three times while surface trogging led to the relocation, and survey, of Bellchamber and a nearby sub-jacent collapse and stream sink in Permian sandstone. Several other rarely visited holes, including Lyons Den, Fossil Creek Swallet and Trafalgar Pot were explored.

MOLE CREEK Three trips visited Kubla Khan (two surveying trips and a joint clean-up with the Northern Caverneers) while there were tourist trips to Croesus and Ghengis Khan. Not included in the trips statistics were several additional trips to Croesus, to help Phil Jackson do a survey for the Forestry Commission.

MT WELD The first visit to this area located a large swallet leading to tight wet passage that sumped (but may go in dry weather?) while two other swallets were located near a new Geological Survey access track. One of these led to an 11m pitch but sumped below. Another visit located a tight entrance and relocated a line of prospective looking cliffs. R.F. says, "somewhere there is a big cave and by f**k I'm going to find the bastard.....". Unfortunately, the thick cutting grass on the route in is a major disincentive to further exploration.

TRIP REPORTS (a selection from April-July 1991)

Ida Bay-Surface Trogging

Party: D Rasch, A McNeill

28/4/91

A day of surface trogging near the old quarry. Started off by exploring, to sub-Raschian size, the cave in the face of the quarry. Wandered to the start of the Revelation track and the area of complex karst topography between it and the Moonlight Flats track. Poked ourselves into every hole we could find but nothing went. Headed up the hill until we found the tagged entrance to IB80; 15-17m from this entrance on a bearing of 037° mag. Dave located an entrance choked by vegetable debris. We threw the ladder down and Dave descended 3-4m into a small cave with two chambers and lots of bones.

From here we headed up hill eventually blundering into a dry gully that led to the Moonlight Flats track. Between IB40 and the track we located an elliptical shaft, two-thirds covered by a log, with no tag. Threw the ladder down and I descended 6-7m to the inevitable choke with no way on. Crossed the track and contoured around until we intersected a red taped track that was followed to the IB28 doline, where we found an apparently un-entered hole covered by logs. Returned to the cars somewhat enthused about the IB28 area.

Andrew McNeill

Ida Bay-Con Cave and Gollums Grovel

Party: D Rasch, D Muskee, A McNeill.

11/5/91

After a reasonably civilised start we arrived at the entrance of Con Cave by about 10:30 am. Descended two ladder pitches and followed the rift down to where it branched. Dave explored a climb to the left while I dropped down a small drafting passage that obviously takes a fair bit of water. We both arrived back in the main rift

after having piked in our respective leads and Dave had a go at the drafting passage, managing another 2-3m further before things became too tight and required digging for further progress. Dropped down the 7m pitch, after I had to return to the surface to get a rope, and explored the lower part of the cave. This was Daniels first experience of SRT and I'm not sure if he enjoyed the interesting start to this pitch.

Had lunch in the sunshine at the old quarry and wandered up to the IB28 doline to the apparently untrogged hole. Cleared away some debris, threw a ladder down and Dave and I descended into a loose talus chamber. We found our way down to more solid looking rock and the top of a pitch with a note drawn on the wall- 1984 TCC dig! Bastards! After a bit of a discussion we returned to the surface and headed home. The moral of this story is: before going grovelling at Ida Bay it's probably best to consult with Arthur C. to find out what's been done!

Andrew McNeill

Hastings-Newdegate Cave-Binney Tunnel

Party: P Jackson, G Jordan, D Muskee, K Hosking, D Lange, K Boland 19/5/91

The party entered the cave at 11:00 am after threatening tourists and the Dover 'egg and bacon roll' shop, and made its way, with minimal unrest to the Hell's Half Acre waterfall. Here a leisurely lunch was had before the party split; Dimity, Ken H. and Daniel heading off to the sump while the remainder began the survey of an extension located on a previous visit. This extension is located at the T junction approximately 20m before the waterfall. A short climb leads to a rift about 30m long that ends in a large chamber approx. 15m by 30m. Access to this chamber is by traversing a wall of chossy sharp, shattered dolomite. Most of the group baulked at this and the survey was completed at grade 2. From here a retreat was made to the mystery chamber for some photos and shenanigans with mud and peoples faces etc. Followed by more encounters with slippery mud and out of control cavers in the tubes leading back to the tourist cave.

Phil Jackson

Junee-Florenine-Gormenghast

Party: Jeff Watson, Andrew McNeill, Bruce Morley 19/5/91

'The best laid plans of mice and men' is a saying coined especially for caving trips, and this one was no exception. Plans for an early start failed to come to fruition as one of the starters (with the transport) opted for a day of rutting instead of caving. Our two dedicated, celibate cavers sat in a state of deep depression contemplating their fate and lamenting the loss of their randy companion and the transport. Out of the blue the phone rang and it was Bear to the rescue! Spirits were lifted as the threesome, somewhat late by this stage, drove to the Nine Road and commenced the search for Gormenghast. None of us had visited this hole before and the resultant side trips up overgrown roads looking for the track in wasted more time. Eventually found a taped route we assumed led to the cave. Whoever taped this route obviously didn't know where the cave was either, as it took us about an hour to reach the entrance (and 15 minutes back to the cars on the correct route). Descended part way down the cave, very pleasant small climbs and scrambles, before time ran out and we returned to the car vowing to return soon.

Bruce Morley

Junee Florentine-Slaughterhouse Pot-Growling Swallet through trip

Party: J Watson, G Jordan, R Fulton, B Morley, D Flemming and Ken Boland (the caving priest) 22/5/91

The Sport and Recreation staff development group and friends made good time to the bottom of Slaughterhouse. Father Ken was impressed with his first Florentine cave. A side trip to Avon's aven and the trapdoor streamway then out via the windy rift with a quick peek into New Feeling as far as the flattener. Popped out to find a magic day, capped off by a visit to the top of Tim Shea, Father Ken blown out!

Bruce Morley

Mt. Ronald Cross-King William I

Party: Michael Lichon, Andrew Stewart

1-3/6/91

1/6/91 Almost immediately, the ascent of Eucryphia Lead was characterised by karst features; dolomite outcrops, small depressions and lack of surface water. Between 620 and 680m there were large dolines, one of which was explored, without finding caves. Between 820 and 920m, dolomite outcropped in bluffs and cliffs. Several small holes were located in this section. This region looked very promising to explore further, particularly contouring to the south-west. The dolomite gives way to Permian sediments at 950m, evidenced immediately by surface water.

2/6/91 At 252195 (grid reference), the ridge top of the Loddon Range was abandoned for the eastern descent. After 50m of direct descent in medium scrub, we veered due south west to the prominent ridge. From here the unnamed lake, "679m", could be seen while the mist lifted, as well as a sinkhole lake deep in the forest at 258194.

Mike Lichon

Hastings-Wolfhole

1/6/91

Party: D+A Hudspeth, P+M Steane, G+R Anderson, Gill McLaurin, A McNeill, Sue

A predictably late start meant we were at the entrance by about 11 am. Rigged two ropes on the entrance pitch to speed things up as five of the party had done little or no abseiling. Wandered in to Lake Pluto with some exploration of side passages. Visited Hells Passage then had a cuppa back at the lake before returning to the entrance. Took less time than I thought it would to get out, even with a fair bit of gear shuffling. Andrew Hudspeth somehow managed to end up carting most of the lights out in his pack! Retired to the Dover pub for a beer then Huonville for chips. Gill managed to lock the keys in Donny's car and as we were informed by a passing policeman that we were parked in a no standing zone and he would have to book us if we weren't gone in 3 minutes some frantic manipulations ensued. Escaping the wrath of the law we headed home an enjoyable day had by all.

Andrew McNeill

Junee-Florentine-Growling Swallet-New feeling

Party: P Jackson, J Watson, D Hudspeth, B Morley, D Muskee

2/6/91

Anticipating an early start, with Daniel straining at the bit, our plans were dashed when a certain club president not only arrived late, but brought with him 'Mr. Pooh fingers'. Arrived at the entrance, water level low, and wasted no time in scrambling down the streamway and through the flattener. Followed the obvious trogged passage which led nowhere. Spent a frustrating 45 minutes following false leads

before 'el presidente' redeemed himself by climbing to the roof and finding the right passage. Slow progress resulted from Mr. Pooh fingers suffering the ill effects of a night of debauchery. He found it hard to get it all together when crossing an exposed rift. Finally a chamber reached with good decoration and a passage followed to the top of the pitch. Due to the debacle at the start, time was running out and the boys had to be content with peeking down the enticing hole and then turn tail for home.

Bruce Morley

Mole Creek-Prohibition, New Cave

Party: A McNeill, P Jackson, L (vomit) Vanzino, J Jackson, G Jordan, M Lambourne, A+D Hudspeths, G McLaurin, and the ratbag Kiernan 8-10/6/91

Arrived late on Friday night in pouring rain to find the creek at the Wet Caves campsite well and truly in flood (80mm of rain in three days!). So much for dry conditions to push a few leads. By Saturday morning it had stopped raining, so some of the group headed to Prohibition. The old logging track near the cave is now very heavily overgrown and presented some navigational problems. At the entrance we split up, Luke and I did some surveying in the upper passages while Mel, Jean and Greg ventured into the very wet lower passages. We re-grouped and headed down the upper level to the pool at the end which Greg swam: well, he did have a wetsuit on, silly bugger! He reported that the cave continued for about another 10m before blocking off. We returned to the campsite to find Andrew, Dave and Gill had arrived and settled in for a pleasant evening around the fire, disturbed only by the appearance of Kiernan and the author breaking his tooth on a piece of Jean's rather inexpertly cooked popcorn.

The next morning we set off to explore a hole located a few years ago in the Sassafrass Creek area. After a minor navigational indiscretion and the late arrival of the Kiernan we found our way to the area where I remembered the cave being. Dropped packs and spent about 20 minutes searching the scrub for the entrance. Eventually located entrance, now changed beyond all recognition by a couple of large trees falling into it (or at least that's my excuse!), about 3m from where we left the packs. We descended the entrance pitch by ladder and pushed on to the sump which was full. A bit of exploration by Greggles located a dry bypass and we were off virtually running up the cave to the flowstone flattener. Greg and I stripped off and pushed through the squeeze, much wetter than last time I did it, while Kevin checked out a tight passage branching to the right . As we were changing back into our gear we could hear Kevin getting closer in his squeeze but unfortunately it became too tight about 2m from where we were sitting. Greg and I pushed on to a rift floored by much leaf litter and mud and with a large weta population, that is obviously close to the surface. About 20-30m further on we reached a terminal looking chamber with a small round water filled hole in the floor, that may go under dry conditions, and a tight but diggable drafting hole! Didn't feel like digging so headed out after attempting to climb the rift. Monday was reserved for a visit to Westmoreland Falls and then the wildlife park for Devonshire Tea before the party split up, heading for various destinations.

A. McNeill

Junee-Florentine-Owl Pot, Gormenghast

Party: J Watson, B Morley, P Jackson, D Morgan

15-16/6/91

Me and Bruce went to Owl Pot. Bruce wanted to prussik out of his first cave and I wanted to remember what a vertical cave is. Thought we'd go for the weekend and do Owl Pot and Three Falls, no worries said Jacko, I'll come. No Jacko on Saturday but went down Owl Pot anyway. Rained overnight so decided not to do Three Falls but go to Gormenghast instead. I couldn't face Gormenghast so Jacko, Dean and Bruce went.

Jeff "I'm a piker" Watson

Junee-Florentine-Owl Pot

Party: Helen Beggs, John French, Brad Phillips, Dave Rasch

?/6/91

We went to Owl Pot because none of us had been there before. Dave rigged the first pitch using a large hex on the LH wall about 2m up and backed it up to the two existing bolts. At the squeeze, by climbing up through the rockpile instead of down, a bit more cave could be seen through a just-sub-Raschian gap in some rocks. Decided against trying to move two cave-pack sized rocks to widen the gap since they were higher in the pile than the cavers. Had lunch at the bottom of the waterfall pitch which was pounding in fine fashion. Little time for exploration of the extensive series of dry passages at the bottom. On the way out, two members of the party got lost at the top of the "bowling alley" and turned left instead of right. They were finally relocated heading back down into the cave.

When we got out of the cave, we knew we were pushing things to get back to the 'parks' gate by 4.30p.m. Sure enough, after some fairly fast driving, we arrived back at the dot of 4.30pm to find both the 'parks' gate and the 'ANM' gate locked and no-one in sight. Rather than settle in for the night, we had to stir up the parks ranger, who obviously enjoyed giving us a lecture about being late. After much discussion about future access to keys, permits required in writing etc we left feeling even more confused about gaining access to the Florentine on weekends. Sure hope this gets straightened out soon.

Dave Rasch

Junee-Florentine-Gormenghast

Party: L Vanzino, D Muskee, P Bannink, L Douglas, A Hudspeth, G McLaurin, G Marquardt, A McNeill

23/6/91

Let's go to Gormenghast, Jacko and the others went last week, it doesn't matter that its been bucketing rain and snowing.

Arrived at the junction on the Nine road and after sliding around in the car decided to walk rather than drive. Into the cave at 11 am, didn't appear to be much more water than before. 20m in and Gill was saturated and decided to head out, well maybe the water is a bit higher. Pushed on down to the squeeze at which point we all decided we'd had enough and it was time to head out. For some reason it seemed even wetter on the way back. Blue skies for the walk back to the car and as we were out early the Canadians (Gill and Greg), Andrew and I went touring up Tim Shea then south to the big tree. Gormenghast is a fun cave!

A. McNeill

Ida Bay-Revelation Cave

Party: Russell Fulton, Bruce Morley, Jane Cowley, Rob Reid, Jess Farley. 7/7/91

The group size was originally 8 persons, but very soon dwindled to 5 when Jeff 'Big Girl' Watson and Dimity refused to get out of bed, and Daniel's wife said "You no go caving today". Beaut day, almost too good to spend underground. Down through entrance into Weta city and beyond. Leisurely trip to the top of the pitch, laddered down and explored the 'Exit-sized' passageway before reaching a streamway and an abrupt end. On the way out, all flew up the ladder except the author who grunted and groaned, suffering the effects of a broken rib inflicted while under the influence. A good day was had by all.

Bruce Morley

The Weld Valley-The Big Wet Swallet.

Party: R Fulton, D Rasch, J Jackson, G Jordan

One day in winter

There was a rumour that there was a huge swallet gobling up the waters from half the Weld Valley. So we waited until the weather was really, really bad. The plan was to drive down to Tahune Park on Saturday night and camp in the picnic shelter, and wake up bright and shiny for a big day. We wouldn't need a tent, or a stove. About 11 pm we reached the picnic shelter to be greeted by a number of nice people with spotlights, guns and lots of alcohol. Considering a certain amount of recent anti-caver/greeny animosity, we decided that alcohol, guns and cavers didn't mix. Our campsite was the turning circle at the end of the road: a circle of mud. The weather was rain/sleet/misery. The beds were (1) a plastic bag on the road (Jean), (2) a pack, and a short sheet of plastic (Greg), (3) the front seat of Russell's sedan (Russell), and (4) the back seat of Russell's car (Dave). Luxury. Who needs more than two hours of sleep?

Morning came. The sun didn't rise (as far as we know). Nothing to make a brew for breakfast (we didn't have a stove). An hour through the cutting grass was followed by an hour through beautiful rainforest along an old geologists track, in the piddling down rain. There it was: the bestest little swallet you ever saw. A large stream wandering through rainforest flats suddenly took it into its head to drop into a yawning hole in the ground. Very excited we dressed up and entered. The bloody great creek had turned into three drains flushing down human + waterfall sized holes. Twenty minutes later we were back on the surface, very wet and frustrated. Maybe the hole would go in a drought. A quick scurry up a couple of hills yielded nothing extra. So, back we went along the track. Funny though, the walk in through the cutting grass didn't seem downhill. Why is it all up hill on the way out, then? It was dark, and still raining by the time we got back to the car. We had a flat tyre near Franklin. First problem, was the rain (still). The second problem, was the lack of a jack that worked. The solution to this was to dig a hole for the jack and lift the car onto it, easy. The third problem was that the spare tyre was flat. Great. The RACT man came, but he didn't have a pump, or a spare tyre. So we drove to his garage (10 km) on the flat. Finally we got home at about 1 am. So, in summary, 30 hours with two hours of sleep for twenty minutes caving. Why, oh why?

Greg Jordan

Ida Bay-Big Wet Hole.

Party: Russell Fulton, Donald Hudspeth

16/7/91

Secret buggery. Arcane rituals. Mysterious canoodling. Moisture. A bundle of faggots.

*!!***

THE COOK CREEK KARST

On the Lands Dept. Burgess 1:25000 topographic sheet an approximately 30m deep depression is shown below Mt. Chapman in the Picton valley. The proximity of Gordon limestone in the Picton River and the Cracroft valley, and the altitude of this feature (480m ASL) suggested it warranted a close look. Therefore on the 11/5/87 (yes it's taken that long for me to write this up!) Andrew Wakefield and I, after having spent 2 1/2 hours bashing through various botanical nasties, found ourselves on a 30m high cliff overlooking an impressive doline.

Karst Features

The major feature is a compound depression containing at least 2 stream sinks (Fig 1). The eastern corner of the depression is the deepest and is floored with collapse boulders of dolomite forming small caves. Two promising entrances were noted:

- 1) A small vertical entrance in dolomite boulders was descended for approximately 3m before a section requiring a handline was encountered.
- 2) In an overhang of the main cliff a small entrance led to a single steeply upward sloping chamber with a large population of wetas. Total length approx. 5m.

Approximately 30m west of entrance two a small stream flowing from the NW sinks in an impenetrable boulder choke. In a doline 130m to the west a second major creek, flowing from the SW, sinks in a log jam. A dry, deeply incised channel meanders further to the east and ends in talus at the edge of the doline. This depression is floored by deep mud and ferns, suggesting that it fills with water at times. The resurgence of these creeks was not located. The contact with overlying insoluble rocks, on the SE side of the major depression was followed west for 200m. No entrances were found but solution pits up to 3m deep were developed.

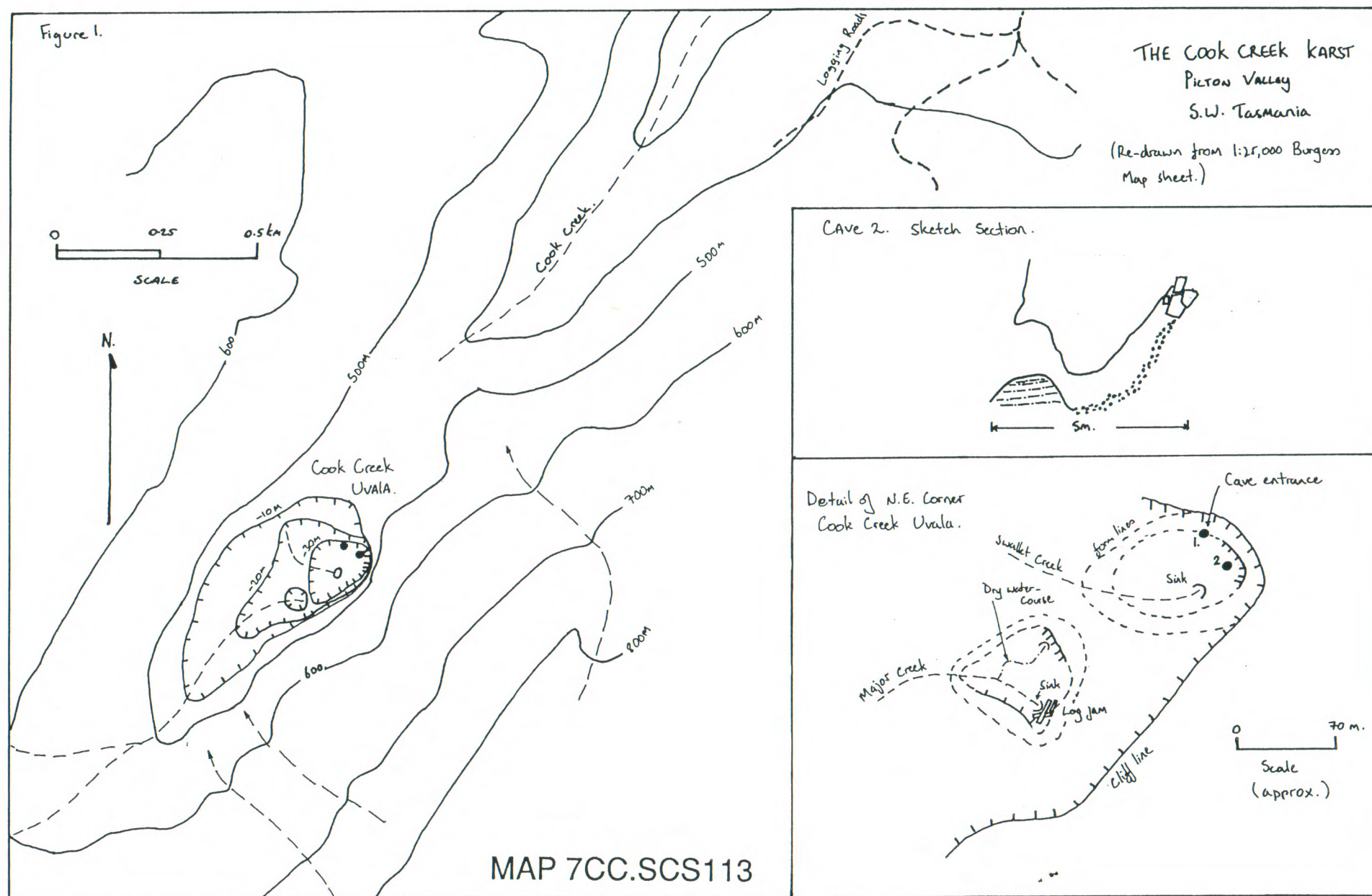
Geology

The karst features are formed in light grey to cream coloured, fine grained dolomite showing blocky jointing and irregular quartz veining. No fossils or definite bedding were recorded. Lithologically these rocks are similar to the Precambrian dolomites of the Weld Valley. Overlying the dolomite is a dark green-grey pebble-boulder conglomerate with sand to silt grade matrix. It is matrix supported with clasts dominated by quartzite and micaceous quartzite. Bedding dips S-SE at 5-10° while the contact with the underlying dolomite is erosional, with channels up to 70cm deep. No fossils were found. This lithology probably correlates with the basal unit of the Parmeener Supergroup (Permo-Carboniferous) and is similar to rocks from the Mt. Bobs area. The extent of the outcropping dolomite may be defined by the sub-horizontal contact with the overlying Parmeener which, assuming no complications from faulting, would close it off to the west. However, no outcrop was found in the creek to the east and the extent of the dolomite is unknown in this direction. Boulders of dolerite, Parmeener sediments and quartzite are common in the creek and could indicate a considerable depth of Quaternary and recent cover.

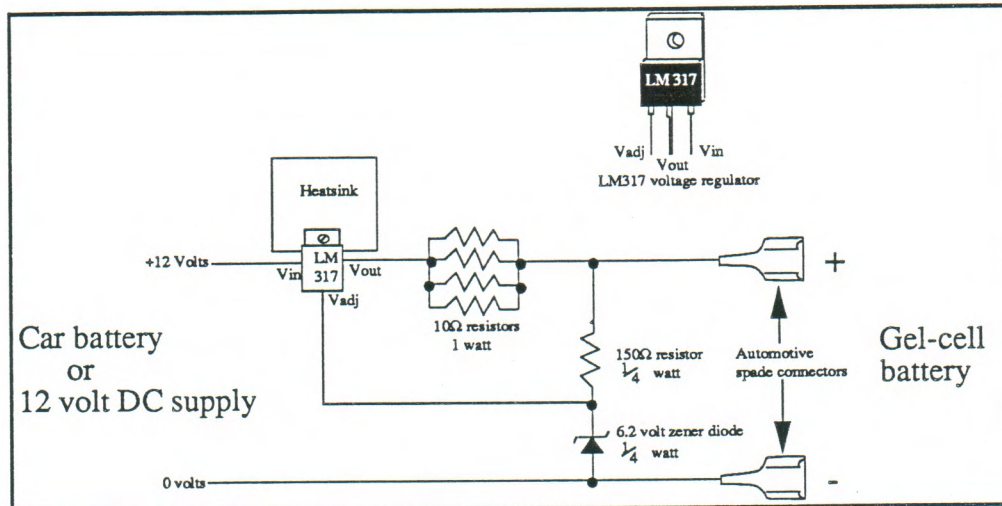
Conclusions

Although no major caves were found, this trip was of a reconnaissance nature and both this area and other depressions further to the north and to the east of south. Mt. Picton, deserve a look. However, a major deterrent is the amount of scrub bashing needed to reach these areas.

Andrew McNeill



A GEL CELL CHARGER FOR MISERS AND IDIOTS



For the caver who prefers to build rather than buy, "gel cell" batteries have proven themselves to be a cheap, reasonably reliable energy source for home-built cave lighting systems. They don't leak acid, they will sit on the shelf for long periods without requiring a recharge (a particularly important feature for SCS at the moment) and can withstand reasonable punishment before failure. But no home-built lighting system would be complete without a home-built battery charger to go with it. The only problem is, some charger designs need an electronics certificate to build and get going.

Not this one! This design uses a minimum of parts which are all available at your nearest smiling electronics dealer. The above circuit will charge a 6 volt gel cell at approximately 0.5 amps, which is about the same rate as a high beam bulb uses it up (so if you've been underground for say 6 hours then give it at least this much charging time). You can leave it on overnight-it won't hurt the battery. If you have built a 4.5 volt system, replace the 6.2 volt zener diode with a 4.7 volt one. The LM317 needs to be bolted to a heatsink (a lump of metal such as the inside of a metal box). Also the 10W resistors get warm so they need some space.

The circuit needs at least 8 volts DC from a supply that can deliver at least the charging current (0.5 amps). You could wire up a plug that plugs into your car cigarette lighter (good for caving weekends) or use a 6 volt car battery charger unit (which is bound to be more than 6 volts) or a 9 volt 'battery eliminator' unit that plugs straight into the 240 volt power point (also available at electronic stores). If you use a 'battery eliminator' leave out 2 of the 10W resistors to reduce the charging current (these units are wimpy) and make sure you give the battery extra time on charge to make up for it.

I built one of these chargers inside a 4cm x 4cm x 4cm metal box with a connector on the box so that I can swap between a cigarette lighter lead to charge from the car to a lead that's permanently connected to a car battery charger unit at home. Being a 6 volt system, it's also compatible with my bike "gel cell" lighting system so I only have to buy bulbs of the one voltage rating for both, and I can also give the bike a pit-stop on the same charger.

Dave Rasch

EMP (Environmental Management Plan) Pot (IB 143)

With the closure and rehabilitation of Benders Quarry, nearby caves will no longer be subjected to the same fate (ie. complete removal) as ASF Pot (IB 202). I have heard it said that "ASF Pot is still there, it's just the walls that have been taken away" (this parallels amputees still feeling their phantom limbs), but personally I'd rather have the complete 'walls and all' experience. The story and survey of EMP Pot follows.

In early 1992 Arthur Clarke mentioned that he'd heard from an Ida Bay local of a hole in one of the upper benches of the quarry. With plans for extensions in the pipeline we thought it prudent to check this out. On 16/1/92 after the quarry had closed for the day Arthur, Tellus (a visitor from the ACT) and myself ventured in (this wasn't too long before the days of the sentry and dogs, ask Russell Fulton about that) and on one of the top benches located the 'hole'. On the benches above there was evidence of a very narrow and near vertical cave passage.

Above the entrance to the hole proper stood a 2 m diameter boulder, it looked ready to plop onto those who ventured below. A bit of gardening and pushing indicated it wasn't likely to move that day. It was possible to squeeze beneath it (or to preferably climb over it) and into the 'cave softly' region beneath. The floor consisted of a series of balanced blocks with a slot through to a pitch ("Softly Softly") beneath. A couple of bolts were placed so as to give a free hang and to minimise the contact with the perched blocks. Through the slot one emerged into a sizeable chamber and eight meters below the floor was reached. Looking up wasn't recommended as the ceiling had that temporary appearance. Several avens were visible above the lower chamber. A thin slot through the wall gave a glimpse through to a large shaft, the breeze we detected made it even more tantalising. Near the base of the slot the rock looked a different colour. Arthur gave it a hit with his geo-pick and it gave a dull thud rather than a nice ring. A few more hits indicated that we had located a soft rock (palaeokarst) plug. About an hour later we had enlarged the 10 cm slot into a body sized hole and it was possible to horizontally squeeze through a tight rift to the head of an estimated 30 m pitch. Without sufficient rope to reach the base of the blackness below, it was time to head home.

On 19/1/92 Andrew McNeill, Mark Doyle and myself returned with extra rope and survey gear. The undescended pitch ("Palaeokarst") turned out to be 26 m, with another pitch below. There was a good breeze (estimated as exceeding 200 litres/s) emanating through the body sized hole. This tight vertical squeeze was dubbed the "straight-jacket" and lead to an airy window into a vast chamber ("The Gods"). A rebelay bolt was placed here to give a free hang. [I'm not proud of this one as the second blow of the hammer was on the floor below!! Oops. The bolt was "completed" using whatever rocks were at hand, but the casing projects a lot more than is desirable.] There wasn't much joy at the floor of The Gods with only two non-negotiable leads, one a tight nasty rift and the other a small mud choked stream passage. With the hammer recovered the straight-jacket was re-negotiated (about one cm per prussik cycle) and we headed home.

The survey data (the survey is attached and see the notes below) gave the vertical pot a depth of just over 78 m. We decided that the name EMP Pot was appropriate after "Environmental Management Plan", or was that "Excessively Muddy Pot"? Armed with the survey data preliminary estimates of the cave volume were made

and indications from the air flow rates were used as ammunition in a detailed submission (Butt, 1992) to the Department of Environment and Planning against the proposed enlargement of the quarry. The Management Plan for the quarry extension proposed to fill exposed cavities with crushed rock. Filling EMP Pot was estimated to require the best part of one years production!! Airflows suggested that there was more cave than seen and that a connection with the upstream branch of Little Grunt (IB 23) which lay beneath the quarry was not out of the question.

On 6/2/92, the day after the final blast (on the bench above Exits' Nostrils, at the other side of the quarry), Ian Houshold, Stefan Eberhard and myself made a 'legal' trip to EMP Pot. In fact we got locked in that afternoon. Funny how with the contentious blast achieved there wasn't a person, or dog to be seen. The integrity of EMP Pot, particularly the 'mess' at the top of the entrance pitch was not noticeably affected by this blast, though EMP Pot, not surprisingly does exhibit blast damage. The passage ("The Gallery") heading off about half way down The Gods was checked out. Down a 6 m pitch ("Gallery") was a small chamber with a breezy hole in the floor. A bit of hammer work allowed access into a rift passage carrying a noticeable breeze, however the passage soon bifurcated into rifts that were too tight. Ian took a heap of photos and Stefan sampled the fauna. The breeze (weaker than on the last visit) coming out of the straight-jacket was measured as 137 litres/s ($\pm 15\%$) and the air temperature was 10.4°C. At the base of The Gods the pneumatic rock breaker working in the quarry could clearly be heard, it was probably only about 50 m away!

Reference:

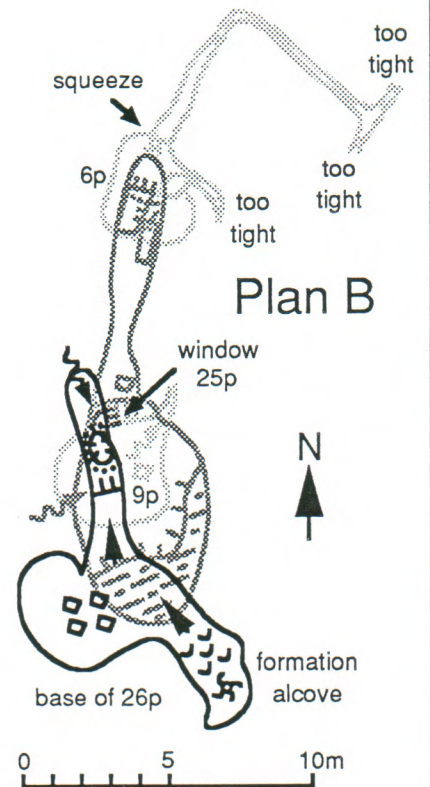
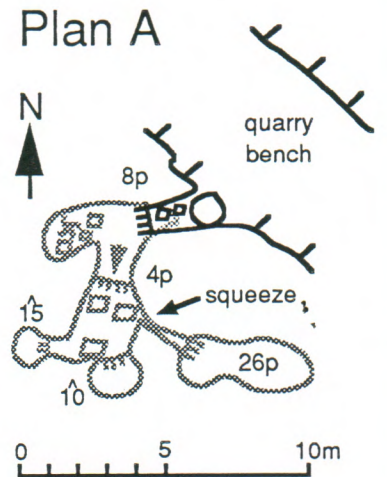
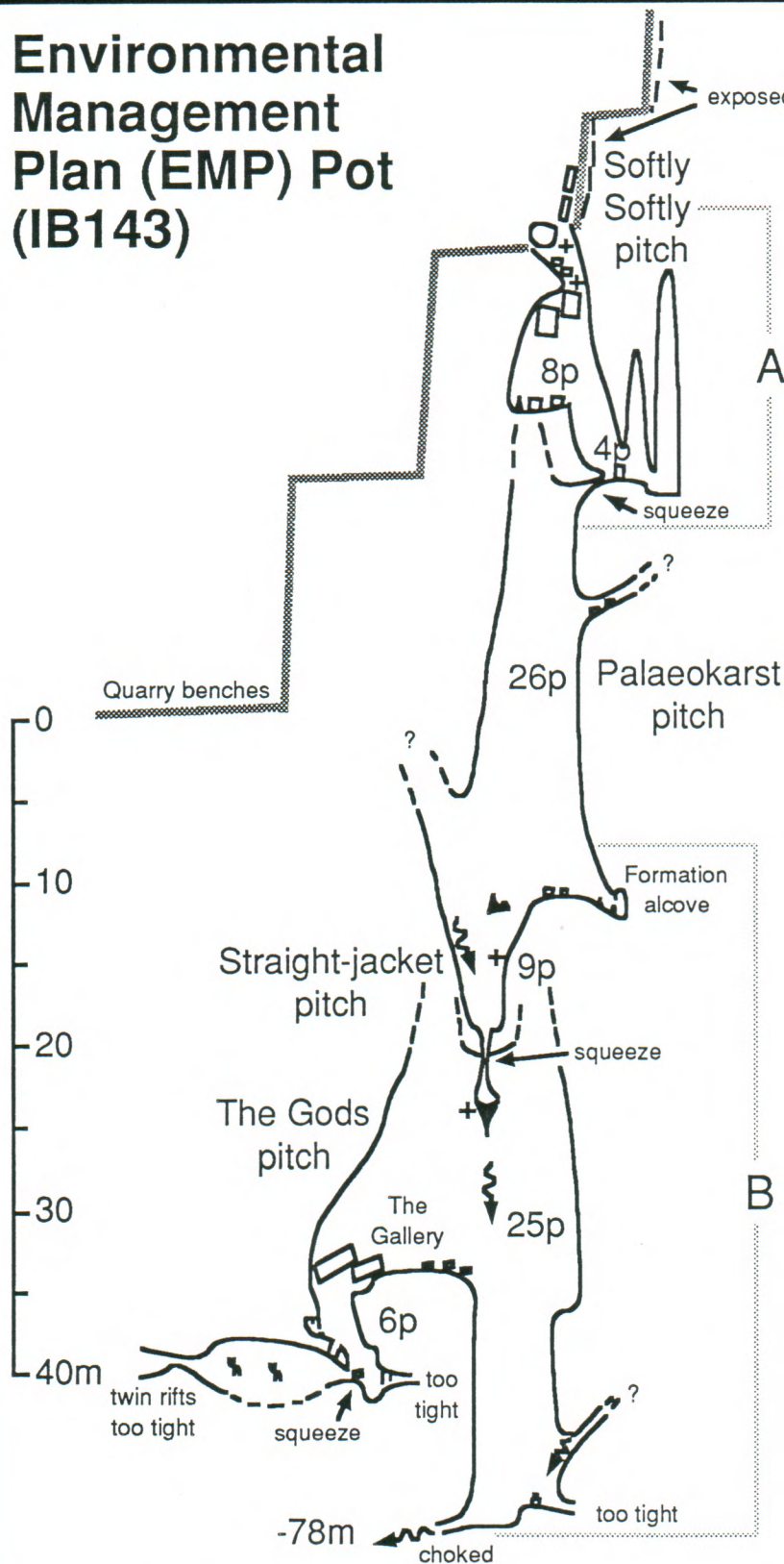
Jeff Butt (30/1/92) Submission to Department of Environment and Planning re Environmental Management Plan for Benders Quarry.

Rigging Details for EMP Pot (IB 143).

- | | |
|--|---|
| Softly Softly (8 m) pitch
plus step (4 m) | <ul style="list-style-type: none"> •allow about 20 m rope •bolt next to number tag, left hand wall •bolt at pitch head, left hand wall |
| Palaeokarst (26 m) pitch | <ul style="list-style-type: none"> •allow 35 m rope •tie back to previous pitch •6 m tape around boulder on left at 'plug' entrance •3 m tape around chockstone above 'plug' •4 m tape around column at top of pitch for a free hang
[this column is now dodgy, could use a bolt here] |
| Straight-jacket (9 m) and
The Gods (25 m) pitch | <ul style="list-style-type: none"> •allow 50 m rope •tie back to previous pitch •2 m trace around small boulder in floor at base 26 p •2 m tape on small column and stal on right hand side •bolt on right hand side at step •negotiate the straight-jacket squeeze and emerge
from the window •rebelay from a bolt on the right hand wall for a free
hang [this bolt projects more than is desirable] |
| Gallery (6 m) pitch | <ul style="list-style-type: none"> •allow about 14 m rope •tie around large boulder. |

Jeff Butt

Environmental Management Plan (EMP) Pot (IB143)



Surveyed Jan 1992

Drafted by Jeff Butt

Developed Longitudinal Section

Grade 53

MAP 7IB143.SCS107

SOUTHERN CAVING SOCIETY

Notes about the survey of EMP Pot (IB 143)

The Grade 53 survey was carried out by Mark Doyle, Andrew McNeill and Jeff Butt using Suuntos and a 50 m fibreglass tape. The zero datum is the IB 143 number tag, located on the left hand wall beneath the 2 m boulder perched at bench level. The final station is a rock cairn on a step near the base of The Gods pitch. The surveyed depth is 78 m and the length is 124 m. The computer produced line survey (via JB software) was transferred to an Apple Macintosh and the detail filled out using MacDraw II. This method of producing the survey was found to be very efficient and avoided the ink hassles associated with infrequently used drafting pens.

Jeff Butt

CAVING IN FRANCE 1992 S.C.S. INTERCONTINENTAL EXPEDITION

Party: Jean Jackson (SCS), Greg Jordan (SCS), Ray Carpenter, Brad & Wendy Potts

We had heard that there were good caves in France. We went to see.

Our First Taste

Signs along the side of the road lead us to our first cave. The signs said 'Cave'. We entered a small building and a nice woman gave us glasses of wine. At the next cave the same thing happened. We decided we were probably on a good thing so we visited quite a few after that. A good tip is to hang around the entrance until you're invited in, and then say that you're not really interested in buying anything. Most of the time you will be asked to come in anyway.

The Wheelchair Derby or Who Needs to be Fit to go Caving?

Question: What is the most visited cave in the world?

Answer: The grotto at Lourdes gets over five million visitors a year.

Brad had told us about the very special experience involved in visiting the most popular cave in the world, so we were compelled to make the pilgrimage. The first hint of a remarkable place was the 3 m high cyclone mesh fence enclosing a huge area of manicured lawns with wheelchair friendly paths and wheelchairs with wheelchair friendly nurses. We breached the fence (through the gate) and followed the obvious route. The second sign was the sound of ethereal voices (recorded hymns coming out of the loud speakers). Finally, we could tell we were close to the grotto by the milling but largely reverent crowd. The cave is a grotto about 7 m high, 10 m wide and 10 m deep with an outflow stream and set in a huge expanse of wheelchair friendly concrete. Strung across the grotto is a length of barbed wire with crutches hanging from it. Cripples climb the wall of the grotto and hang their crutches on the wire when they are cured. After passing by the grotto it was time to collect some water in a banana cordial bottle. We headed past the wheelchair friendly baths, and the stalls selling candles from 15 cm to 25 m long. We then became entangled in a religious ceremony. The wheelchair friendly church is huge but the ceremony took place on the steps where there was room for the crowds outside. People in wheelchairs lined the courtyard. We escaped soon after this. The gate we came in was locked and we had to climb it (perhaps they saw us come in).

Near the grotto is the town of Lourdes. The main street is about two hundred metres of continuous kitsch shops. There are shops which sell plastic screw top Virgin Marys, and 100 ml to 10 litre plastic drums with Lourdes plastered all over them. At one stage we had an uncanny feeling of being watched, until we realised it was a life size 3D picture of Jesus Christ with eyes that followed you. Then there were the Taiwanese plastic virgins, nativities and sheep and, of course, cuckoo clocks.

The Second Most Famous Cave in France

The advance party of Brad and Wendy went to look at Lascaux: you know, 20,000 year old paintings of hunting deer and stuff like that. Sad, but, \$12 to get in and all you see are replicas. Whoopededoo.

The Tempest

The Tarn, like many rivers in the south of France, flows through deep limestone gorges. We found a nice little cave to camp in several metres above the river. At about 10 pm the storm started. The lightning and torrential rain continued until some time the day after. There was a nice sight and sound show with non-stop flash lighting of the gorge and echoes of deafening thunder until the cave got wet, the river became a potential embarrassment and we abandoned variously to the floor of a toilet (not very nice in France) and huddled inside a micro-sized rentacar in a carpark 15 m above the water. The next day we drove along the nearby valley of the Ardeche and saw a glossy magazine that told us that a few days before (a night we were camped by another river) 50 overseas campers had died in a flash flood in the Ardeche Valley. Along the valley we saw caravans up trees roads washed away, and later in another valley saw the damage from a 14 m wall of water which washed down a gorge through the middle of a city-wrecking houses, cars and Roman ruins. We also learnt that several campers had died in floods the night we were in the cave on the Tarn.

The Hydro

We saw a large entrance on the side of the road, and we made our way over to it. The steel walkways were a bit surprising, particularly since it was free and every other significant karst feature we saw cost about \$10 to get in. Perhaps large pipes leading out of the wall and into the concrete bunker should have given us hint. The electricity company sign finally convinced us that we were in the wrong place. This is obviously a sensitive way to treat karst and it saves drilling holes.

Minerve

About the closest we got to normal caves was at Minerve, where a dry river bed goes through a couple of 100 m long, 10 m high and 20 m wide walk through caves.

Paris

Apart from nervous rides in the metro late at night we weren't quite inspired enough to taste the delights of Parisian underground experiences. There are some juicy ones like the catacombs full of 18th century skeletons. We just had a sniff around the entrance of the guided tour of the sewers.

The French caving experience is certainly different to the type of caving we're used to here. Maybe there were some other sorts of caves we missed out on.

Greg Jordan (I'm not sure I'm proud of this effort)

A CONCISE MANUAL OF CAVE PHOTOGRAPHY: **PART II**

4: ILLUMINATION

Illumination entails many problems, especially the manipulation of and computations for the light sources, and also the difficulty in previewing anything. Good shots are sometimes unexpected flukes. The general goal is to produce shots which exude the intrinsic moods of caves, and illumination is the major consideration in creative photography. Things to try for are glistening highlights without being washed out, plenty of contrast yet with some shadow detail and not a general underexposure (except for special effects e.g. silhouettes), and a portrayal of the full three-dimensional aspect.

The usual source of photo-illumination in caves is electronic-flash or, occasionally, blue coated bulbs. Major considerations are:

- quantity of light (single vs multiple flash and the power or guide number (GN) of each flash)
- direction of light (angle relative to the camera)
- balancing of light when there is more than one light direction

The ensuing discussion of flash is specifically for electronic flash, and a camera system with manual aperture selection and in some instances, time exposure facility (B setting).

Single flash

Before pondering the intricacies of multiple flash, it is worthwhile to look at the finer points of using one flash. Manufacturers calibrate the GN of their flash units for use in average rooms with reflective walls. Caves are often larger and less reflective. Best results are usually obtained if the lens aperture (f stop) is opened after doing the GN calculation to take this into account, e.g. $f = \text{GN}/\text{distance}$ (take care with units and ISO's), and then open it 1/2 stop (for many situations) to 1 stop (big chambers, or where the rock is dark e.g. many clean stream passages). Small enclosures may not need any adjustment, especially if they are white and decorated. Take the flash off the camera with the help of a synch cable, and have it as far away from the lens axis as possible - even a short cable can produce a bit of a shadow.

Multiple flash

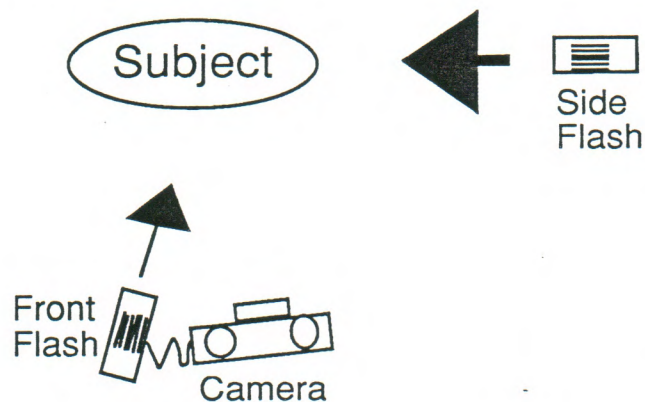
There are two reasons for using multiple flash:

- (1) when the flash unit is not powerful enough to reach the distance required. A classic case here is the Xanadu Chamber in Kubla Khan. First, do the normal GN calculation e.g. flash GN = 64 (metres at 400 ISO) and the subject is 50 metres away, therefore f stop = $64/50$ and the nearest f stop is 1.4. F stop numbers go 22, 16, 11, 8, 5.6, 4, 2.8, 2, 1.4 etc. To use (say) f4 on the camera, count how many stops f4 is from the calculated f stop (f1.4), and raise 2 to that power. This will be the required number of flashes i.e. there are three stops from f1.4 to f4 and hence $2^3 = 8$ flashes are required. An adjustment needs to be made. Firstly there is little reflection. Secondly, the cumulative illumination from successive flashes is a little bit less than their simple summation-possibly due to a reflectance threshold which has to be met each time the subject is flashed. Also, there may be a bit of light absorption over such a long distance. There is also reciprocity failure due to long exposure time. All these mean that there is considerable opportunity for under-exposure in this situation, and the correct exposure is a combination of the calculation and a bit of trial and error. Start by

adding 1 1/2 stops to the calculation, i.e. $8 \times 2 \times 1.5 = 24$ flashes. Note that FUJICOLOR HR1600 would only need 6 flashes.

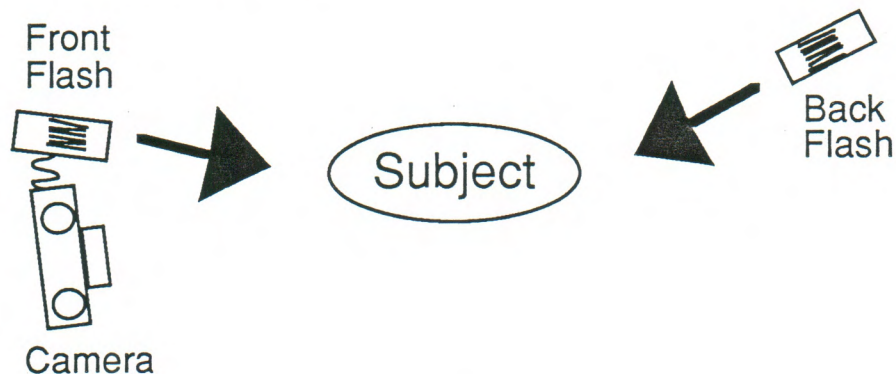
- (2) Use multiple flashes to provide more than one lighting direction so as to adequately illuminate different areas, and/or to provide shadow detail (fill-in) away from the main lighting direction. The angle of lighting can be arbitrarily classified as front (somewhere near the camera but preferably not on it), side (about 90° to the camera) and back (fired back towards the camera) lighting. Here are a few examples:

Example 1: Side + front lighting.



Side ('S') flash is the main flash, front flash ('F') provides 1:3 fill-in. S should correctly expose the subject but not be in the picture (or be hidden), while F should throw half as much light on the subject as S. Therefore, subject highlights will receive $S + S/2$ while shadow areas will receive $S/2$, hence the description as 1:3 fill-in. Note that there may be a fine line between well lit and overexposed highlights, particularly in colour photos if the subject is white. Exposure bracketing may be wise. This type of photo can be taken with a tripod, shutter on B and using one flash twice, or hand held at flash synch speed using a slave and two flashes (provided each is powerful enough to do the job with one cycle). In manipulating the flashes, it is helpful to know that a flash's output can be halved by putting a layer of white facial tissue over it, or a similar result can be achieved by multiplying the flash-subject distance by 1.4.

Example 2: Front + back lighting.



In this type of arrangement, the setup will depend on the subject and the effect desired. If the idea is to place a few catchlights on the subject, the front flash ('F') should expose the front normally. The backflash ('B') should put about the same light

on it as F. Also B needs to be hidden from the camera (and if possible, at a slight angle to enhance the catchlights). Alternatively, the subject may be a formation and it may be desired to enhance its translucent nature, so set F to underexpose it 1/2-1 stop and set B to overexpose it by a similar amount.

Example 3: Backlighting only.

Here it may be necessary to preview the flash before exposure to see what is being illuminated and what is silhouetted. To satisfactorily outline a subject may require a careful placement of the flash or even more than one flash position. Do the exposure calculation as if the camera was with the flash, and bracketing is recommended.

Special subjects

Headlamps: A caver's shining on formation (especially back towards the camera) will add reality to the photo. However, with time exposures be careful that the headlamp doesn't overexpose - very easily done with 400 ISO film. Either turn the headlamp on very briefly during the exposure, or use a short exposure e.g. 1/15 sec at f5.6 with 400 ISO shows up a headlamp beam a few metres away quite well. Carbide lights would tolerate a bit more exposure. The main light in these photos would usually be flash.

Cave entrances: These are great places for photos, particularly with light streaming and vegetation present. Looking out of the cave the backlighting is spectacular; sometimes a flash from the front adds to the effect if it is correctly balanced. I think the secret here is to correctly expose the daylight highlights-at 1/60 sec if flash is also being used. Then have a suitable subject (e.g. a caver) within the range of the flash at the metered f-stop. These are among the most spectacular of all cave photos, and they hardly entail going into the cave!

Glow worms: These are not hard to photograph. The best shots are when they are not too distant from the camera-say, less than 10 m. Open the shutter for 30 s to 1 min at f5.6 (400 ISO). For added effect, flash-in a bit of the scene eg. the floor or a spellbound caver. Even the rock around the glow worms can be flashed in without losing the glow worms, by underexposing the flash a little, say 1 stop. Glow worms look great on slides but poor on prints.

Backlit shawls: A bit of experimentation may be required here, especially as shawls vary in thickness and translucency. However, even a normal flash exposure will usually be transmitted enough to be seen from the camera position. If a front-lit flash is also being used, underexpose the shawl a little from this flash, say 1/2 to 1 stop. (Increasing the flash to subject distance by about 40% is equivalent to underexposing by one stop). Sometimes, shawls look spectacular when they are painted in with headlamp light, particularly from behind, to give a bit more yellow colour and then flashed in from the front.

Compact auto everything cameras

These are quite handy for caves, particularly the splashproof, waterproof ones. However, the big limitation is the small output of the inbuilt flash, meaning that it is absolutely impossible to photograph anything big or even moderate in size, even with fast film. It is important to move in close to the subject, preferably with a wall or something in close proximity, to add some dimension to the scene. The only way to add a bit of creativity to the end result is to use a slave unit to remotely trigger a second flash from another direction, but again this can only work if it all within a small distance.

5 : CLOSE-UP PHOTOGRAPHY

Small formations become a world of their own using a bit of close-up technology. A straw with a drop of water and/or helictites on the end, small stalagmites and miniature gour pools are all compelling subjects.

There are several approaches used in conventional close-up photography. The sharpest and biggest close-ups come from using extension rings or bellows with a macro lens or reversed normal lens, but logistical problems preclude their use in caves. At the other end of the scale is the "macro" facility on some zoom lenses. This option, however, suffers from rather poor resolution and often only moderate magnification.

Focal length of lens	Focus on camera	Close-up lens diopter	Lens-subject distance when in focus (cm)	Field size (cm)	Magnification (size on film/actual size)	Depth of field at f16 (cm)
135	∞	+3	33	8 x 5.5	0.40	2.5
"	1.5 (min)	"	27	6 x 4	0.54	1.4
"	∞	+1	94	24 x 16	0.13	16
"	1.5 (min)	"	55	12 x 8	0.26	6.4
100	∞	+3	33	11 x 7.5	0.30	3.3
"	1.2 (min)	"	25	8 x 5.5	0.41	1.9
"	∞	+1	94	32 x 21	0.10	25
"	1.2 (min)	"	50	15 x 10	0.20	7.6
50	∞	+3	33	24 x 16	0.15	7
"	0.45(min)	"	17	11 x 7.5	0.31	
"	"	+1	26	18 x 11	0.20	
Macro 35-70	0.8(min)	1:4 setting	20	15 x 10	0.25	
"	"	1:7 setting	44	25 x 16	0.14	

Screw on close-up lenses used on a normal or preferably a telephoto lens are the best option for cave work. Provided the camera lens is stopped down to at least f11, loss of image quality is minimal. The table above gives some useful information on a few combinations. Diopters of +1, +2 and +3 are available, and they can be doubled up to give higher magnifications, as long as the stronger one is screwed on first. Note that the depth of field decreases as camera lens focal length increases, close-up lens diopter increases and camera lens focus setting decreases. However, the end result is that for a given magnification, the greatest depth of field as well as the most comfortable (longest) lens-subject distance is obtained with a longer focal length lens (e.g. 135 mm). Also, the longer lens allows higher magnification, and hence 135 mm is a good choice of lens for close-up work.

Exposure with close-up lenses involves essentially no lens extension and therefore no complex formulae. However adjustment needs to be made to flash calculations for close-up work. Over distances less than 100 cm flashes become effectively less efficient sources of light. Therefore, it is necessary to increase exposure by 1/2 stop over the calculated value for a flash-subject distance of 100 cm, by 1 stop over 75 cm and 1 1/2 stops at 25-50 cm. If the subject is dark coloured increase exposure by a further 1/2 stop. These adjustments may differ between flash-tubes, and experimentation may be needed.

Lighting for close-ups may be improved in several ways. Make the light diffuse by placing a layer of white tissue or handkerchief over the flash, remembering to compensate by increasing the exposure by one stop. Place the flash to one side of the camera (and, perhaps, higher up). A controlled balance may be achieved by the use of a second smaller flash from another direction (see example 1 under "Illumination"). Small formations are often best photographed against a black background. In fact, it may be essential to cut out distracting backgrounds with a piece of black card. Close-up photography is difficult to preview through the viewfinder and results can be quite unpredictable. Imaginative experimentation, bracketing of shots and plenty of patience are the key ingredients.

Lindsay Hicks

The Rockpile

Drop Test Rig: After toying with the idea for several years, Jeff has assembled a drop test rig. Three pieces of railway line bolted together make up the 80 kg weight. A branch extending from a Blue Gum provides a handy anchor for both the pulley hauling system and the anchor (wire trace) for the rope under test. The first rope tested was a safety loop this rope saw 4 years service and was retired 2 years ago made from 9 mm Beal dynamic rope (red in colour with black and yellow fleck-if your cowstail looks like this it is SIX years old! Replace it!!). - It was pleasantly reassuring (and hard work) that it took 5 fall factor 1 falls to break. It was interesting to see that all the first fall really does is tighten up the knots. At a date to be fixed a club working bee/BBQ will be held to test some of the older club ropes. There will be plenty of opportunity for people to test their own favourite pieces of gear. Have you replaced your cowstail recently?? (If not see page 22)!

Amalgamation with TCC? Recently there have been some discussions from the 'old guard' (believe it or not!) about the idea of running joint TCC/SCS trips, or even amalgamating the clubs. Both clubs have very few active members at the moment and there already are many 'joint' trips occurring, so such moves make sense. It seems like unnecessary work for the few active cavers about to try and maintain two sets of accounts, equipment stores and two regular publications. I believe that similar moves were made at least once in the past. Who says "history never repeats"? I hope that what ever eventuates is a positive outcome for caving.

Technological Caving: One noted trend over the last four years is the increased availability and use of modern technology for caving related activities, including the:

- use of GPS to accurately locate surface positions,
- preparation of surveys using computer aided drafting (eg. EMP Pot),
- the computer production of publications (such as this Southern Caver) and
- a Cavers global communications forum ('the Net') via Internet

The only worry is that people seem to be enjoying these 'armchair' activities more than they enjoy getting underground!

Club Gear and light hire: Just in case you didn't know, with the departure of Luke for Antarctica and his eviction from the "hovel", the Gear Store has now moved to Bruce Morley's place. Light Hire fees have changed too, now the rates for a light hire (per day of use) are \$3 for financial members, \$4 for others. Helmets are free!

<> SCS WAREHOUSE SALES <>

Did you know that we have the following gear for sale?

By purchasing in bulk we can get good prices and pass them on to members. Currently we have the following available.

>>>>>5 cm flat tape (ideal for harnesses, rigging, gear bags, battery belts etc)
\$1.40 per m

>>>>>2.5 cm flat tape (ideal for handlines, rigging, gear bags, battery belts etc)
\$0.80 per m

>>>>>9 mm Bluewater dynamic rope (ideal for cows tails, safety loop)
\$4.50 per m

>>>>>CARBIDE NOTE: CARBIDE MUST BE USED RESPONSIBLY!
\$2.50 per kg (or \$2.00 per kg in bulk)

>>>>>Yuasa 6.7 Gel Cells (6 V, 7 Ahr, weighs 1.3 kg)
\$21.00 each

>>>>>6 Volt bulbs to suit the above Gell Cells
a variety of Wattages (1, 1.5, 2, 3) are available
from \$1.00 to \$2.50 each

>>>>>Female spade connectors to suit Gell Cell Terminals
\$0.20 each

>>>>>Metal light brackets for helmets
\$5.00 each

>>>>>8 mm alloy D Maillons, ideal for main harness 'krabs'
\$16.00 each

>>>>>Methylated spirits, stove fuel! (fill your own containers)
\$2.50 per litre

When you need any of the above please contact Jeff Butt on (002) 325302 (W) or (002) 238620 (H), or write to us: SOUTHERN CAVING SOCIETY, P. O. BOX 121, MOONAH 7009.

<> SCS WAREHOUSE SALES <>