BULLETIN of the

Sydney University Speleological Society

Lumen in Tenebris

SUSS

FOUNDED 1948

Volume 35, No.1

July-September 1995

Box 35, Holme Building, University of Sydney, N.S.W 2006

BULLETIN

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Sydney University Speleological Society

SUSS Trips and Meetings

June	3-4	**Jenolan** - We guarantee that Dwyers Cave is not on the agenda for this trip. What is? Ask Phil Maynard on 517 1050 (H).
	10-12	**Bendethra** - Join the caravan for SUSS's first expedition to this far-flung area for many a year. Contact Wagon Master Ian Cooper 682-6790 (H).
	13	**Exams start!** Good luck to student speleos everywhere.
	17-18	**Bungonia** - Deep vertical caving with Chief Scout Chris Norton 959-3613 (H), 225-9323(W). Challenge the legendary Adytum!
	24-25	**Wellington** - Cave diving and photography for Australian Geographic, accommodation provided free. Keir Vaughan-Taylor 816-5210 (H).
	27	**Committee Meeting** - Politics, as usual. 6:30pm, British Lion Hotel.
July	8-9	**Jenolan** - More adventures in Wiburds Lake Cave with Ian Cooper 682-6790 (H).
	15-16	**Wee Jasper** - Joint trip with UNSWSS. Discover the delights of Nice Cave and Not So Nice Cave. Chris Norton 816-5210 (H), 225-9323 (W).
	22-23	**Wyanbene** - Ah! The joys of the Wet Stretch in midwinter! Take the plunge with Ice Maiden Jill Rowling 481-0949 (H).
	25	**Committee Meeting** - Same time, same place, same mob.
	29-30	**Wellington** - Yet more splashing around with Keir Vaughan-Taylor 816-5210 (H).
August	3	**General Meeting** - 7:00pm, Holme Common Room.
	5-6	**Comboyne Plateau** - Retreat from the winter to this tropical paradise, so obscure that the cold hasn't found it yet.. Could involve a massive 175m abseil! Call Phil Maynard on 517-1050 (H).
	12-13	**Jenolan** - Sure to be fun no matter who runs it.
	26-27	**Tuglow** - Taking photos for SUSS's forthcoming encyclopaedia on this cave with Ian Cooper 682-6790 (H).
	29	**Committee Meeting** - 6:30pm, British Lion Hotel
Sept	9-10	**Jenolan**

Welcome to your new-look magazine!

After a bloodless coup, control of this august organ has been seized by a benevolent despot who describes his mission as being "to inform, entertain, stir things up a bit and bring out four issues a year". Prime attraction in this issue is right up the back - Phil Maynard has laboured long and hard to produce an index to the *SUSS Bull* that will surely be the envy of other speleopublications Australia-wide. This issue also sees several new features, including a page of editorial comment (read - license to publish heresy). Anyone who wants to submit some philosophical musings on something related in some way to SUSS's activities can send me something for this page. But, of course, you can send in the usual stuff too - if you think you've got what it takes to survive in the cut-and-thrust of speleoliterature, just cast your eyes over the blurb below.

Submission Guide

All trip co-ordinators are reminded of SUSS By-Law 16 a), which states:

> Trip co-ordinators are strongly encouraged to submit, within a period of three months from the conclusion of an official trip, a report of that trip to the Editor of the Society Bulletin, detailing any observations of speleological or practical interest made during the trip, and any additional information the trip co-ordinator desires to include.

Remember folks, this is your Bulletin! All material in here is present because someone cared enough to write it down and send it in. This not only makes your Bulletin more interesting to read - it also makes it a more valuable reference tool for the cavers of the future.

Your contribution doesn't have to be huge. Drawings, literary extracts, puzzles, commentary - anything will do, so long as it's interesting. But make sure it gets submitted!

As an experiment, your editor has decided to try and produce this publication electronically. For this reason, he is encouraging the more technophilic of you to submit electronically if possible. The editorial machine, recently proclaimed to the NSW Speleo Council to be a 'Dinosaur', is an IBM PC running Word for Windows 2.0, so if you're not using this format please try to give me your work in a form it can cope with (RTF is usually OK).

You can submit material:

on disk, given to the Editor in person;

by e-mail to cpll2@sulaw.law.su.oz.au, clearly identified for Chris Norton; or

in good old handwriting, given to the Editor or mailed to SUSS.

Please give me a hard copy even if submitting electronically in case my computer decides it can't read your computer's writing.

Sharing the Experience

Editorial Comment

Done Claustral Canyon lately? Doesn't have to be in the last few months, just the last year or two will do. Unless, like some bold SUSSlings recently, you were on a nighttime or winter trip, you would have noticed that it's becoming almost as well-visited a Blue Mountains feature as Echo Point. On any summer weekend in the canyon's cool confines, the Claustral visitor is likely to meet up with a large number of other nature-lovers all keen to explore the hidden beauties of one of the last bastions of wilderness. Fortunately, unlike some of the less user-friendly ones, this particular bastion is attended by friendly guides who are only too willing to relieve you of between $50:00 and $100:00 to guide you past the drops and steer you onto the formed tracks that have sprung up along the sides to bypass some of the damper patches. Canyons may once have been the realm of the experienced and technically competent; but they are now just another fabulous place to have a picnic in the Blueys.

So - how should we respond to this new state of affairs? The step that most of us have taken is to write off going anywhere near Claustral on summer weekends. The step that some have taken is to sit with heads in hands bemoaning the loss of the 'good old days' and deploring the commercialisation of wilderness. The step that a few have taken is to rail angrily against the presence of commercial groups and suggest that National Parks either ban them entirely or severely restrict their operations. Canyons should be kept as close to their natural state as possible, and this means as free as possible from visitors. Access should therefore be restricted to experienced parties; and by excluding commercial groups numbers will return to more manageable levels giving visitors a better experience.

This argument is, of course, flawed. There has to be a first time for everyone - surely we don't propose locking up canyons for anyone who hasn't been canyoning before? The standard response to this is to say that it is better for parties to consist of a high ratio of experienced to inexperienced people, whereas for commercial groups this ratio is much lower. The inexperienced should come along with groups of mainly experienced people, most likely through a recreational club which would be much cheaper than a commercial trip anyway.

One response to this argument is that clubs are often not a great place for people to start an activity. They can be hard to get in contact with, can be cliquey in composition and sometimes do not provide a supportive environment for beginners. Some people have no problem here, but others may need the added support that a commercial trip with many inexperienced people learning together provides. And for those of you crying "If they can't hack it, tough!" - you've just illustrated the point. Should other people be barred from going where you go just because of this difference in temperament?

There is another limb of the argument against commercial groups, which is perhaps best illustrated with a practical example. SUSS recently believed that a certain commercial group was involved in incidents in Kalang Falls and Danae Brook on two consecutive weekends, both involving taking parties in excess of 15 people and on one occasion not returning until after midnight. We have since learnt that the group we initially suspected was involved in neither incident, and the two were probably unrelated, but the point that still remains is this: commercial groups may be inclined to let commercial considerations overcome those of safety or environmental protection, and lead increasingly large groups on trips with the result that not only is the fragile environment threatened, but also the safety of this party and others who may be stuck behind is put at risk.

However, just because the temptation is there doesn't mean groups are going to succumb to it - indeed, the fear of the repercussions of developing a 'bad reputation' is probably in itself to dissuade any group from adopting an irresponsible course, let alone the likely consequences of litigation should safety be pushed too far. And furthermore, most commercial operators have just the same love of the outdoors as recreational users - why else would they spend day after day travelling the same routes, coping with the many travails and frustrations that leading a large number of inexperienced people can entail?

However, now we return to the beginning. Despite all the good intentions in the world, people are clearly coming away from Claustral today with experiences that are second-rate compared with those available (say) five to ten years ago. Sheer force of numbers, even though most of those numbers are people with genuine environmental concerns, has given the sandbanks and pools of Claustral the well-tracked appearance of the strand at Bondi and the clutter of the local swimming pool. How can we bring the old Claustral back?

The answer is, something's got to give. And the fairest, most equitable way is if everyone gives equally. All users must realise that if they want things to be like they were, they can't continue treating canyons as resources of unlimited capacity. This means recreational as well as commercial users.

There are two ways to do this. The first is to treat some areas of resource as sacrificial, and allow open slather there whilst either keeping other areas under stricter access restrictions or closing them entirely. If we're serious about sharing our resource, however, this is clearly an untenable position - in the first case, we're merely duplicating the problem of selfishness (Who gets to have the better class experiences in the guarded resource, and who is relegated to the sacrificial area?); and the second case makes preservation irrelevant as no-one gets to use the resource anyway. (Yes, I know it's more complex than this, but that's another article!) The other, more acceptable way (loath though I am to manipulate my keyboard to form these words) is the introduction of blanket access control such as a permit system for canyons similar to that applying to caving in some areas.

After those last paragraphs you can probably see the subtext running through this argument. It isn't confined to commercial groups in Claustral, or indeed just to commercial groups in the outdoors anywhere. It applies to the whole upsurge in so-called 'ecotourism', on both commercial and recreational levels, and its consequence that we need to change our attitudes to the way we use to our natural resources in order to avoid overexploiting them - albeit with the best of intentions.

In summary, what we have to realise is this: the experiences offered by wilderness cannot be selfishly appropriated for the sole use of one particular group in society. Previously, the number of people wanting access to wilderness experiences was small enough that there was normally enough resource to go round. Now, that number has increased dramatically, and the experience must be shared more widely. However, sharing the experience necessarily means changing its nature. The dilemma poised to today's users is simple - either accept restrictions on your access, or be prepared to see your wilderness areas gradually pillaged by a long stream of well-meaning enthusiasts, including yourself. If we approach wilderness experiences with the fervour of the gourmand, rather than the restraint of the gourmet, we may eventually be left with a sour-tasting fruit that is not worth sharing.

CDN

In Twiddly-Om-Pom
No-One can Hear you Cough

Jenolan, 18 February 1995

Trip leader:	Don Matthews
Those who knew the way:	Andrew Matthews, David Jackson
Those who didn't know the way:	Tim Matthews, Racheline Jackson
Those who didn't last the distance:	Sara Lee

The morning began with David's sparkling enthusiasm for quenching his desperate thirst to reach the famed Twiddly-Om-Pom (TOP) in Mammoth. To his disappointment he struck a measure of uncertainty from a certain Don Matthews. But David's sales pitch was a strong one.

> David: Look. I've brought all the gear along with me. There aren't very many people here, so we won't have a problem with spare equipment. Also, just think. Next month there'll be all these freshers hanging around. And the drought'll be breaking soon. Everything will be wet and unbearable. You won't get an opportunity like this for a long time. You yourself were saying the other day how much you'd love to go there. Besides - there's a Sara Lee chocolate cake in the freezer just waiting to come along with us.

> Don: Have you ever considered a job with Avon?

After equipping ourselves with two cave packs containing a 56' and a 30' ladder (be prepared for indiscriminate use of Imperial and Metric measurements), a 10m tape, several shorter lengths of tape, a trace, an 18m rope and karabiner for belaying, three spare batteries, two spare lights, all the necessary victuals and of course Sara (we were on a first-name basis at this stage), we set off down the hill at 10:23am. It was then that it dawned on me that I was undertaking a trip renowned for its unforgiving nature without kneepads. At least I'd have some evidence to show my friends at school on Monday. There were other concerns for my health. For about a week I'd had this terrible cough. Don said that I was "wasting away from a European lung disease." I was then asked whether I was secretly harbouring a case of histoplasmosis. Maybe I was the reincarnation of 'Histo Dan'. At regular intervals throughout the trip the Matthews treated us to impersonations of Histo Dan. The next time you see a Matthews, ask for a demo. You'll see what we had to endure during the whole trip.

When we arrived at the entrance, we perceived an un-mis-smellable stench emanating from the rotting carcase of an unidentifiable creature. This continued a disturbing trend, for we had already encountered the decomposing remains of a kangaroo which marred the innocent calm of Playing Fields. However, these ominous signs did not deter us in any way. In fact, they did quite the opposite, forcing us to enter the cave as quickly as possible in order to escape the smell.

Once inside we made our way to the Jughandle, where we were greeted by the murmurs of far-off ghosts. But the abovementioned omens were playing tricks on our minds; for the ghosts were soon discovered to be another party, led by one of the Jenolan guides, on its way to Lower River. After politely requesting that they did not lock us in, we moved on and successfully negotiated the Unsurveyed Connection (which brought back fond memories for Don of his first

trip into Mammoth). Having found Central River at normal flow, we continued on past the Easter Campsite, up, over and through Middle Bit rockpile to take a rest at Waterfall Passage. Flow from it was found to be the same as on last December's trip to GNC (which David and Andrew were on: read about it in Mark Staraj's forthcoming report on the SUSS Christmas Trip '94) and I discovered, after futile attempts, the difficulties of drinking from puddles while wearing a helmet and light. Dry Siphon was, however, considerably "drier" (using the common equation 'dry' = 'wet' at this point), containing a 20cm deep pool of water. As we sat contemplating the depressingly wet journey ahead, we decided to check the time. According to Don's watch we had spent only 12 minutes in the cave. Clearly there were sinister forces at work - a space-time anomaly under Mammoth Bluff perhaps (could explain where all the water comes from!). On the other hand, it might have just been daylight saving coming back to haunt us. We'll never know. Sara at this point baulked at the thought of ruining her sweet dark complexion in the crossing of the Dry Siphon, so she sat all by her lonesome self, awaiting our return.

In no time at all we faced the towering mudslope which heralds the way on to TOP. At this point, Tim's joggers demonstrated their ineptitude at scaling steep mudslopes. Don, Andrew and David successfully grunted their way though Ohmeneez Squeeze. Next, I made my way through, with some assistance from Tim, which I reciprocated by helping the somewhat larger Tim through. Relief quickly turned to panic on my part. As I gazed disbelievingly up the steep climb to follow I realised that there were not many occasions when being 4'11" and 43kg could be a disadvantage in caving, but this was one of them. More help from Tim was much appreciated.

Upon reaching the top of yet another steep mud slope, Andrew beckoned us over to a room called Red Cascade, shouting "Come and hear this! This room has great acoustics." This led to a performance of various bird calls, and shortly after David and I were treated to a range of musical offerings from the Matthews clan including a rendition of "Never Met a Girl like You Before" with accompaniment by Histo Dan. Care should be taken in this area due to the presence of a pretty crystal pool approximately 25cm in diameter and several straws at foot level.

Onwards we went. Why they call the 100% Friction Squeeze a squeeze I don't know (even Don said the name was a joke, so you can't blame my size). Gravel Grovel, however, lived up to its reputation, especially if one didn't have kneepads. And now some advice for those hapless adventurers (not mentioning any names) who have been unable to find the way. Upon exiting Gravel Grovel, climb up heading to the left. You then grab hold of an obvious-looking large stalagmite. Hugging it, do the "stalagmite swivel" ending up on the other side of the stal. Heading west a little you should see a small hole at foot level on your right seemingly directly above a large drop. This is the way on. Note that once you've done the swivel you don't need to do any more climbing. But you mustn't proceed without heading up and over a small slope on the left of the hole to sample the delights (from afar, I would suggest) of Thud in the Mud.

After this the fun really started. Trust us. Carrying two loaded packs along 200m of North Tunnel is not anyone's idea of a picnic. After struggling through Triangle Passage (at one point David stopped and asked me "What shape is the passage we're in?" - believe it or not, it's triangular) and the Backbreaker, we found some light relief in a relic from a former age. A half-decayed map plastered in the wall's mud stated plainly "You are here, you poor b...", trailing off and leaving our fertile information to fill in the blanks. (And now, the first of many

historical references: the inscription on the map was made by Andrew Pavey on 4/1/73 (Pavey, 1973a)).

Soon we found ourselves stomping through a series of muddy puddles. When David proceeded to drink from one of the less mud-filled ones, looks of horror set in on the faces of the Matthews clan. Exclamations went flying. "How could you? Only dogs drink from puddles." For some strange reason I decided not to follow my brother's canine example. By the way, on the surface of at least one of these puddles we found a number of minute white things floating around. When asked to describe his discovery, all David could come up with was "They look like aphids". We couldn't really tell whether they were alive but suspected that they were. It is also interesting to note that despite the multitude of puddles, Formation Squeeze itself was uncharacteristically dry. Maybe what water there was got soaked up during the December trip. It also suggests that the water in the puddles around there and the water in Formation Squeeze have a different source. A handy tip for getting you and your gear past Formation Squeeze: although the right hand way is too small for people (except maybe me) it was the perfect size for a pack. As Tim was going through, the squeeze to Nudist Colonies was pointed out, prompting an incredulous cry of "Through there!?" Take note, Keir!

Finally we emerged onto the balcony overlooking Great North Cavern (GNC). At this juncture we gorged ourselves on Bellis Bits, muesli bars and Fruit Tingles. Then, David whipped out with a flourish a packet of almonds and jelly beans. At the sight of the almonds, the Matthews went wild for a moment and begged for some. I would strongly suggest almonds as a means of pacifying a Matthews.

Feeling replenished, we poked around, noticing that since the December trip, two (how would you describe them?) nodules or toadstools of fungi had started growing on a tube of what was once sweetened condensed milk. All except Tim then crawled up the mudslope on the right to poke around in the rockpile for the way on to TOP. While this was happening I sat and admired the relaxing view I had from my perch overlooking GNC. After locating the way on, we returned to the balcony to find that Tim had successfully squeezed his way underneath the balcony into the cavern proper, a route pointed out by David. Just after his difficult manoeuvre, we called him back up. Going back up the slope on the right, we followed a surprisingly well-trogged path into the rockpile. After a few metres there was a carbide arrow on the right wall pointing back out to GNC. For historical reference, Andrew Pavey in describing his abortive attempt to survey GNC on 10/2/73 says:

> Party...noted carbide arrows showing way out to GNC. For Christ's sake if you're competent enough to get to GNC why do you need arrows to find your way out to GNC from TOP? (Pavey, 1975)

Although I agree with Andrew Pavey on this point, it sure helped us to find the way *in* to TOP. We headed up the slope on the left, opposite the arrow. Near the top, next to the gooey remains of a Popper and some unidentifiable substance, was an opening in the floor. Keir had said "pop down until you feel that you're above a lot of space", which we did. Andrew skilfully rigged the 56' ladder and 18m of belaying rope and one by one we made our descent into Pooh's Parlour. For future reference, the way down consists in turn of an approximately 4m drop, followed by a 45^{o} inclined rocky mudslope, followed by a 3m drop (these figures are from memory). A belay is strongly recommended for the 4m drop. Obviously, by this stage you are a hell of a way into the cave and an injury could prove nasty. Also, half way down the 4m drop is a tight constriction at which David made about four attempts before he managed to get through. (David: Come on, I was pretty tired by this stage - another good reason for a belay.)

It appears possible to economise on gear by using a smaller ladder for the 4m drop and using tape tied to the end of the ladder for the mudslope and 3m drop.

Once in Pooh's Parlour we had considerable difficulty coming to terms with our surroundings. The map didn't seem to correspond to reality. We found a stream coming from the long rift to the north (which I will henceforth just call "the rift"), of similar capacity to that emerging from Waterfall Passage. As the stream entered Pooh's Parlour it headed off east down towards Last Ditch Dig. Since Don was first down the ladder, he followed the stream north along the rift. David followed shortly after. When David reached the end Don was nowhere to be seen. He then noticed that Don had started to climb the rift. David shouted instructions to Don not to move, as debris was falling down from above; and then moved south to fetch the rest of us. Meanwhile, Don, at least 10m up the rift, was also moving south and rudely announced his presence by sending a barrage of mud and rocks from above. The largest of these - a brick-sized ball of mud - managed to strike Tim squarely on the shoulder. At this point we ran for cover - David and I headed north while Tim and Andrew fled south. This highlights the need for proper communication when parties split up. Although the incident was funny in hindsight, at the time we seriously thought we were going to be injured.

David led me to Mud-in-your-Eye Squeeze which is as far as you can go without doing some furniture rearrangement (so to speak). The roof seems to drop suddenly to the floor at this point and the squeeze itself is formed by a large boulder blocking the continuation of the rift, leaving only a 10cm gap between the bottom of the boulder and the wet gravel streambed. Attempts at shifting the gravel only succeeded in creating a large muddy puddle in which one would have to totally immerse oneself to continue the alleged few metres to Central River.

And now, after a successful coup, David has taken over the narrative. A quote from the report of the very first trip to make it through Mud-in-your-Eye Squeeze (Pavey, 1973b) says it all:

> Andrew started digging below the block in the gravel and glocky mud and when Ian [Lewis] returned they took it in turns to wallow in the grime and pass out a mixture of mud and gravel a handful at a time. It took over an hour to get the dig to the stage where Ian could wiggle through and dig from the other side to enable Andrew to get through also.

And just remember that the stream along the rift wasn't running on that trip! At chest height on the left was a hole which I tried poking my head through but failed. However, Racheline's helmet-free head did fit. She took the best look she could and saw about 3m of further passage. Central River perhaps? Maybe next time. Heading back south, I pointed out that on the western wall of the rift there was a 7cm thick layer of hard mud.

After ambling back to Pooh's Parlour, we began a search for the elusive New South Extension. From the map in the Mammoth Book there appear to be two ways of getting there:

a) from Pooh's Parlour head east and then south through Last Ditch Dig, or
b) via the Sewer de Paris.

Regarding the first option, all that remains of Last Ditch Dig is a small puddle of water (I strongly suggest waiting a while before recommencing any digging here). Regarding the second option, from the silhouette map on p56 of the Mammoth Book, if you follow the dotted-dashed line it could be thought that the Sewer de Paris connects directly to the area around the base of the 4m drop. This is a problem with the clarity of the map, and I have included a clearer map which also shows some extensions found by Andrew Pavey (Pavey, 1973d) which are missing from the map in the Mammoth Book. [Ed's note: Pavey has used the spelling "Twiddley-Om-Pom" on the map; a common spelling at the time that was later standardised to

"Twiddly-Om-Pom".] The only direct connection known to the southern extension is through Last Ditch Dig. As the Mammoth Book has very little to say about this connection it is worth quoting from reports of the trips which passed through Last Ditch Dig:

> The draught in the downstream outlet squeeze was very strong. Graham Love was left there to dig...we went to see how Graham was getting on. He had got out of sight but had to dig all the way and still had 5' or so to go before open crawlway would start, and more digging would be needed after that. He had opened up 10' of choked passage. (Shannon, 1975a)

> The dig to the new extension is a very tight squeeze, about 10m long with a right bend about half way along. This leads to a low crawl which opens out after a couple of metres into a narrow chamber with standing room. Off to the right there is a small, very grotty V-shaped passage (the Paris Sewer [now Sewer de Paris]), covered thickly in extremely glutenous mud leading after 10m to a small chamber with a raised sloping floor and an aven about 13m high. About 4m further downstream from the Paris Sewer and on the opposite side of the passage is a rockpile mudslope (60^{o}) which is initially about 2m wide, widens to about 7m, then narrows again and terminates in a rockpile about 18m from the main passage.
>
> The main stream passage continues about 18m to a low squeeze across coarse gravel and then to a side passage (55^{o} slope upwards and 10m long) terminating in a couple of small mud cavities (a couple of large rocks were dislodged accidentally). From the base of this branch, the main stream passage continues on for about 8m to a sump with a 7cm airspace (not pushed). (Pavey, 1973c)

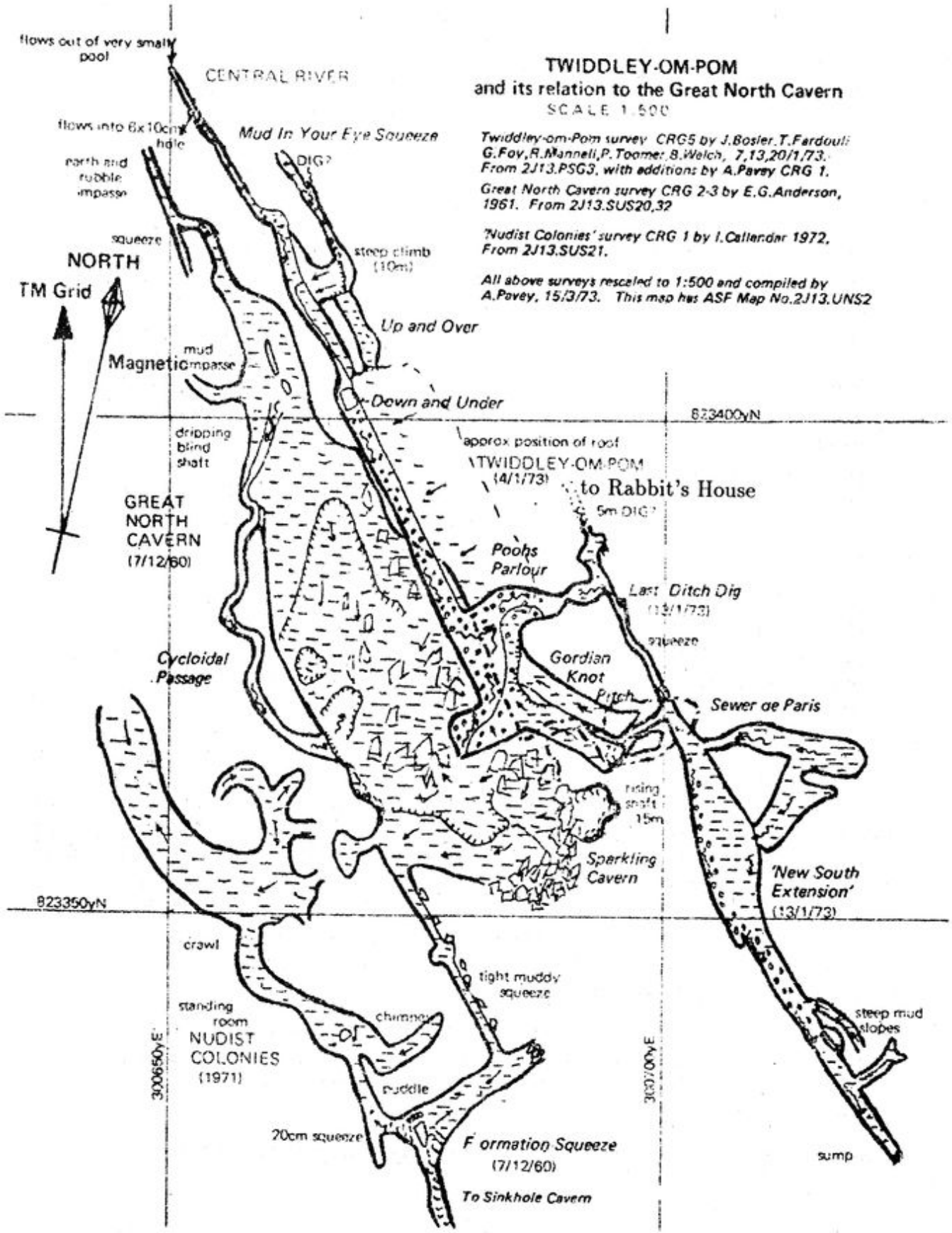
The fact that there is an airspace is encouraging and with a bit of bailing the sump should be passable.

Calculations back on the surface support cross-section C on p56 of the Mammoth Book and suggest that the height difference between Pooh's Parlour and the top of the Gordian Knot Pitch (roughly 4m + 10sin45^{o}m +3m or about 12m) is approximately the same as the height of the alleged 13m aven mentioned above (on the accompanying map its height is given as 15m). Assuming that the Sewer de Paris is slightly lower than Pooh's Parlour, does this mean that there is another pitch from near the top of the Gordian Knot Pitch down into the Sewer de Paris waiting to be found?

It should be noted that just north of Last Ditch Dig is a phreatic tube at floor level heading north. It is half filled with mud and appears to continue in a straight line for at least 5m. With a bit of digging it should be readily negotiable. I've labelled it the way "to Rabbit's House" on the map. Just make sure that when you get there you don't make Winnie the Pooh's mistake and eat all of Rabbit's honey as no-one is going to wait in the wet mud reading stories like Christopher Robin, waiting for you to grow thin again! There have been widely varying views of the possibilities presented here (even by the same person!) and it is worth recording some of them here. First, Ian Lewis says:

> The second and far more promising dig is at the far end of the small cavern in which we first found the successfully negotiated dig of this trip [Last Ditch Dig]. Henry Shannon [in (Shannon, 1975b)]...says that it looks unrewarding and means too much work for the prospects. I disagree strongly and suggest that this be pushed even harder than [Last Ditch Dig] as 15' of passage can be seen. It is no smaller than a rabbit burrow and could be negotiated with some effort [!] after a healthy dig. This is where the cave lies that has been the subject of much speculation. (Lewis, 1975)

Reprinted from *Spar* 23:7



Despite Henry Shannon's views as quoted above, the very same Henry Shannon has the following to say:

> Another stream emerged a few metres north of the dig, providing an interesting place for a future dig. This dig is the only possible passage which could lead to the stream passage north of TOP and thus north of GNC. (Shannon, 1973)

The stream mentioned above was that observed by Andrew Pavey (Pavey, 1973d). The following is a selection of the relevant comments from that trip report.

> It was raining at Jenolan and had been for a week, the rumours were spreading that up to 170mm of rain had fallen during this period... The Central River at Ohmeneez was up to about 7 millicumecs... From the top of the [Gordian Knot] pitch a dull rumble could be heard from below and when the party reached the main chamber of TOP the water was flowing quite strongly.
>
> The flow was extimated at about 7 millicumecs at the Last Ditch Dig. The Mud-in-your-Eye Squeeze was brim full of gurgling water and just back from this point Andrew decided to climb up into the roof. The chimney of about 10m was very hairy and after he found a small gravel floored stream passage leading in from the north (actually more like the 330° direction of the main TOP passage) Rick [Daniel] joined him and they crawled north of about 8m along a passage which was 0.2m x 0.4m. The passage finished in a 10cm high mud squeeze, at which a halfhearted attempt to dig was made (Lewis we need you!). At least 2m of fairly easily moveable mud would have to be dug out to see whether the passage opens out again. The actual dry stream bed emerged from a very small hole intake eastern wall about 3m back from the end of the passage. To the south there was a minor continuation to the point above 'down and under'.
>
> At Last Ditch Dig there was a small stream (2 millicumecs) flowing southwards out of the 5m squeeze to the north. Hence the obvious place for another dig with good possibilities in TOP is at this point. The fact that at leat 5m of squeeze has to be dug out should not deter you to get in there and dig!! There is no real indication that this is a tributary of Central River or whether it is a flood overflow.

It is interesting to note that the hydrological conditions at the time of the present trip were intermediate between the normal state of no streams in TOP and that observed above where there is a stream running along the rift and also one emerging from "Rabbit's House". On the present trip there was only the stream along the right. Back in Sydney after completing some research, Racheline and I independently tried to estimate the flow of the stream in TOP from memory. Our two figures were 2.8 and 3.2 millicumecs. Make of this what you will, but a figure of 3 millicumecs seems consistent with the observations of Andrew Pavey above.

While researching, the mystery of the tools left in GNC has been solved. In a report for a trip of the weekend 22-3/6/74, John Bosler says:

> The entrance above GNC now contains a G-pick and an entrenching tool. The pick belongs to Brian [Lefoe]. The digging tool is UNSWSS property I think. Anyone who feels inclined to start a dig in TOP or thereabouts is welcome to use them. (Bosler, 1974)

After 21 years I'm not that sure if they can be trusted (the wood handle seems pretty dodgy).

Aah, Racheline's taken over the helm again. Before leaving TOP, we left a laminated copy of pp56-7 of the Mammoth Book next to the pair of deteriorating maps already in Pooh's Parlour. We quickly made our way out and descended into GNC itself. Wandering north up the slope to the bottom of the aven (which despite David's beckoning I didn't actually see. Couldn't be bothered really.) (David: It's a great aven, shouldn't miss it while you're there!), we followed the gravel stream bed into Cycloidal Passage. Don described it as "making it all worthwhile", as if he wasn't convinced already! (David: What amazes me is the large number of trip reports of people who go to GNC and say that they're glad they've made the effort to go to GNC to see why it's not worth going to. They obviously haven't been down Cycloidal Passage!)

Now all that was left was the journey back through North Tunnel (groan) to rendezvous with the patiently waiting Sara. How we were longing to be reunited (or should that be just 'united' - picture salivating mouths). With this pleasant thought in mind the trip back through North Tunnel was numbed somewhat. But lo and behold! Upon reaching the junction at the top of Ohmeneez Squeeze there was Sara. Clearly unable to endure the separation any longer she'd thrown herself across the Dry Siphon and made her way all by herself up the slope and through Ohmeneez Squeeze. We showed our appreciation for this act of devotion by cutting her up into five equal portions and devouring her. So much for Sara. Full of energy we powered our of the cave to emerge at about 9:00pm to conclude a most satisfying 10 hour trip.

When we told Chris Norton and Phil Maynard back at the hut about the miracle of Sara, they selfishly tried to make us believe that they were responsible for the miracle themselves. But we would have none of it. Our faith in Sara will live forever.

I (or should that be we?) apologise for the schizophrenic nature of the above trip report.

David and Racheline Jackson

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The End of Tuglow (As We Know It)

Tuglow, November 26-27, 1994

Participants: Ian Cooper, David Jackson, Phil Maynard, Chris Norton

A simple, pleasant weekend that achieved what SUSS has wanted to achieve for a long time - the end of the surveying of all passage known to us (well, okay, there's still those couple of side passages up the back - but they don't really count, do they?). If you want to do any more surveying at Tuglow, you've got to find the stuff yourself.

It also achieved what SUSS normally achieves - a bash down the hill in the dark with all the gear on Friday Night (despite protests from Ian), failure to take any good photos for the book, and a couple of days working in the main cave.

And it achieved what SUSS sometimes achieves when it's lucky - a lot of lying around by the river, and a bit of hopeful exploration. In fact, the low water levels enabled another passage to be connected through to the downstream sump.

Chris Norton

Tuglow...again

25-26 March, 1995

Participants: David Connard, Simon Cruden, Brett Davis, Chris Norton

The members of the group met at the Boss Peak carpark at 10:30am after carrying out their democratic duties by voting at Jenolan Caves. Upon arrival it was noticed that Suzi-Q had suffered a broken aerial - will David be allowed to chaperone her again?

After the gear was shared amongst the meagre group, a cracking pace was set down the mountain by Chris with the rest of us trailing at a more sedate pace. The reason for Chris' haste was discovered upon arrival at the campsite - he wanted the best spot and had almost completed erecting his tent by the time the rest of us had arrived!

When it was found the river had washed the previous crossing away, NCC&D Constructions were called in to build a bridge to rival the new Glebe Island Bridge.

After lunch, the river was crossed and we entered Tuglow Cave at 1:30pm. We descended the first ladder pitch, climbed down the rockpile, chimneyed down Ward's Chimney then climbed down the final ladder pitch to the streamway.

An inspection was made of the downstream section and sump where it was noticed the water flow was much greater than on the December 1994 trip due to the recent rains. We then walked upstream along the streamway and climbed the rope squeeze and rockpile to the main

chamber where the decorations were admired and photographed. We also entered our names into the logbook.

After leaving the main chamber we rejoined the streamway continuing upstream until it narrowed to a point where Chris advised us it became very tight, wet and uncomfortable to go any further.

The return was made via the streamway and down the waterfall. Simon and I were able to employ our newly-learnt abseiling skills, acquired on the field day at Lindfield Rocks, and descended without becoming red stains on the rocks below. We then bridged the stream to avoid the deeper water and returned to the ladder for the ascent.

After climbing the ladder and the solution tube without any problems (although David, Simon and I approached the chimneying with some trepidation), a group of five illegal cavers were encountered at the base of the rockpile. Their equipment consisted of two Dolphin torches, two construction helmets, one bicycle helmet and one short ladder. One of the saddest pieces of rope any of us had ever seen was secured at the first pitch by means of some rather dubious-looking knots. Chris politely informed them of the requirement of a permit and advised them not to proceed any further. The cave was exited at 5:30pm.

A pleasant night was spent by a large open fire. It attempted to rain but Chris kept our spirits up with cheery tales of cave accidents, rescues, deaths and people talking to bodies. Is this a ploy to scare off any faint-hearted beginners?

Chris and David set out at 10:00am on Sunday to inspect Window and Pleistocene Caves. Simon and I piked out as we wanted to make it back up the mountain with the gear. While they were gone we spent our time stuffing our faces with the local blackberries. Chris and David returned at about midday and described the caves as short but interesting.

The sun came out just in time to warm things up for the walk out. Chris sprinted up the hill and the rest of us were left wallowing in his wake - again. We all eventually arrived at the cars and left for Sydney at approximately 3:00pm.

Brett Davis

...and again

16-17 April, 1995

Participants: Trent Allen, Ian Cooper, Rodney Fiford, Kate Weeden

By some mysterious process SUSS received a Tuglow permit for Easter Sunday and Easter Monday. To confuse matters further the permit was dated 1994 by both the applicant (Chris Norton) and by National Parks in Oberon. Surely the mail from Oberon takes less than 12 months! After a phone call to National Parks it was confirmed that yes, we had a permit. So with 3 novices in tow it was tourist time at Tuglow.

We met at Jenolan and travelled in convoy to Boss Peak. Our convoy was surrounded by other convoys made up of shiny 4WDs that see a dirt road once a year. The Kowmung River Fire Trail is now much easier to find with the erection of a 3m long timber sign at the turnoff from the Kanangra Road. After the 40 minute walk down to the Kowmung we found the Gridiron Bends campsite empty. The area has certainly regenerated since the times of monthly SUSS Tuglow trips. Most people now appear to walk to the cave from the car park west of the Kowmung.

Once camp was set up and lunch eaten we set off to the cave at 2:00pm. After the ladders were rigged and we were down the entrance series we had a leisurely trip to the downstream sump and Tricketts Passage, and travelled up to Knights Knobbly Knob Chamber. Since my previous trip to Tuglow last December there has been additional vandalism in the cave with a new series of arrows scratched through the entrance series.

After afternoon tea in Knights Chamber we mad our way out to a magic, still, clear night with a full silvery moon radiating off the Tuglow bluffs. A camp fire, a full meal and a little *Stones* and I was content for the evening. [Ed's note - the *Stones* that gives Ian his satisfaction here is the bottled variety, not the well-known popular music ensemble.]

On Monday it was a quick trip to check one of SUSS's prospective leads in one of the smaller caves. Unfortunately, the site is completely choked and would require a major effort to clear. Not a great prospect for digging. Back to camp for lunch, a laze by the river, and then the hardest part of the trip...the walk back up Boss Peak.

Ian Cooper

WANTED

Cartoonists

For too long the fair readers of the *SUSS Bull* have been plagued by a plethora of bare white spaces. The time has come to put an end to this state of affairs, and the Editor has decreed that cartoonists and other sundry illustrators from far and wide will be encouraged to try their hand at decorating the austere white half-pages of this otherwise great journal. Our modern two-colour printing process means that illustrations may use both black and white. Would-be applicants can audition their contributions before the Editor at any SUSS gathering. The tight finances of this publication mean that no bounty can be promised save that of self-satisfaction; however, as all of us know, that is truly the greatest reward of all...

Lapse of Memory

Yarrangobilly, 14-17 April, 1995

The *SUSS Bull* is proud to introduce a new innovation - the interactive trip report. All the events described below actually happened on the recent Yarrangobilly trip. What you have to do is work out which caver forgot which item of gear, where his destination was, and what happened as a result.

Important!! If you want to do this puzzle, don't read the other Yarrangobilly trip report in this Bulletin (starting on the next page) until you have had a fair go at the puzzle.

Clues:

1) Assume there was only one trip to each cave.
2) Rob forgot nothing when he took some people into Old Inn while Chris and Simon went to Mill Creek Swallet fully equipped with lights and thermals.
3) David decided he didn't need his equipment, and at another time lent some gear to Chris, but the person who forgot his helmet went walking.
4) The rabbit, which was not forgotten by Simon, was not left out of the Eagle's Nest or Mill Creek trips, where everyone brought overalls.
5) Aaron's mistake on the Eagle's Nest trip, which was also eventful for Chris, caused neither him to go back or the others to take the rabbit.

Options

Items of equipment	Destinations	What happened
Water bottle	Eagle's Nest (2 destinations)	Taken by others
Chocolate rabbit	Old Inn Cave	Decided he didn't need it
Thermals	Mill Creek Swallet	Went bushwalking
Helmet and light	Canberra	Borrowed someone else's
Overalls		Went back for it

Solution

Caver	Equipment	Destination	What happened
Aaron Whymark			
Chris Norton			
David Connard			
Rob Crowe			
Simon Cruden			

A Trip to Forget

Yarrangobilly, 14-17 April, 1995

Participants: David Connard, Rob Crowe, Simon Cruden, Brett Davis, Matthew Devlin, Ralph Haller-Trost, David Jackson, Racheline Jackson, Yvette Ninio, Chris Norton, Phil Maynard, Aaron Whymark

Thursday 13 April: En route

Thursday night saw a small party of three (Aaron, Chris and David C.) anticipating the first important squeeze of the trip - fitting four people, plus some gear in Phil's Daihatsu Charade. This being accomplished with minimal pain and bruising, we set off from Wollongong at about 7:00pm. A surprisingly speedy trip delivered us to Cotterill's Cottage at around 12:45pm, only minutes behind David Jackson's party (who had intended to leave Sydney at around 2pm). Anyhow, it was straight to bed in preparation for the long days of caving ahead.

Friday 14 April: Eagle's Nest (or so I thought)

Friday morning started well, with a leisurely awakening at around 8:30am. The caving gear was not due to arrive until sometime that morning, so Chris, Aaron and I set off to do a quick through trip through Town Cave (just across the road, no lights required). We also took a look at Leak in the Creek which was taking water, but not a large volume; however, it was not dry enough to enter. Phil set off to retrieve the required cave keys from Neil Kell, at Caves House, and on his return Brett and Simon also arrived with the rest of the gear.

After packing our caving gear quickly (a little too quickly, unfortunately), Phil, Aaron and I decided on a quick game of Frisbee outside the cottage, while we waited for everyone else to get ready. We finally set off for Eagles Nest at around 12:30pm. After walking down the track, the Eagles Nest doline was located rather easily. We proceeded to put our gear on - Or at least some of us did. The first sign of any problems was a cry of "Aargh! I forgot my thermals!" from Chris.

As I was nice and warm in my thermals, I donated a spare T-shirt to Chris, and then calmly asked him which pack the helmets and lights were in. This was answered by a brief silence, and then a quizzical "You don't have your helmet and light?". I looked around to see everyone else unpacking their helmets and lights.

"Aaah." was my reply. I proceeded to take off all my caving gear again. Aaron was in the same predicament. The Frisbee had claimed its first victims. Aaron and I had been playing Frisbee when we should have been packing our helmets and lights. I was at least able to lend my thermals to Chris for the day.

The reduced party of seven entered the cave via the ladder pitch in Y1, while Aaron and I ate lunch in the doline. We packed up the entrance pitch ladder after them, went for a look around the rockpile-ish section near The Eyrie entrance, and then returned to the cars. They returned at about 5:30, suitably impressed by the cave and making it quite obvious that we had missed a great trip. Hmm.

A small expedition to the thermal pool followed, and then it was back to the hut where we found that Rob Crowe, Ralph and Yvette, and about ten SSS members had arrived. The SSS party was there to do some photo-tagging for the weekend. Strangely enough, they chose to camp outside, in spite of our repeated offerings of floor space.

Saturday 15 April: Oh no, not again

I was determined not to repeat the embarrassment of yesterday, so I packed my pack very, very carefully before the morning's game of Frisbee. Today's plan was to split into three groups. Chris, Brett and Simon planned on a surveying trip to Mill Creek Swallet, while the rest of us would do Old Inn and Coppermine in two separate groups.

So it was, that at the Old Inn doline, I unpacked my pack to find a distinct lack of overalls. Aaah. I was going to have to cave in my extremely colour-coordinated khaki thermals, purple knee-pads, and blue gloves. Phil, Aaron and Matthew thought this was most amusing, and unfortunately Matthew got photographic evidence. Undaunted, we set off through the blackberries in search of the cave entrance. Thankfully, the blackberries are doomed - even though there has been no official release of the disease at Yarrangobilly, Blackberry Rust (a biological control developed by the CSIRO) was quite evident in the sickly colour and rust-like markings on the leaves.

The cave was unusually dry; the stream sinking only a short way into the rockpile at the entrance. This left the usual sump at the end of a long rift quite dry. There was evidence of digging, but no major progress had been made. Doubling back, and taking a passage at a higher level we found the southern section of this cave, but failed to locate the prettier western section on the way out.

After a quick stop at the hut to retrieve my still clean overalls, we proceeded to Coppermine Cave. We encountered Rob, David, Racheline, Ralph and Yvette early on in the streamway section, on their way out. The rest of the cave was fairly straightforward (after Matthew got used to the idea of bridging out over some quite respectable drops). We did not go very far beyond the gate; stopping where the passage began to become rockpile-ish and rather muddy. Still, the amount of decoration that we saw was very impressive.

Whilst most of the party were admiring the decorations, Chris, Brett and Simon were grovelling through the passages of Mill Creek Swallet, renowned for being economical on both decoration and space. They continued the survey started in October from the chamber just past the entrance section down to the sump, and the main route through the cave is now surveyed. However, there's still a lot more to do, including SUSS's Super Secret Scaling Pole Lead. Greatest interest came from exploring a tunnel at the top of a high chimney - after moving a few rocks, Chris popped out into another section of passage which he had not been in before, but with fresh footprints everywhere which eventually led back to the beginning of the cave. We later learned that CSS had explored the 'new' section of cave, although it looks like they did not make the connection to the lower levels. Chris was certain that the small hole leading to this passage had been choked when he had last investigated it, but those who know Mill Creek Swallet will know that pieces of passage can appear and disappear magically after rain (makes surveying rather pointless, doesn't it?).

Surveying was reasonably rapid since although the passages were not large, many legs of around 10m were possible. For the record, the top of the sump is 31.15m below the tag carved in the rock at the entrance, and the surveyed length is about 225m and still going strong. At

around 3:30pm the gear was packed up and the blackberries tussled with once more - although for Simon, it was three times more, for on arriving back at the tourist track he remembered he'd left his water bottle in the cave.

On exiting the cave, it was straight off to Caves House for a guided tour of Jersey Cave, compliments of Neil Kell. After the tour, the entire SUSS horde invaded the thermal pool, scaring off the two prior occupants (not surprising, really).

Back at the cottage, a battery powered tape deck was produced, and the "entertainments" for the night began. Unfortunately, one of the few tapes available was of Peter, Paul and Mary, provided by Rob. I suspect that this was a contributing factor to me catching some kind of flu, and being sick several times later in the night.

Sunday 16 April: East Deep Creek

Rob left us this morning to return to Canberra, which brought the number of cavers down to eleven. It was decided that we would split into two groups, and tackle both the sporty and pretty sections of East Deep Creek. After a queasy night (curse that music!), I did not really feel up to anything too serious, and so I elected to only do the pretties trip.

We entered the cave and split up at the visitors book. Phil, sporting a nice case of gravel rash from the morning's Frisbee antics, headed off for the pretty sections with Ralph, Yvette, David, Racheline and I in tow. The rockpile and associated gate were passed, soon after which the first pretty section and de-trog point was reached.

The formations in this section of cave are so active that it is possible to actually climb over live pieces of flowstone with minimal damage, providing all muddy gear and all traces of mud on your hands etc. are removed. So, standing bare-foot, in our thermals, we negotiated a small climb down a section of flowstone, leading to some absolutely incredible formations. I had never before seen cave decoration like this and obviously did not pay enough attention to the climb. I stubbed my toe on the way down, giving myself the extra task of making sure I didn't bleed on anything. Fortunately my feet were in far greater pain from the cold (the cave temperature was about 5 degrees, and the flowstone was very wet).

After returning, and re-trogging into our pleasantly muddy gear, we set off for the second pretty section. This involved only one "navigational irregularity", and soon we were well on our way. A very muddy down-slope had to be passed, leading to a tight but very tall wiggly section, almost reminiscent of some thinner canyons. At the end of this was the de-trog point for the second pretty section, at the end of which are the Donkey Tails (a really unusual set of formations, which look kind of like bulbous, semi-crystalline stalactites). We did not go in, at Neil's request, but had a good look at the entrance part from where we were. The formations in this section were breath-taking, better even than the previous section.

The best way to see the Donkey Tails is through a slide show, such as the 3D extravaganza from Dave Stuckey (MSS) at SUSS's May general meeting. The trip to the Donkey Tails is not worth risking the potential damage to the cave. It reputedly requires you to strip off all dirty gear, and take it through with you (in a clean bag), until a muddy section is reached. You have to re-trog for the muddy bit, and then de-trog again afterwards. Then, all this has to be reversed to get out again.

As we began our way out, my light died in that characteristic fashion of FX-2 batteries ("Hey - who turned out the lights??"). We met the other party (Chris, Simon, Brett, Matthew and Aaron) coming out of the first pretty section, and picked up Aaron, whose light had also died. We had to exit on Dolphin Power. Considering neither Aaron or I had caved on the first day, I thought this was just a little unfair (and maybe suspicious!!).

We had a brief lunch in the doline, after which Phil, Ralph, David and Racheline set off into the sporty section while Yvette, Aaron and I made an early start back to the cars. Not too long after, Chris's party also returned to the cars, having finished the pretty section. At this stage, it finally began to really rain - it had been threatening to do so all day. About ten minutes after a bout of hail, Phil's rather wet group came bolting out of the bush. We returned to the hut, in search of warmth and comfort. Wisely, no one went to the thermal pool.

Over dinner, I jokingly claimed the job of writing the trip report. I thought that people would be queuing to write it, after all of my stuff-ups. A pretty stupid move, really.

During the course of the night, it was discovered that Rob had kindly left not only the remains of his solid chocolate easter rabbit, but also his bottle of OP Bundaberg Rum. This was the catalyst for an interesting and successful taste experiment - Bundy Custard. My only advice - don't use too much rum!!

Monday 17 April: Pike Out Day

No one was particularly inclined to go caving this morning for several reasons. Firstly, it was 4 degrees outside, and lightly raining. Secondly, most pairs of overalls were soaked from the day before, and thirdly, almost everyone had been woken at 6:30am by the SSS choir singing "Oh what a beautiful morning!" in the huts' outside room. However, Brett had no choice but to go on a very brief trip to retrieve his water-bottle cover, which he had left in Mill Creek Swallet two days before.

Aside from Brett's intrepid trip, the morning was spent cleaning the hut, and washing the gear in what was by now a raging torrent of a creek. After this, the only thing left to do was climb the hill to use the last of Matthew's film. We set off for Sydney shortly after midday. Resisting the temptation to stop at Bungonia, we made it back to Sydney at around 7:30pm.

I think that I can safely say that everyone else had a pretty good time. As for me, I guess that it just wasn't my weekend. However, I did see some great caves, and on the whole, did enjoy the trip. Yarrangobilly is a great caving area, and it would be nice if SUSS went there more often for both recreational and surveying trips.

David Connard

Historical Corner

If you have visited Yarrangobilly with SUSS, you have probably stayed in Cotterill's Cottage in the old Yarrangobilly township. You may even have helped out on the restoration project. But what is the real story of Cotterill's?

The following article is extracted from the Cotterill's Cottage Conservation Study and the brochure *Yarrangobilly Village - a brief history*, both published by the National Parks and Wildlife Service. Copies of both leaflets have been donated to the SUSS library by Neil Kell. Unfortunately, there is no mention of headless babies or the famous Yarrangobilly Ghost; but the information is interesting anyway.

The discovery of gold at Kiandra in late 1859 had a lasting impact on Yarrangobilly. The village was located on the main route from Tumut to the goldfields and two 'public houses' were built to cater for the passing trade.

Police quarters were established to protect the Gold Escort on its way to Tumut. In a report in 1860, Captain Henry Zouch mentioned that he was building quarters at Yarrangobilly to house four men to keep order and protect the Escort. The end of the rush saw some businesses close, but a number of people remained to graze stock and take up the land reserved for development.

Walter Hoad came to Yarrangobilly from Tumut. He married Olieve Brownlie in 1880. In 1890 Walter Hoad built a two-roomed hut for his family near the Yarrangobilly River. This hut was replace by Cotterill's Cottage 1898, built by Walter, Harry and son Leo Hoad. The original hut, believed to have stood approximately where the garage is now, was retained as a kitchen and a store. The Hoads' new home had nine rooms, internal fireplaces, large windows and verandahs. When the building was complete, Hoad's parents-in-law Alexander and Providence Brownlie moved in and lived there for the rest of their lives. Alexander Brownlie, one of the early settlers, had established the first hotel at Talbingo in 1861 constructed the telephone line from Adelong to Kiandra in 1888-89. Alexander and Providence are buried in the local cemetery.

The Hoads used sawn hardwood stud framing believed to be Alpine Ash from the Alpine Creek Sawmill. The walls were lined internally with split hardwood boards ant the exterior walls were either split horizontal slabs or split weatherboards. The footings are a mixture of brick piers and hardwood stumps. The bricks are believed to be hand-made by William Harris and are also a feature of the chimney construction to the internal fireplaces.

The cottage frequently served as a boarding house, accommodating travellers on the Tumut-Kiandra road. In 1899 the Department of Lands proclaimed Yarrangobilly as a Village, and in the same year the cottage was made the Village Mail Receiving Office with Walter Hoad being Receiving Office Keeper. The service was raised to a full Post Office with Walter Hoad as Postmaster in 1902. However in 1904 Walter resigned his position of Postmaster and took up an appointment at Yarrangobilly Caves and House as Caretaker and his daughter, Olieve Hoad, became Postmistress. In 1905 the telephone was installed at the cottage, and in 1921 a telephone exchange was established there serving stations on the High Plains.

In the 1920s, Walter Jr made many changes to the cottage. He replaced the split timber cladding on the North, East and West walls with fibro, and extended the kitchen along the south wall. The walls and ceiling throughout the Cottage were fitted with Baltic Pine lining - lavish material probably installed at the insistence of Mrs Hoad who liked the finer things in life.

Planting of pines in the Jounama State Forest was begun in 1923 by the NSW Forestry Commission as an experiment to determine which pine species grew best in the mountain conditions. By 1933, 605 hectares of exotic pine species were planted in the forest near the village. In 1930, the Crown bought the Cottage "for the purposes of forestry", and Forestry Officer Bruce Cotterill took up residence and was appointed the new postmaster. The Cotterills had lived at 'Lynwood', about 150m east of Cotterill's Cottage, since around 1910.

During this time the village consisted of about 10 houses, a store, a police station and a school of 10-20 pupils.

Between 1930 and 1969, there were several alterations to the Cottage. A new brick chimney was constructed around a new kitchen range. A large corrugated iron water tank was located beside the kitchen chimney in 1930. The existing bathroom/laundry was fitted out. The copper and laundry tubs were relocated to the Cottage from an old building at the back of the Cottage, possibly the original hut. A wood heater provided hot water for the bathroom/laundry. The copper and water heater have since been removed.

The Cottage was connected to a piped water supply. Refrigeration was by kerosene-powered units and kerosene pressure lanterns were the only source of lighting until a generator and batteries were installed. The pit toilet has been the only form of sewerage control throughout the life of the cottage.

The Post Office was conducted from the room at the corner of the southern and eastern verandahs. The telephone exchange was a wall-mounted plug board in the kitchen next to the corridor door. In 1969 Bruce Cotterill retired, and in November the Post Office was officially closed as the population of Yarrangobilly Village had declined considerably. Things were not helped when Yarrangobilly Caves were closed for renovations for 2 years.

A new stable and dairy was build about 40m up the hill from the cottage. A new garage with timber frame and corrugated iron cladding was also built. The room at the side with the concrete floor is believed to have housed the generator and batteries for the lighting system, with the timber lining boards intended to muffle the noise of the generator.

The Country Women's Association were very active at Yarrangobilly, and despite being one of NSW's smallest branches managed to raise the funds to build a hall in 1954. However, the Association branch closed in 1969 with Pearl Cotterill as the last president. The CWA hall was demolished soon afterwards when the main road was realigned and the new bridge built. This dismayed the residents, who had been told the road would run in front of the hall.

Between 1969 and the early 1970s, the land was resumed for inclusion within Kosciusko National Park. The last residents left in the 1970s. When the buildings fell into disrepair, they were removed by the NPWS.

Cotterill's Cottage is the last remaining building.

Wyanbene

1-2 April, 1995

Participants: Melissa Carter, Simon Cruden, Brett Davis, Mike Lake, Tim Matthews, Jill Rowling

Jill and Mike met Brett and Simon at Wyanbene on the Friday night and enjoyed a good quiet night's sleep after the five (or so) hour drive. Tim and Melissa were expected on the Saturday night with the gear. Our permit for Wyanbene Main Cave was for Sunday.

Saturday 1 April: April Fools' Day

After breakfast we set off to do some entrance photography and feature measurement. Near WY-6 we looked at the large rock of sparkly black material (possibly iron carbonates), no doubt the object of some gibberologist's work at the mines above (to the east). We also looked at tufa terraces and small untagged features. Walking north-east, we had a look at the mine adits. We came across a fair bit of the introduced prickly potato weed (*Solanum sp.*), probably spread by birds. This plant is becoming common on the ridge, we found later. In some of the adit drives, there are large tree ferns with trunks 3m high. We wondered whether they had 'self-seeded' or were planted there. I think the adits were done in the 70s.

Continuing to the saddle, we had a look at 3 shafts (about 16m deep according to the map). In a small hole we found a cast-off snake skin. Back up on the limestone, we had lunch in a warm spot near the top of the ridge. Here, we had an excellent view of the campsite to the north, the Minuma Range (north west), the Deua catchment (east) and the southern end of the Minuma Range. Wyanbene Caves Mountain was obscured by vegetation to the west.

As we were above Goat Cave, we scrambled down to have a look. It smelled of bats, so we didn't enter. Next was WY-9 on the other side of the slope. This tiny entrance leads to about 20m of tight vertical cave. Continuing south along the ridge, no-one felt inclined to go down to Ridge Mine Pot due to the steep terrain. So we went west, off the limestone, towards the second saddle and the trig. En route, we noticed two curious ridges oriented roughly north-west in conglomerate. About 50-100m north-west of the trig was a slight depression running roughly north. Here the sandstone featured 'slickensides' (sort of half-melted steps).

We returned to the second saddle and headed down (north-east) to Clarke's Cave. On the way, Jill saw a large, live brown snake that appeared to have been chasing a lizard which the others saw. This dampened some of the enthusiasm for strolling amongst broken logs and unstable rocks. We had a look at Clarke's Cave then headed back down the steep scree slope back to camp. Jill found a curious fern like a moonwart in the grass by the track about 50m downslope from WY-6. She also found greenhood orchids in the large tussocks at the campsite.

We had an early dinner. Later that evening, Tim and Melissa arrived. The campfire was lovely and warm. Note that the local timber does not burn well; we brought peppermint logs (Eucalyptus) from home which burned with much more enthusiasm and heat output, especially since Mike had sprayed them with WD40 beforehand to kill any bugs!

Sunday April 2

A typical SUSS start to a caving trip. We were underground by 11:00am! Due to general lack of time, we aimed to reach the Gunbarrel Aven. Everyone enjoyed the entrance streamway (despite the cold water). We even found a greenish stalactite. We rigged the flowstone slope with 2" tape. When we got to the inner gate, we found it...completely off the wall! As there was no rigging on the far side, we had to assume there was no-one in the cave. Mike rigged the ladder and belay for us all, then Jill belayed him down from the bottom. We continued up the streamway with Tim, Brett and Simon ooh-ing and aah-ing at every turn. I think it must have been the extreme dissimilarity between this cave and anything at Bungonia they may have seen - particularly the helictites. There were short clear ones, vermicelli ones, ones with cave coral on, curious brown up-pointing ones and ones as thick as your wrist.

After the Triangular Squeeze, the nature of the cave changes. There is not as much decoration and the cave is more rifty. Just before the watercrawl Jill pointed out a greenish anthodite.

Jill was first through the Wet Stretch and had the pleasure of noting the odd colour (black and brown) of the mud in the bottom of the puddles just as you climb our of the water. Out of the Wet Stretch she looked around for a connection to the Avens area. Remembering this part of the NUCC map, she soon found the way into the first aven.

"What have you found?" inquired someone.

"Vast and innumerables" Jill replied.

Everything here seemed strangely familiar - the same cross-sections, the right dimensions. Jill felt rather chuffed. The rockpile here was unstable at its base, but further up it was mercifully cemented with calcite. The north-south connecting rift was obvious once one stood under the aven. We didn't have time to look further, so we returned to the main route.

Presently, we got to Rockfall Chamber, and spent the usual quarter of an hour looking for the way to the Gunbarrel. There are at least three ways through the start of the rockpile, some ways better than others. Everyone was impressed with this magnificent 110m high aven. We could not see the roof due to a fog (not entirely our own making). This fog was composed of largish water droplets, making visibility over 30m impossible. I don't recall seeing fog elsewhere in this cave. It was also dripping a lot of water. Mike and I measured a minor dyke-like structure which protruded from the wall and noted the apparent bedding (of crinoid stems) on the wall. Unfortunately the bedding was not visible elsewhere so we could not measure it. The eastern wall (where we came in) is covered with reddish mud. We looked at a green stone which someone had placed on a rock. It looked like copper carbonate and was heavy. We left it there.

After lunch, we got going as people were getting cold. There wasn't really time to look at anything else, so we headed out. On the way, Tim had to stop in Helictite Chamber as he felt a photo coming on. We only saw one bat, near the Triangular Squeeze. At the ladder, Mike showed Simon how to belay and take Mike's weight (an ideal opportunity). So Simon belayed Mike up and then Mike belayed everyone else up. Half the group then began to exit while the remainder packed the gear then exited at 3:30pm. The outside light streamed in blue down the entrance. Mike skipped down the road, to everyone's amusement. In the carpark, just as we had finished dressing, the heavens opened up and dampened everyone's enthusiasm for visiting the Big Hole up the road. Nevertheless, we all had an enjoyable trip.

NB: The Ranger-in-Charge at Narooma, Chris Griffiths, is aware of the gate problem and will fix it shortly.

Jill Rowling

Activities at Jenolan

19-20 November, 1994
Sub-trip report

Mike and Jill arrived at Jenolan on Friday night, only to find that there were far too many people coming on this trip, so Jill decided to do some speleology instead of just going caving.

Saturday 19 November: J-41 -Dwyers Cave

After Jill returned from the Guides' Office with appropriate keys (for later), the group set off for J-41. On the way up the hill, Kevin had a look in the rifty J-43 (below J-41). The map in the Southern Limestone Book seems fairly accurate. In J-41, Mike gave the group a tour of the upper sections and agreed to meet Jill at the top of the Perculator. Jill proceeded directly to the top of the Perculator and took photos of the heligmites, stegamite-like structures and other interesting objects. Mike showed the group the signatures of the Dwyers dating from over 100 years ago on a shawl (of all things). Jill way entirely undisturbed throughout the whole photo

session on account of Mike's inability to find the way on to the Perculator. Never mind. Everyone re-grouped outside. Mike and Jill returned to the cottage (for some sleep) and the others went to look at Hennings Cave.

Saturday PM: Jubilee and Orient Tourist Caves

Jill needed to get some photos of "ribbon" helictites in Jubilee and check some speleothems in Orient, so armed with the cave keys (obtained that morning), camera gear, notepad etc. we walked down after dinner. Jill pointed out some of the things she was investigating, such as the "teeth" on shawls and the microgour spacing on flowstone. The "ribbon" helictites in Jubilee were looked at and photographed, as were the "bacteria" colonies and some gypsum crystals near the Fernery.

Returning to the Grand Arch, they went to Orient Cave via the Binoomea Cut. In the well-decorated cave, Jill pointed out some of the interesting speleothems such as the single large crystals in the Pillar of Hercules (a stalagmite) and the ice-like growths near the Persian Canopy/Fairy's Skating Rink area. Some people were too tired to walk back up to the cottage so the others "rescued" them with cars. Alas, the bar was closed.

Sunday 20 November: Wiburds Lake Cave

James Reid had a group going to Wiburds to "see everything", but Jill wanted to look at Neddy's Knock only, so she wandered up there by herself to photograph the aragonite therein (unfortunately, those pictures turned out poorly). Neddy's Knock is a small rifty chamber off Pitter Patter Passage. It contains loose boulders and a (basalt?) intrusion. Associated with the interface between the intrusion and the limestone is a lot of weathered material (gossan?), aragonite and gypsum. The anthodites in the ceiling (fortunately out of reach) are reminiscent of those from Tasmanian caves.

Jill returned to Dyke passage where she met James' group, then she left the cave to meet Mike and return to the cottage.

That afternoon was the start of SUSS' car troubles. On the way up Five Mile Hill, Mike and Jill saw a truck coming towards them (going towards Jenolan). It only just fit past. Mike observed that "Ian's car is wider". Ian had been behind us. Now the road had been dug up just before Hampton. Here we passed a damaged car and a hole in the fence on our left. At Hampton, we were flagged down by Eric and Patty. Their car had been driven off the road by some other car doing 360s on the gravel patch. Their car had gone off the embankment, rolling into the deep ditch. They had climbed out of the windows and were fortunately unhurt. Their car had been towed to Lithgow and they were waiting for Ian Cooper to take them and their things home, as he lives closest. However, we were told by the rest of the SUSS team when they arrived that unfortunately Mr Cooper's car had had an altercation with the aforementioned truck. The owner of a nearby shop told us that a Volvo had also become unstuck at that point in the road, and a Korean couple had written off their brand new rental car at the same spot on the same weekend. Reminds one of "The Cars that Ate Paris". That night, we dined at a Chinese restaurant in Blackheath, then drove home very carefully.

Jill Rowling

Palace Coup

At the SUSS AGM on April 6, the following people were elected to the SUSS Committee for 1995-96. Good luck everyone...

Position	Incumbent	Hassle them verbally on...	Hassle them electronically on...
Don Corleone (President)	Ian Cooper	682 6790 (H)	coops@es.su.oz.au
A Heartbeat Away (Vice-President)	Willow Forsyth	560 3401 (H) 226 3075 (W)	
Chain Letters Department (Secretary)	Don Matthews	634 6468 (H)	comsyst@magna.com.au
Keeper of the Vaults (Treasurer)	Kevin Leong	319 0180 (H) 333 5266 (W)	kevin@abc.gov.au
Emanuensis (Minutes Secretary)	Andrew Matthews	634 6468 (H)	
Richo Jr (Senior ASF Councillor)	Robert Fairlie-Cuninghame	449 8725 (H)	rfairlie@extro.ucc.su.oz.au
Dr Goebbels (Editor)	Chris Norton	959 3613 (H) 225 9323 (W)	cpll2@sulaw.law.su.oz.au
How many to change a lightbulb? (Equipment Officer)	David Connard	968 3838 (H)	dconnard@extro.ucc.su.oz.au
Hanrahan (Safety Officer)	Phil Maynard	517 1050 (H)	
Minister for Information (Librarian)	David Jackson	587 5127 (H)	
Dogsbodies (General Committee Members)	Brett Davis	517 1698 (H) 646 8815 (W)	
	Lorraine O'Keeffe	960 4726 (H) 233 5344 (W)	
	Keir Vaughan-Taylor	816 5210 (H)	keir@es.su.oz.au

Last Outpost of Democracy

Okay folks, I've got a problem. You see, our beloved President has handed me an article for this magazine about Global Positioning Systems which he's pinched from the Australian Journal of Mining. Problem is, it's four closely-typed pages long, it has precious little to do with caving, and unless you're heavily into elec.eng. it's as boring as guano (if you'll excuse the alliteration-by-metaphor).

My problem is whether to print it or not. However, in the best interests of democracy, I'm palming it off onto you, dear reader. So what's it to be? Do I enlighten the SUSS readership about the intricacies of the Carrier Phase Ambiguity problem, and the Geometrical Dilution of Precision? Or do I save space, money, trees and your sanity by filing the thing in the round drawer? Correspondence and impassioned pleas on either side of the argument are eagerly anticipated.

President's Report for 1994

The past year has been a successful and busy one for the Society. SUSS had success in exploration, survey, mapping and study of cave systems, in NSW and further afield.

Tuglow - mapping and documentation

1994 saw the finish of the very large project to completely survey and draft a map of Tuglow Cave. This popular cave is one of the most sporting and interesting caves in NSW. The map will be published in the next twelve months as part of a book on Tuglow. At the end of the year, the book was in an advanced draft form, with chapters on the geology, biology, history of local European settlement and route descriptions of the cave included. A photographic trip in the cave was conducted in December, and more will follow in the next few months. This has been a long-term project for SUSS and an great deal of work has been put in by numerous members of the Society. It is highly gratifying to see such an effort come to a successful conclusion.

Jenolan - mapping and exploration

Jenolan has been the favourite area for SUSS ever since the Society was formed. In 1994, further exploration was carried out by SUSS in Water Cavern, at the northern extremity of the show caves. Water Cavern has always intrigued cavers, as a very large passage suddenly ends in a small, muddy pool of water. The combination of severe drought and some mechanical assistance in 1994 allowed SUSS to pass through the tight, muddy tube into brand new passage. The exploration of this passage continued during the year, and two survey trips were made in September. Before the newly discovered areas could be completely explored or mapped, the heavy rain at Christmas sealed the passage shut again. This area remains an exciting exploration prospect, and SUSS will be back into Water Cavern in the next drought.

Surveying in Spider cave continued during the year. The survey of the cave is mostly complete and will be drafted in the coming year. This cave is highly complex and is still being explored in its northern regions. During 1994, several new passages were added to the known and surveyed length of the cave, particularly around the Cloisters area in the northern section. Surveying was halted abruptly at Christmas when the entrance section of the cave was flooded by heavy rain. At the time of writing, the cave had not since been re-entered.

Mapping of the smaller caves in the vicinity of Spider Cave at Jenolan continued during the year. Surveys were completed by SUSS for Frenchman's, False Frenchman's, Henry's Hole and Playing Fields caves. Maps of these caves will appear in the Bulletin over the coming year.

Wellington - surveying and documentation

Wellington caves have long been known as a tourist destination. In the mid 1980s, a major underwater cavern was discovered. McCavity, as the cavern is known, is the best location in NSW for cave diving and exploration has continued underwater since that time. In 1993, SUSS members Keir Vaughan-Taylor and Greg Ryan were appointed to the Wellington Caves Advisory Committee of Wellington Council, and were asked to coordinate a major effort to survey and document Wellington Caves. The Council and Australian Geographic have both lent financial and logistical support to this effort, and as a result there has been a regular series of exploration, mapping and study trips to Wellington Caves. The main underwater cavern was

surveyed and many side passages explored. During 1994, the water of the underground caverns was sampled, and the rare cave fauna of the lakes was documented. A series of underwater slides and videos were produced in 1994. The pick of the slides are to be published in Australian Geographic magazine in a forthcoming article.

A new section of dry cave was discovered at Wellington during the year. This provides access to a section of the caves which was previously only accessible to cave divers. This area has yet to be surveyed and mapped. Late in the year, a new section of the underwater passages was discovered. This appears to head away from the other known caves, passing under the rangers' station and tourist shops at the entrance to the reserve. This has yet to be explored to its full extent and surveyed. The Wellington project will continue during the current year, with more exploration trips and further photographic work required.

Other surveying and documentation

Wyanbene Cave was the object of some attention from the Society during the year, with an effort being made to map the surface environs around the cave and to relate the known features of the cave to surface above. A paper based on this work was presented at the Vulcon Conference (see below) and will be published in Helictite magazine. SUSS also mapped and published several of the caves at Wombeyan during the year.

Overseas trips

SUSS has a long tradition of travelling overseas to explore the best and most challenging caves that other countries have to offer. The Society has made major discoveries in the past in many parts of the world. SUSS members Ron Allum, John Oxley, Ian Cooper, Kevin Leong, Chris Norton and Philip Maynard participated in overseas caving expeditions during the year to Mexico and New Zealand. These successful trips will be reported in the Bulletin in upcoming articles.

ASF Conference 1995: Vulcon

Several SUSS members attended the biennial conference of the Australian Speleological Federation in January 1995 at Hamilton in Victoria. SUSS was well represented by its delegates in the formal part of the proceedings and by Jill Rowling, who presented a paper in the scientific sessions. This paper, on Wyanbene Cave, was well received and will be published. Prior to the conference, some SUSS members travelled to Kangaroo Island in South Australia, to sample the excellent caves on offer there. SUSS also participated in the conference field trips to the lava tube caves around Hamilton. A successful and enjoyable conference week was had by all those SUSS members who participated.

Speleosports

The NSW annual speleosports competition was held at Macquarie University in October 1994, with SUSS being well represented by its members. SUSS fielded three teams on the day, and won the teams competition. SUSS members also managed to come third and fourth in the individual 'iron man' competition, while the 'iron woman' competition was won by SUSS member Carol Layton again.

At the ASF conference in January 1995 a national speleosports competition was held. SUSS was well represented at this event by Keir Vaughan-Taylor, Mike Lake, Pat Larkin and Jill Rowling. The team just missed out on a prize at the finish.

Membership

In 1994 the Society had an influx of new members at the undergraduate level. This supply of young and enthusiastic members is the lifeblood of the Society and keeps all of the other projects mentioned above running. At the end of 1994 the membership of the Society stood at 109, with an unusually high proportion of active cavers. The principal source of recruitment for the Society is at O-Week, and thanks are due to those who manned the stall this year.

External Appointments

A number of SUSS members served during the year on government advisory and administrative bodies, representing the interests of cavers. In addition, SUSS is represented on many caving federation committees. The following is a list of members who participated in these bodies during the year.

Pat Larkin	Board member, Caves Reserve Trust President, NSW Speleological Council Senior Vice President, Australian Speleological Federation
Chris Norton	NSW convenor, ASF National Cave Standards Commission Member, Jenolan Speleological Advisory Committee
Armstrong Osborne	Member, Jenolan Scientific Advisory Committee Member, Wellington Caves Advisory Committee
Jill Rowling	Member, Bungonia Speleological Advisory Committee
Greg Ryan	Member, Wellington Caves Advisory Committee
Keir Vaughan-Taylor	Member, Wellington Caves Advisory Committee General Secretary, Australian Speleological Federation (to Jan 95) Vice President, Australian Speleological Federation (from Jan 95)

Thanks are due to all of these members for their efforts on these bodies.

Philip Maynard

So - You Want to Run a Trip?

The SUSS Trip Leader System

This article is intended to provide basic information about SUSS's current policy on how official trips of the Society are run. If you want to know more, you should read SUSS By-Laws 14-19 in *SUSS BULL* 32(1), Jan-Apr 1992 pp69-71.

Who can run a trip?

The short answer to this question is - anyone can, so long as they get permission from the Committee and have at least one person of sufficient relevant expertise along on the trip. The finer points of this are explained below. Note that SUSS officially refers to the person running the trip as the Trip Co-Ordinator. If you want to co-ordinate a trip to any place, just get in touch with anyone from the Committee.

What does co-ordinating a trip entail?

If you co-ordinate a trip, it is your responsibility to do the following things:

- Get permission from at least two members of the Committee.
- Make sure there will be a Trip Supervisor on the trip (see below).
- Get the trip advertised on the Society trip list.
- Make sure you obtain permission from the relevant landowner/manager. The Secretary can help you do this and should normally be the prime source of contact between the club and cave managers.
- Take names and details of all people who want to go on the trip. SUSS members always have preferential selection over people who want to bring friends etc. Any non-member who wants to go has to either become a member, or pay a $10:00 charge for the weekend.
- Decide on the route you will take, if necessary.
- Make sure everyone knows where to go. Arrange transport for people who have none.
- Work out what gear you will need and arrange for it to be collected from the Equipment Room.
- Arrange access to the accommodation (if any) at the area you are visiting.
- Collect any fees for accommodation and pay them to the appropriate person.
- Arrange for a trip report to be given to the Editor within three months of the trip (strong recommendation only).

What is a Trip Supervisor?

Unlike some clubs, SUSS usually lets any club member co-ordinate a trip. However, to ensure safe practices are followed we require that on every trip there is a person suitably qualified to act as a Trip Supervisor. The Trip Co-ordinator must ask that person if they are willing to act as Trip Supervisor for that particular trip. If the Trip Supervisor ceases to participate in the trip, they are no longer the Trip Supervisor and unless the Trip Co-ordinator can find another person to act as Trip Supervisor the trip is officially over.

Note that if the Trip Co-ordinator is qualified as a Trip Supervisor, then the same person can fill both these roles on a trip.

Ordinarily, the Trip Co-ordinator is in charge of what happens on a trip. However:

- If the Trip Supervisor believes that a breach of safety, or the Constitution or the By-Laws of the Society has occurred or is likely to occur, he or she notifies the Trip-Co-ordinator and can take steps to prevent any further breach.
- If there is a difference of opinion between the Trip Supervisor and Trip Co-ordinator on a matter of safety, or the Constitution or the By-Laws of the Society, the Trip Supervisor's opinion prevails.
- If any participant in an official trip requires other than minor first aid, or a rescue situation arises, the trip supervisor assumes all responsibilities and powers of the Trip Co-ordinator.
- If the Trip Co-ordinator ceases to participate in an official trip, the Trip-Supervisor assumes all responsibilities and powers of the Trip Co-ordinator.

How do I become a Trip Supervisor?

Basically, you have to prove to the Committee that you comply with the Trip Supervisor requirements. These are printed at the end of this article.

If you want to become a Trip Supervisor but don't yet fill all the requirements, ask someone to help you learn what you need to learn. You will usually find that people will help arrange an activity - either a trip or a field day - to teach you.

In some circumstances, the Committee can appoint someone as a Trip Supervisor when they do not fill all the requirements. However, this is only done in special cases and there are usually restrictions on the types of trips these people can supervise.

How does this fit in with ASF's National Cave Leadership Scheme?

At present, SUSS has not implemented the first stage of ASF's National Cave Leadership Scheme. This Scheme sets out suggested minimum standards for caving leaders which it is hoped will eventually be national standards for leadership of caving trips. However, we are presently investigating how to implement this scheme. This means there could be some change in our leadership system in the near future. You should ask members of the Committee about whether any further standards apply if you are thinking of becoming a Trip Supervisor.

Chris Norton

Trip Supervisor Requirements

Important note: These requirements are liable to change in the near future due to SUSS's piloting of ASF's National Cave Leadership Scheme. You should treat this list as a guide only.

1) General requirements

Before considering any person as a Trip Supervisor the Committee shall be satisfied that the applicant has sufficient sense of responsibility and discipline to conduct the activities of a trip in a safe manner, and to ensure the conservation of any cave or cave reserve visited. In addition the Committee shall be satisfied that the applicant has fulfilled the following requirements:

a) To be sufficiently experienced in the practical aspects of caving to capably lead a party, under the variety of conditions likely to be encountered.

b) To be in possession of a current St John's Ambulance First Aid Certificate (or equivalent) and to be familiar with procedures associated with caving emergencies.

c) To have attended at least one SUSS trip.
d) To be aware of, and uphold the guidelines of, the Australian Speleological Federation.

2) Technical requirements

Trip Supervisors must have demonstrated a working knowledge of the following:

a) General

(i) Rope choice: static vs dynamic
(ii) Basic rope knots including the following:
figure of eight knot
figure of nine knot
double fishermans knot
prusik knot
tape knot
(iii) Assessment of the security of natural and artificial anchors
(iv) Rigging in such a manner as to minimise the possibility of anchor or equipment failure
(v) ASF voice and whistle calls for laddering and SRT

b) Laddering

(i) Setting up and operating a ladder and belay
(ii) Body belay methods
(iii) Mechanical belay methods
(iv) Self belay techniques

c) Single Rope Technique

(i) Correct placement and security of rope protectors
(ii) Descending and ascending past rope protectors and knots
(iii) Setting up and negotiating rebelays and redirections
(iv) Changing from ascending to descending a rope and vice versa
(v) Assessment of the safety of personal SRT systems
(vi) Abseiling down with an injured person after having ascended or descended to them on the same rope.

3) Additional Requirements

a) The Committee may at its discretion require those wishing to be Trip Supervisors to co-ordinate a trip and attend the trip with one Trip Supervisor, appointed by the Committee, acting as an observer. The prospective Trip Supervisor's application will then be reviewed and put to the vote of the Committee.
b) The Committee shall, from time to time, and in any case at least once annually, re-examine the list of authorised Trip Supervisors with a view to appointing additional Trip Supervisors and revoking the appointment of those who have failed to fulfil their obligations under the By-Laws.

How to Dye Trace

In the last SUSS Literary Supplement, we went digging with Norbert Castaret in what he considered his first cavern. This time, we set off to find the true source of the Garonne. The extract comes again from Castaret's book *Ten Years Under the Earth*, as translated by Burrows Massey, and it has been edited. If there's a lesson to learn, it's that hydrological studies are an aspect of caving that the whole family can enjoy...

One day at school, when I was about eight, we had for our geography lesson 'The Garonne and its Tributaries'. My class-mates stood up one after another to repeat in a rapid monotone: "The Garonne rises in Spain at the foot of the Val d'Aran".

I got up in my turn, and I can still hear the giggles that greeted my opening sentence: "The Garonne rises in Spain among the glaciers of the Monte Maladetta". The teacher stopped me to ask what book I had learned the lesson from. I had to confess that I had preferred an old geography full of pictures to our own dry school-book.

Our kind old teacher smilingly explained that geographers had changed their minds. The former ascription of the Garonne to the Monte Maladetta was a mistake. I should have been the last to imaging that a quarter-century later I should answer the ancient riddle of the Garonne.

The resurgence called the Goueil de Jouéou is at the mouth of an amphitheatre of high mountains, the Cirque d'Artiga de Lin. The water foams and thunders out of a heap of boulders into a 130-foot cascade. Higher up, the Cirque d'Artiga de Lin contains several lakes with underground tributaries, and torrents which vanish and reappear in the most capricious fashion. All the writers and armchair geographers have, in fact, called the resurgence the origin of the Garonne. But they have forgotten or ignored the dispute begun in 1787 among geologists, cartographers, and explorers who have combed the region.

In the massif of the Monte Maladetta, near the Val d'Aran, but on the opposite slope of the Pyrenees, is the celebrated Trou du Toro (Hole of the Bull), so called from the roar of the water which pours in. The rushing torrent comes from the huge melting snowfield and from almost a hundred acres of glacier. This engulfment has long fascinated travellers and native mountaineers - the more so because no one knew where the great water-spout reappeared. There have been two principal theories to explain the riddle of the Trou du Toro. The first, and seemingly the most probable, was that the water reappeared further down the Esera valley in various ponds, resurgences and torrents forming the Rio Esera. The second theory was a bold one, which seemed to defy the laws of nature. Its proponents claimed that the waters of the Trou du Toro changed valley, basin, and slope, passing under the ridge of the Pyrenees and rising again at the Goueil de Jouéou to form the western branch of the Garonne.

In 1929 I examined the hydrography of the Esera valley. It contains a complex series of disappearances, resurgence, intermittent ponds, and overflows. By long observation I disentangled the streams, and determined that the water of the Trou du Toro does not reappear in the Esera valley.

In 1930 I went to work in the Cirque d'Artiga de Lin above the Goueil de Jouéou on the north slope. Here, I found lakes, ponds, chasms that absorbed water, and torrents which skipped in and out of the ground in extraordinary fashion. Exploring their underground course was a real adventure. My 1930 campaign proved to my own satisfaction that the streams of the Cirque d'Artiga did not feed the Goueil de Jouéou.

A Spanish power project was planned to divert the waters of the Trou du Toro for a large plant in the Esera valley. The power company saw no obstacles in its path, since it planed to return the waster to the Esera valley. Here I stepped in; convinced as I was that the stream went north and not south, I trembled for the Garonne. The Spanish project would have dried up the Goueil de Jouéou almost entirely, with irreparable consequences in the upper valley and along the plains of the Garonne.

Offering to prove my theory experimentally, I asked for funds for a costly coloration test. In vain.

I returned to the charge with one last effort. Although the problem of the source of the Garonne was traditionally insoluble by scientific deduction, several eminent men were convinced by my arguments and by the impending danger to the Garonne. Thanks to them I was able to make good my previous offer, which had been far too expensive for my own pocket. A costly coloration test would make my conclusions public and indisputable, and give grounds for opposing the Spanish project.

An observer near the Trou du Toro on 19 July 1931 would have been much puzzled by the doings of five persons who were busy rolling kegs along the brink of the cliffs. The party consisted of my mother, my wife, two friends of theirs, Mlle Casse and Mlle de Sède, myself, and a Spaniard with a Mule. The mule carried six metal barrels, each containing twenty pounds of fluorescein, the most powerful colouring agent known. We unloaded them, and the mule and its master departed.

We were left crouching against great boulders out of the way of a fierce cold wind, facing the Accursed Mountains. I explained the steps in the coloration test to Mlles Casse and de Sède, valiant young girls who had defied the mountain, and were ready to sleep on the bare ground if the expedition required it.

Evening descended with alternating cloud rifts and dark threats. Processions of mist and tangled fog masked and unmasked the glaciers, where we watched the upward march of the sunny zone. The last flames of sunset clung to Néthou's dome, flashed for a moment on the summit among the eternal snows, and then vanished. Night, already drowning the valleys, rose to attack the peaks.

Sunlight affects fluorescein, which we could therefore not throw in until twilight. I gave the eagerly awaited signal. My wife and I crouched at the top of the cascade, with the open kegs in easy reach. We began to toss out the fluorescein, which would be completely dissolved and stirred up by the fall of the torrent. From the fist cask I scooped up a fine, almost impalpable brown powder, which I flung into the torrent. A magnificent colour overspread the cascade with the suddenness of an explosion; a few handfuls made it a green waterspout, fluorescent and indescribable. The gorgeous flood bounded tempestuously down the gully to the Trou; our companions waved and gesticulated toward the clifftops.

The extravagant and unreal colour of the torrent lent the whole countryside a truly diabolical look. We threw down the iron casks to make sure of using the last precious bit of powder, and then we hurried toward the Trou du Toro. A triple burst of laughter greeted us: my wife and I had powdered each other thoroughly with fluorescein as we worked, and we were brown from head to foot except where moist lips and eyes had turned green.

Darkness tore us from the magic view. Shelters are scarce in the Pyrenees, and it was time to hunt up a place for the night. I led my party five hundred yards down the valley to a miserable snow hut. We huddled in a litter of musty pine needles. All of us shrivelled, trying to forget our discomfort in slumber, but we were in for a bad night; the cold was piercing. During that endless night, I knew the magic colour was on its way through the labyrinths of the Maladetta; in spirit I was scrambling though gigantic clefts. The underground torrent would be rearing in its stony prison at this very moment, passing two-thirds of a mile deep under the ridge between Aragon and Catalonia, to rise in the Goueil de Jouéou.

At 4am we were all up, snorting in the chill blackness. We exchanged final instructions, and the party split up. My wife and her two friends, the 'Esera detachment', went down the valley of that name to watch the tangle of disappearances and resurgences where the stream rose to pour into the Mediterranean.

Thus assured that the Rio Esera would be well taken care of, the 'Garonne detachment' (my mother and I) set out from the Accursed Mountains to cross the ridge between Aragon and Catalonia, and stand sentry at the Eye of Jupiter. The steep northern slopes of this pass demand close attention to business from climbers. Going down the precipice in the thick of the fog was a ticklish matter, but we could not put off our visit to the Goueil. When we reached the bottom of the amphitheatre, we were soaked through with fog and rain; I was covered from head to foot with fluorescein, and the water turned me into a dripping statue of blazing green!

The storm was so thick that we could not get our bearings, and we had to cross the pastures of the Artiga de Lin by compass. Finally we stumbled on a shepherd's hut, which I knew well, but had despaired of finding. On the hearthstone we saw a small bundle of faggots, which we kindled at once. Our knapsacks were in a sad state from the rain, and we had to dry everything out.

While my mother was doing this, I took advantage of a lull to visit the Goueil. I soon sighted the edge of the Jouéou forest, in the midst of which hides the great resurgence. Its tremendous roar betrays it from afar, and I steered toward it by the noise.

I hardly imagined that the colour would have got through the mountain yet. Underground waters usually move very slowly, and are held up by spillways, cave-ins, filtering sand-banks, and other obstacles. I rushed toward the cascade, which was still hidden behind beeches and firs. Suddenly, I saw through the leaves a part of the resurgence. I stood rooted to the spot. The cataract pouring from the mountain was a vivid green! I rushed up to get a better view; I feasted my eyes; my head whirled with memories.

The Garonne *did* rise in the Maladetta.

I hurried back to tell the good news to my mother, who was fixing the cabin for a long stay. In a twinkling, everything was back in our wet knapsacks.. We were soon standing in the spray and noise of the cascade, greedily admiring the brilliant green. The experiment was as good as finished, but we still had to find witnesses who would sign affidavits to prove it. We started down the Garonne in search of our first witnesses.

For an hour we went through the forest, down the valley, enjoying our rare glimpses of the emerald flood. Beyond the forest, where the fields began, two reapers stopped their work as we came by, and rushed up to ask if we had seen the Garonne. They had seen the '*diabolica*' colour that morning at six, when they got up; they had kept going over to watch the colour ever since.

I explained the phenomenon, reassured them, and got them to sign the first of many witnesses' statements. One of them had believed 'that a sulphur mine had burst in the mountain'; the other was very uneasy about the trout.

Almost everyone seemed to think the trout would be exterminated, so intense was the colour. No matter how much I insisted the fluorescein was absolutely harmless, some people did not believe me; but even the most incredulous had to admit they had seen no dead fish.

We hurried on down the valley to get to the Ermitage d'Artiga de Lin, where we hoped to rest, dry out, and refresh ourselves; but that day was fated to give us no respite. In the kitchen an old woman bustled about getting coffee, explaining excitedly that the colour of the river was "a miracle of the fairies, and must mean that something terrible was going to happen." I went to the window, looking out over the valley. While I was trying to see how far the colouring went on, I noticed in the distance two carabineers hurrying toward the Ermitage. Undoubtedly they too believed in the river-poisoners' misdeeds, and they were rushing from the village of Las Bordas to pursue the poachers.

My green clothes, face, and hands accused me beyond a doubt. I could explain as much as I pleased that I was no poacher, but a harmless experimenter; would they believe me? If not, the discussion might turn out badly for us.

Taking no chances, we forwent an oratorical contest, and left precipitately, to the blank astonishment of the innkeeper. Despite our growing fatigue and our heavy bags we walked fast up the valley. We repassed the Goueil, still as green as ever. To avoid the Col du Toro we re-entered Aragon by the monotonous, endless slopes of the Port de la Picade. We were worn our when we got there.

From the ridge we scrutinised the Esera through the glass; it wound away far below our feet, but there as no trace of colour.

We had now to go down the valley in search of the other detachment. We followed the meandering river for a long time without finding a trace of our companions. At nightfall, after fourteen hours on foot, we found them encamped. Their astonishment at seeing us rise out of the darkness vied with their delight at the unexpected quick success of the colouration test. We spent four days and four nights watching the Rio Esera, which never ceased to run clear.

We finished the last day by climbing the Maladetta pass and peak. When we got back to France we learned from abundant testimony that the colour, intense in the Val d'Aran, had been clearly visible beyond Saint-Béat, thirty-one miles from the Trou du Toro.

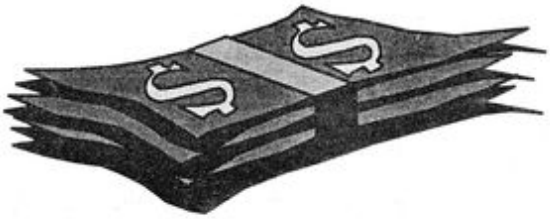
The discovery was put on official record by a communication to the Academy of Sciences, and I strained every nerve to publicise it in an effort to rouse opinion and interest the authorities. At last I had the satisfaction of learning that they had become uneasy over the situation.

Not only would a Spanish diversion of the waters of the Trou du Toro halve the flow of the Garonne, but the western, or Jouéou, branch is the more important of the two branches because it comes from melting glaciers only. In the summer the streams of the Val d'Aran are largely dried up, and the Garona of Jouéou shows its superiority: the greater the drought and heat, the more water the Trou du Toro sends to the Goueil de Jouéou. Without this natural governor in dry seasons, the industry and agriculture of the upper Garonne would atrophy.

My role was over, and it was the turn of the ministers, the diplomats, and the residents of the Garonne. Parliamentary and governmental action, supported by a vigorous newspaper campaign, seemed sure to produce a favourable outcome; the Spanish Republic could not but admit that the French claims were justified.

But the whirlpool in the Trou du Toro was nothing to the whirlpool of powerful private interests stirred up by the question of the Garonne, to the prejudice of the public interest; it was long before the Spanish Government yielded to the facts, and abandoned the power project.

Fees



Membership fees are due RIGHT NOW! In fact, they were due in April. So, if you're reading this bulletin, it probably means you've already paid. But that shouldn't stop you from telling your friends about us, how reasonable our fees are and so on.

Standard fee: **$30:00**
This applies to most of you. Still great value!

Family fee: **$40:00**
The family that caves together gets dirty together.

Introductory fee: **$12:00**
Available only to University of Sydney students joining for the first time.

Non-ASF fee: **$20:00**
For those people whose ASF membership is paid by another club.

Hut fees

Jenolan Cottage Accommodation
$2:00 per night; minimum charge of $4:00 for a weekend. This is REGARDLESS of where you sleep!

Cliefden Hut Accommodation
$2:00 per night, plus your share of the $20:00 deposit.

The Horrinobblest of Them All

Jenolan, 23 and 30 April, 13 May 1995

One week in April I was in the library and I found the SUSS Bulletin containing the original trip reports of the Brittle Bazaar Discovery (*SUSS Bull*, 15(1)). On page 19, in the midst of all the hype about Brittle Bazaar, is the following:

> "On Wiburd's Bluff about 30m south of and on the same level as Wiburd's there is a large cave entrance approx 2m high by 1m wide which may be seen from Wiburd's Flat. This appears on the SUSS unnumbered cave list as UCL53 and the first published references to it seem to be in a BMSC Journal for October 1972 (*Oolite* 4(3): 74) and they dubbed it later as "Ken's Curious Cavern", although SUSS refers to it now as BMSC Cave. Inside, Bryan [Cleaver] found a hole, and upon dropping tape down, it turned out to be a 23m pitch!!"

The report then goes on to say (p20) that on the following day,

> "Peter Winglee and Bryan also descended the pitch in UCL53 and after climbing down through a rockpile at the bottom emerged in what was later confirmed to be 22 Passage in Wiburd's.... (p21) Winglee confirmed the connection between UCL53 and the Gulches No 1 just below Survey Station 23 in 22 Passage."

This got me intrigued and I looked in the Blue Book for more information. The cave descriptions and maps gave nothing. Appendix II, however, does have an entry for J220, "Curious Cavern". Looking in the library I found a map of Wiburd's Lake Cave from October 1971 with all the survey stations marked on it and survey station 23 is in the vicinity of the corkscrew squeeze (that is, the corkscrew-like squeeze a few metres NW of the ledge at Yawning Gulches No 1 which leads to the upper levels of 22 Passage).

The quest for Sunday 23 April was to find the 23m pitch. Easy, Mark Staraj and I thought. As the report above said, you just go in and find a hole. So we went in and didn't find a hole for four and a half hours! Instead, our cave suits became very intimate with the cave coral that festoons the walls of the cave. This is a cave that truly eats overalls. Luckily I had just bought a Tempus 4 cordura cave suit and hence survived intact. However, industrial strength knee and elbow pads sure wouldn't have gone astray. I should warn people to avoid touching the walls of J220 as some are covered in moonmilk. Apart from preservation issues, you end up being covered in a fine white dust which causes everyone around you to start sneezing.

Since J220 was one of the alleged entrances to Wiburd's, and there was no map of it in the Blue Book, so we had to explore it thoroughly. J220 is not an insignificant hole. As I said, it provided sufficient entertainment for four and a half fun-filled hours. Upon entering there appear to be three ways on. One route follows the left wall up a slope, the second remains level and is to the right of the left wall, the third follows the left wall down a hole. The first way went and went and went. We followed a breeze down quite a way past some clean flowstone which was quite a surprise to see amidst all the cave coral, but no matter what we did we couldn't negotiate any of the holes from which the breeze appeared to come. The second one soon choked off but the last one led down to a rift to the left. After a segment of false floor, the rift bent a right angle to the right. Mark was the first in and considering the tight nature of the rift called me in to take a look. The rift led to a small chamber which had

rocks covering the floor. Curious, I started to pull away rocks from the floor. There was something below (or rather, should I say, there was nothing below!) The rocks vanished down a hole in the floor and bounced and smashed their way down for an alarmingly long time. I called out to Mark that I thought this was it and he joined me in the removal of rocks. Soon we had cleared enough rocks so that one could squeeze under a boulder into the nothingness we had found. As we were rather tired from all the grovelling around in this disgusting cave I declined to go through the hole so it had to wait for next time. In view of the horrible nature of the nobbles covering the walls of this cave, Mark invented a new word to describe this cave: 'horrinobble'. Indeed, this cave was the horrinobblest of them all!

Warping ahead to Sunday, 30th April, Ian was surveying the mid-level rockpile above Yawning Gulches No 2 when he found the "impact zone" from our efforts in J220. It was unmistakable, he said, as all the debris was covered in cave coral and moonmilk. So our efforts in shifting large rocks were not wasted.

Warping again to Saturday, 13th May sees John Oxley, Aaron Whymark, David Connard and I with survey gear synchronise watches with Ian at the J92 entrance at 11:25am and search for J220 and the pitch while Ian, Elena, Brett and Simon go to the impact zone where they are to whistle at precisely 11:35am. We actually made it to our respective destinations within the allotted time and I heard Ian's whistle from our hole. However it was very indistinct and there was no way we were going to get a direct survey leg through the hole. So under the boulder I squeezed, and in contrast to finding myself balanced precariously on a ledge, I soon found myself in a large chamber with a sloping dirt floor with a hole overlooking what I assumed was the impact zone (moonmilk contrasts very nicely with Wiburd's mud even at long range!). I called out to Ian who scurried out from his hiding hole and shone his light in my direction. Spot on! I found a suitable survey point (a rather obvious stalactite - yes, there is actually some flowstone and decoration!) and measured the distance to be around 11m. I could have even climbed down another 4m without much trouble. Where was this 23m pitch? The mystery continues. I don't know what Ken Pickering of BMSC thought was so curious about his cavern but I can give at least one reason of my own! It appears unlikely that the hole we found was the same one referred to in the earlier reports (apart from the obvious height discrepancy, we did have to remove lots of rocks to even uncover the hole) so maybe there's yet another hole waiting to be found. Perhaps someone else can spend their lifetime's quota of time in J220 looking for the thing.

While I'm on the subject of things to find, it should be mentioned that on Monday 24th April, while surveying Silverfrost with Mike and Jill, at the very far end I found a squeeze over rim pools (ouch! - especially if you are wearing only thermals!) to a chamber containing lots of dirt, a spider web, a dead millipede and two live cave crickets! That point must be very close to the surface. But, moreover, the end of the chamber leads on to cave coral covered rockpile issuing a breeze. Perhaps another connection to J220 is in the offing. We will have to wait for the full survey, including the surface traverse to find out where on the hillside is the closest point to the chamber.

David Jackson

SUSS Newsletter and Bulletin Index

Volume 1 (1960) to Volume 34 (1995)

This index covers the *SUSS Newsletter* from Volume 1 (November 1960) to Volume 10 and the *SUSS Bulletin* from Volume 11 to Volume 34 (March 1995) It contains a list of caves by name (or tag number where there is no name). The caves are sorted by area and alphabetically within each area.

Example

Dubious, J666: 1(3), 2-4; 32(4), 8 M
This means that Dubious Cave, tag number J666 is described in the Newsletter, volume 1, issue 3, pages 2-4 and in the Bulletin, volume 32, issue 4, page 8. M means this article includes a map of the cave. Any errors in this index are due to sheer inefficiency; report them to the librarian.

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Compiled by Phil Maynard

May 1995

So long for now!

Coming soon in the *SUSS Bull:*

- Read all about SUSS's exploits in New Zealand
- Relive the monster Christmas trip to Jenolan
- Get up to date on the Great Wiburds Survey
- Rediscover the mysterious Time Out

Tuglow Photos Needed!

SUSS's forthcoming *magnum opus* on Tuglow Caves is looking great. There's a fabulous map, lots of interesting text. However, production has been hit by an evil curse, and we are suffering a severe lack of photographs.

If any reader out there can lay their hands on some great photos or slides for this book, please bring them in to a meeting or call Keir Vaughan-Taylor on 816-5210. Contributions from other clubs are welcome. Earn the satisfaction of seeing your masterwork in print!

Letters to the Editor

Got something on your mind? Hated the editorial? Want to explain that embarrassing anecdote about the shawl and the lump hammer? You can feed back to the *SUSS Bull* on whatever you like. And if you're lucky, we might even print your letter.
Here's one to start off with:

Dear Editor.

I noticed with some concern that the inside rear cover of *SUSS Bull* 34(4) was besmirched with a piece of alleged journalism entitled *Hole-Hearted Holidays*. This article was reprinted from a journal which is yet to attain the high standards of your own publication. I was somewhat concerned to see this piece reprinted with no supporting explanation, particularly because of the factual inaccuracies it perpetuates.

I am sure Tasmanians will be delighted to hear of the "many" (as-yet-undiscovered) caves which "plummet to depths of more than 400 metres", will wonder if one of these, Niggle Cave, was so named because of its proximity to Niggly Cave, and curse when they realise that the bottom must have dropped out of Ice Tube as they now need more than 50m more rope to rig down to the bottom than they used last time. Most members of SUSS are no doubt still wondering where the "multitude of cave links and passages" that they discovered at Wombeyan are (or is Jill Rowling keeping something under her helmet?), not to mention quaking with fear every time they enter a cave lest they be attacked by a stunned bat.

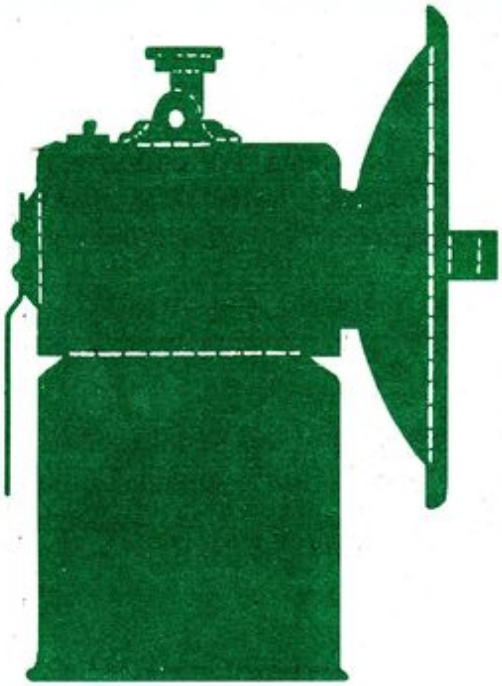
I am sure the blame could not lie with the author of the piece, Craig Stephens, who certainly would never knowingly breach the AJA Code of Ethics with such misrepresentations of the truth. Rather, the finger must point at his 'informed source', one Chris Norton, who is either grossly misinformed or still recovering from his last exposure to CO_2. One hopes that the SUSS Committee will ensure that in the future Mr Norton is kept under strict observation (and physical restraint or sedation, if necessary) whenever members of the media are present. Furthermore, I would urge you to declare the *SUSS Bull* a Norton Free Zone in the future. For the good of the Society, his particular purvey of poppycock must be prevented from ever sullying the pages of your fine publication again.

'Concerned'
Caver's Cottage, Jenolan

Editor's comment:

Who would we be, were we not swayed by such powerful rhetoric?

Lumen in Tenebris



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BULLETIN
of the
Sydney University Speleological Society

Box 35, Holme Building
University of Sydney,
N.S.W. 2006

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