

Newsletter of the Southern Tasmanian Caverneers Inc., PO Box 416, Sandy Bay, Tasmania 7006, AUSTRALIA ISSN 1832-6307

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Front Cover:

Janine prepearing for Armageddon. Photo by Ric Tunney.

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



# Speleo Spiel

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#### Editorial

My apologies for the lateness of this issue of the *Spiel*. It has been low on my list of things to do due to several factors. However, this time I can't blame computers or overflowing email inboxes.

Spiel #407 contains some trip reports. You should all thank Alan for politely (yes politely!) reminding me of my responsibilities.

Matt Cracknell

Stuff 'n' Stuff NTR

## Trip Reports

JF4 Khazad-Dum

Alan Jackson 1 March 2015

Cavers: Alan Jackson, Chris Sharples & Petr Smejkal.

This was meant to be the last trip improving the bolting situation on the popular route in KD. Electronics got in the way, with one drill battery apparently having refused to charge. The second streamway pitch is now 'fixed' (though none of the new bolts has been tested yet) but the fourth and sixth streamway pitches and final pitch are still to be done.

We left all the rope in the cave (but stripped crabs and some tapes) for the next trip.

## JF30 The Letterbox

Alan Jackson 6 April 2015

Cavers: Alan Jackson & Anna Jackson.

Rolan contacted the club in March to inform us that while assessing karst values for a proposed re-route of the Junee Cave walking track to the northern side of the river he had stumbled across a spring and a nearby cave (probably JF30 and JF31) that could do with a visit to see if there were any outstanding values that might need protection from the impending rabble. This is a fabulous example of our public service striving to trim the largesse – outsourcing its responsibilities to a volunteer workforce. It keeps the Liberals happy and the cavers busy and, thus, could be described as a winwin.

I researched JF30 and JF31 and the published accounts (Goede 1971 & Annan 1977) seemed to agree with Rolan's guess. The spring sounded awful by all accounts but the dry horizontal cave sounded pretty benign. I figured it was time to get Anna to step up from 'tourist' caver to 'productive' caver and teach her the art of surveying – she is eight now after all.

With Rolan's GPS waypoint the cave was easily found. Once Anna recovered from the psychological effects of passing in close proximity to large cave spiders and had moved to a safe distance (i.e. greater than 100 mm) she decided they were fantastically beautiful things ... when they weren't moving. After the initial three metre climb/slide a small horizontal crawling passage (all mud floor and walls with tree roots dangling down) was followed for 30 m. Here the 'nice' passage ends and a tighter passage off to the right is followed, ascending, to a small chamber of interconnecting perpendicular mini-rifts/canyons. This was the squeeze I'd read about. I hadn't been concerned about the squeeze, as Anna was going to be able to fall through anything I could get through, but it proved to be nastier than I thought. It was quite awkward for me but too confronting for Anna, as it had a slot beneath it and opened out over a second perpendicular slot. Instead I found an alternative route which was too tight for me but was just a flat out squeeze with a nice slab bottom on a 20 degree slope. Anna had to take her helmet off but she scrambled through without any fuss.

Beyond here the cave gets a bit larger (I could stand upright most of the time!) before quickly terminating in a small sump. The sump isn't very inviting but is probably big enough to entice someone stupid like Janine. No running water was observed in the cave and it would appear that it acts as a high-stage overflow periodically. All the evidence of previous exploration was gone, with the exception of a single boot print in a clay bank just before the sump. The water must cascade down the ~2 m drop in the area of the squeeze and then back up, evidenced by the 100% mud coating of the lower section and piles of froth at the squeeze.

We commenced the survey, with Anna ahead choosing stations (we'd done both a theory and practical session surveying the house that morning). Twenty two legs (and 80 m) later we were back on the surface ... in the rain. I had a quick look for the tag but acres of moss-covered rock and the precipitation deterred me so I terminated the survey at a piece of pink tape jammed in a rock crevice and left that job for later.

So far as 'values' are concerned, I saw no bones, no Aboriginals, only a couple of tiny speleothems (straws), very few beasties (Hickmania and one lost surface spider) and not particularly fabulous cave fauna habitat (plenty of mud and flood sediments but no running water most of the time). (Of course I don't claim to be trained or competent in any of those fields.) Thanks to the entrance slope the cave is probably more of a danger to humans than humans are to the cave.

Further reading of Goede (1971) and Annan (1977) has raised a slight issue with regard to cave numbers. The cave numbering report in *Speleo Spiel* 61:2 and the ensuing trip report on page 3 (Goede 1971) state JF30 is the horizontal dry cave and JF31 is the water-filled spring down beside the river. Annan (1977) puts the caves the other way round, with JF31 the dry cave and JF30 the river-side spring. I think it's likely that the original is correct (I've not seen Albert make a mistake yet, at least not one which hasn't been fully documented and corrected at a later date — and I've read EVERY *Spiel* several times ...). Clearly we need to find the tags to put the issue to bed.

Postscript – I supplied a copy of the final map and findings to Rolan and promptly received a thank you from Mark Pharaoh (Parks and Wildlife Service) for the club's assistance with the planned walking track reroute.

References

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

Goede, A. 1971. Junee Area – 21, 22/8/71. *Speleo Spiel*, 61:3



JF30: Anna in the "Letterbox".

### JF8 Junee Cave

For Your Eyes Only (FYEO) – trafficking tobacco Janine McKinnon

12 April 2015

Cavers: Janine McKinnon & Ric Tunney.

There has been a rather unsightly gear stash shoved in behind a very nice formation, a short distance into FYEO, for a couple of decades. The bright blue tarpaulin is very colourful, but not really a good first impression of the chamber.

This was pointed out to me by recent cave diving visitors from the mainland.

I have looked at this eyesore every time I have been in there, but did not know (maybe that is remember) who had put it there, or for what purpose, although I did know it had been there a long time. Anyway, I did not feel that I should unilaterally decide to remove it, much as I may have wanted to. Over many trips, I must admit that I have stopped really noticing it, or thinking about whether I should follow up ownership and/or discuss removing it with Rolan. It became a blind spot to me in that respect, although I still always noticed how ugly and inappropriate it was.

Call me blonde, or maybe senile would be more accurate.

The visitors mentioned it to Rolan and he commented that it was a cache put in by Nick Hume when they were pushing the second sump. I did a search of the archive and could find no trace of a report about taking it in, however I did find a trip report by Stefan (Eberhard 1991) which mentioned, in passing, the weights left near the second sump. The cache would have to have gone in at around the same time as those weights, as the purpose of both was connected. So, it was sometime in the 1980s, probably around the middle of the decade. It has been in there a long time.

Anyway, I offered to remove it. Today was the day.

We arrived at the car park via Junee Quarry Rd at 9:45 am, noting that the old gate 50 m from the car park was now locked with a shiny new padlock. The JF gate key fits the lock.

We organised fairly slickly (after all, we have done this many times), and I was at the dive site ready to go by 11 am.

Interestingly, there were no footprints on the beach at all, which means that the water levels have been very high, enough to cover the whole beach, between now and when the mainland divers were here on 22 March.

I was carrying an Aspiring pack, which I hoped was large enough to get all the gear out, and was trying dry gloves for the first time in the cave. They would certainly keep my hands dry and toasty warm, but I was unsure how well they would work with all the manipulating I would need to do out of the water. One doesn't have a lot of feel or dexterity with them.

The plan was that Ric would go out and return at 12:30 pm. I anticipated that 12:30 – 1:00 pm was my return window. Ric wouldn't start getting nervous until 2 pm. Panic would be after 3 pm.

The flow in the river was not particularly high and I had a pleasant swim through to FYEO, taking 17 minutes for the run. I checked the line as I went and all looks good.

The removal of the stash went pretty quickly, but getting it all into the pack was an achievement I am quite proud of. The blue tarp was huge, and the orange one wasn't petite either. That achieved, I went for an enjoyable wander up through the chamber to the weights near the second sump.

I always enjoy being in FYEO by myself. It is a whole different experience than when others are there.

So, there were three sets of weights on the bank. Two were each a pair of 1.5 kg ingots tied together and with a carabiner. The third was a single, large weight of 4 kgs. I clipped the two with crabs to my harness and carried the third in my hands. It was a somewhat less easy stroll back down the stream way with these (plus the 3 kgs on my harness) extra weights. I also noticed a suspicious dampness in my left hand (still in dry gloves, remember) as I progressed down the stream.

Back at the start of sump one (FYEO side), I decided that bringing all the weights out would be too much, so I put the loose one in the pack and left the others on the bank, out of sight but near the start of the sump.

All sorted, I put my tanks etc back on and started out. It was 12:25 pm; nicely on target. It had all been too easy, hadn't it? I managed to drag the pack under the lip of the start but it was so, so buoyant that it was jammed on the ceiling. I couldn't move it no matter how I pulled. Damn. Back to the chamber. Kit off, go

get the other weights, attach then to the handle of the pack, re kit, and try again.

It is now 12:45 pm.

Did I mention that my left hand was feeling very wet? That's one dry glove down. The water was leaking past the pressure equalisation cord in my cuff and making my arm wet but warm.

Even with 10 kg of weights the pack was still a little buoyant, but I could drag it down, and behind me.

All goes tolerably well (hard work pulling/pushing the pack but manageable), until I get down around 10 m depth. Then buoyant becomes weighted. Very weighted. It sank like a stone. It was now very, very heavy. I assumed that the air trapped in the bag had now been expelled, after compressing, plus some waterlogging of the materials inside. I couldn't lift it with one hand. Lifting and shoving it over rocks in the floor was a pain. I was very slow, churning up clouds of silt as I dragged it along. I was making very slow progress, breathing very hard, now in zero visibility, and not really enjoying myself very much. I struggled along like this for a while and then decided this was not going to work. I was going to run out of air before I struggled all the way back like this.

Why didn't I bring a lift bag for the job? Very good question. Stupidity pops to mind as a possible answer.

So, I decided to leave the two weight packages with clips. I had a use for them in the sump anyway, repositioning the line by a little bit. I removed them and attached them to the line at a line anchoring weight about a third of the way out; should be easy to find.

Progress was still slow, heavy and painful from here, but manageable, which was the important thing.

My only other problem came as I ascended towards the end of the sump. Once I reached around 3 m I now had the problem that I had started with at the other end, before I retrieved those extra weights for ballast. The pack very rapidly became buoyant as I ascended, and at around 4 m shot to the roof (which was fortunately only 1 m above me), dragging me with it. So the air had not been ejected from the pack as I had descended back at the start of the sump, just compressed by pressure. Oh joy. It took me several minutes to battle it down from the roof, and get it up the last 10 m along the cave passage.

What a pain of a trip, literally. I had a thumping headache from CO2 build up from the exertion. Still, it was done. It only had to be done the once. If I have to do anything like that again I will have to come up with a better plan.

The time was now 1:15 pm. It had taken me 29 minutes to get out. 12 minutes SLOWER than the inward leg. This is an outflow cave (hence "Resurgence"). It has a significant current. I thank god (figure of speech, I wish to emphasise) I wasn't coming out against the current.

I had used 40 bar from each tank going in, and 70 bar each coming out; almost twice the air. Usually I use about a quarter on the outward leg. An example of the value of the rule of thirds/quarters.



JF8: Anthropocene gear stash.

Ric was waiting, and started helping with packing (as usual), whilst I wandered out with the gear I was wearing and the Aspiring pack. He ferried two packs worth to the entrance and I returned to pick up one once I had dumped the gear cache.

Time for lunch. Tea and a Jackman & McRoss Easter bun fixed everything.

Postscript

We weighted the pack when we got home and it was 10 kg, without any lead weights. We cut open the tyre tubes used to keep gear dry and found:

- a. The gear wasn't dry; it had gotten wet on the trip into the cave (some twenty-five years ago) and been sitting, sealed and wet, ever since.
- b. An interesting mix of spares, including 2 packets of very wet tobacco, but no food. Fascinating, isn't it, what people's priorities can be.

The leaking dry glove was found to be due to a small tear near the plastic ring fittings. But wet dry gloves are warmer than wet, wet gloves.

References

Eberhard, S. 1991. Cave Diving: Junee Resurgence & Lawrence Rivulet Rising. *Speleo Spiel*, 269: 11.



Anthropocene artefacts.

## Checking out JF30 & JF31

Janine McKinnon

14 April 2015

Cavers: Janine McKinnon & Ric Tunney.

Alan had sent me an email about a recent trip he had done to some holes just off the track to the Junee Resurgence (JF8). One was a short cave with a sump at the end and the other was a nearby hole filled with water. He suggested I have a look. So I did.

We checked out the water-filled hole first, JF31. It was tagged in 1971 by Albert Goede & Kevin Keirnan (Goede 1971). We couldn't find the tag. It appears to have been first entered several years later (Annan 1977). They report it being a head high wade for a distance, ending in a tight squeeze. I found it sumped at the start of the horizontal passage (that is, standing in the hole). I had brought a bit of dive gear to have a quick look at the end of the wade. It was used at the start. To have a quick look, I progressed one body length into the submerged passage and could definitely see that it continued at least a few metres. That was the extent of my light beam in the water.

That was that job done, in five minutes.

Next we moved around to JF30 entrance, tagged on the same trip by Albert & Kevin in 1971 (Goede 1971). Ric had planned on coming into this cave too but we had found that his light didn't work. So it was just me.

I was still in my semi-dry suit, and was carrying a dive torch, mask and snorkel, to have a quick look in the sump. The squeeze mentioned by Alan, and referred to in the old trip report (Annan 1977), proved a minor obstacle to negotiate, and took me several minutes to work out how to get through it. It really is quite tight. No big chested cavers will get through here.

The sump was a short distance beyond, and was clear. I was able to get a good look for a few metres along the underwater passage, and it looks wide and not too tight. So, it goes. For at least 3 m.

That exercise took me about half an hour. Ric had spent the time trying to find the tag, with no luck.

We will return to:

- a. Tag both caves.
- b. Dive JF31. Even though the report says it stops at a restriction 30 m in. It needs surveying anyway, and a look-see won't hurt.
- c. Depending how the dive in JF31 goes, try from the JF30 side.

### References

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

Goede, A. 1971. Club News, Cave Numbering. *Speleo Spiel*, 61:2.



Ric taking a break



JF31: Entrance.

Midnight Hole, beginners' through trip

Petr Smejkal

18 April 2015

Cavers: Milos Dvorak, Niall Macdonald and Cat, Petr Smejkal & Nirved Upadhyay.

It has been a while since our last beginners' trip and I thought it was the right time to give it a go and try some new cadets for STC.

Nirved and Niall are both doing research at UTAS. Nirved is working on his postgrad degree and Niall is here as a postdoc on a three year contract. They were both interested in trying a bit of caving. Nirved had done some caving before and was keen to try more of it while he is here in Tasmania. Niall has never been involved in anything caving-related but he is keen on climbing and parkour and he doesn't seem like guy who would have any troubles underground.

I organised a couple of training sessions for Niall and one for Nirved and Niall's fiancée Cat. As their skills seemed up to a trip to Midnight Hole, Milos and I organised the trip to this cave for Saturday the 18th of April. I also took this trip as an opportunity to test Milos's rigging skills for our planned trip to Ice Tube.

Saturday weather was cloudy but there was no rain and we had the promise of a fun day in front of us. It wasn't that much fun in the end as we did not manage without some troubles. The biggest hiccup in our perfect plan happened on the way to the Midnight Hole entrance. Nirved jumped down one of the fallen trees that we climbed over, and he slightly dislocated his knee. He had pain but no restrictions in his movement so we decided to continue the adventure.

The way through the Midnight Hole was long but with



*IB11: Fresh looking cavers at the entrance.* 

no troubles. Milos was rigging and he did an excellent job. I was at the end of the group making sure that everybody was using their SRT gear correctly, and trying to help with getting into the descents. Surprisingly Matchbox Squeeze was fun for all of the trip members. After we reached Mystery Creek, the beginners were feeling tired and ready to get back to the car. It took us four and half hours to get to Mystery Creek, which made me quite tired too but in a different way. On the way out we still managed to have a look at the waterfall next to the Broken Column chamber and we stayed for a little while watching glow worms. Altogether six hours underground ended with three very tired beginners. Well done to all on a great job!

### JF4 Khazad-Dum

Alan Jackson

25 April 2015

Cavers: Anna Ekdahl, Alan Jackson, Janine McKinnon, Michael Packer, Ric Tunney

A continuation of the bolting efforts. Ric toddled down

behind testing the recently installed bolts and applying tags. Pax and I shot to the streamway and installed the Loxin-replacing bolt on streamway pitch four (the 'chute' pitch), an approach line bolt on streamway pitch 6 and two bolts at the top of the 'divide' on the final pitch. Janine and Anna ambled in the middle, assisting Ric at times.

## Other Exciting Stuff

## Book Review Crane & Fletcher's Cave

Greg Middleton

A few months ago a friend at the University of Tasmania alerted me to an upcoming seminar "Cave Genres/Genre Caves: Reading the Subterranean Thriller." Not at all sure what this would be about – especially as it was being held in the English Department – on Friday, 27 February, I dutifully attended (the fact that wine was offered had nothing to do with it). The seminar was jointly presented by Ralph Crane, Professor of English at the University of Tasmania and Lisa Fletcher, Senior Lecturer in English. For the most part it seemed to be a rather esoteric discussion about people's interactions with spaces under the Earth. The thesis was presented that people's usual initial response to caves was fear stemming from apprehension about the unknown and darkness. If they had a continuing interaction with or experience of caves their response supposedly changed to a feeling of security and even protection, presumably from "Mother Earth". There followed a series of outlines of recent novels dealing with caves and how the main characters had responded to the unaccustomed environment. While it was noted that most of these characters had been brought into contact with caves by forces beyond their control, rather than entering them because they liked the idea, it seemed to be assumed that their responses were typical of people generally. The discussion then went on to consider recent films dealing with caves, once again considering the responses of fictional characters to the challenges of their underground experiences. My primary thought as I came away from this seminar was "it's amazing what academics can find to study". Although mention was made of the fact that a book was in the offing, I wasn't going to be waiting around with great expectations of it. It did occur to me that it was slightly surprising, given the fact that there is only one caving group in southern Tasmania, that, to the best of my knowledge, neither it nor any of its members had been approached by these academics for any sort of input to the studies they were undertaking, "in our midst" as it were.

I thought no more about the book until a friend mentioned he had seen a copy of a book called just "Cave" in Hobart's Fuller's Bookshop. (Maybe it's title is "Cave: Nature and Culture" which it sort of has on the cover, but only "Cave" appears on the spine and on

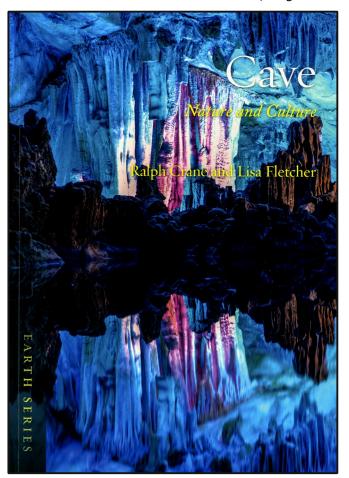
the title and half-title pages.) On the next available occasion, 23 June, I checked it out — and of course, bought a copy (despite the cover, of which more later). It's fair to say that, at first glance, I was agreeably surprised by this publication.

Cave is actually an attempt, within a small book (15 x 21 cm and 222 pp), to encapsulate much of what humans know and think about cavities under the earth. Far from being an obvious product of an English Department, the book is part of "The Earth Series" published by Reaktion Books, London and is classified as "popular science". Its official publication date is 1 July 2015.

The preface points out that caves are fundamental to human history. They are simultaneously places a shelter and places of deep, dark danger. [Ah, something that harks back to the seminar.] They are places of birth and of burial, dwelling places and sanctuaries from persecution. They are a human habitat and the home of mythical monsters.

Chapter 1 demonstrates that the term 'cave' is far from straightforward. They quote definitions dictionaries and speleological works, showing that it is not easy to define the meaning of the English word 'cave'. It is said that an isolated subterranean cavity cannot be a cave but goes on to acknowledge the term 'entranceless cave'; it says a rock shelter or cliff-side overhang is not a cave - unless it contains "mineral formations typical of a 'true cave', or provides habitat for organisms which populate caves" – in which case "it may be described as a 'borderline cave'". I thought it was only cavers who indulged in such pointless nitpickery (but perhaps the issue has to be raised). Surely better to just accept that a cave is a cave if it looks like one – and you want it to be. Fortunately they go on to make some interesting points about caves and how we see them - and how they have been seen through history.

At this point I have to say that, sneaking a look ahead, I was somewhat disappointed, given the Tasmanian abodes of the authors, that the book doesn't have more Tasmanian associations or references – it is as international as the publishers no doubt required it to be. Skimming through the reference list – in this case compiled chapter by chapter using those annoying little superscript numbers that students of the humanities are so prone to use (and emphasising that it is not a product of a Science Department) – and the brief 'select bibliography', one is struck by the few Australian sources that have been utilised. Dave Gillieson (Caves: Processes, Development, Management 1996) is cited at least seven times (but this was published in the UK), Elery Hamilton-Smith but twice (from his entries in Gunn's Encyclopedia of Caves and Karst Science) and Armstrong Osborne only once. Steve Harris, Don Ranson and Steve Brown get a guernsey for their paper describing the hand stencils in Ballawinne Cave. Of our own Carey, Goede, Kiernan, Clarke and Jacksons nary a mention, nor of national speleological authors like Trickett, Woods, Jennings, Spate, James, Whites, Grimes, ... one could go on. Finlayson & Hamilton-Smith (Beneath the Surface: A natural history of Australian caves) rates a mention in the 'select bibliography' but didn't provide one fact worth citing in the text. This is the only Australian book in the bibliography apart from *Shaw's History of Cave Science* which it manages not to acknowledge was published by the Sydney Speleological Society. In the column of the sydney Speleological Society. In the column of the sydney Speleological Society. In the sydney Speleological Society. acknowledgements section Elery Hamilton-Smith is thanked "for generously sharing his knowledge of caves with us" and Deb Hunter "for caving trips". It's good to know they actually went on some. The volume is lavishly illustrated, nearly all of the photographs and graphics coming from overseas; an exception is Steve Bourne who contributed nine photos (including one I was surprised to find myself in!) Unfortunately, many



The cover of Cave. 'Nature and Culture' also appear here but they are apparently not part of the title. It's hard to imagine a worse cover for a book about caves.

of the photos seem just to have been inserted to break up the text and do not relate directly to it.

This digression was prompted by my noting a quote from Adrienne Eberhard's poem "Earth, Air, Water, Fire". Given the significant contributions to Australian speleology of Stefan and Rolan Eberhard, it is perhaps ironic that it is Rolan's wife who rates a mention in this book, rather than either of them.

I shouldn't give the impression the book is not about science, there are many scientific details given about a broad range of caves, many of them from impeccable sources, but some facts just appear out of thin air. For example, we are told that Bungonia Caves "have unusually high levels of foul air due to the decomposition of masses of organic matter washed into the cave during heavy rainfall and a lack of ventilation" but there is no reference to the source of this intelligence. Sadly, they fall into the trap of contrasting 'true karst' with that now out-of-vogue in informed circles term 'pseudokarst' (Eberhard & Sharples 2013) – nevertheless, they show a good general grasp of karst cave development concepts (though I don't think hypogenic concepts (Klimchouk 2007) get a mention). Volcanic caves (in the form of lava tubes) rate only two brief mentions, though they are featured in a couple of the illustrations (perhaps without the authors realising).

Chapter 2 presents a fair introduction to 'speleology' (very largely, and with acknowledgement, drawn from the writings of Trevor Shaw – and where better to start?) Early cave-scientists are introduced, along with terms such as 'karst', 'phreatic' and 'vadose' and a number of major cave-related texts. Speleology is not just a multi-disciplinary field, it carries overtones of exploration and adventure. The authors are fascinated by the metaphors drawn on by people trying to describe caves: decorated chambers are 'galleries', cave floors

are 'repositories', entrances are 'mouths', twisting passages are 'bowels'. Their comments are verging on the critical – as though we should have come up with new words for these spatial elements. There are some interesting observations on cave maps and their limitations; they point out that caves are not really limited to the spaces we can walk – or crawl – through but are just the more open parts of much larger systems of interconnected spaces. Despite the fact that they are probably the features people associate most strongly with caves, speleothems don't get much of a mention. A quote from Tom Sawyer serves to explain the process of stalactite formation and how slow it is. The interesting range of other speleothems is ignored as is the valuable role they (especially stalagmites) can play in revealing past climates and in dating climatic events.

The third chapter deals with the adaptations of animals, including humans, to caves. It is a characteristic of this book that it does not just relate the 'scientific' facts but strays off into dead-ends such as Linnaeus' erroneous ideas about Homo nocturnus and H.G. Wells' imaginary flesh-eating troglodytes, the Morlocks. There is a lot of attention paid not just to observed facts, but to ideas and concepts relating to caves, even those that are purely the imaginings of novelists, presumably based on the assumption that these give us insights into how people perceive aspects of caves. That said, the treatment of the development of biospeleology, and particularly its changing systems of classification, is well put together and seems accurate, despite more literary diversions (does a discussion of the nature and depiction of Tolkien's Gollum really have a place here?). David Attenborough comes in for some criticism for his perpetuation of the 'traditional perspective' of caves as islands. The implication is that caves are linked in many ways to the surface and deeper mesocaverns, so are not really isolated but it is true that for some species the daylit spaces between caves and the more or less solid rocks – especially non-karst ones, do isolate them; for such species the islands analogy is valid.

While cave-dwellers get fair recognition, there is no mention of the role caves can play in preserving the remains of earlier life, particularly vertebrate remains as in the remarkable deposits at World Heritage listed Naracoorte Caves and the Nullarbor's Flightstar. I don't think the word "palaeontology" gets a mention anywhere.

Cave explorers, from early humans to modern-day cavers, form the subject of chapter 4. A 1991 poem is quoted in relation to speculation about whether cave painters were actually explorers and then we move on to the early scientific explorers of Europe and then to Martel, "the father of modern speleology" and his impact on British caving. Casteret receives a no-doubtdeserved page. Development of European and US caving is traced - Floyd Collins gets a mention, the NSS was set up in 1941, a 'map-as-you-go' ethic for trips into new caves was developed, cave rescue organisations sprang up, new depth records were achieved. There is a rare error on page 84: sometime Tasmanian caver Jason Gardner is quoted explaining his love of underground exploration and it is stated that Tasmania has the longest and deepest caves in Australia – sadly only the latter is true (Bullita in the Northern Territory has held the longest record for a number of years now and the Jenolan system is probably second longest, pushing Tassie's Exit Cave into at best third place – more may be longer). There follows a section on cave diving - not outlining the great achievements of this admittedly dangerous pastime (other than by Casteret), but cataloguing a series of fatal misadventures.

Monsters and magic: Caves in mythology and folklore is covered in chapter 5. It doesn't tell us much about

caves, but perhaps provides some insights into human fears and imagination. Chapter 6, on the other hand, deals with the reality of cave art – both art in caves and art featuring caves. This is a fair coverage of the subject with Australian Aboriginal art getting a mention, from Koonalda on the Nullarbor, finger fluting in caves near Mt Gambier and even, in Tasmania, Ballawinne in the Maxwell River valley and Wargata Mina (Judds Cavern) in the Cracroft.

Chapter 7, on caves in literature, is where we would expect these authors to excel – and we are not disappointed. Coleridge gets a good run, of course, but they might have brought it back to reality by totting up how many actual caves, or parts of caves, have subsequently been named after Kubla Khan or his Xanadu. Also mentioned is Auden's poem, "In Praise of Limestone", which I have to admit is a favourite of mine. They go on to find caves in Shakespeare, Hardy, Steinbeck, Forster, Defoe, Tolkien, Verne, Twain and more recent fiction – but it is all fiction (and did Enid Blyton really deserve a mention?) Again, this chapter tells us nothing about caves, but something about some people's ideas/fantasies about them.

The next chapter, on religious use of caves, does bring us back to real caves. While it is true that there has been widespread use of caves by a range of religious groups around the world, I have to say that of the many cave shrines and temples that I have seen, almost every one has resulted in degradation of the natural features and beauty of the original cavern or grotto. Never is there any thought for protection of the cave itself — always it is painted, decorated, concreted, excavated, disfigured and modified in ways that demonstrate no concern or interest whatsoever in what the worshipers surely should have seen as wondrous examples of their deity's handiwork. While the authors point out that many "holy" caves have become tourist attractions, never do they acknowledge the enormous damage that religious conversion has wrought on caves.

The final chapter deals with show, or tourist caves. It is perhaps the most information-rich chapter in the book, with not a lot about perception and few references to literature. There's a historical treatment, beginning, of course, with Postojna, working through Europe and the USA to Australia, then back to Europe before getting to Asia, where there is (thoroughly justified) critical mention of the use of "unnatural coloured lights and bright neon signs". (If the authors appreciate the travesty of this practice, how did they allow a thoroughly awful photo of such a cave to besmirch the book's cover? I think it may be the worst cave-book cover I have seen.) Jenolan gets a good wrap, especially for its range of tours, even to mentioning its Nettle Cave self-guided one – and, of course, they pick up on the commentary being available in Klingon). JCH&PS gets a plug.

On the first page of the chapter we are told that 'show caves' can also be called 'tourist caves' – as far as I was concerned, the commonly accepted wisdom – but at the end we are told that adventure caving has "blurred" the use of these terms (how can one blur the use of two terms that are the same?) – because tourist caves can be "undeveloped, or only minimally developed" while show caves' common hallmarks are lights, pathways and interpretation. This distinction, I suspect, is as artificial as the lighting in most Chinese 'caves developed for tourists'.

Appended are 1) a list of "Notable Caves' (presumably to avoid that now-confused distinction between 'tourist' and 'show'), 2) the references (divided up into chapters, littered with "ibid" and giving journal volume numbers in Roman numerals!), 3) a (very) 'Select Bibliography', 4) a list of relevant associations and websites (in English) – though missing the Karst Information Portal

(http://www.karstportal.org/about), "the digital library linking scientists, managers and explorers with quality information resources concerning karst resources", 5) acknowledgements (it appears that EHS was the only speleologist actually consulted and Deb Hunter the only cave guide), 6) photo acknowledgements and 7) a reasonable index.

While I've been about as critical in this review as I ever have been in a cave-related book review, I found much of interest in this little book and it is certainly well-crafted (if one can overlook the ghastly cover). Nevertheless, I can't help but feel this book would have been better had it involved someone with a long relationship with cave exploration and/or studies. The title implies it is going to be the definitive book on the subject – it's not (though it's probably not a bad effort by a couple of "outsiders"). No doubt there are benefits from having a subject reviewed through 'other' eyes. As the endnotes say: "this book examines the allure of the

subterranean world" — perhaps it should have been titled "The Allure of Caves". I won't say every speleophile should have a copy on his or her bookshelf, but I don't doubt many will.

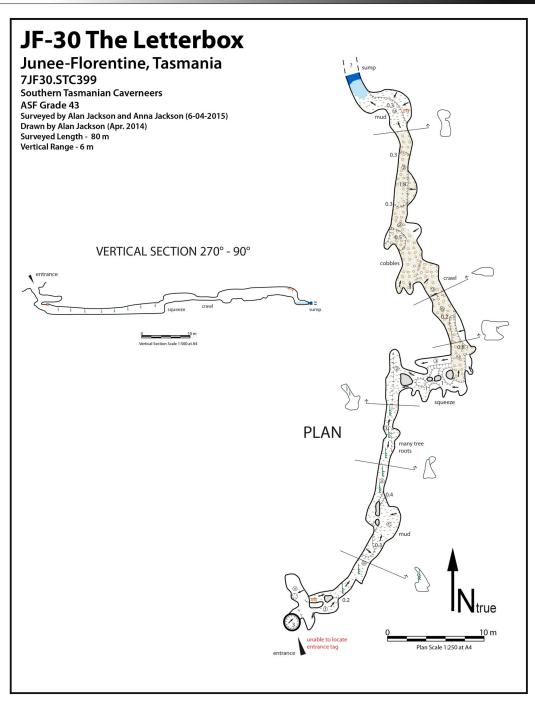
Cave is published by Reaktion Books, London, July 2015, in their popular science 'Earth Series', RRP A\$29.99.

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## Surveys



Note full resolution version is avaliable from the STC Electronic Archive on request. Contact Ric Tunney: rtunney@caverneer.net.au.