SPELEO SPIEL

Newsletter of the Tasmanian Caverneering Club
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SPELEO SPIEL... ISSUE # 285

NEWSLETTER OF THE TASMANIAN CAVERNEERING CLUB INC

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* * * FORWARD PROGRAM * * *

IDA BAY KARST MANAGEMENT MEETING...

The meeting scheduled for the end of February has been postponed until the 25th and 26th of March due to bush-fires.

The meeting is now being held at Arthur Clarke's place at Dover and will discuss a number of issues relating to Ida Bay karst, especially the Exit Cave system (see details last Spiel).

The meeting will give all cavers and interested parties an opportunity to provide comments and input into the proposed management plan for the Ida Bay area; so if you can attend, please do.

For more information contact Ian Household on (002) 33 3868

TCC AGM ...

** Mark Your Diaries NOW **

This year's AGM, marking the Club's 49th year, will be held at the GLOBE HOTEL in Davey Street, on WEDNESDAY the 29th MARCH, starting at 8.00pm SHARP.

All members, partners and interested persons more than welcome, so please come along and have a say in YOUR Club's future direction!!

NZ TRIP...

Preparations are well advanced for this trans-Tasman caving expedition to Waitomo on the North Island...

At this stage around 10 members will be poking about in deep, dark, slimy holes for 12 luxurious days in mid April (10th - 22nd). Some caving is scheduled too, apparently.

For anyone still interested in joining the TCC crusade for virgin (cave) passage, the estimated all-up cost should be around \$1,200, which includes return airfares, hire of mini-buses, accommodation, food and spending money...

Contact Trevor Wailes for this once in a lifetime trip - but be quick, as the booking deadline fast approacheth!

PAS. If anyone has Trev's map of the caves in the Waitomo area, please return it.

* * * FROM THE EDITORS DESK... * * *

The unbelievable has happened... two Spiels in the space of three months!

Now before you all die of shock, the primary purpose of this issue is so that NO-ONE can plead ignorance to the date and time of this year's AGM.

With our 50th anniversary only 12 months away, and mounting enthusiasm for some serious exploration in the ranks, all members, past, present and future have the opportunity to contribute to our future directions... Club and caving wise.

So whether you want to have a try at one of the executive positions, or you have any suggestions on ways we as a Club (and hence caving) can grow and develop, or even if its just catch up with old friends over a beer or seven (and impart some wisdom on us younger members), please come along.

* * * * * *

On another matter, I'd like to thank everyone who has been contributing articles or snippets of info for the Spiel over recent months. Hopefully this will continue and we can get the Spiel out on a more regular basis...

Remember, anything and everything that is of interest to caves, cavers and caving is welcome, so don't be shy, put pen to paper or fingers to keyboards and send your thoughts, comments, suggestions, tips and info in!

General Happenings:

Good News for S & R Volunteers:

Stu informs me that last November, the Minister for Police and Emergency Services, Dr Frank Madill MHA, introduced a Bill into Parliament which provides people who are acting as volunteers and assisting police in S & R ops with protection from being sued...

Dr Madill said that:

"Although these volunteers give their time and quite often place their lives at risk in helping those in peril, they are unprotected from any (legal) actions which might be brought against them for any actions or omissions occurring during such an operation".

The Bill seeks to amend the Police Regulation Act to ensure that the responsibility for all acts or omissions done or made in good faith by a volunteer engaged in a S & R operation, where he or she is acting at the request and under the direction of a police officer, is placed upon the Crown...

This will bring protection for volunteers in line with other emergency services personnel and at the time of writing the Bill had passed the Lower House and is expected to meet the approval of the Upper House.

Wanted to Buy:

Talking about buying and selling, I recently had the pleasure of acquiring a copy of Norbett Casteret's "Darkness Under the Earth", which describes caving in France in the early 20th Century.

Fascinating stuff with some wonderful stories of early cavers and cave exploration. I am really keen to pick up more of his books, so if anyone out there is willing to part with any of his stuff, or anything else on early cavers and caving, please let me know.

Club Matters:

Welcome home!

Stefan, Julie, Rolan and Dave have all returned safely from their overseas jaunts after successful endeavours...

although rumour has it that the real reason for the Barings Bank collapse was that massive speculation on the futures market was necessary to try to raise enough money to cash Dave's VAT refund cheque for all the gear he bought back from the U.K. - both Dave and Barings directors were unavailable for comment at the time of writing.

A Case of Two Heads ... ?:

Whilst on the home front, it's good to see that with the two Clubs now meeting on the same night, there has been more cross pollination between members. Info and ideas have been swapped over a sociable few beers, and even a couple of joint trips are apparently being planned for the not too distant future, including a possible jaunt to Mt Anne...

It appears the issue of amalgamation has lost momentum as a result - it seems both Clubs are happy to co-exist and pursue their respective projects.

Is this a good thing? Maybe so... the recent successes of the SCS in JF 341 and their pushes in other Florentine pots (notably Niagara) seems to have revived enthusiasm for similar (or hopefully better!) discoveries by our members. Maybe we need the existence of two Clubs to foster a bit of healthy competition, ensuring that new caves continue to be found, old ones are pushed to the max and cavers continue to strive for that next big discovery. What do you think??

Garth Cornelius, Editor.

* * * TRIP REPORTS * * *

OGOF FFYNNON DDU

from your (unpaid) Welsh Correspondent in the field, David Nichols.

On the 29th of October, I was fortunate enough to enter the second longest cave system under British soil, Ogof Ffynnon Ddu (pronounced "Ogov F-uh-nnon Thu", I think, or OFD for short) as a guest of the South Wales Caving Club secretary, Sue Mabbett.

OFD consists of over 40 km of explored passage, with a vertical range of 300 m. Located near Abercraf in the Upper Tawe Valley, the system is roughly divided into three distinct sections (OFD I, II & III) based on cave topography and the chronology of its exploration, begun by a dig into the lower entrance of OFD I by SWCC members in 1946.

Like the Entrance/Exit cave system, OFD survived an uneasy relationship with a nearby limestone quarry, until the declaration of the area as a National Nature Reserve. Hence, entry to OFD is controlled by permit and locked gates. However, unlike Exit cave, there is definitely no "un-official" way in. Indeed, the Top Entrance of OFD II sports one of the most impressive gates imaginable. Entry by this route is more reminiscent of crawling into a safety deposit box.

Thankfully, despite the Reserve, the SWCC still maintains its club house a straining 10 minute stroll from either of the two OFD entrances. Patrons of the club house also have to endure the caver-embarrassment of full cooking facilities, showers (with hot water) and barrels of home brew. Caving is definitely a harsh sport (for some, anyway).

In general, my geology book tells me, OFD consists of a huge series of interlinked phreatic streamways and chambers, forming a veritable maze of passageways on three main levels. Sue Mabbett, myself and several intrepids enlisted over drinks the night before, had decided to investigate the upper level passages (consisting almost entirely of the OFD II section) due to the risk of flooding in the main streamway area.

Our odyssey, remaining in the dryer "less fun" sections, was to last a very enjoyable 7 hours...

From the impressive block chamber of OFD II entrance, we proceeded through the maze of ancient streamways. Someone should definitely get GPS to work underground. In the reputation of Welsh caves, these streamways were peppered with "significant" traverse opportunities, that left the more vertically-challenged members of the party resorting to fingertips and toe-nails. Moments like that really made you hope the nice factory worker in Taiwan who made your £3 pair of "wellies" hadn't had a bad day when he put the grip on. While OFD is relatively bare of formations throughout its overall length, what it lacks in quantity is more than amended for in quality.

Formations include the Wedding Cake (a 6 foot diameter calcite mound), Midnight Chamber (containing an impressive moon-like stalactite), the Mini Columns (an amazing series of 3-5 foot tall calcite columns, forming a forest of stone tree-trunks) and the Trident (three truly massive stalactites coloured in red-orange).

The formations of OFD also have a chequered history with human visitors. An infamous tale relates certain repairs that had to be undertaken on the main stalactite of the Trident; probably the only stalactite in the world now to contain traces of Superglue. The Columns, probably the best known formation in OFD, are also manmade. Consisting of a series of truly impressive, hollow calcite columns hidden within a deep streamway of OFD I, The Columns were first thought to be a natural marvel. In reality they were formed from acidic seepage emanating from a limestone kiln on the surface. All in the space of forty years.

OFD offers an amazing cave, and an intriguing history, and is well worth more than one visit.

EYE-BOLTS IN MIDNIGHT HOLE (IB 111) - Peter Ackroyd

On the 6/1/95 a small party of Victorian cavers rigged the cave as thru-trip into Mystery Creek (Entrance) Cave. Prior to the trip, Stu Nicholas of the TCC asked for an assessment of the condition of the eye-bolts on pitches 2 - 6.

Iñtroduction:

The bolts were installed in the late 60's or early 70's by TCC cavers led by Brian Collin (S. Nicholas, Pers. Comm., 1995), originally to support ladders and belays, rather than SRT methods...

The bolts in question are of the welded eye type and are fabricated from 12mm (approx) steel rod. The steel appears to have some minor alloying elements along with possible carbon content, to add strength and durability whilst retaining weldability.

The anchors used to fix the bolts to the cave walls are "Loxin" type expansion anchors, which rely on a captive forcing nut deep in an expansion collar to exert outward compression forces on the rock and thus provide a "lock" in the hole.

The depths of the holes into which the anchors are inserted is unknown. Given that the diameter of these holes is around 25mm and considering the type of anchors used, the depth is probably around 75mm.

General Assessment of Bolts:

All the bolts were placed for flexible cable ladders and are therefore far from ideally placed for SRT rigging or abseiling thru trips. In some cases the force required to pull the double ropes down after everyone has descended a pitch is considerable (don't we know! - Ed) resulting in increased wear on the eye of the bolt. This is compounded as the ropes become more dirty on each pitch.

The general condition of all bolts, given the above, is good - particularly as they have been in the cave for more than 20 years...

There may be some corrosion deep within the anchor system that is not visible on the surface, but because they are in a limestone cave (which is fairly benign when it comes to steel) and because the anchor system is of all steel construction (and hence there is no corrosion due to dissimilar metals), I consider that corrosion of the anchors is not yet severe. This observation was reinforced by my physical assessment of each bolt.

Bolts on Pitches 2 - 4:

All these bolts are in excellent condition, given their age, and exhibit very little wear due to rope abrasion.

The bolt on pitch 4 has the most wear - about 10% reduction of cross-sectional area - still bombproof.

Bolt on Pitch 5:

This bolt is the most poorly placed in that its anchor protrudes about 5mm form the rock. However, it still seems to be in good condition by visual examination and deflection testing, with the wear due to abrasion assessed as being less than 25%. This amount of wear still gives a considerable safety margin, given the large diameter of the bolt.

Bolt on Pitch 6 (of "Wafer Thin" fame ! - Ed):

This bolt does not appear to be suffering from excessive corrosion but is the worst worn, showing about a 30% reduction in cross-sectional area.

This is no surprise given that the rope by this time is usually very wet and muddy, and that the position of the bolt itself is less than ideal (it is set back from the pitch head behind a small lip). This arrangement means that considerable force must be applied to get the rope down. Adding to the abrasiveness is the fact that as this pitch is the longest in the cave (49m), it bears the greatest weight and tension when the rope is pulled down (this is further evidenced by two deep grooves worn in the small lip in front of the bolt - they are in the order of 25mm deep!).

All things considered, the bolt still appears to have a considerable margin of safety.

Conclusion:

The eye-bolts are showing some wear due to the popularity of the cave as a pull-down thru trip into Entrance Cave (IB-10).

The last two bolts (on pitches 5 & 6) especially show significant wear, however due to the original size of the bolts, the nature of the material from which they are made along with the chemistry of solutions in limestone caves generally, indicate that these bolts still have considerable life left in them before they require replacement.

It should be stressed that no attempt should be made to undo the eye-bolts for any purpose other than complete replacement - local corrosion effects and general silting of the anchor threads may well mean that to try and undo the anchor will over-stress the bolt.

Any attempt to re-use it as an anchor could lead to disaster!

A good test of the anchor/bolt combination is to give it a firm thump with a yielding object, such as the heel of a gloved hand - any deflection observed upon such a test should be regarded as serious indication that the bolt needs replacing.

When it is considered that replacement of these old bolts is due, a good replacement system would be the resin bonded, stainless steel DMM anchors used in the U.K., or similar stainless steel eye-bolts fastened to the rock using "Chemset" anchors (see Roger Parkyn's article in Spiel # 284 - Ed)...

Both systems have a hard wearing, non-corroding attachment point and depend on the chemical bonding of resin to rock and steel, rather than metal expansion systems, for anchor strength. Such anchor systems have proven popular in Britain, and have the added advantage of being easily fitted by semi-skilled operators in adverse conditions.

Many thanks to Peter for his timely and informative article the question still remains... do we leave the bolts as is, or do we replace and re-position them for future SRT use once and for all? Are there other alternatives?? - Ed

* * * BITS AND PIECES * * *

A PASTE-UP FROM THE PAST:

Warning: This article contains references to obsolete units of measurement and dates around 1970...

While many of our current members were learning to crawl around the floor at home, others, slightly (physically) older, were learning to cope with similarly daunting but somewhat different physical barriers in the Florentine Valley.

During the late 1960's, the valleys spreading down from the southern flanks of Tyenna Peak were looked at with the intent of finding cave entrances. Exit Cave and surrounds at Ida Bay had been the centre of attention for quite a number of years up to that time, but interest in the karst hydrology of the Junee area at the southern end of the Florentine Valley was increasing.

Khazad-dûm and Cauldron Pot were located sometime around 1969. As both were obviously major stream sinks, the exploration urge took hold. Cauldron Pot has a large and wet shaft as an entrance, while Khazad-dûm is rather more welcoming in its appearance with a steep but easily enterable streamway in a pleasant spot at the head of a dry valley.

Exploration techniques were somewhat different to those used now. Various sub-groups also existed, such as the infamous Khazad-dûm Gourmets and Gluttons Society. This hardy group was dedicated to the preparation and eating of food in far from ideal circumstances.

During the couple of years of exploration effort in KD, a number of trips went which were deemed bolting trips and / or were limited in extent because of weather or water conditions. Normal trip times were 12 to 15 hours, so if conditions were unsuitable, the food, coffee flavoured sugar drinks and soup taken along was typically cooked and eaten in a major glutton-fest somewhere in a sheltered spot along the water washed streamway that is Khazad-dûm. Stoves were always taken on longer trips to any cave. Hence, meets of the KD G&GS were fairly common, usually occurring late on Saturday afternoons...

Another, perhaps more pragmatic sub-culture was the Hairygoat Society. A very few (there was I understand, only one foundation member) became dedicated to this somewhat transient cause, but its results were outstanding. A cave found under its auspices and named in its honour, hasn t been seen since!

The Hairygoat Society used a biodegradable draft detector in the form of unclothed legs (shorts were mandatory). A form of mass hysteria was whipped up in the assembled followers by the principal Hairygoat and much running through the bush ensued. The draft detectors were used to sense any movement of air while standing near entrances found during the frenzy.

Bolting trips were just that. Half inch diameter galvanised welded eye bolts of the type still existing in many places including Midnight Hole were the only ones used. A $2\frac{1}{2}$ inch deep hole, some inch in diameter was laboriously drilled by hand. A 3 pound weight club hammer was used, with a star drill for the drilling tool. A Loxin expansion fixture was inserted in the hole and tightened with a normal hexagonal headed bolt and spanner, this being then replaced by the eye bolt and tightened with much vigour. Depending on the rock and the placement, a bolt may take two to three hours to place...

An hour was typical. With an electric drill, holes for 8mm Terrier anchors can now be made in a very few minutes.

Much standing around was the order of the day during a bolt placement. Anyone and everyone on a bolting trip was always keen to take a turn at drilling. A brew-up was usually under way concurrently with the drilling, although some brews were lost due to precarious stances, excessive drilling vigour and gross shivering during the drilling operations.

Caving in the Florentine was somewhat vertical in nature. Ladders were the accepted and only method available for negotiation of the very steep bits. Together with belay ropes (nothing but the best British Number 4 laid nylon climbing rope!) the tackle requirements for even a minor trip were somewhat daunting. Very few abseiled and then only on doubled dynamic belay rope. An over the shoulder method was used. Prusiking was unheard of!

I recall seeing a pair of fairly worn Original Jumars on a trip into Exit Cave one time and having a demo on the rope at the stream crossing just inside the main entrance. No one thought it would work. Anti-gravity suits were suggested as a possible solution, but availability was of some concern.

Shoulder carryable cave gear bags of the type used now were unknown. H- framed packs were used above ground (Mountain Mule being the preferred brand). Cylindrical canvas tackle / ladder bags were made to carry three thirty foot long rolled ladders, with a matching 120 foot belay rope slung over one's shoulder. The bags had a carry loop over the open end for hand carrying and with the prompting of much bad language, especially if one was a little on the short side, such bags were dragged into and out of many caves during trips of the day. If anyone is keen, there are still some of the old ladder bags in my shed.

Ladders were typically club made from (1/4) inch galvanised steel cable, (1/2) inch diameter aluminium tube for rungs and small diameter copper tube for the ferrules to hold the rungs loosely in place. After assembly and checking, the ferrules were crimped with a tool kindly donated by a major public utility. The combination of the wet environment and electrochemistry of this set-up did nothing to improve the life of the wire, something that occasionally became apparent with unsettling suddenness.

SCS ladders were made with 10 inch rung spacing while TCC (thinking big!) made them with 12 inch spacing. This caused more bad language and buggered knees when the two were clipped together on the one pitch. One John Bonwick in Sydney used a press to squeeze drilled aluminium rod directly onto steel wire thereby eliminating the major cause of removal of the flap of tissue between one's thumb and first finger to say nothing of the occasional corrosion induced fright. Bonwick ladders are still available.

Permanently buggered ankles were almost de rigueur owing to the preferred toe in / heel in method of climbing long free hanging ladder pitches. Try it sometime - you ll soon be visiting your local Medicare office.

Lighting systems saw (when they worked) some interesting innovations. Most trips used large hand held carbide lamps, usually with a car headlight reflector attached behind the jet for that extra dark piercing glow. These things were remarkably robust and quite satisfactory for horizontal no hands required caving, but remarkably inconvenient while travelling in the vertical. Burnt thighs were the most common injury.

Electric devices were home made and typically fairly unreliable. Dry battery systems were OK as were some wet cell systems, but the head lamp assemblies left much to be desired. Bicycle headlights, assemblies from various hand torches and other such things were tried - none worked for long in the rugged Florentine Valley caving environment.

The advent of Oldham miners lights revolutionised Florentine caving - at last a waterproof and nearly indestructible lighting system became available and relatively common around TCC during 1971. Charging them involved a steep and expensive

learning curve - the polarity of the connections on the headpiece was not checked and many of the early batteries were reverse charged. No real problem except reduced battery life and capacity. However this was absolutely fatal for the battery if the charge polarity was corrected after being reversed. Quite a number (of batteries) died before their due time.

Helmets were army disposal, miners cardboard models (yes, cardboard, or more correctly papier-mâché!) or the still common industrial safety helmet.

Clothing was not really of the haute couture standard seen around the pots these days. Army disposal gear was almost mandatory perhaps with cotton boiler suits over the top. On the wet trips one wore an oiled japara rain jacket. Heavy woollen mountain shirts were brought out for the hard trips.

I am sure many others of more senior rank could expand on these jottings and most probably find many holes in the information given here. However, hopefully our newer and younger members will gain some insight into caving during the early 1970's and be smug in the knowledge that much more can now be done with far less destruction of human tissue and morale.

Despite all the innovation, the perennial old caver's question remains - is it as much fun these days?

Stuart Nicholas (nearly retired TCC person)

Some other notes:

The 1994 TCC Annual Dinner has now well and truly passed through the sewers of Hobart. Keep in mind the 1996 dinner - it will be the 50th anniversary of TCC and of club organised caving in Oz. TCC was the first caving club to be formed in Australia in 1946, with SSS in Sydney being created 2 years later in 1948. We might have to send out a few more invites for that one...