SPELEO - SPIEL.

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President: Albert Goede, 8 Bath Street, Battery Point, 7000.
Secretary: Peter Shaw, 27 Congress Street, South Hobart, 7000.

FORWARD PROGRAMME.

November 25	-	Saturday: Adventure Camp trip to Mystery Creek Cave. Acting Leader: Ross Mansfield.
December 6	-	Wednesday: General meeting at 8 Bath Street, Battery Point. Slides and refreshments welcome. Meeting starts at 8 p.m.
December 13	-	Wednesday: Barbeque at the Morris residence, 11 Church Street, Kingston. Bring your own Beef, Bird and Booze, also bathers if weather suitable for a dip.
December 26	-	Tuesday: Commencement of A.S.F. Conference in Sydney. If you want to go there is not much time left.
January 20	-	Saturday: JF 14 - a new cave? or just a new way into Khazad-dum. The answer should be supplied on this abseiling/prussiking trip. Leader: Peter Shaw.

EDITORIAL.

Abseiling/prussiking has arrived with a vengeance. Fresh from their conquest of the fifty footer at Sphinx Rock, a team of five reached the bottom og Khazad-dum, explored the big chamber and returned in twelve hours. The passages noted on the previous trip were explored and nothing of consequence was found. Apart from diving the sump and grovelling in some very horrible looking talus, exploration appears to be complete. Several very high shafts were noted one of which could be the main shaft in JF 14. The trip planned for January should settle that question.

A trip was also held to the most spectacular pot at Mole Creek, Devils Pot, which served as a warm-up for Khazad-dum. Maybe Execution Pot will be next.

A big welcome to the Northern Branch who were formally accepted as a branch at the November general meeting.

A trip to Midnight Hole as a warm-up for JF 14 was a considerable success with a beautiful 180 ft. abseil and prussik, not to mention the other minor pitches. Prussiking has reduced the scale of pitches. What was previously a very long pitch e.g. the 180footer has become a medium sized prussiking pitch and anything less than 180 ft. is short. Keller Cellar, here we come??

Peter Shaw.

Ladder Practice.

Ladder and prussiking practice is on again at Sphinx Rock on every Wednesday Night except the first in the month. Leaves 66 Wentworth Street, South Hobart at 6 p.m. Bring a light.

NIBICON.

The Ninth Biennial Conference of A.S.F. will take place in Sydney from 26-30th December. Field trips following the conference will centre on Yarrangobilly, Bungonia and Jenolan. For further details see Peter Shaw.

" BUNGONIA CAVES ".

A new book published by the Sydney Speleological Society. Contains photographs, both colour and black and white, articles on all aspects of the Bungonia Caves and maps of all the caves. Available from the Society for $7.00 which includes postage.

NEW MEMBERS.

Welcome to Chris(Basil) Rathbone who was accepted as a member at the last meeting. Basil's qualifying trips were to Niagara Pot, Devils Pot and the recent bottoming trip to Khazad-dum.

Change of address:-
Peter Shaw, 27 Congress Street, South Hobart,(within a stones throw of Brian's place).

Prospective members. The president, having decided that the club is going to the pack, has gone to Macquarie Island to recuit some of

those well dressed gentlemen in dinner suits to dive in our cold Tasmanian sumps.

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The Noble Art Of Abseiling and Prussiking.

by Peter Shaw.

Single rope techniques have been used in America for quite some time and over the last few years have spread to the rest of the world. They have evolved in response to a specific demand - the demand by the lazy and not so fit that they want to go to the bottom too. Not true, maybe, but S.R.T. does change the caving concept, from one of a team effort where not everyone goes to the bottom, where there is a lot of gear-hauling and where weaker members can be given some assistance; to a concept of a group of self-reliant individuals who can all reach the bottom, where gear-hauling is cut to a minimum and where minimal assistance can be given to someone in trouble. A greater degree of technical competence is required but not so much physical strength and endurance.

This article is intended as an introduction to prussiking as it applies in Tasmania. Consequently, prussiking with prussik knots has been omitted. Where Jumars are mentioned, Cloggers could also be used. Certain aspects of this article are still in a state of flux. Experimentation is still being carried out to obtain a better sit harness and the actual techniques themselves are continually being improved. Just about everyone has a slightly different technique and these techniques could change again after the A.S.F. conference, but the basics remain the same.

With the necessity for more equipment, the initial cost to the individual caver is high. Jumars can be flown out from England for approx. $23 a pair. More krabs are generally needed and if a specialised abseiling device is being used, this could cost more money in the case of the rappel rack or plenty of time in the case of the whaletail.

EQUIPMENT.

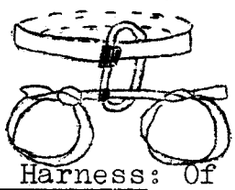
Rope: There are several desirable properties for a prussiking rope. It must be kernmantel rope for free drops rather than the laid rope that we normally use. The kernmantel rope is of a sheathed construction which prevents spinning. If a pitch is against the wall then laid rope is satisfactory. The rope should also be not too heavy and should have low stretch. The low stretch applies mainly to pitches of a hundred feet or more where 'bobbing' occurs which disrupts the prussiking rhythm. Unfortunately terylene ropes which have low stretch, are not as strong as nylon ropes of the same weight; so the two demands must be balanced out. The club has recently purchased 120 feet of terylene rope which will be evaluated before further rope is purchased.

Rope Protectors: Because the security of the rope is paramount, it is necessary to protect the rope from abrasion wherever it touches the rock. At the top of a pitch, a tackle bag can be placed between the rope and the rock and tied to the rope with a piece of twine. At contact points partway down a pitch special rope protectors must be used. These are pieces of hose pipe or clear plastic tubing with a lengthwise slit for placing them on the rope. They are of a circumference such that they will grip the rope and are put in place by the last man down the pitch. Ours are three foot long as this is convenient for storing in tackle bags. If necessary more than one must be used next to each other.

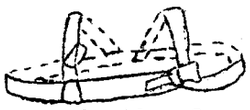
Jumars: Jumars are the clamps by means of which the caver is attached to the rope. They slide easily up the rope and may be moved down the rope by holding the toothed cam open. Once the teeth on the cam have worn a bit, they have a tendency to rust if they are not kept clean. A wire brush should be carried to clean the mud off the teeth. If the teeth of the Jumar are not kept clean, it is possible to have the unnerving experience of the Jumar sliding down the rope instead of gripping it! For using the larger terylene rope, it is desirable to file an eighth of an inch off the tip of the safety catch to allow the cam to swing back that much further. When prussiking the Jumar should be roughly parallel to the main rope. If it is not the rope will not run properly and will wear the Jumar. Like krabs Jumars should not be dropped. They could fracture. It could be embarassing to have one fall apart halfway up a pitch.

Sit Harness: Specially sewn harnesses are still under development so the best thing for a sit harness is a swami seat attached to the waist-length by a krab. A swami seat is made from two inch terylene

webbing by tying two loops in the tape, one for each leg, using tape knots. The loops should be just tight enough to be comfortable on top of overalls etc. When walking about the loops have a tendency to slip down and hamper movement. This can be remedied by tying a short cord from the centre of the waistlength at the back to the rear of each loop.



Chest Harness: Of the systems mentioned below, a chest harness is only necessary for the Inchworm system. A good harness would be a tight bra of about 3,000 pound breaking strain, but they don't make them like that these days. A loose double overhand knot is tied in the end of two inch terylene webbing. The other end is passed through the loop and the knot pulled tight to give a tight slip knot. The noose is placed around the chest right up under the armpits and pulled as tight as possible. The free end is then passed over one shoulder, around the loop at the back and then back over the other shoulder and tied at the front with three or four half hitches. For effective prussiking, this harness must be extremely tight. If it does work loose half way up a pitch this is not critical as the Jumar is still attached to the sit harness.



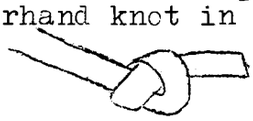
Prussik slings: Prussik slings are made from thin perlon. A prussik sling is useful as a safety device when abseiling. It is attached loosely to the rope with a prussik knot and clipped into the sit harness. When abseiling, it is slid down the rope by the upper hand. It is also useful when prussiking for getting over overhangs and passing knots, on occasions when the upper Jumar must be removed from the rope. The prussik sling is attached to the rope six inches above the knot and clipped into the sit harness with a spare krab,- not directly into the krabs holding your harness together. These should never be undone while you are on a pitch. Having attached the prussik sling, the top Jumar can be removed from below the knot and replaced above it, and the prussik sling removed.

Other slings: One inch terylene webbing is useful for making foot loops and any other slings necessary, depending on the prussiking system used.

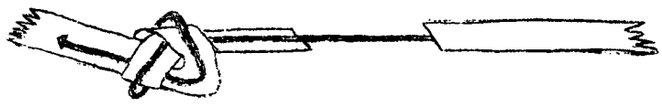
Knots:

1. The standard tape knot is used for tying the waistlength, for making a swami seat and for making slings.

(a) Tie a simple overhand knot in one end of the tape.

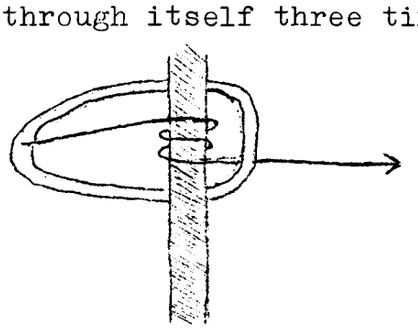


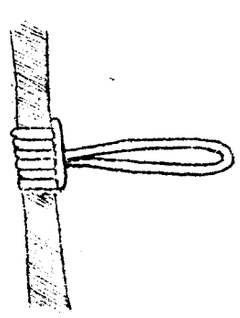
(b) Follow the knot through from the opposite side with the other end of the tape and pull it tight.



2. The double overhand knot is used to make loops in the end of a piece of tape for foot loops and clipping krabs into. Double the end of the tape and tie an overhand knot as in (a) above.

3. The prussik knot is used to tie prussik loops to the main rope. The knot will slide when it is pushed up the rope but should not slip when the strain is on the loop. Pass the loop around the rope and through itself three times. If this slips do it four times.





RIGGING A PITCH.

A pitch should always be rigged for ease of access if possible. The anchorage point should be back from the lip and should be above the level of the lip, so that the rope is not flat against the rock above the lip. A tackle bag or rope protector should be placed where the rope touches the rock. If possible, lower the rope down the pitch rather than throw it and examine the rope for faults as it is being lowered. When abseiling down a pitch of unknown depth, tie a knot in the end of the rope to prevent abseiling off the end of the rope.

CARE OF ROPE.

Ropes must be kept clean as much as possible and should be carried in tackle bags. Prussiking ropes should not be used for anything else. Whereas prussikers will look after their ropes because their lives depend upon them, the average caver is often not so thoughtful. To protect the rope from falling rocks, loose coils should not be left lying at the foot of a pitch but should be coiled up and tied to the hanging rope.

BEFORE ABSEILING OR PRUSSIKING.

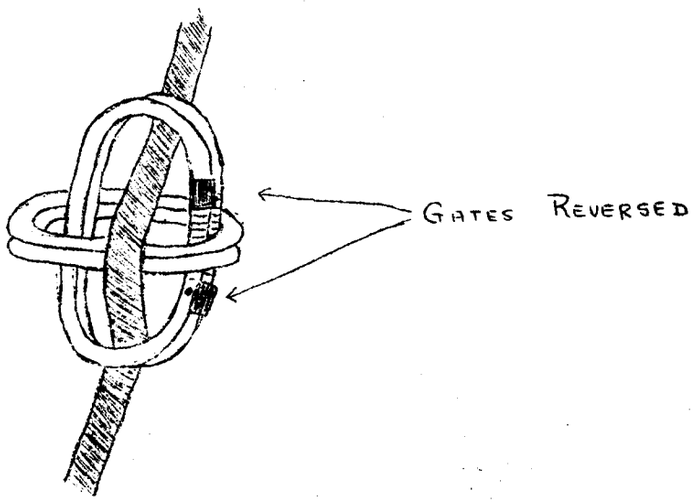
Check that all knots are tight and that the locks on all krabs are screwed up. Have a third Jumar or prussik loop ready in case of trouble. Before prussiking, coil the rope at the foot of the pitch, and tie it up several feet off the ground to give some weight to the bottom of the rope. If someone loses control when abseiling, and you are at the foot of the pitch, haul down on the rope with all your weight to increase the friction through his braking set-up. Do not do this if the rope runs over his shoulder or you will aggravate the situation. On a long pitch, do not wear too much clothing. Prussiking generates quite a lot of heat.

ABSEILING TECHNIQUES.

The trend in abseiling techniques has been away from the traditional "over the shoulder" methods, which used the abseiler's body to provide friction, to methods which use a braking device to provide the friction without discomfort to the abseiler. Abseiling must be practised above ground using the rope which is to be used underground, remembering that a muddy caving rope will run faster than a dry rope on the surface. When using the crossed krabs or krab and piton methods, different sized krabs and pitons will give varying degrees of friction. It is advisable to wear gloves at all times when abseiling.

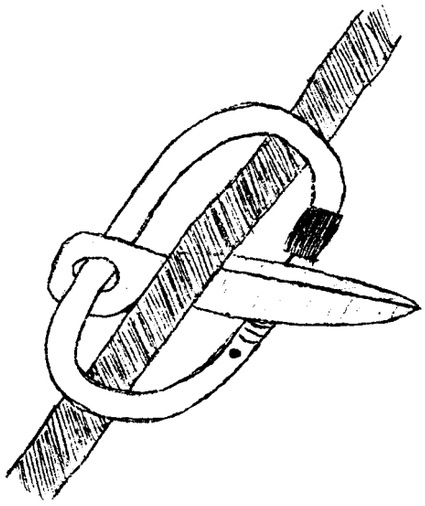
CROSSED KRABS.

Four krabs are used as per the diagram. Screwgate karabiners should be used preferably and the gates on the vertical krabs should be reversed to forestall accidental opening. After passing through the krabs, the rope should be passed around the left side of the abseiler and held in the right hand, or vice versa, to give increased control by friction against the back.



KRAB AND PITON.

This method is similar to the crossed krabs method but uses a piton instead of two krabs as the cross bar. A one inch channel piton works well. It should be long enough so that no matter what its position on the krab, it cannot fall through the krab. This method is easier to rig - just pull a loop of rope through the krab and swing the piton into place. It is also more dangerous. If the tension is taken off the rope partway down the abseil, the piton can swing out of place.



KRAB AND PITON METHOD.

RAPPEL RACK.

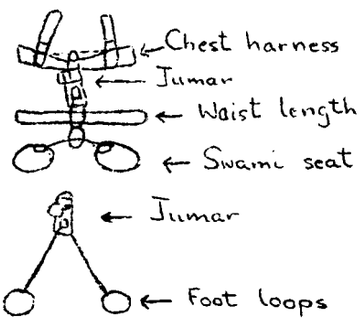
This is a specially designed abseil device resembling a large steel hairpin with six brake bars mounted on it. The rope is threaded in and out through the brake bars, which are spread out at the top of a long drop because of the weight of the rope, and are closed up as the pitch is descended. This provides good control over the speed of descent.

WHALETAIL.

This is another special abseil device but is not available commercially and requires workshop facilities to manufacture. It is a large block of aluminium into which are cut a series of flukes through which the rope is threaded. Speed is varied by threading the rope through more or less flukes. A locking gate on the top of the whaletail prevents the rope from coming out of the top slot while abseiling.

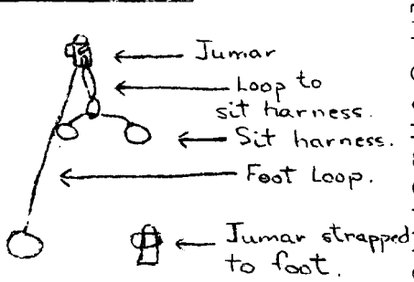
PRUSSIKING TECHNIQUES.

Inchworm System: This method works well on free drops but is not so good up a wall. If part of an otherwise free hanging pitch involves going up a wall, it is best to slip one foot out of the footloop and have it dangling free. The top Jumar is threaded onto the chest harness before it is tied up. The bottom of this Jumar is clipped into the sit harness. The chest harness must be so tight that the Jumar cannot be pulled out from the chest. The bottom Jumar has two footloops dangling from it. The loops should be long enough such that when standing up, the bottom Jumar is just within reach. To use the system, hang on the top Jumar and pull the bottom Jumar up with the left hand. Stand up in the footloops, steadying yourself with your right hand on the main rope above the top Jumar. The top Jumar will slide up the rope as you stand up and the above process is then repeated. If the chest harness, waistlength and sit harness are all rigged properly, you should not have to sink back into the harness before pulling up the bottom Jumar. The advantages of this system are that you are pushing up with both feet at once. If the chest harness is tight enough, it is not tiring on the upper arm. It is possibly slower than other methods but is comfortable and not strenuous. An improvement could be to add an elastic shock cord(e.g. octopus straps). If this were connected between the two Jumars, it would not be necessary to pull the lower Jumar up by hand as the elastic cord would pull it up automatically. A further variation to this system would be th have the bottom Jumar strapped to one foot with a loop for the other foot.



UNSWSS SYSTEM.

This system has a number of variations. In the basic system, one Jumar is strapped directly to the left foot and the other Jumar has a footloop going to the other foot and a short loop connecting it to the sit harness. To use the system, stand up on the left foot and push the top Jumar up the rope with the right hand, using your left hand to keep you vertical. Stand up on the right foot, lift the left leg and



repeat the above procedure. In this method do not sit back into the sit harness except to rest. This method is faster than the Inchworm system but is tiring on the upper arm on long drops. It works well up a wall where the strain on the upper arm is not so great. An improvemant is to loop a shock cord from the upper Jumar around your neck to pull the Jumar up automatically. When the bottom Jumar is strapped directly to your foot, it can be painful on the ankle and sometimes will not slide up the rope cleanly. This can be avoided by tying a footloop around your foot and attaching the Jumar to the top of it with a krab. An elastic shoc cord is then connected between the top of this Jumar and your sit harness. A further variation is to do away with the right footloop and have both feet attached to the bottom Jumar.

The best way of learning to prussik is to try the basic systems observe what you do not like about them and then look for improvements.

References:

PAVEY, A.J.; 1971, Proc.8th Biennial Conf. A.S.F., Hobart, "A Review of Modern Caving Techniques".

PAVEY, A.J.; 1972, Spar No.19, "Pavey's Premier Perspicious Perfected Personal Perambulating Prancing Prussiking Procedure".

TRIP REPORTS.

Devils Pot, Mole Creek - 21/10/72.

Party: Philip Robinson, Ross Mansfield, Basil Rathbone(C.C.T.), Glen Kowlie(C.C.T.).

Indecision; Midnight Hole or Devils Pot? at least five changes of mind. Saturday morning saw us off to Mole Creek with a map of how to find Midnight Hole. Result was the ascent of the wrong hill above Maracoopa Cave. An hours stroll through pleasant forest(bl..dy scrub bashing) and we were back on the right hill looking down into Devils. A high waterfall(over 100') drops into a spectacular pothole.

"Fifty five feet the first drop".(Great if you hang on the right tree, 150' off the wrong tree). Odd assortments of hannesses and tape "things" were organised. Nylon rope with two pairs of Jumars between four didn't help matters. The second pitch was 75', 20' to one side of a heavy waterfall. Several small climbs later a dubious iron spike(belay point) marked the head of the last pitch, 50'.

Prussiking out was fairly slow, lowering Jumars, trying out different systems.(A'system' is a term S.R.T. types use, e.g. the Basil, 2nd phase, 4 Jumar, floating box-cam system, guaranteed to work on iced rope on pitches up to 1500').

Philip Robinson.

Khazad-dum - 28/10/72.

Party: Philip Robinson, Ross Mansfield, Peter Shaw, Glen Kowlie and Basil Rathbone.

Using abseiling/Jumaring methods Khazad-dum was bottomed on a day trip from Hobart. What was expected to be quite a hard trip, in fact turned out to be the easiest yet.

With incredible luck we were blessed with a week of fine weather. The creek was very low on entering at 10.30a.m., Sat. Several hundred feet of nylon rope were ferried through to the top of the first real pitch, the 92'. Quite some time was spent fitting harnesses and sorting out slings, krabs, etc. Ross and Philip descended first to start rigging further pitches. The final 135' was free for 70-80'; on this occasion, no problem. It had been a slow descent, 4 hours from the surface.

The steep mud slope was ascended with two 120' ropes for exploration. It is a scramble upward for approx. 150', 30°-40° in places. The final chamber is enormous. A passage was followed for a short distance before it ended, blocked with talus. A good look around yielded no further leads. The sump was next visited and a brew up commenced. Strange how the feeling of depth(felt on previous trips) had completely gone. We might as well have been relaxing at camp 2 in Exit.

Prussiking out the waterfalls were low and refreshing. Due to a tricky take off 25' of ladder was used on one of the waterfalls. Glen climbed 10' before piking out on the grounds that he wasn't experienc -ed on ladders. A rope was lowered for him to Jumar up. Ross let drop a canvas bag containing 240' rope. This fell 100'-150' down a narrow rift. It will take some recovering. Twelve hours were spent underground. Everyone learnt a little more about prussiking.

Tackle Note:- Due to the non-arrival of 600' of prussiking rope from the States and Sydney, nylon rope had t...

No.3 kernmantel(climbing) on 92' and 135' pitches,
No.4 grotty(caving) on the rest.
25', 12', and 12' ladders were also used.
The minimum gear for a S.R.T. trip to KD:-
15' handline, 50' handline, 100', 30', 70', 25', 50', 20', 30', 25' handline, 30', 150';
Eyebolts are on all pitches except 2, 6 and 10.
Pitches 6, 9 and 11 are wet.

Philip Robinson.

Exit Cave, Ida Bay - 5/11/72.

Party: Albert Goede(leader), Simon Stephens, Wes Carpenter, Clive Boulter and visitor Dr.Rao.

The aims of the trip were for Clive and Dr.Rao to study the limestone in Exit Cave and for the rest of us to have a good clean up at Camp 2. We left Hobart shortly after 7 a.m. but found ourselves stranded at Geeveston almost out of petrol waiting for a garage to open at 9 a.m. The track to Exit has deteriorated badly in recent months as large numbers of trees have recently been blown over. The track was also rather muddy and it took us 1½ hours to reach the cave. After lunch we entered the cave at noon. The water was very low and we made our way to Camp 2 via the formation chambers in the upper level. At Camp 2 Wes, Simon and myself started the cleaning operation. A lot of rubbish has been left in the last few months and bags of emergency food had been opened leaving any perishables to rot. All empty tins were flattened with a geology pick and in this way we managed to pack near all empty tins and bottles into two H-frame packs and a haversack. The site is now cleaner than it has been for a long time but to complete the job the emergency rations will have to be sorted out and repacked and all spoilt food carried out. The three of us then made a short visit to the Western Extension as Clive and Dr.Rao headed back. We caught up with them later below Mini-Martin where Clive could not find the way through. The trip out was uneventful and we emerged from the cave at 5.15 p.m.

Albert Goede.

KELLER IS BACK.

KELLER IS BACK.

SO GET FIT !