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**ASF**

AUSTRALIAN  
SPELEOLOGICAL  
FEDERATION

# NEWSLETTER

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AS F NEWSLETTER

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	ISS	Illawarra Speleological Society
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	NTUCSS	Newcastle Technical and University College Speleological Society
	NTaSS	Northern Tablelands Speleological Society
	OSS	Orange Speleological Society
	SSS	Sydney Speleological Society
	SUSS	Sydney University Speleological Society
	UNSWSS	University of New South Wales Speleological Soc.
northern territory	NTSS	Northern Territory Speleological Society
papua & new guinea	PMSS	Port Moresby Speleological Society
queensland	UQSS	University of Queensland Speleological Society
south australia	CEGSA	Cave Exploration Group of South Australia
victoria	SASS	Sub Aqua Speleological Society
	VCES	Victorian Cave Exploration Society
western australia	WASG	Western Australian Speleological Group

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**FIRST CAVE FATALITY IN AUSTRALIA**


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It is the unfortunate duty of this publication to report to members of the Federation the tragic death of John Bryant a member of the Highland Cave Group. John fell to his death whilst ascending the Drum Cave at Bungonia.

At 9.50 a.m., Saturday 22nd May, 1965, members of the H.C.G. on the suggestion of Mr. E. Kaye decided to visit the Drum Cave. The cave consists of an entrance chamber containing a drop of 130 feet into the main cave below. The main cave descends a further 250 feet in a series of short pitches to a pool of water. Foul air is present in varying quantities. The cave is used as a breeding colony by Minopterus schreibersi bats. By 10.30. a.m. ladders of the steel cable and aluminium rung type had been set up in the cave in order to descend the 130 foot initial drop.

Members of the party descended, Mr. Kaye acting as belay. Each member utilised a carabiner and sling for the purpose of clipping onto the ladder if they should tire or need to remove the safety line, a brand new "silver" synthetic rope  $\frac{1}{2}$  inch circumference.

Several members successfully negotiated the ladder to the base of the ladder, situated on a ledge 15 feet from the floor proper of the cave.

As John Bryant prepared to descend some discussion was carried out regarding the knot he had tied in his safety line. On observation by several members the knot was shown to be a bowline with a single hitch. John descended the ladder into the cave, however complaining about his boots catching the rungs. His boots, which were displayed at the meeting, were leather soled,

heavily studded with serrated steel bars known as Tricounis. The heels which obviously were the point of complaint consisted of the following: A steel "horseshoe" had been manufactured, to which five tricounis has been welded. The complete assembly was screwed to the leather heel of the boot by brass wood screws.

To contain the tricounis the horseshoe had been made larger than the heel of the boot, projecting past the inner edge of the heel and over the instep of the boot. It is probably this overhang which troubled John on his descent as the ladder rung would snag under the projecting horseshoe.

His descent, however, was safely accomplished. No foul air was encountered during the descent, a draught being noticed by many members of the visiting party.

The cave itself was investigated past "the squeeze" until foul air was detected by candles, used for that purpose. John Bryant and six then returned to the base of the ladder where further members of the party were still descending. John expressed the wish to ascend the ladder in order to relieve the belay man Eric Kaye. As one member reached the bottom of the ladder, John accepted the safety--line and tied himself on, tying what is believed to be a bowline, although some doubt is cast upon this knot, suggestion being that the knot was in fact a "false bowline" or a sheet bend.

There was insufficient rope tail left after the knot had been tied to place a half hitch on the line. He fastened the sling onto his body with an unacceptable knot and the Trip Leader Jim Kerr, observing this ordered him to tie a bowline, which he did satisfactorily. He then began the ascent of the cave, having a camera bag slung across his shoulders but placed so that it could not

fall off. The time was estimated at 12.50 p.m.

At this stage of the climb the ladder swung free of the cave wall and did so above the point where John parted from the ladder.

He had climbed steadily an estimated 20--25 feet when the belay man felt a load of approx. 100 lbs. on the line. He shouted out "John". The leader standing on the ledge at the base of the ladder saw John fall past him to the floor of the cave.

No member of the party saw John actually fall from the ladder.

Immediate inspection of the unconscious caver revealed several broken limbs, and bleeding from the mouth indicating internal injuries. A call was sent to the head of the ladder for immediate medical assistance and the assistant leader Mr. Kaye left the cave.

John was immediately propped up and wrapped in clothing (blankets being lowered into the cave later). His breathing became heavy and his heart beats slow. Mouth to mouth resuscitation was applied and his condition returned to normal. Several of the party were returned up the ladder to reduce the CO2 content although, again a draught was observed.

Inspection of the belay rope showed a thumb knot toward the end of the rope.

Several times during the next two hours mouth to mouth resuscitation was applied to maintain his breathing.

At 2. p.m. John died and although massage and resuscitation was continued he could not be revived.

Mr. Kaye drove from the caves to the first farmhouse, on the Bungonia road about three miles away, but a telephone was not available. He then

drove to the next, a further mile away and raised the telephone exchange at Goulburn. The police were contacted, a brief outline of the situation being given. Medical aid and an ambulance were requested. Mr. Kaye then returned to the top of the cave.

At 3. p.m. the police arrived, but without a doctor. Only one doctor was on duty at Goulburn the other three not being available.

As John had died, an ambulance was called.

With police supervising from the head of the ladder a stretcher was lowered, the body lashed into it, and hauled back to the surface to be placed in the ambulance.

The remaining members of the party then returned to the surface. The police expressed approval at the manner in which these people were brought out of the cave and offered an unofficial recommendation of the safety techniques used.

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#### ENQUIRY.

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A meeting called by the Highland Cave Group was held on Sunday, 30th May to present to its members, and visitors from Societies able to attend, Trip Leader's report and any further information which would lead to the possible clarification of the circumstances involving the death of John Bryant.

Representatives from three other Sydney Societies were present, they being SSS, SUSS, and UNSWSS.

The meeting opened at 7.30 p.m.

Information of the accident was relayed to Sydney on the evening of the accident, but was not released to members of the Federation until the following Wednesday. This suppression helped reduce the daily

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 ENQUIRY CONT'D.
 

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newspaper coverage and in fact only one newspaper, "The Australian", covered the accident. Information published in "The Australian" was gleaned from meagre sources and as such is somewhat unsubstantial in its nature.

The Trip Leader's reports were presented together with information forwarded by other members of the party.

The meeting was then thrown open to questions.

Resultant to the meeting the following information has been tendered .....

1. The rope was  $1\frac{1}{2}$ " circumference 'silver' rope manufactured from polyurathane synthetic.

2. Considerable doubt has been placed upon the reliability of standard caving knots such as the Bowline and Tarbuck in this rope.

Sydney Speleological Society has offered to investigate static and impact loads on the rope. The results of such tests will be published as they come forward.

3. Two suggestions were forwarded as reasons for the fall. Both relate to the condition of the boots. Views concerning slipping or effects of CO2 were rejected as having little or no basis.

As difficulty in descending the ladder due to the type of nails used on the boot were expressed it is suggested that:-

(a) The ladder was climbed from the front, viz: both feet entering the ladder from the body side of the ladder, the "ball" of the foot may have been placed on the rung.

(b) The feet behind position was used but the ladder rung fouled the projecting toe-couni-

(see main body of report)

It was noted that the "horseshoe" bar on one boot had been forced away from the heel.

4. An incorrect knot or correct knot poorly tied was used.

5. The safety practices of the Highland Cave Group appeared to be adequate.

6. It was reasonable that the only duty doctor refused to come to the scene. Too much criticism of doctors or police would place sports with danger elements in public view.

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- PLEASE NOTE -

The following statement appeared in the S.U.S.S.

Newsletter Vol. 6, No. 8.

"Because the Glass Cave is not in the reserve it may be visited at any time without Tourist Bureau acquiescence"....

THIS STATEMENT IS ERRONEOUS

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THE EDITOR REGRETS THE USE OF SLANG IN THE MARCH ISSUE OF THE NEWSLETTER.

It did not appear in his original manuscript and was missed during proof reading.

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DOWN UNDER -- ALL OVER

Very little information is to hand regarding the activities of Societies.

ORANGE . . . . .

O.S.S. report a fall of rock in the Clown Room at Cliefden Caves. Details of the fall will be reported upon as they come to hand.

CANBERRA . . . . .

C.S.S. report activities in the Dog Leg Cave at Wee Jasper and the use of siphons to lower the water level in the water trap, W.T.3. The siphons proved successful, the water level being lowered by 30 inches in 5 hours' operation.

Trips to Bungonia in May opened a new shaft approx. 150 feet deep. Unfortunately the shaft is filled to within seven feet of the surface with a high concentration of CO2, sufficient to extinguish a candle.

The month of May also saw some activity at Coolemon.

SYDNEY . . . . .

S.S.S. and I.S.S. combined to tackle Bendithera Caves during the Easter holidays. Main feature of this experiment would, for some at least, be accorded to the following formula:-

time taken to walk out =  
twice time to walk in.  
.....  
time taken to walk in +  
recovery time +  
time taken to walk out =

total time for trip.

.....  
HENCE CAVING TIME = 0 .

.....  
Result of experiment -  
Try to obtain seat in Land Rover

Incidentally this trip saw the what may be the greatest gathering of caving Land Rovers ever assembled. No less than 8 vehicles traversed the fire trails into Bendithera.

.....  
U. N. S. W. S. S. reports a mass attack of Hume area Scouts on Tuglow Caves. Apart from using a dangerous rope on the final drop and requiring several hours to extract a rather rotund, firmly wedged fellow scout from a squeeze, the actions of the scouts appeared to be adequate.

The latest in speleological head-ware was also modelled. Sailcloth hat with the forward section of a hand torch glued to the front of the hat. The hat is guaranteed to clot blood very rapidly. The light moves where the head moves -- sort of, and also occasionally.

NULLABOR . . . . .

Once More

W. A. S. G. extended Mullamulang Cave at Easter to an estimated distance of 1200 feet past the final rockpile without the end of the cave in sight. W.A.S.G. had every reason to be jubilant, however 3 members of S.U.S.S. have reached what they consider to be the end of the cave. The total length of the cave is now estimated at four miles. A bed of gypsum flowers and signs of phreatic activity are also reported.

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CONSERVATION ACTION

COLONG - N.S.W.

An application to mine limestone for road building purposes at Colong Caves has been lodged with the New South Wales Mines Department.

Bushwalking and National Parks authorities have presented a formidable array of protests.

As the Colong Caves are situated within the catchment area of the Murrumbidgee dam the salient complications of siltation and difficulties involving quarry personnel on the site may have a bearing on the application. Not only this, but the inherent cost of removing the stone from the steep walled valley either by road or flying-fox may outweigh the evidently desirable qualities of the limestone.

The chance that this lease will be granted does not appear too great.

\* \* \* \* \*

ROCKHAMPTON - Q'LD.

The University of Queensland Speleological Society is appealing for petitioners to add their efforts to save the Mount Etna and Johansen's Caves from quarrying destruction.

Apart from the immediately obvious fact that these caves constitute one of the few cave areas in Queensland, they are also of tourist potential. Furthermore, they are of interest to Geomorphologists, and Entomologists and are the home of the nearly extinct Ghost Bat, Macroderma gigas.

Petition forms will be circulated to Society Secretaries.

Further information is available from your club Secretary or the U.Q.S.S. Secretary, Graham Young.

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SEARCH AND RESCUE.

The first of a series of search and rescue weekends is being organised for the N. S. W. Search and Rescue Committee by the Sydney Speleological Society. At the inaugural meeting of the committee in December, 1964 a decision was carried to hold a search-and-rescue weekend annually.

In order to distribute as widely as possible training in the organisation of search and rescue operations it was decided to invite all N.S.W. Societies not only to participate in, but themselves organise a S. and R. operation.

The obvious choice of a Society to carry out the first of these weekends was the Sydney Speleological Society who are the most competent and advanced group in S. and R. technique.

On 17th-18th July, the Gleifden Area i.e. Cleifden and Walli will be the S. and R. venue.

The success of this operation depends upon the participating observers from other societies.

Further details will be circulated to club secretaries by S.S.S.

Information can be obtained either from S.S.S. or the N.S.W. Co-ordination Committee.

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ABSTRACTS AND REVIEWS.

A DEVICE FOR SURVEYING AND SPEECH COMMUNICATION UNDERGROUND.

H. LORD. BSc. PhD.  
Proc. Brit. Speleolog. Ass. No.1  
Papers presented to Annual  
Conference August, 1963.

Consideration of communications for increasing accuracy of cave surveying and safety. Radio and ultrasonics discussed and discarded. Use of magnetic induction investigated and a satisfactory system devised using an induction coil of 4 metres diameter and a search coil of 1 metre. Using this equipment it was possible to locate the position of the underground coil with an accuracy of 2% of the depth. Depths of 600 feet seemed to be the useful limit of this apparatus.

Transistors are now used in place of valves in the original equipment reducing the weight of the detecting amplifier from 8 lb. to 3 ozs., and the use of a 3 volt pen torch cell (still in use after 3 years). The next improvement came with the transistorisation of the induction equipment, using a sine wave generator. This was then converted to speech. The results of these two modifications gave results beyond expectations in Peak Cavern 500 feet below surface. The final units can be housed in ammunition boxes, the surface unit 100 watts. Circuit diagram and construction details are given. Cost of each unit about £20.

Use for accurately surveying long caverns is detailed, by pinpointing the position of the underground survey point on the surface. These can be then surveyed with theololite and tied to military maps and the cave survey. Use of equipment over past few years proved its worth and

research still continuing as outlined in paper.

--G.R.W.

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SOME ASPECTS OF THE MINER LOGY OF THE DERBYSHIRE DOME

Proc. Brit. Speleolog. Ass. No. 1  
Annual Conference August, 1963.

The core of the Derbyshire Dome consists of Carboniferous Limestone, surrounded and overlain by shales and millstone grit. In the limestone, impervious doleritic lavas occur. The minerals occur in veins carrying metalliferous ores in a matrix of gangue minerals, fluorite, baryte and calcite.

Primary ore minerals include principally lead minerals but ores of zinc and copper occur in small quantities. The nature and zoning of the ore and gangue minerals is consistant with a hydrothermal origin from a not-too-distant granitic source.

Secondary ore minerals include carbonates, chloro-phosphates, sulphates, and other oxides of lead, copper, and zinc.

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WANTED ... ..

ASF. NEWSLETTERS Nos. 1 to 8 also Volumes 1 and 2 "RESEARCHES ON THE FOSSIL REMAINS OF THE EXTINCT MAMMALS OF AUSTRALIA" by Prof. Richard Owens.

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--or-- the NEWSLETTER EDITOR