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THE NEWSLETTER OF THE SYDNEY UNIVERSITY SPELEOLOGICAL SOCIETY

Box 35,
The Union,
Sydney University

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Edited by Ron Murray

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Volume 8, Number 5

September, 1968

FORTHCOMING ACTIVITIES

SEPTEMBER	14-15	Ski-ing	Rick Crowle 44-7415
	21-22	Sandy Hollow-Maryvale Railway (POSTPONED)	John Dunkley 85-4333
	28-29	Jenolan	Glenn Hunt 929-8675
OCTOBER	3	GENERAL MEETING	
	5-6-7	Coolemon (weather permitting)	John Dunkley 85-4333
	12-13 or 19-20	Weejasper	Ron Murray 642-8620
	13	Football Match with M.S.S.	St. Ives Oval 1.30 p.m.
NOVEMBER	7	GENERAL MEETING	
	30 Nov.-1 Dec.	Cliefden	Denis Ward 644-497
DECEMBER	5	GENERAL MEETING 7.30pm.	
	7-8	Cliefden	Denis Ward
	14-15	Cliefden	Denis Ward
	27-30	A.S.F. Conference, South Australia	
	31 - Jan. 14	Post-conference field trips to Nullarbor, Kangaroo Is., Naracoorte	

CAVES ON THE MOON??? -- see reviews page within

A.S.F. N.S.W. Co-ordination Committee Meeting20 - 7 - 68

Some of the matters discussed included:

- Information given that Goodradigbee Shire Council (Yass) proposes to open Carey's (Goodravale) Cave at Wee Jasper for tourists.
- Decided to enquire from MWS & DB re obtaining an unrestricted Water Board access permit to Warragamba catchment area for all A.S.F. members.
- G. Middleton to act as observer for A.S.F. on Colong Committee.
- Press release to be made regarding Lang's refusal at gunpoint to grant access to Church Creek.
- Resolved to ask Tourist Bureau to supply information they may have regarding mining applications in Wombeyan Caves Reserve, so that A.S.F. may support their efforts.
- Cleanup to be held at Bungonia shortly, date to be announced. Local council to be asked for garbage truck, societies to provide manpower.
- Complaint to be made to local Mining Warden and Department of Mines re overburden from Marulan Quarry encroaching on the Bungonia Caves Reserve.

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AUSTRALIAN SPELEOLOGICAL FEDERATION

SEVENTH BIENNIAL CONFERENCE

Graham's Castle, Goolwa , South Australia , 27 - 31 December

Papers, talks, discussions, slides, movies, arguments , demonstrations, new equipment, Cavemans Dinner, drinking and other revelry. All for £20 for four days, inc. meals

Field trips to Nullarbor, Kangaroo Island, Naracoorte.

ABERCROMBIE TRIP11 AugustDenis Ward

Present: D.Ward , C.Fieldhouse , J.Dunkley , J.Parkes , Sue

This pseudo-speleological can tourist trip left Sydney early on Sunday morning and after a very fast trip reached Abercrombie at 10a.m. Chris Fieldhouse renewed acquaintance with Brian Crick, the caretaker / guide and the party was given a thorough inspection of the Arch Cave. This arch is about 600' long and contains a flowing river of considerable proportions, presenting excellent opportunities for photography, for which we were unfortunately not properly equipped. Improvements are being made to the caves and to the facilities at the Reserve, and a visit can be recommended. Some exploration prospects were pointed out to us but we were not equipped for caving. Another trip is planned sometime in the future possibly early next year. Thanks are extended to Mr Crick for his willing and helpful attention; we were glad to patronise Mrs Crick's kiosk.

CLIFDEN17 - 18 AugustDenis Ward

Present: D.Ward , C.Fieldhouse , J.Dunkley , G.Jessup , F.Jessup , J.Parkes , L.Seddon , R.Murray , R.Crowle , B.Kirby, J. Sea, brook

The object of the trip was to continue the Taplow survey. It has long been a tradition that a cave shall not be entered before noon ... superstition? ... dithering certainly, for this trip was no exception (the river was flood of course and fording it took some time). In the cave the party split into three. One to survey the lower cavern section, one to explore and roughly map the danger section, and one to complete mapping of the maze section.

After surveying some 150' - 200' in the maze section, Lois noticed a small partially blocked hole in the floor of a smaller side passage. Five minutes digging enlarged it enough for Denis to squeeze through. On the other side was a small low cavern (approx. 20' long x 6' wide). Off to the side was another partly blocked hole which was shortly dug out. Yet another cavern on the other side of that, similar in appearance and as damp as the 1968 extension, and apparently on the same level, i.e. below the level of the maze proper. Another ten minutes of feverish exploration suggested that more digging would be very profitable. The new extension here totals about 200'.

Elsewhere, about 200' of cavern section, and 300' of danger section was added to the map, and a connection made via a hole in the roof to the danger section direct from the entrance section.

Sunday was wasted in procrastination. Overall a fruitful trip; the map now looks most impressive but there's more to come ...

CHURCH CREEK TRIP

7-8 September

Background - The furore over granting of a mining lease covering the Church Creek end of Colong Caves Reserve resulted in belated attention being given to the Church Creek Limestone, previously thought to be lacking in caves. In August S.S.S. located several caves, including one 1200' long (see "Stop Press" 12, 8, Aug.) Large numbers of cavers were needed for a thorough surface reconnaissance. The trip was organized for the A.S.F. N.S.W. Co-ordinating Committee and led by Greg Middleton.

A funny thing happened on the way to ... - 13 vehicles and about 50 cavers rendezvoused at Batsh Camp with the Water Board Ranger from Yerranderie at 9am Saturday. Societies represented were SSS, SUSS, IES, CSS, OSS and UNSWSS. We were armed with a permit from the Water Board to gain access to the area but needed also the leaseholder's permission. Shortly after 9, an unfriendly utility containing the property owner and some reinforcements arrived on the other side of the gate and the confrontation began. Preliminary diplomatic discussions on the vice-consular level were conducted on the other side of the fence, while outside the natives and mercenaries stirred restlessly with dark plots and revolutionary talk. Rumours were rife and rash action advocated. Following the granting of some concessions, the property owner moved in to our side of the fence and negotiations resumed on a full plenipotentiary level. Further concessions were sought and granted, a detailed list of cars and occupants and their society affiliations was taken. Then a quick check for smuggled minis in Holden boots, the gate swung open and the great safari began. Camp was made 12 miles on at Colong Swamp.

Results - Fortunately the weather was good and we were able to drive the cars right to Mt Armour over some indifferent roads. The limestone outcrops up to 800' above Church Ck. We found a few potholes and fissures up to 60' or so deep, high up on the mountain. Due to thick scrub and the precipitous hillside we were not able to search the whole of our area so possibilities are still good. Known potholes could extend lower, but infiltration and solution is not concentrated so high on the hill, so that they will probably all go into narrow fissures or choke off. The same problem exists on the ridge between Buchan and Murrindal in Victoria. In either case a breakthrough, possible but unlikely, could lead to the deepest cave in Australia.

The first party to return to camp about 6pm arrived just in time to see the last of a disastrous fire; two VWs and a tree were still glowing. The cars were both a total loss, as was a considerable quantity of camping gear etc. owned by three SUSS and some CSS members.

The fire burnt to within a few inches of four SSS tents and to within one foot of mine before the fire apparently changed direction. Our sympathies are extended to all the victims of this disaster, particularly to Jim Seabrock and Ian Lindsay, both of whom lost everything except the clothes they had on. A fund has been started and the first fund-raising event will be the football match with M.S.S. on 13th October.

On Sunday most people checked out CC4 and other caves along Church Creek, and sample the very steep climb back up Mt Armour.

We would like to thank the Water Board Ranger from Yerranderie who drove 20 miles each way, three times over the weekend, to open the gate. Also, the property owner, Mr Gardiner was really quite a nice guy later in the weekend.

A formal report on the results of the trip will be made available later by the leader, Greg Middleton, whose unflagging enthusiasm and genuine concern have maintained the current interest in Church Creek.

Personal Observations

1. The scenery is superb.
2. Its aesthetic qualities are unquestionably worth conserving, and will definitely be impaired by mining activities.
3. Contrary to previous opinion, there are caves at Church Creek, some quite worthy of the name.
4. The limestone bluffs themselves are nothing to rave about but are quite attractive.
5. The capital cost of installing equipment in this remote place, particularly in view of its rugged nature, will be enormous. The economics of it still escapes me.
6. The Government has steadfastly declined to review its decision to allow mining to proceed, and the Minister for Mines has said that it will be in the best interests of the state
7. It therefore seems unlikely that the discovery of a few caves will precipitate the Government into reconsidering.
8. Let's be sure never again to be only half-informed on whether an outcrop of limestone contains any caves.

SMALL CONSOLATION ...

It now seems likely that legislation will be introduced into the current session of State Parliament to establish Kanangra-Boyd National Park, out of which proposed area the Church Creek lease was excised. (information National Parks Association Journal, September 1968).

ASF SUGGESTED RULES FOR CAVE SAFETYPRE-TRIP ORGANISATION

1. No one to go caving alone. Desirable minimum size-FOUR.
2. Each caving trip to be under the control of a trip leader possessing qualities of responsibility, discipline, and temperament needed to ensure the safety of the party and the protection of the caverns.
3. Suitable helmet, clothing (one piece boiler suit) and footwear to be worn when underground.
4. First aid kit to be carried on all trips and left at the camp.
5. Two totally independent forms of lighting to be carried by each person.
6. Inspect for wear and damage all safety lines, abseiling ropes, cable ladders and man winch ropes to be used on the trip, and ensure that they do not suffer damage during transport by chafing, contact with batteries, etc.

ABOVE GROUND ORGANISATION

7. Don't take underground anyone whose ability is affected by drugs or liquor.
8. In the event of all persons on the trip being underground, leave some indications at camp as to the intended program and expected time of return.
9. When entering caves subject to flash flooding some means of effective communication with the surface should be set up so warning can be given should the weather change.
10. Care should be taken to avoid becoming lost or separated above ground when visiting remote caving areas (e.g. Bendethera, Nullarbor, Kimberley, Camooweal, Tasmania, etc.).
11. Radio transmitting equipment should not be used when firing or preparing explosives for firing, especially when electric detonators are to be used.

ASCENTS AND DESCENTS

12. A safety line should be used in any situation where a fall could result in serious injury. The trip leader should make the decision considering:

- a. The experience of the party;
- b. Their physical condition at the time;
- c. Difficulty of rescue should a fall occur;

and of course the difficulty of the obstacle.

13. The above considerations apply to any ladder climb or descent below 30 ft. Over 30 ft. the use of a belay rope should be mandatory. The belay man should be experienced and securely positioned.

14. No more than one person to be on the ladder at any one time.

15. Every member of the party to be experienced in the knots used to attach safety lines (bowline, anchor).

NOTE: Use at least one half hitch on tail rope of bowline.

ASF CAVE SAFETY RECOMMENDATIONS (cont.)

16. Use alternative means of communication on pitches where unaided voice contact is difficult.
17. Care to be taken with safety lines to avoid damage by sharp projections or nailed boots.
18. Abseiling to be eliminated as much as possible.
19. Don't use abseil ropes as safety ropes or vice versa.
20. ~~Helmet mounted naked flame~~ light not to be used when ascending or descending a pitch.
21. Use only metal cables on powered man winches.
22. Do not engage in horse play, rock throwing, etc.

CAVE DIVING

23. Don't attempt to force siphons alone or without proper diving equipment. A diving party should consist of: a lead diver, follow-up diver, emergency diver, telephonist, a runner. FIVE members at least.
24. Divers must be attached to a guide line at all siphons or near-siphons.
25. Communications to be established through all siphons by the lead diver and maintained by an outside party where the trip leader considers it necessary.

GENERAL.

26. Safety lines, abseiling ropes, cable ladders and man winch ropes not to be used for other than its intended purpose, e.g. towing vehicles.
27. Dry out ropes etc. and store in a cool dry place out of direct sunlight.
28. Do not uncap carbide lamps in confined places.
29. Ensure reserve supplies of carbide do not become damp.
30. Carbide lamps are not reliable indicators of foul air. Use matches, candles if foul air is suspected.
31. Do not use copper in modifying carbide lamps.
32. Do not construct cable ladders of materials likely to cause electrolysis, e.g. copper ferrules on steel cable.
33. Internal combustion engines not to be used underground or on the surface where exhaust fumes are likely to enter a cave.
34. Persons using explosives above or underground should be experienced in their use.

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SUSS is having a football match with the Metropolitan Speleo. Society on Saturday, October 13, at 1.30 p.m. The venue will be St. Ives Showground.
PROCEEDS WILL GO TO THE VICTIMS OF THE CHURCH CREEK FIRE.

TEXAS CAVES

ANOTHER CONSERVATION PROBLEM

Introduction

Texas Caves are named for the town of Texas, located on the Dumaresq River at the N.S.W. / Queensland border, 200 road miles from Brisbane. The caves are threatened by the proposed Pike Creek dam, part of the two-state Border Rivers Scheme. The summary presented here is from a recent Conservation Bulletin of the University of Queensland Speleological Society. The main case for conservation appears to rest ultimately on the economics of the proposed irrigation scheme.

Description of the Caves

The caves are the most worthwhile ones nearest to Brisbane. There are 8 caves in the Viator system and 2 in the Glen Lyon system. Total passage length is about 4500'. Russenden Cave, the largest at Viator, has an abundance of formations of all kinds. Another cave at Viator contains a most impressive cavern, while across the hill at Glen Lyon, the caves possess the only permanent underground river in Queensland. These caves are a roost for the protected bat species miniopterus schreibersii, which is an important control on insect pests.

Economics of the Dam Project

Australian irrigation projects have frequently attracted criticism, particularly from agricultural economists, although the opinion of engineers and agronomists has usually prevailed. The main economic arguments against the scheme are:

- a) the unjustifiably low return on capital by comparison with other investment projects.
- b) the lack of a cost-benefit analysis comparing relative returns on alternative uses of labour and capital.
- c) the resulting distortion of optimal resource allocation in the economy (there are better things to do with them)

Preliminary investigations of the economics of the scheme suggested the following conclusions:

1. Capital cost - probably up to £20m. by completion in 1972
2. Cost of water - £12 - £15 acre/ft. compared to standard charge of £3 - a subsidy would have to be paid to farmers.
3. Estimated operating loss to Government £900,000 p.a.

Alternatives

There is no suitable alternative site for a surface water project. However, investigations show that underground water could be made available in the same quantity (60,000 acre ft p.a.) as the dam could supply, at an estimated annual charge amounting to £400,000. This would avoid the capital cost of the dam, quite apart from the conservation angle. (n.b. a newspaper report dated 25/8/68 says that "investigations indicated that the extraction of supplies from the underground beds presents significant difficulties").

Strategy and Developments

The U.Q.S.S. has obtained several newspaper reports on the subject late in August, and it was discussed in 'Closeup' on QTQ9 and in 'Tonight' on ABQ2 television. A petition with nearly 2000 signatures has been presented to the Queensland Government. However, as the project is part of the Border Rivers Scheme, the legislation has to pass the N.S.W. Parliament as well. A petition has therefore been prepared and signatures are sought.

POSTSCRIPT

The U.Q.S.S. Bulletin no. 4 on which the above article was based was prepared by Henry Shannon, President, U.Q.S.S. and a former member of S.U.S.S. As an employee of the Water Conservation and Irrigation Commission, he carried out much of the hydrological work associated with the underground water resources of the area covered by the proposed scheme. The report therefore has some authoritative basis.

The Texas problem is the second major conservation problem encountered in Queensland in recent years. With Mt Etna, these two systems threatened by 'development' are the only ones within close distance of Brisbane

EXTENSION TO RIVER CAVE, COOLEMAN

On the Easter trip to Cooleman, a SUSS party found the siphon in River cave empty, and pressed on regardless, finding ancient inscriptions dating back to the turn of the century. A number of other cavers unfortunately managed to get in the extension at Easter, but the siphon has now probably closed again (there was a long drought which has since Easter broken). For the use of posterity, a rough traverse of the main passage is reproduced overleaf; better maps possibly exist but if so they have apparently not been published

(see sketch p. 46)

RIVER CAVE - LOOLEMAN PLAIN 6

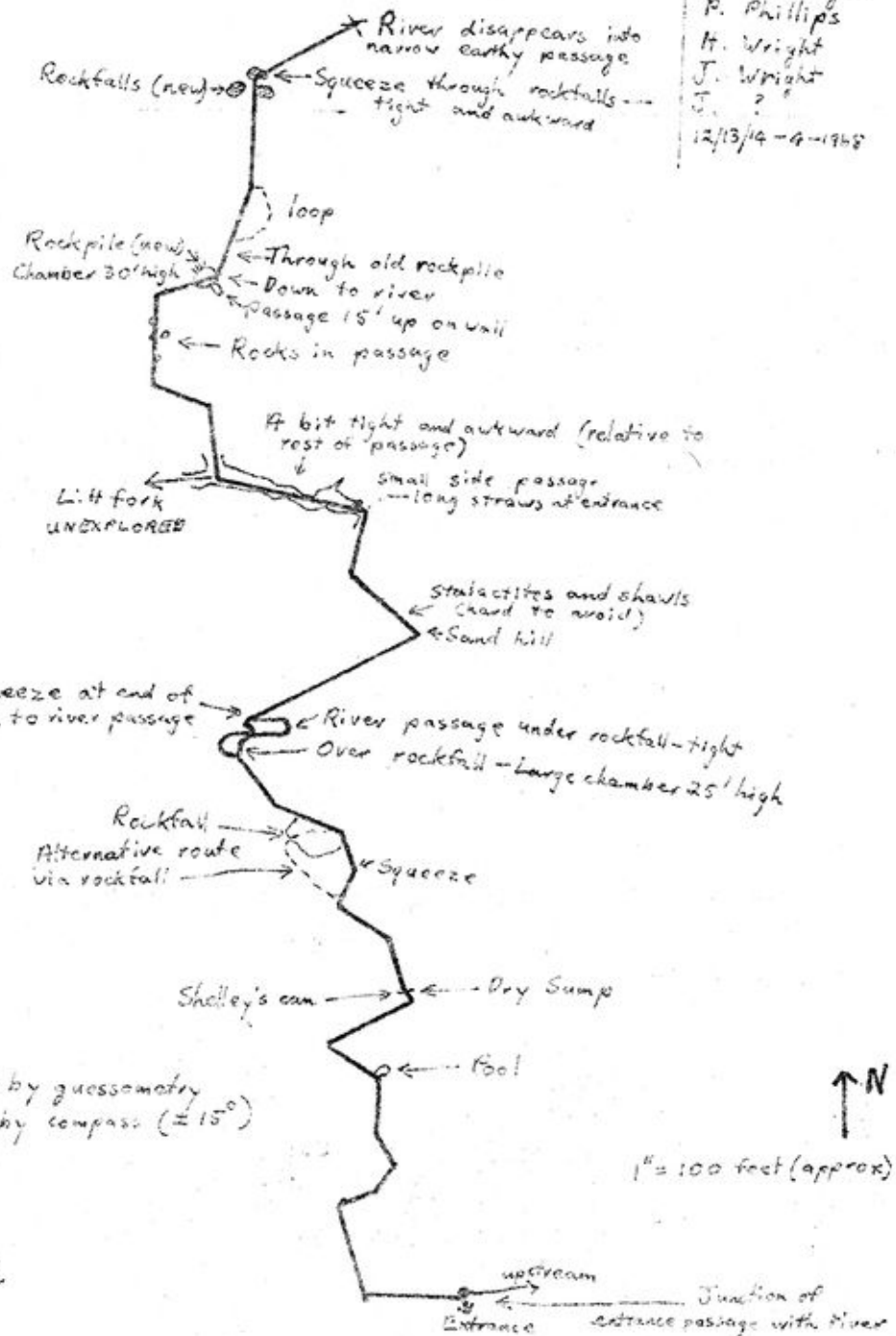
Map of River Passage downstream from its junction with the entrance passage.

Length of each Traverse (feet)

60
60
50
30
50
30
40
80
35
50
100
20
30
40
20
20
30
30
50
35
25
20
15
20
50
50
1050

Total length

Distances by guessometry
Bearings by compass ($\pm 15^\circ$)



G. Butkin
D. Mc Knight
P. Phillips
H. Wright
J. Wright
J. ?
12/13/14 - 4-1968

IN THE LITERATURE ...

~~W.R. Halliday~~ : Terrestrial-Pseudokarst and the Lunar Topography.
N.S.S. Bull. 28 , 4 : 167 - 170 (October 1966)

Pahoehoe lava appears to be rather widespread on the moon, though its parameters and those of any lava tubes contained therein may differ significantly from those on earth. To date, collapse features characteristic of lava tubes on the moon have not been identified but the potential importance of lunar lava tubes warrants considerable study. Such caverns would provide lunar explorers with shelters against micro-meteorites and other hazards. Finding such lunar caves, if they exist, would be a problem as terrestrial lava caves are seldom very evident on the surface and are often entered through very small fissures. Some photos taken by Luna 9 show a surface remarkably like that seen in certain lava caves of Washington state.

J.F. Fisher : Discussion on Halliday's paper on lunar features.
N.S.S. Bull. 29 , 3 : 115 - 116 (July 1967)

The author draws attention to the lower gravity on the moon and considers that this would support lava flows more readily. This would lead to larger and more extensive flows than on earth and, hopefully, more common caves.

The South-West Africa Expedition, 1967. Bull. South African S.A. for 1968

The frontier of speleology is being pushed back in overseas areas too. The interest in this issue lies in the remarkable likenesses between South-West Africa and the Nullarbor. The climate is almost identical, the caves spectacular but scarce (they are in dolomite), the organizational problems just as complex, and if anything the area is even more remote than the Nullarbor (over 900 miles of dirt road from Cape Town, the same distance as from Adelaide to Mulla-mulla). The caves contain plenty of breakdown rock, sand and dust, not to mention large, deep lakes. Even the water table is at much the same depth (about 350'). The expedition account details the organizational and catering problems and the preliminary biological work. Another expedition is planned in 1969.

One gains the impression that remote parts of the world still contain enormous potential for the modern explorer, even if only underground. The Otavi Dolomite system mentioned above

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7	2	1968

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about quite a bit of other junk we
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