

ASF

NEWSLETTER

Autumn, 1976 No. 71



THE AUSTRALIAN SPELEOLOGICAL QUARTERLY

John Dunkley surveying Dhavligiri Range, Nepal — 4,500m limestone to the top Photo by A. Pavey

CAVES OF NEPAL — Page 5

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ASF NEWSLETTER

Number 71, Autumn 1976

CONTENTS

<u>EDITORIAL</u>	*	*	*	*	*	*	*	*	*	*	*	*	1
<u>NOTICES & NEWS</u>	*	*	*	*	*	*	*	*	*	*	*	*	2
<u>ASF COMMITTEE MEETING - WOLLONGONG</u>				*	*	*	*	*	Tony Culberg	*			4
<u>N.S.W. LIAISON COUNCIL REPORT</u>			*	*	*	*	*	*	Ian Bogg	*			4
<u>CAVES AND CAVING IN NEPAL</u>	*		*	*	*	*	*	*	Andrew Pavey	*			5
<u>ASF CONSERVATION PLAN</u>	*		*	*	*	*	*	*	Elery Hamilton-Smith				10
<u>WHO'S WHO ON THE SPELEO SCENE</u>	*		*	*	*	*	*	*	*	*	*	*	12
<u>FIRST REPORT ON 'RESCUE 76'</u>	*		*	*	*	*	*	*	Philip Toomer	*			13
<u>ROPES FOR CAVERS</u>	*	*	*	*	*	*	*	*	Philip Toomer & Bruce Welch				14
<u>DOWN UNDER ALL OVER</u>	- News from around the Societies							*	*	*	*	*	16
<u>BOOK REVIEW</u>	*	*	*	*	*	*	*	*	Nicholas White	*			20

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EDITORIAL

Well, things have really been happening since I last wrote my piece on this page. Admittedly it has taken time but all in all, this 20 page issue speaks for itself. Despite the vicious rumours, speleology is taking place in Australia - I'm convinced! I would especially like to thank those of you who have contributed to making this particular issue the success that it's bound to be. The support which has been shown in regard to "Who's Who" is extremely gratifying and has proved that this is a popular series. My request for individual club news in regard to the "D.U.A.O." series has likewise born fruit. However, there are still some clubs we would like to hear from by next issue.

Notable events which have occurred recently are the acceptance of the Baptist Caving Association as a full member of A.S.F. (Welcome - hope to hear from you soon), and the successful cave Search & Rescue exercise which was conducted by the N.S.W. Cave Rescue Group at Bungonia last month.

This particular issue is literally packed with the "latest" on speleological activity and the general format is what you will be seeing for some time to come (I hope). Finally, all members are asked to complete the form which accompanies this issue and forward it to Elery Hamilton-Smith at your earliest convenience. Make a special point not to forget about this one! Credits are also extended to Ian Wood and his team of helpers who did a marvellous job in beating the deadline with issue No.70 - - - Thanks, fellers!

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DEADLINE DATE FOR THE WINTER ISSUE IS - WEDNESDAY 30th JUNE - LET'S HEAR A WORD FROM YOU BY THEN!

Editor: Laurie Moody, 13 Mason Street, Claremont. Tasmania. 7011
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TAKE NOTHING BUT PHOTOGRAPHS LEAVE NOTHING BUT MEMORIES - P.J.Bridge, Carlisle, W.A.

NOTICES & NEWS

"S.R.C. LTD., TAKES OVER 'HELICTITE'"

On the 28th of February the Speleological Research Council Ltd., became the owner and publisher of 'Helictite' - 'The Journal of Australasian Cave Research'.

Helictite has always held the position of being the premier speleological journal in Australasia and the SRC Ltd., intends to maintain this role. The journal has a high standard of content and this will be maintained by the new board of management. There will be few changes in style of format but a wider field of contributions will be encouraged. In the past Helictite has published papers mainly dealing with Earth Sciences, Cave Biology and History, but is now actively seeking contributions on additional topics such as Major Exploration (Expedition) Reports, Equipment, Techniques, Surveying, Photography and Documentation.

The Foundation Editors will continue to advise the new Board of Management; E.A.Lane will serve as Editorial and Historical Consultant whilst Dr. Aola M. Richards will act as Biological Consultant. The remainder of the Board will be Andrew Pavey (Editor), Dr. J.M.James (Assistant Editor), Dr. Joe Jennings (Physical Sciences Consultant), E.G.Anderson (Cartography Consultant) with business management handled by B.R.Welch, I.D.Wood and G.S.Hunt.

Due to spiralling postal charges, Helictite will be produced twice each year instead of quarterly, with no reduction in the size of each complete volume. Facsimiles of the out of print volumes (1-4) have been produced and will be available for \$20, whilst volumes 5-12 are available for \$3.50 each (plus postage) while stocks last. Subscription rates for volume 14 (1976) will be \$5. Cheques should be made payable to 'Helictite'. Contributions, typed double spaced and accompanied by maps and diagrams in black ink should be sent to Andrew Pavey, Editor, Helictite, P.O. Box 183, Broadway, N.S.W. 2007."

Andrew Pavey.

ERROR IN UQSS PRICE LIST.

Glenn Pure would like to apologise for the error which occurred in issue No.70 ASF Newsletter. The price of "Save Our Caves" T-shirts should read - \$5.00 not \$4.40 as was advertised. Orders should also be forwarded to:- The Conservation Treasurer, U.Q.S.S., C/- The Union, Uni. of Queensland, St. Lucia. 4067.

He would also like it mentioned that postage prices quoted are per item (not per quantity).

CLUB NEWSLETTERS.

The Editor, ASF Newsletter would like to advise all clubs that he is not receiving the full quota of club journals and would like assistance in this respect. The following list of journals and newsletters are what he has received into his possession since issue No. 67 of the ASF Newsletter:-

BMSC (Oolite Vol.3 No.2, Vol.5 No.3, Vol.6 Nos. 1-3)
 BSA (Bermagui Caver Vol.2 No.6, Vol.3 No.1)
 CEGSA (Newsletter Vol.20 Nos. 3 and 4)
 CQSS (The Explorer Vol.5 Nos.5 and 6, Vol.6 Nos.1 and 2)
 CSS (T.V.L. Vol.7 Nos.3 and 4)
 KSS (Trog Vol.12 Nos.2 and 3)
 MSS (Newsletter Nos.10 and 12)
 NSWITSS (Labyrinth Nos.7,8,9,10)
 NUCC (Speleograffiti Vol.11 Nos.2-3, 4-5)
 PNGCEG (Niugini Caver Vol.3 No.2, No.3 (two copies))
 SCS (Southern Caver Vol.7 Nos.1 and 2)
 SSS (Journal Vol.19 Nos.6,7,8,10,12, Vol.20 No.2)
 SUSS (Bulletin Vol.15 No.2)
 TCC (Speleo Spiel Personal copies only)
 UNSWSS (Spar Nos.42,43,44,45)
 UQSS (Down Under Vol.14 Nos.2,3,4,5, Vol.15 No.1)
 VSA (Nargun Vol.8 Nos.4 and 6)
 WASG (The Western Caver Vol.15 No.2)

If anyone can assist with back copies, this too would be greatly appreciated. The Editor is still not receiving any journals/newsletters from these clubs:- BCA, HCG, ISS, MUSIG, OSS (I'm told it doesn't publish), NC, CCC, ESA, LSC, PSG and SRGWA. Although OSS apparently doesn't publish, the Editor would appreciate hearing from them and this also applies to any other club in a similar position. One of these clubs, MUSIG, has now established contact through their delegate - see D.U.A.O.

Laurie Moody.

NOTICES & NEWS CONT;

SEEN ANY GOOD CAVE WETTAS RECENTLY?

"Hi, I'm Glenn Campbell. The introduction is much more effective with a guitar strumming "Gentle on My Mind" or "Rhinstone Cowboy", but such luxuries are only afforded to those Glenn Campbells in the world that can sing. I'm a newly imported Texan currently initiating a Ph. D. degree at the University of New South Wales in Sydney under Dr. Aola M. Richards in the School of Zoology. My past work in the United States and my projected research in Australia will be the investigation of the role of the cave cricket (wetta) in the cave ecosystem. Such an undertaking is quite ambitious and would involve a field study program within several caves throughout Australia, as well as, laboratory studies on individual crickets. The field study will give me information on population characteristics, life stages and cycles, food habits and position in the cave food chain, movements within and to the outside of caves, and the weather conditions within the cave and on the surface that would affect them in any respect. Cave crickets are potentially very important in the biological communities found in the caves. Information is needed on these animals that can give us clues as to their level of importance and their susceptibility to external forces (changes in weather conditions, presence or absence of tourists, etc.). Under the expert guidance of Col Carter (KSS), I have been shown a few promising populations of these elusive cave creatures in the Carrai Region in Kempsey. Populations of cave crickets in Carrai Bat Cave, Barnettts Cave, River Cave and Cols Cave have yielded numbers from 10-30 in each cave (far from the cave cricket population of 5,000 to 10,000 I had in the US). That brings me to the question at the top seen any good cave wettas recently? For me to make any significant statements concerning the ecology of cave crickets throughout the whole of Australia, and to have working numbers to do physiological work with them back in the lab, I need many more populations with which to work. The ideal situation for a field study for me would include 4 or 5 easily accessible caves (I have a large load of scientific equipment to set up in a suitable cave), and caves with fairly large populations of crickets. What one ultimately accepts is often far below what one initially sought, so with that in mind, I would like to ask for your help. I would be greatly appreciative of a quick note from anyone who has seen one or more cave crickets in a cave somewhere in Australia. Cave crickets are about an inch in length with very long legs (especially the jumping hind legs), long antennae, and a humped back.

Information on the nate I desire would include:

- 1) Caves and localities of caves with any crickets
- 2) Approx. number of crickets seen in each cave
- 3) Date when you saw the crickets
- 4) Reference and/or names and addresses of persons whom I might contact for any additional information concerning these crickets and caves

I hope to run into you and exchange caving stories when I'm hopping around Australia after the crickets. My Uni. mailing address and home phone number is at the bottom. Any help on my endeavours will be greatly appreciated, and if I can be of any assistance to you, please let me know.

Glenn D. Campbell
School of Zoology
Uni. of New South Wales
P.O. Box 1
KENSINGTON, N.S.W. 2033
(02) 399-5649

The above article appeared in Trog, March 1976, and was re-printed in the ASF Newsletter with the kind permission of KSS. If you can help out in regard to this request, no doubt Glenn would be happy to hear from you as soon as possible. Ed.

WANTED URGENTLY - for destruction testing - SRT hardware such as Karabiners, Jumars, Giobs, Cloggers, SRT ropes such as Blue Water II, Blue Water III, Marlow, Kinnears; and other ropes such as Kernmantle, polyethylene, polypropylene, etc.

If you have any of these items which you have "written off", please post them to - Phil Toomer, Liaison Officer, N.S.W. Cave Rescue Group; 2/19-21 Tunks Street, Waverton, 2060 or phone (02) 929.0432.

These items will be used for testing their strength, resistance to abrasion etc. If possible a brief history of the item should be included and where possible, damaged rope should be in multiples of 1m., but just 1m. is better than none at all.

BACK ISSUES ASF NEWSLETTER

These are still available from Peter Kowald (see address Page 1). Peter advises that there has been no changes from the list which appeared in issue No.68. Is your collection up to date?

NOTICES & NEWS Cont;

CLUB NEWSLETTERS (AGAIN)

Since writing the article which appeared on Page 2, I have received two Spars Nos.50 & 51, a Journal Vol.20 No.3, CEGSA Inc. Annual Report 1975-76, the ISS newsletters Vol.1 No.10 & Vol.1 No.11, plus an assurance from OSS that they are alive and well and will be publishing Descent very shortly.

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ASF COMMITTEE MEETING - WOLLONGONG

A brief insight into the proceedings of the ASF Committee Meeting held in Wollongong at the end of January, has been supplied by the Secretary, Tony Culberg.

- 1) The annual capitation fee was increased to \$3.00 per full member. Of this, \$2.00 has been allocated to the ASF Newsletter.
- 2) Some constitutional amendments were passed. These were of an administrative nature only; full details are available from the Secretary.
- 3) An amount of \$300 was lent to UQSS to help publish Australian Speleology 1972.
- 4) Pat Fullerton and Tony Culberg agreed to edit Australian Speleology 1973.
- 5) An adhoc committee to produce a discussion paper on publication policy was formed - Tony Culberg and Lex Brown are running this and would like to hear from you.
- 6) Several officers, in their reports, lamented the lack of feedback from many societies and members concerning their particular tasks. In particular, the Editor and the Conservation Secretary would like to hear of any items of interest.
- 7) Some discussion on incorporation of ASF occurred. Any people with ideas on this should let the Secretary know.
- 8) Each delegate was asked to ensure that his club discussed in depth the matters raised at the Committee Meeting and also to ensure that all letters etc. from ASF to clubs were discussed at meetings.
- 9) Baptist Caving Association (NSW) was voted in as a full member of ASF.

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N.S.W. LIAISON COUNCIL REPORT

The Convenor of the NSW Liaison Council, Ian Bogg, has asked me to provide a brief resume of the Annual Report 1975, for the ASF Newsletter. Unfortunately, I am unable to go into the report in detail owing to the lack of space, time and local knowledge but the following list of important events have occurred.

- 1) Membership of the Council has grown to eleven groups who have accepted the Charter.
- 2) The Baptist Caving Association applied for full ASF membership and this was recently granted.
- 3) It was established that the Highland Caving Group is still in existence.
- 4) That meetings will be held every 3/4 months.
- 5) Two major submissions were published and submitted:-
 - i) "Proposed Development of Caves and Surface Area of the Bungonia Caves Reserve".
 - ii) "Jenolan Master Plan".
- 6) A \$5.00 levy was imposed on each member group to cover incurring expenses.
- 7) Three conservation issues have been brought before the Council, namely:-
 - i) Proposed Gating of Wyanbene Cave.
 - ii) Cliefden Caves Threat.
 - iii) Underground conservation codes/symbols.
- 8) An information and address sheet has been prepared and endorsed by the Council and will be published as soon as 90% of the addresses and information have been received.

CAVES AND CAVING IN NEPAL

BY ANDREW PAVEY.

Nepal, the tiny Himalayan Kingdom which lies between the two most populous countries in the world is rightly famous for its superb mountain scenery, containing, as it does, many of the world's highest mountains. Three of the best known of these peaks, Mts. Everest (8,848m), Annapurna (8,091m) and Dhaulagiri (8,167m) are composed of vast thicknesses of limestone and many a caver has secretly considered the possibility, first raised by the Goons, of reaching the top of the world from the inside! Sad to say, the "underground Everest's" of the world are unlikely to be found under Everest as the geological conditions most favourable to cave development don't seem to have been present during the uplift of the Himalaya Range. Nevertheless, exploration during this decade has revealed the presence of a few caves in Nepal and elsewhere in the foothills of the Himalaya. Despite the presence of such features as the Kali Gandaki gorge, which is the deepest limestone gorge in the world (7,000m!!), deep caves are unknown in the high mountains. The deepest cave in the Himalaya area is located in the Bawar Ranges, Chakrata, Northern India (Lower Swiftlet Hole, 74m). Caving, as is the case in many undeveloped countries, attracts no local participants and all exploration to date has been carried out by interested individuals working in or visiting the area, with the exception of two well-organised Expeditions from England which visited the area in 1970. Nepal is a long way from any country with keen and organised cavers and it's not really surprising that cavers tend to be there for other reasons and just happen to make half-hearted attempts to look for caves whilst there.

It was against this background that John Dunkley and myself planned to meet in Nepal with the main intention of doing an extended trekking trip through the mountains whilst keeping our eyes open for any signs of caves or karst. The letters flew backwards and forwards between London and Canberra bearing such titles as "Himal-Australian Karst Research Expedition", "Australian Speleological Research Expedition - Himalaya 1975", "Dunkley's Underground Nepalese Karst and Limestone Expeditionary Society - (DUNKLES)", but we finally settled on "Burmo-Indian Karst Expedition (BIKE)", as this reflected our primary mode of transport whilst looking for caves. Following two weeks of research in the Library of the British Museum, we had a good idea of just where known caves were to be found in India, Nepal, Burma, Thailand and Malaysia and although we didn't have time to see many, we did manage to get to a few. This article will deal only with caving in Nepal as it is proposed to treat the other countries separately in a series of articles.

The first Australian caver to visit the general area, that we know of, was Tom Hayllar (1962), although most is known following the British Karst Research Expedition to the Himalaya 1970 (Waltham, 1971). The British visited two main areas; The Vale of Kashmir in Northern India, where they found a famous shrine located in a small cave with an impressive entrance (Amarnath Cave) and several springs with no accessible caves, and Pokhara Valley and the nearby Kali Gandaki gorge in central Nepal. Although they spent nearly two months in the area, they found few caves or karst features. Near Jomosom (see map) on the Tibetan side of the range, they found three small caves and a few springs of seemingly volcanic origin, whilst further south near Tukche, there are many springs but of a non-karstic nature. There are few caves in the bedrock Nilgiri Limestone in this area although there are many large rock shelters formed in the superficial gravel terraces which are calcareous. The Dhaulagiri Meadows higher on the slopes above are similarly disappointing with some pavement, a few depressions in boulder clay and a completely inaccessible set of springs below White Peak. Solutional weathering is limited to a few spectacular gorges, again inaccessible. On the other side of the valley, below the Nilgiri Peaks and on the flanks of Annapurna, there are again a few small rock shelters in bedrock and some springs with no associated caves. Instead of forming caves, the streams have cut deep and spectacular gorges, where they drain across the limestone outcrops. At Kursangmo, west of Larjung, there are a series of caves developed totally in a tufa deposit and the longest of these is only 30m. Further south, in the Kali Gandaki at Kusma, some 29km west of Pokhara, is the Gupteswary Cave, which has been formed in a terrace composed of lightly consolidated boulder clays. The cave is a famous Hindu shrine and is well decorated although only 100m in length. The largest and most significant cave reported by the expedition was the "Harpan River" Cave located on the outskirts of Pokhara itself. The Harpan River, flowing out of the Phewa Tal (lake), plunges in a spectacular waterfall into the cave and resurges some distance away in the gorge walls of the Phusre Khola (river). The expedition were the first to explore this cave and their survey shows it to have at least 1,478m of passage and a depth of 47m. There are several other caves in the Pleistocene detrital limestones comprising the plain on which Pokhara stands and good scope for further discoveries.

Caves near Kathmandu.

Our trip started, on that fateful date, December 13th, when we met in exotic downtown Kathmandu. In the afternoon, we hired a couple of pushbikes (20c a day) and rode out to the Chobhar Gorge about

Caves and Caving in Nepal Cont;

5km southwest of Kathmandu. Munthe et al (1975) had indicated that a small outcrop of the Chobhar Limestone cut by a gorge of the Bagmati River contained numerous solution pockets and cave entrances collectively referred to as Chakhu Bhakhu Pwa (Sparrow-Pigeon Caves). On our arrival at this feature, we discovered that the gorge was a lot smaller than we had expected, having a length of only a few hundred metres and a depth perhaps of 75m through a hill. It was spanned by a suspension bridge giving access to the eastern bank and on the southern side there was a large temple and nearby evidence of limestone mining.

A small vertical hole gusting warm moist air was quickly found at the top of the outcrop on the western bank, but due to the presence of human faeces in the area and the known ability of the local inhabitants to drop same almost anywhere, we were reluctant to investigate further. A track leading down the western wall of the gorge gave access to several other entrances, all showing signs of human modification and occupation. These were expected to link with the upper entrance previously noted and we left exploration to a later date. We were excited by a large entrance on the eastern bank of the river, directly below the highest part of the gorge and crossed the bridge to investigate. There were a number of tracks on the other bank, but it quickly became obvious that the large entrance (30x15m) was inaccessible without either a rope to descend the cliff or by engaging in the far more dangerous occupation of attempting to swim the extremely fetid and polluted river. Evening was approaching and we decided to return later, to get photos in the morning light. Unfortunately, due to later events, we did not return. Munthe et al. report that they found about 90m of passageway comprising alternate crawlways and breakdown choked chambers, during a partial exploration. Most of the passages seemed to be controlled by bedding planes and a nearly east-west joint set, with the largest chambers being developed at their intersections. No secondary calcite deposition was noted, the cave's decoration being limited to religious statuary. They claim the cave may have much more passage and an interesting invertebrate fauna and planned to return early this year.

Caves near Pokhara.

We flew from Kathmandu to Pokhara on Royal Nepal Airlines, a journey which gives spectacular close-up views of the Himalaya at very close hand. In Pokhara we quickly made plans to engage porters and guide for a trekking trip towards the Annapurna Range, leaving two days to investigate the caves of the Pokhara region.

Again we hired pushbikes to get around as the whole valley floor is largely a flat plain with a number of extremely narrow gorges cutting through it. The first day we cycled down to the sink for the Harpan River. In low flow winter conditions (perhaps 10 cusec) the sink is spectacular enough but during the monsoon season it apparently fills to the surface with thousands of cusecs of water, a truly awe-inspiring sight. This cave was first explored by the British expedition and has a number of entrances. The main sink takes the Harpan Khola (River) and so they called it "Harpan River Cave", whereas according to the local guide book, its original local name was "Fadke's Hole" which was changed to "Devin's Fall" after a young European girl, Miss Devin, was swept away while taking a romantic bath along with her boyfriend in a stream above. The water cascades down a series of falls into the Main Rift at a depth of 45m and at the first junction turns back on itself and enters the Terminal Lake, of unknown depth but with a strong current at the far end. The easiest entrance to the system, and the one we used, requires no equipment and is situated in a collapse doline in the rice paddy behind the tea house. After a chimney of about 4m, a series of collapse chambers with morphology very reminiscent of the Nullarbor caverns, only on a smaller scale, and a short crawl and climb lead out to the junction of the Canals Passage and Dripping Inlet. Just beyond, over a large divider is the Main Rift and Terminal Lake. Our visit created much interest among the locals and so whilst John guarded the bikes and kept an eye on the ever increasing crowd, I dived down the hole for a quick exploration. I got through to the Main Rift and confirmed the wetness of Canals Passage before returning. The next day we both entered and explored the same section attempting to take photos. The water level in both the Main Rift and Canals Passage had risen overnight and caution was considered the better part of valour as there were large logs jammed up to 15m above the stream. Thus we only looked at about 10% of the known system but it was quite sufficient to impress us with the possibilities of cavern development in the area.

In the afternoon, we cycled uphill for an hour or two to visit the other well known cave in the area. This is known as the Mahendra Gupha and is located near the village of Batulechaur about 6km north of Pokhara. This cave is also known as "Chamero Odar" (the house of the bats) because of the large number of chamero (fruit bats) which inhabit it. The cave was reputedly discovered about 25 years ago when shepherd boys were pasturing their sheep near the cave site. We engaged a local boy and his friends to "guard" our bicycles and show us to the cave. A neatly built stone staircase leads down to the actual entrance. Presumably it was a collapse doline which has been modified for tourism. The cave is developed on a terrace above the Kali Khola where a very steep gully runs down the hillside and peters out near the cave. Perhaps it was originally a stream sink. We "explored" the cave with the assistance of a crowd of giggling schoolboys and took a few photos. The main passage is developed in a horizontally bedded limestone and has a roughly rectangular cross-section (2m high and 3-8m wide) meandering to a choke about 95m from the entrance. There are three side passages; the first on the left from the entrance leads to a daylight hole and squeeze after 15m. The daylight hole can be found in the side of a small collapse doline about 20m from the main entrance. The second side passage (on the right) follows a collapsed roof slab and gets increasingly lower for about 15m. The third side passage leads off to the left of

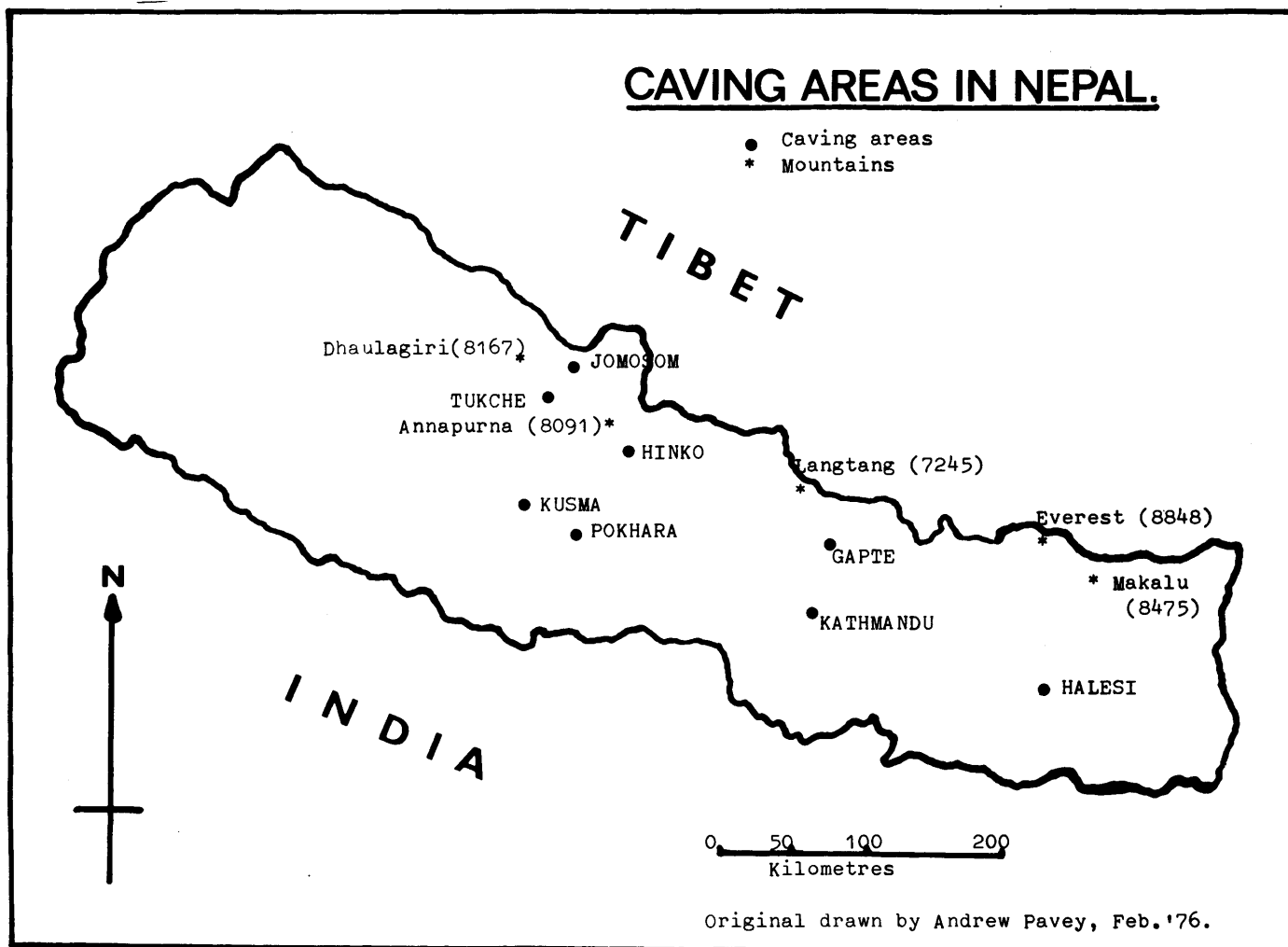
Caves and Caving in Nepal Cont;

the second and is only 8m long ending in a flowstone blockage and may have been an old meander of the main passage. About 70m into the cave, the gravel floor gives way to breakdown blocks and at several points it is possible to climb/scramble down a couple of metres to a small stream meandering through the rubble. The cave has quite a few well-vandalised stalagmites and stalactites (King Mahendra's Crown, The Buddha, The Elephant, etc!), many names written on the wall in both Roman and Nepali script and only a few fruit bats.

Although Waltham (1971) states that this cave is only one of many in the area, our youthful guides knew of no more and we saw little evidence of any more limestone outcrops, perhaps due to the many houses and gardens which dot the area. About 50m from the cave, there is a sharp drop from the terrace onto the actual, wide gravel bed of the Kali Khola. It is possible that the tributary gully coming off the extremely steep hillside above formed the cave as a short cut to the river, in which case, judging from the erosion depth of the river below the cave, it must have been quite recent. The cave now seems abandoned although the water may well flow through it in the monsoon season. The kids also knew of no springs in the area, so late in the afternoon we had a pleasant downhill ride back to our hotel.

The Seti Khola flows across the plain near Pokhara in a very spectacular, deep and extremely narrow gorge. Road bridges give a very good view of these gorges and the gorge is completely bridged over with the river going underground for a short distance. However, even in the winter dry season when we were there, there was a truly astounding torrent of water raging through the gorge and any attempt at exploration would result in instant suicide.

There is definite potential for more and better cave discoveries around Pokhara, but it would require an organised party with plenty of time on their hands to actually hunt them out. Winter is the only realistic time to visit the area as it is mainly dry and not too hot. During the monsoon, access is cut off and the whole area is reportedly awash with water and that means the caves would be inundated.



Caves and Caving in Nepal Cont;Caves in the Mountains.

As well as the cave mentioned by Herzog, near the Miristi Khola on the north side of Annapurna which drew Waltham's expedition to the area, several other mountaineering books have mentioned caves. One of these was Bonnington (1971) who made numerous references to Hinko cave as the last camping spot below the Annapurna Sanctuary at an altitude of about 3,000m. We trekked into the Annapurna Sanctuary and also stayed at Hinko Cave for one night. It is in fact a sheltered spot on a steep slope below what must be the grandfather of all huge glacial erratic boulders at least 40m cubed in size. Sleeping accommodation is on a series of terraces built under one wing of this huge block. There is of course no limestone for some kilometres until one gets up to about 7,000m on the side of Annapurna itself.

Preliminary Caves List for Nepal.

This list of known caves in Nepal has been compiled from an extensive literature search and as far as I can tell, is current to the end of 1975. The arbitrary order of arrangement is west to east and north to south, according to geographic location.

- 1) JOMOSOM - Bedding cave 9m long and 3m wide by 1m high; phreatic origin with vein boxwork structure on roof and a series of small joint controlled blind shafts; some stalactites, now dry.
- 2) - A single straight passage 20m long, mostly about 0.7m square in cross-section; very unstable being almost entirely tectonic in origin; caves 1 & 2 located on south side of limestone ridge directly north of the village of Jomosom at an altitude of 3,444m.
- 3) - A 2m wide bedding rift in vertically dipping limestone, one end exposed in a cliff; six shallow halftubes in one wall; at an altitude of 3,596m.
- 4) TUKCHE - A small boulder choked cave above the rising; 1.6km upvalley of Tukche on the path.
- 5) - Numerous small rock shelters; some longer than 15m are seen in the terrace gravels between Larjung and Tukche.
- 6) - A tufa cave; entrance 6m square; can be followed for 30m in a narrow passage to a small choked chamber where the stream enters from interstices in the conglomerate in which it is formed. In the gorge of the Dhambush Khola about 1km upstream of Tukche.
- 7) - Two small rock shelters on opposite (north east) bank from 6.
- 8) - Small cave 3m long and dry; walls highly frost shattered; small phreatic roof dome at the inner end. In the Nilgiri Limestone at altitude of 3,078m in gully wall north of Tukche.
- 9) LARJUNG - Kursangmo Caves: An active stream cave with a stream passage cascading to a depth of 9m over a length of 25m to a lake which sumps after 6m.; cave developed in a pure white tufa, no bigger than 3m square in cross-section, short dry section of similar size nearby; located at altitude of 2,987m; in basin of the Ghattekhola west of Larjung village.
- 10) - Several small rockshelters near the White Peak risings.
- 11) - Landslip Cave: 15m of narrow rift passages; formed where a limestone slab has slipped downhill; at an altitude of 4,300m above Dhauligiri meadows.
- 12) NILGIRI
HIMAL- A rock shelter formed in a steep slope of calcibreccia containing some large old fossil stalactites; altitude 2,750m overlooking Choya Deorali.
- 13) - Several similar to 12; on the sides of the Tangdung Khola Valley north east of Ghasa; altitude about 4,600m.
- 14) - A variety of small rock shelters at about 4,000m in limestone and gravel terraces; mainly formed by frost shattering; in the Miristi Khola Valley.
- 15) - An obvious entrance in bedrock; no more than 4m long at 4,400m near the Hum Khola Pass; formed by collapse at joint intersection.
- 16) KUSMA - Gupteswary Cave: A well-known Hindu shrine; an active stream resurgence on two levels; stream passage for about 100m with abandoned higher level 3-9m above; rimstones in the stream and several large chambers, including Temple Chamber containing the shrine; a 6m high stalagmite; small crawlway leads to a canyon passage and then a boulder strewn chamber; a few bats have been observed; survey to grade 3 (Waltham, 1971); located 1km west of Kusma in a terrace gully; tributary to the Kali Gandaki.
- 17) POKHARA- Harpan River Cave: (Fadkes Hole, Devins Fall): A large river sink and associated risings with 6 entrances; length 1,478m; depth 47m; Harpan River plunges over spectacular series of cascades and sumps in large lake; two side passages unite with main rift and continue as Canals Passage which leads to large Bat Chamber with a pool blocking the entrance; South Passage leads off to Jungle Exit; a fairly simple set of passages showing morphology of horizontal beds; several large and spacious collapse chambers; survey grade 4 in -

Caves and Caving in Nepal Cont;

- (Waltham, 1971); located just 4km south west of Pokhara where the road to India crosses the dry bed of the Harpan River; altitude about 900m.
- 18) - Mahendra Gupha: A simple, meandering passage with typical cross-section 2m high x 3-8m wide; length about 130m including 3 side passages; some vandalised speleothems plus graffiti; floor changes from gravel to breakdown about 70m in; located about 6km north of Pokhara at an altitude of about 930m.
- 19) - Seti Khola River (Cave): The river sinks at the bottom of a vertical sided gorge; about 45m deep and resurges some distance downstream; not explored due to large volume of water and inaccessibility; east of 17.
- 20) - Many caves similar to 18 are reported by Waltham (1971) in the same area; none as long as 100m.
- 21) MODI
KHOLA - *Hinko Cave: Not a limestone cave merely a large rockshelter formed under a very large glacial erratic boulder; located beside a track on the western side of the Modi Khola at about 3,000m altitude.
- 22) CHOBHAR
GORGE - Chakhu Bhakhu Pwa (Sparrow-Pigeon Caves): 90m of passage alternately crawlways and breakdown chambers controlled by bedding planes and joint set; several entrances (?); located on west bank of Chobhar Gorge, 5km south west of Kathmandu.
- 23) - Large entrance on eastern bank of Chobhar Gorge estimated at 30m high x 15m wide; access difficult; unexplored (needs abseil for access 50m?).
- 24) HALESI - Halesi Cave: Famed for its religious festival during the birthday of Ram; the cave consists of a large passage 30m long leading to a chamber 45m in height; width and length illuminated by an opening in its roof; located in the crest of a ridge on the east bank of the junction of the Dudh Kosi and Sun Kosi Rivers.
- 25) - A single chamber along the ridge from 24; country rock appears to be dolomitic limestone.
- 26) BHOJPUR - Shivaji Gupha: A cave developed between house-sized blocks of quartz-biotite gneiss; two entrances; lower one on sacred ground; a series of fissures and chambers; contains at least one large brass bell; located in a localised pseudo-karst near a ridge crest 0.4km north of and 120m above Bhojpur.
- 27) - Rumours of two caves located east of the Sun Kosi and south west of Bhojpur; near the river one is said to contain a skull of some sort.

Information on all caves except 18,21,22,23 from (Waltham,1971). 22,26,27 from Munthe et al.(1975) Remainder from the author.

* Similar caves are likely to be Gapte Cave on the track from Gosainkunda to Helambu, north of Kathmandu, and cave in the Rangshot Gorge referred to by Whillans and Ormerod (1971).

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APOLOGIES: Correction - re longest cave name, see ASF N/L No.68 Page 4. Should read "THE CAVE WITH THE THING THAT WENT THUMP" not ...BUMP! Thanks, Lex Brown.

ASF CONSERVATION PLAN

by Elery Hamilton-Smith

Assessment of Karst & Caves for the National Heritage Register

INTRODUCTION.

The Australian Heritage Commission has been established by the Australian Government:

- "(a) to furnish advice to the Minister, either of its own motion or upon request made to it by the Minister, on matters relating to the national estate, including advice relating to
 - (i) action to conserve, improve and present the national estate;
 - (ii) expenditure by Australia for the conservation, improvement and presentation of the national estate; and
 - (iii) the grant of financial or other assistance by Australia to the States, local governing bodies and other organisations or persons for the conservation, improvement or presentation of the national estate;
- (b) to encourage public interest in, and understanding of, issues relevant to the national estate;
- (c) to identify places included in the national estate and to prepare a register of those places;
- (d) to furnish advice and reports;
- (e) to further training and education in fields related to the conservation, improvement and presentation of the national estate;
- (f) to make arrangements for the administration and control of places included in the national estate that are given or bequeathed to the Commission; and
- (g) to organise and engage in research and investigation necessary for the performance of its other functions."

The National Estate is defined as:

"For the purposes of this Act, the national estate consists of those places, being components of the natural environment of Australia or the cultural environment of Australia, that have aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community".

The Commission has awarded a grant of \$5,000 to the Federation in order to carry out a study to test and develop the criteria which could be applied to decision-making about placement of caves or karst features upon the register of the National Estate. It has been laid down that this study be carried out in liaison with the Federation's handbook commission and the computerised data base developed for purposes of the handbook.

As we read it, the key word in definition of the National Estate is significance. This conveys a somewhat narrower concept than the closely related term "worthy of conservation". A feature may well be worthy of conservation and management for reasons other than "significance".

Placing a feature upon the register does not, ipso facto, ensure conservation or management. However any feature placed upon the register would, one assumes, be worthy of conservation and hence of adequate management.

It appears that the study must pursue two lines of study:

- (a) Determining criteria of "significance" and developing a process for their application
- (b) Determining criteria and processes for deciding whether any one feature, once categorised as "significant", should be registered - this involves consideration of the implications of registration for conservation and management.

These two lines of study are obviously inter-related. However, it appears the actual decision-making process might well be separated into the two separate phases implied above.

STUDY PROCEEDURE.

So far, we have established a steering committee for the study and appointed a study director. The members of the steering committee are:

Adrian Davey, Convenor of the Conservation Commission.
 Nick White, A.S.F. President.
 Peter Mathews, Convenor of the Handbook Commission.
 Rudy Frank, Victorian Speleological Association.
 Dr. David Mercer, Dept. of Geography, Monash University.

Elery Hamilton-Smith has been appointed to act as study director, and will be handling the day-to-day management of the study.

ASF Conservation Plan Cont;

The first aspect of the study will be an opinion survey of all Australian cavers, carried out by means of a questionnaire included in the A.S.F. Newsletter. This will be followed by seeking position papers and discussion papers on various aspects of the study from a number of individuals both cavers and non-cavers. These position papers, results of the survey, and other material will be circulated to an Australia wide panel for comment and feedback. Panellists will also be asked to join in a decision-making exercise known as the Delphi Technique, to test the extent of agreement on key issues and to establish the extent to which consensus or compromise might be achieved on issues where there is disagreement.

Once the issues and questions are clear, draft copies of a report will be prepared and discussed by an intensive "think-tank" session, probably held in Melbourne towards the end of 1976.

The primary focus of the study is to identify criteria and issues in compiling a list of caves and karst features for the Register. Although the criteria arrived at will be tested in respect to some specific areas, we do not see the project in its first stages producing a list, but rather finding the best way in which a satisfactory list might be compiled.

THE STUDY NEEDS:

1. Every caver to complete the opinion questionnaire.
2. Further persons willing to act on the steering committee (in Melbourne) or to join the panel for circulation of material (anywhere).
3. Volunteers to offer position papers or other documents of use to the study.

The Project Address is:

A.S.F. National Heritage Assessment Study,
C/- C.P.S. Services,
P.O. Box 93,
CARLTON SOUTH,
Victoria. 3053.
Telephone 03. 48 2191.

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PRESS RELEASE.

The following press release appeared in "The Mercury" a Tasmanian daily newspaper on March 13th:
"EXPERT CALLS FOR ACTION TO SAVE CAVES"

Urgent Government action is needed to preserve the Mole Creek cave area according to a member of the Australian Speleological Federation.

The conservation secretary of the federation, Mr. Adrian Davey, said this after returning from the caves this week. Mr. Davey is visiting Tasmania to review cave conservation problems. Tasmania had some of the finest limestone caves in Australia, and several of world significance Mr. Davey said. He said: "Kubla Khan Cave at Mole Creek is one of the best caves in Australia." Mr. Davey was surprised the Kubla Khan area was not already a national reserve. The cave area surrounding Mole Creek is used for low-intensity forestry. Mr. Davey said the value of the timber was insignificant when compared with the caves' considerable tourist potential."

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NEWSLETTER COMPETITION.

NZSS have a motto "Onward & Downward". It has been suggested that ASF should have one too! Any ideas? It has also been proposed that we make a competition out of it. Therefore, I will ask that members forward their suggestions to the Editor, ASF Newsletter before 30th Sept., 1976. A judging panel will be selected and the winning entry will be published in the Spring issue of the Newsletter. The judges decision will be final and no correspondence will be entered into. Go to it! No limit on entries.

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WHO'S WHO....

on the speleo scene?

16. julia james

Julia descended onto the Australian scene in 1965 from England. A regular "lady whirlwind", Julia has supreme organising ability and has produced a remarkable amount of solid speleological material (mainly for SSS). Age is indeterminate (and certainly doesn't slow her down) but she's been caving for more than 21 years. She's caved in almost every country where caves exist, (but not quite) and in all Australian states. Her main interests are Bungonia caves, speleochemistry and the search for the deepest cave in the world. Julia doesn't like heights but recently did a 290m pitch in Mexico on SRT. Was co-leader of the 1973 PNG expedition and plans to return mid 1976. Unmarriageable (thousands have tried) and is a lecturer in Inorganic Chemistry at Sydney University.

17. john dunkley

John's speleological writings (and occasional rantings) should be well known to many readers. As on & off editor of SUSS Newsletter/Bulletin & ASF Newsletter, John has contributed enormously to the quality of speleological publication in Australia. Lesser known exploits are early trips to the Nullarbor, (co-editor of "Caves of the Nullarbor"), a flit around the world (caving) in 1969 and a driving force influence in the Speleological Research Council Ltd. John has caved almost everywhere in Australia and his main interests are Jenolan, Wombeyan, the Nullarbor and conservation/economic aspects of cave usage. Currently with CSS, he is a long-term member of SUSS. He is married and works in Canberra for the Commonwealth Teaching Service.

18. andrew pavey

Andrew was born in England but migrated to Australia at age 10. He joined UNSWSS in 1966 and has become one of Australia's most prolific photographers, editors, surveyors and SRT proponents. His main interests are cave documentation and SRT caving. He has initiated the ASF Map Numbering System and Australian Speleology, edited SPAR and ASF Newsletter, contributed to Bungonia Caves & NSRE 1973, had cave photographs published round the world, caved in all states (except Victoria!), New Zealand, Papua New Guinea, recently finished a world caving trip which culminated in bottoming Gouffre Berger (1122m) and finding caves in Greece and Nepal. His most famous quote "I've walked on better flowstone than that." Caving areas of current interest are Yarrangobilly, Tuglow & Cliefden, the SRC Ltd., caving books and finding the deepest cave in the world. He is currently chief editor of Helictite. Andrew is 28, an honorary life member of UNSWSS (former President), member of NZSS & BCRA and considers marriage to the beautiful Beverley Riley of UQSS in 1973 to be his best caving coup. He formerly ran his speleological empire from School of Physics Uni. of NSW but is now unemployed.

19. andrew spate

Andrew is English by origin but June this year sees his 25th year in Australia. Has been caving solidly for about 15 years with a few tourist trips before that back to mid-50's. His first cave was Jersey at Yarrangobilly and he still visits it several times each year. Jack of all trades & master of none - involved in many aspects of caving & "speleology" - so many that he claims he does none of them properly. Primary interests are - bats, hydrology, geomorphology, surveying. Has been Vice-President of ASF on and off for ten years. Andrew is employed by the CSIRO as an ecologist.

20. colin killick

Colin is 22 years old and was born in Belfast, Northern Ireland and came to Australia where to further his caving interests - joined MUSIG. (He claims no connections with the IRA so our caves are pretty safe) Was elected Vice-President of MUSIG in 1975 and started teaching English at the Bomaderry High School early this year. Lives with a pretty lady named Julie Buckley who is also a member of MUSIG.

Editors Note: Once again I have been swamped with material for this series. Many thanks - more next issue.

FIRST REPORT ON 'RESCUE '76'

by Philip Toomer

Liaison Officer, N.S.W. C.R.G.

The New South Wales Cave Rescue Group, formed in October 1974, held a cave rescue practice - "Rescue 76" - on 13-14th March, 1976 at Bungonia. The rescue was organised by a committee of the CRG on behalf of the A.S.F. N.S.W. State Liaison Council. The format of the weekend was such that a large number of incidents including:- carrying a patient in horizontal passages, horizontal squeezes, horizontal traverses and vertical lifts, all with and without stretchers, were offered for investigation by participating speleos. Each incident was solved in seminar-practical form with a member of the CRG acting as observer and in some cases - as the patient.

The programme allowed for 2 hours to be spent on each incident and up to 4 incidents could be encountered by each participating group. Speleos were able to organise themselves into groups of their own choice with up to ten members in each group. This enabled clubs to operate as clubs which is likely to happen if an accident occurs. Group sizes ranged from seven to ten cavers. Each group was expected to provide all their own caving and rescue equipment with the exception of rescue stretchers - these were only needed on some incidents. The rescue stretchers provided by the CRG were a Paraguard Rescue Stretcher, a Neil Robinson Stretcher and a Stokes Litter.

A total of 120 cavers attended the weekend and at one stage during the active day, Saturday, there were 100 people underground. This format for the rescue practice gave a large number of cavers the opportunity to gain "hands on" experience in up to four rescue situations of varying severity.

The medical aspects of each rescue situation were elucidated by the CRG Medical Officer, Dr. Vlad Martin, and the expected considerations and treatment of the injured were outlined by him to the observers.

On the Sunday, an extensive debriefing brought to light numerous points about the various rescue situations. The assembled cavers were addressed by Lloyd Robinson, Convenor of the A.S.F. Cave Safety Commission, who had supervised the safety aspects of the weekend; also by Ray Tyson, formerly Officer in Charge of the N.S.W. Police Rescue Squad, and now Training Officer for the Volunteer Rescue Association; and by Roy Simms of the Federation of Off the Road Vehicles, who provided the communication system used for the weekend.

The solution of the problems posed by the rescue situation were made more difficult in many cases by the ignorance of some of the cavers of such basic aspects of caving as:-

- a) The failure of all clubs to implement a standard voice procedure for use on pitches
- b) An almost total ignorance of the features of the ropes available to cavers - e.g. polyethylene, polypropylene, Nylon (polyamide), & Terylene (polyester)
- c) A lack of standard application of knots for specific situations

It is to attempt to resolve the latter two problems, that the CRG intends to commence a series of testing programmes of equipment available to cavers, in conjunction with the work carried out by the B.C.R.A., and provide a factual aid to the selection of safe caving equipment.

The weekend was particularly productive and all participants and organisers learnt a great deal - first and foremost to avoid accidents. Rescue or even only assistance of injured people from a cave, is hard work.

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"OPERATION FERRET"

Whilst on the subject of cave rescue exercises, I would like to mention that a combined operation involving Northern Caverneers, Tasmanian University Mountaineering Club, the Climbers Club of Tasmania, Southern Caving Society, Police Search & Rescue Unit and the Tasmanian Caverneering Club will take place at Herberts Pot, Mole Creek 1-2nd May, 1976. The aim of this exercise is to acquaint people with Search & Rescue methods and also to test the Police Alpine winch under cave conditions. The Editor will be attending and a first hand account will be available for publication in the next issue of the ASF N/L.

Laurie Moody.

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JENOLAN MASTER PLAN SUBMISSIONS

Correction... ASF Newsletter No.70 P.6 ... Copies of the above are available from John Dunkley but at a cost of \$2.40 including postage ... they are complete with lots of two (2) colour maps. Get yours NOW!!! John's address is inside the front cover!

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ROPES FOR CAVERS

by Phil Toomer & Bruce Welch

Following the NSW CRG "Rescue 76" weekend held at Bungonia, questions about ropes were raised. Although fairly thorough cover is given in the A.S.F. Abseiling Code, the current confusion shown by a large number of the 120 cavers present compels us to make some recommendations to prevent incorrect purchases. These recommendations are based almost exclusively on the tests carried out by the British Cave Research Association as reported in Trans. BCRA Vol.1 No.4 pp181-198, December 1974.

These recommendations are for ropes suitable for SRT, however, SRT - type ropes may also be used for belaying, and in fact we feel that dynamic ropes are not required for "top belay" situations as there is insignificant shock loading. Consequently, we feel that these recommendations can be considered to apply to the purchase of "caving rope" generally.

- DON'T buy manilla or other ropes of natural fibre origin - these are totally unsuitable for caving for the reasons mentioned in the A.S.F. Abseiling Code.
- DON'T buy dynamic ropes - these are unsuitable because stretch results in unnecessary complications and oscillation increases the dangers of abrasion. Examples are Mammot Kernmantle.
- DON'T buy laid (Hawser construction) ropes - these are by nature also dynamic ropes and are unsuitable for reasons also mentioned in the A.S.F. Abseiling Code. An example of this type of rope is No. 4 Nylon.
- DON'T buy polypropylene ropes - this rope is condemned by caving rope experts, due to the low melting point of the rope.
- DON'T buy polyethylene ropes - insufficient tests have been done on this rope and it should not be used for the reasons outlined in the A.S.F. Abseiling Code.

The only suitable ropes are plaited, sheathed, static, 10mm - 12mm, ropes made of either Nylon (polyamide) or Terylene (polyester).

In general, there are only 4 ropes truly suited to the caving situation and these are:-

<u>Name</u>	<u>Available From</u>	<u>Cost</u>
MARLOW 12mm, 16 plait	Ships chandlers etc. The Agent, Abel Lemon, will not supply to cavers.	\$2.07 per metre
BLUE WATER II, or III	Blue Water Ltd. 4729 Lumary Drive N.W. Alabama. 35810 U.S.A.	US\$0.17 per foot plus freight plus customs
KINNEARS 12mm	Ships chandlers etc. The Manufacturers, Kinnears Ropes Ltd. will not supply to speleos except in huge orders.	
SUPER BRAIDLINE 10mm	Not available in Australia	
TERYLENE	Marina Yacht Ropes, U.K.	

COMMENTS are invited and should be addressed to the authors:-

2/19-21 Tunks Street,
Waverton. 2060 N.S.W.

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N.S.W. LIAISON COUNCIL REPORT Cont;

- 9) Activities wise, a lecture by Bro. Nicholas and the organisation of the N.S.W. Cave Rescue Group's simulated rescue exercise at Bungonia, which appears to have been quite successful.
- 10) Further information can be obtained by contacting Ian Bogg, 54B Mitchell Street, Parkes, N.S.W. 2870. (Readers please note - Ian's address on front cover of Issue No.70 is a mistake on the part of our printer - correct address is as above - apologies Ed.)

DOWN UNDER ALL OVER...

NEWS FROM AROUND THE SOCIETIES.

Response to this particular series has been extremely pleasing to see and although some clubs have still neglected to inform me of their activities, no doubt they will soon "get the message". Great to hear from you all and as it is rather difficult to reply to each of you individually, please accept my sincere thanks. I look forward to continued correspondence from you in the future.

- BMSC** : Greg Powell reports that 1975 saw much activity with trips to Bungonia, Cliefden, Walli, Wyanbene, Jenolan, Tuglow and Colong. So far 1976 has been quite hectic, starting with a trip to Cliefden led by Phil Coburn. The major task here was to try to clean the Giant Stalagmite in CL1. This job proved bigger than expected and it was suggested that the 1976 project would be to clean up (wash) the main chamber of CL1. Boonderoo, Trapdoor and Murder Cave were also visited while the surface party led by Louise Bilger and the kids chopped out all the thistles from around the hut. At the AGM Barry Richard was once again elected President and at the party after he was forced to practice his sump dives fully clothed in the backyard pool. During a family trip to Abercrombie an experimental 8mm film was shot by Paul Sammut. A generator was carried to the entrances of Stable and Bushrangers Caves and electric cord was run into the caves to provide power for the light on the camera. If the film turns out the club may produce a major film in the Abercrombie area. A canyoning trip down Thunder and Claustal Canyons in the Blue Mountains and a day trip to Tuglow were also held.
- BSA** : John Taylor reports that they have not been particularly active over the last few months. Three sea caving trips have located 20 new caves along the coast south of Eden. Two trips investigated the old molybdenite mines at Whipstick. The first pitch of 45m led to several chambers with 5-10,000 bat population. Netting in January caught only a male M. schreibersi thus indicating that it is not a maternity site. Three training evenings of SRT and ladder practice have been held in a 50m mine shaft south of Bega, preparing members for a Big Hole trip.
- CCC** : Tom Robinson reports that systematic exploration, surveying and mapping have now "pushed" the Queenslander System to the 6,000m mark. Several old and new caves have been linked and further extensive caves have been discovered nearby in the tower complex. Linking these could extend the system to the length of 10,000m. A similar programme in the Suicide Tower has yielded eight new caves, deep by Chillagoe standards, beautifully decorated and containing animal life. A case for National Park protection is being prepared. Comprehensive surveying and mapping programmes have also been undertaken in the Carpentaria and Llonna? Tower areas. The club is co-operating with work by the National Parks & Wildlife service in establishing the exact location of known & tagged caves in the area. Tag CH180 was placed over the Christmas period. A successful submission to the National Estate Study (NQ section) has resulted in the Chillagoe-Mungana-Rookwood area being given a No.1 priority for attention. Safety training programmes on vertical techniques (rope & ladder) have created much interest and a great deal of personal equipment has been purchased. Last September, despite extreme weather conditions, a successful rope descent was made into "The Crater" on Mt. Hypipance (184ft vertical to water which is 200ft deep. Reconnaissance trips have been made to plan a "wet" descent of the Barron Falls face (800ft). Use of rope techniques is opening up the difficult areas of the high towers in the Chillagoe area. Members are also now involved with the State Emergency Service - Cairns area, participating in practice exercises and emergencies involving rope work & rescue. The club was also represented in the 1975 ASF exploratory expedition to the Lelet Plateau of New Ireland by Paul Wilson. Club member Joyce Lundberg (School of Pacific Research Studies, ANU) has completed her geomorphological studies on the Chillagoe limestones and returned to Canberra. Regular monthly meetings are held in Cairns to plan activity and hear reports on work done.
- CEGSA** Dot Peisley reports that CEGSA are now 'Incorporated' mainly through the hard work of their Public Officer, Graham Pilkington. Graham is also the club Records Officer and has been busy bringing the club records up to date, metricating and re-drawing many old maps. Ian Lewis is shortly to publish a complete record of SA Caves, making this publication a complete reference including maps. Caving-wise most activity has centered on Naracoorte and several trips were run to other places such as the Flinders Ranges, Murray Plains, Eyre Peninsula with more exploration taking part in the Adelaide Hills region. CEGSA also have a new President, Athol Jackson. Ian Lewis and several others are planning to visit Tassie at Easter for a look at Exit and other caves in the south of the state.

DOWN UNDER ALL OVER Cont;

- CSS : Andrew Spate reports that CSS is alive and well, publishing T.V.L. fairly regularly and doing a fair amount of caving and possibly being involved in some "speleology" (whatever that is). Trips have been going regularly to Wee Jasper, Bungonia, Cooleman and London Bridge. Most work, however, is being done at Yarrangobilly. London Bridge has been the centre of intensive study, above and below ground, and a paper on it will appear shortly (Sept.??) in the Australian Geographer. Yarrangobilly is the centre of speleological interest with much surface & cave surveying, geological and hydrological work being done. CSS recently assisted the National Parks & Wildlife Service in the making of a short TV film at Yarrangobilly. They have also spent some time in explaining and showing Wee Jasper to the N.P.W.S. officers concerned with resource evaluation in N.S.W. Trips have also been held to Jenolan, Cliefden and other scattered N.S.W. areas. CSS in conjunction with NUCC are trying to organise the Convention but so far have only two promised papers and both of these are from Tasmania.
- ISS : Roland Knabe reports that the following 'work' and projects are being done:- Bendethera - cave numbering is still in progress with nearly 90% of caves, holes, likely caves, cracks etc. being tagged. It must be remembered that a great deal of hiking through dense bush is essential in this area. They have also started to place some of these caves on the Lands Dept. Maps so that they can be quickly located and hence more accurately surveyed (the last trip took them a day to locate BD9 when the "exact" location was known). Work on the efflux (BD2) has slowed down considerably due to political problems with the property owner. However, this has now been resolved and they hope to do some useful work again soon. At Wyandbene, their main interests have been the dimensions (at top) of the Gunbarrel. The special 6.1m helium filled balloon has allowed them to - confirm the earlier height measurement of 111m, take photos from below with flash bulbs mounted on the balloon and take photos of the top of the aven with a balsawood camera. Presently, they are building bigger and better aven probes. Eventually, they hope to prove the existence of a large upper chamber, which possibly links with Ceasars Hall. An unsuccessful trip was made to pinpoint the Gunbarrel from the surface using RDF gear. On a subsequent trip this was achieved with Peter Welling's help. The motto now is to put a "man on the top" (inside) before the year 2000. Ettrema Gorge - Jones Creek area has been an unsuccessful area so far, but a small cave/mine has been mapped (see ISS N/L, April '76). Chietmore - from a caving point of view. This area has been disappointing and it has been decided to number and tag the caves when they can get an interested party going.
- MUSIG : Colin Killick reports that his club has been doing the few "usual" trips to Bungonia plus one to Wyandbene. Last December several members went to Mullamullang in the Nullarbor and also took a look at some of the tourist caves in Western Australia (i.e. Margaret River etc.) Early in March, the clubs yearly fresher trip took in Wee Jasper.
- KSS : Jean Piggott reports that KSS introduced Henry Shannon of UQSS to an efflux half way down the Carrai Bat Cave track. The club had abandoned work on it many years ago and now there is a revival of interest and KSS are organising a work party there following Henry's promising report about it. The clouds appear to be lifting after weeks of rainy weather and a KSS party are making arrangements to work on the new 27.4m pitch in Kunderang. are also assisting Glenn Campbell of Uni. NSW in locating populations of Wettas in their area. At present the Carrai Caves have proved to contain a fair number and Glenn hopes to do some work there. (This report just missed the Summer issue. Ed.)

Despite deplorable wet weather and roads unbelievably cut up and washed out, KSS has taken to the fields again and has several important "working trips". First and most important, they have proved that their "new find" in Kunderang is a fizzer - it started with a 28.5m vertical shaft and proved to be just that - no more, no less and their dreams of a really big system were shattered. However, this new cave has the distinction of being the deepest straight shaft on the Macleay, beating "Judds Hole" by 6m. Work has also recommenced on the halfway efflux after a break of nearly 10 years and this looks like being a "goer". The cave entrance has been uncovered and all the talus removed, and KSS is now waiting for the water flow to subside so that the mud and rubble can be cleaned from the cave entrance.

- OSS : Ray Rowney advises that his club will be recommencing publication of their newsletter - Descent, probably in May. It is then hoped that they will be publishing two or three issues a year. The club renewed activity in 1976 with trips being held twice a month. Most of the work, naturally enough, has been done at Cliefden but mapping and exploration has also been done at Canonodine?*- now also organised under a card permit entry scheme controlled by OSS. Familiarisation trips were also held to Colong and Wee Jasper. The club also has a close liaison (a member Graham Ferguson is a surveyor on the Water Advisory Committee) with the Orange Bathurst Growth Centre Development Co-orporation as proposed water storages would flood Cliefden Caves and associated geological and paleontologically important areas. Ray also advises that Andre Baltins is currently President of their club.

* Editor is unfamiliar with this name - is it correct?

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- SCS : Ron Mann reports that the four trips to HerbertsPot in the last few months have extended the cave by 500m and resulted in the finding of another passage 500m long, much of which is filled with delicate crystal microforms - calcite & gypsum crystals, long needles and large numbers of helictites - some very large and intricate. A couple of these helictites have a blue-green colouring. The air in the passage is very still and as the formations cover the floor in some sections and are highly susceptible to damage, a management plan is being formulated to ensure their survival. The passage dimensions are approximately 2m wide x 3m high. A trip to Shishkebab to push the talus unfortunately was not successful as the lead proved too tight. Bob Cockerill led a trip to Welcome Stranger to give the members of the Police Search & Rescue an idea of the underground environment before the combined Search & Rescue Practice at Mole Creek in May. Leigh Gleeson led a trip to Khazad-dum which pushed the talus at the end and he says there may be a lead that could bear further investigation. A proposed trip to Mt. Ronald Cross at Easter will continue where the previous expedition left off and should produce plenty of caves. The Christmas trip to Mole Creek covered quite a few caves including Shishkebab, Herberts Pot, Kubla Khan, Little Trimmer and Ho Hum.
- SUSS : Bruce Welch reports that the SUSS Jenolan Report 1974-75 was published in the January issue of the SUSS Bulletin. This 22 page report contains papers on SUSS Research at Jenolan, Documentation & Surveying, intended Publications, Jenolan Sub-committee and Current and Future SUSS Projects. SUSS activities at Jenolan from Nov.'75 - Feb.'76 include:- the completion of the high grade survey of the Devils Coach House, completion of the surveys of Hennings Cave (J39) and Henries Hole (J134), also the surveying of Ian Carpenter Cave (J24); a connection between Rho Hole (J20) and Ian Carpenter Cave was found; discovery and digging of a new cave in the Southern Limestone Belt - this cave is now 15m deep; further comprehensive studies of both the Southern Limestone and the limestone outcrops at the head waters of McKeowns Creek - reports are published in the March issue of the Bulletin; all known caves in the Northern Limestone Belt are now tagged and surveyed; SUSS & SSS members assisted in the cleaning of paint off the walls of the Devils Coach House - a project organised by the Jenolan Caves Historical and Preservation Society; water tracing has proved that contaminated water from Camp Creek makes its way into the 'Pool of Cerberus' in Skeleton Cave; Henry Shannon (on his 44th consecutive wet Jenolan trip) discovered a new extension to Wiburds Lake Cave. This extension will push the length of the cave to over the 2,000m mark. Wiburds now has 9 known entrances; digging in Spider Cave (J174) has led to new passage, almost doubling its length. The latest obstruction is a small water trap but the breeze still draws them on into the unknown; the Chairman of the SUSS Sub-committee on Cave Conservation & Restoration, Peter Campbell, is currently looking at the use of a medium-high pressure water apparatus (similar to that currently in use by the Tourist Dept. in the Jenolan tourist caves) for the cleaning of caves; the March issue of the SUSS Bulletin contains an article on "Closure and Adjustment of Cave Surveys" - a useful reference work; many SUSS members gave support to "Rescue 76" held at Bungonia by the NSW Cave Rescue Group and learnt much about cave rescue.
- TCC : Andrew Skinner reports that TCC have generally been quiet this quarter but there have been several new finds recently. Peter Shaw and Stuart Nicholas by-passed the sump in Growling Swallet (JF36) but were stopped by a further pool. With the exploration of this new section, 5m have been added to the depth of the cave, giving it a provisional depth of 176m. Phillip Robinson and Co. explored Thun Junction Cave at Ida Bay, to a depth of approximately 130m. The cave is now 500m long but unfortunately no connection was made with Exit Cave. Again in the Florentine, Moody & Jeffries & Co. have just located and explored a new system which could possibly yield well over a 300m of passage. The cave is reputed to be quite spacious and well decorated in places. Another find by Max was explored by the same party in the Western Florentine area and although it is not lengthy, it does contain an extremely well decorated chamber. TCC plans in the next few months include conservation works in Exit Cave, continuation of the Mole Creek numbering and documentation project, finishing off some surveys and further systematic work in the Junee-Florentine area. TCC Maydena Branch have been fairly quiet but with an influx of new "talent" we should see some action soon.
- UNSWSS : Andrew Pavey reports that as far as deep caves on the mainland go, Yarrangobilly is coming into its own. East Deep Creek was connected to a higher entrance (Y4) last year by an UNSWSS party led by Alan Warild, who has finished the UNSWSS survey started in 1973. The depth of the cave currently stands at 135m, with possibilities of a further extension. That's two out of three deep caves on the mainland at Yarrangobilly - when will Bungonia knuckle under? SPAR 50 was devoted to East Deep Creek and all of SPAR 51 was devoted to a partial listing of sea-caves on the Kurnell Peninsula.
- WASG : Kerry Williamson reports that corrections and additions to the WASG section ASF Newsl. No.68 are as follows:- The newly dug-out cave whose name was not mentioned was Benup Cave, which was dug-out and subsequently gated by the WASG Witchcliffe Area Subgroup (WASGWASG). This cave is in the Margaret River area (see ASF Newsl. No.63;12 for a map of lower south west

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WASG Cont; : WA cave nomenclature areas). Connelly Cave (WI48) is in the Witchcliffe area as is The Swamp Inflow (WI87). Tight Entrance Cave (Bussell Cave, WI101), Block Cave (WI106), and Terry Cave (WI47) were visited but not tagged. Also worth noting is the discovery at Easter (1975) of three new caves north of the Mammoth doline chain, Witchcliffe. The following information is based on TWC 15 (3) :- Success Cave at Yanchep has been visited. At Margaret River, Wallcliffe Cave (MR4) has been surveyed, the newly discovered Benup Cave has been filmed and photographed, and Blackboy Hollow Cave (MR2) visited. At Witchcliffe, photography in the Christmas Star Extension of Crystal Cave (WI62) and visits to Mill (WI59) and Bride (WI24) Caves have occurred. At Augusta, the furniture in Skull Cave (AU8) paleontological dig has been creosoted to prevent rot. TWC 15 (4):- At Moora, Bishops Hole (M7) has been surveyed and biological collections made from this hole, Coorow Cave (M1) and Jingemia Cave (M6). In the lower south west:- At Yallingup, Northcote Grotto (YA2) and YA33 and YA34 have been surveyed to ASF grade 55 and a small passage found at stream level. At Cowaramup, the tight shaft entrance of C02 has been widened and descended to a single chamber. At Witchcliffe, bacteriological samples have been collected from Calgardup (WI49). Crustacea Cave (WI26) and WI45-46 have been visited. At Augusta, Easter Cave (AU14) has seen an extensive photographic trip and a bacteriological sample was collected from Moondyne Cave (AU11).

WASG Field Activities - Dec.'75 - Feb.'76 are as follows:-

The Nullarbor Plain:- saw a large trip in January. One group went to the northern part of the plain to visit Queen Victoria Spring in the centennial year of its discovery. A small cave was found north of Nurina and mapped to CRG 2. This party was hampered by old air photos (1961) and a tight schedule. In the southern Nullarbor extensive photography was carried out in Mullamullang, Kelly, Webbs and Snake Caves. A party visited the Dome in Mullamullang but were careful to traverse directly across the chamber and stay clear of the sides to minimise damage to the population of the troglobitic spiders, Tartarus mullamallangensis. A live Troglobatella was seen in Mullamullang. Also visited were Abbrakurrie, Roaches Rest, Madura and Cocklebidy Caves. Two un-named caves mapped, paleontological material was collected and the make-shift ladder was removed from Murra-el-elevyn.

Augusta:- The detailed mapping to ASF grade 55-65 of Easter Cave (AU14) has proceeded at a solid rate over the summer months, when it makes a nice change to get cold and wet. Most of the cave on the entrance side of the First Duck (excluding the Gondolin) has been mapped.

Witchcliffe:- Caves and depressions in the vicinity of Crystal Cave (WI62) have been mapped. An attempt to extend WI9 large stream, downstream, proved unsuccessful - tight hole, loose rocks and C02. The Subgroup have found and gated a new cave, Liberation Cave (dug out by the women left behind). This cave may be associated with the Golgotha (WI13)-Green Cave (WI2) system. In the Mammoth chain the discovery of a new cave north of the chain, Boya-bouka, plus a small cave nearby, coupled with the earlier discoveries of Labor Cave, Winjans Cave, and Kudjal-dar plus the anomalous position of WI45-46 have caused a rethink of a once simple doline chain. There now appears to be two cave systems running parallel. WI43 has been connected with Terry Cave (WI47) and mapping commenced of the WI43-105 connection.

Margaret River:- The Subgroup have mapped Beenup Cave; the recently discovered large inclined fissure cave.

Cowaramup:- A tape and compass traverse between C01 and C02 have tied in the surface traverses in that area.

Yallingup:- Ketalack Cave (YA27) has been pushed and extended in two places to some quite well-decorated chambers - making it a quite sporting inclined fissure cave.

Lower West Coast:- has seen some more mapping in LW10 at Blackwall Reach at Bicton - a suburb of Perth.

St.GACT : Stephen Bunton reports that the "scouting fraternity" have not been idle. His report includes activities to the end of October, 1975. "March saw our 3rd. AGM and the Office Bearer's Reports are included. April saw the discovery of Pants in Tail and trips in conjunction with the reforming HCG. An article is included (Aragonite 3:2) on Phoenix Cave, Bungonia explaining its significance and documenting its discovery and exploration. Trips included Jaunter, Abercrombie, Wee Jasper and more Bungonia. The main feature of the July issue is a detailed report of the caves of the Shoalhaven region including maps and descriptions, numbering and nomenclature and history. Trips include Bungonia, Wee Jasper and more Bungonia including the discovery of Bunny Room and new extensions in B4-5. Training of scouts in safety and conservation, caving practices etc. was the main theme for the end of the year and trips to Bungonia, Timor and Wee Jasper reflected this. The only discovery of the latest quarter being that of a blind cave Silverfish Nicoletiidae which just happens to be the only known fully troglobite animal north of Buchan in Vic. All in all, not a bad 9 months of activity in that our training objectives are being achieved and also some incidental speleological work being done".

BOOK REVIEW.

MOUNT ETNA AND THE CAVES - Elery Hamilton-Smith and Randell Champion

xx 147 pp, 2 colour plates, numerous maps
and illustrations.

Mt. Etna has been the subject of quarrying conflict for many years. UQSS have been fighting the issue along with other groups and in 1970, they published "Mount Etna Caves". This was a resource study of the caves on Mt. Etna and an analysis of the conflict with Central Queensland Cement Co. This book did not achieve the abandonment of the quarry leases, or a stop in quarrying, and it was not until 1975, that two highly significant events occurred. The first was a statement from the Queensland Government that the adjacent Limestone Ridge was to be made a National Park and the second was a grant from the Interim Committee on the National Estate to the Queensland Conservation Council for a study on Mount Etna.

Elery Hamilton-Smith and Randell Champion were commissioned to undertake this study and the results are published in this book.

This study does much more than report on Mt. Etna itself. It treats the area as a region with The Caves township as the centre and including the surrounding karst area. It relates this to nearby Rockhampton.

The study details the resources of the area, the demand pressures and provides a plan for future action and management of the region.

The conflict over Mount Etna has revolved mainly around the quarrying of Mt. Etna, so much so, that little attention has been paid to other attributes. The conflict led to such polarisation that the Central Queensland Cement Co. would not talk to any conservation representatives and very little headway was made in representations to the Queensland Government. In this study, by treating the area as a whole, a completely different perspective has been placed on it. The authors describe features of significance which have not previously been recognised. These include unique vine thickets in various areas, tufa terraces at effluxes and a detailed breakdown of the area into different land units.

The report does not detail individual caves but it does put perspective on those which have been lacking to date. Some of the caves are unique in that they have formed due to solution of volcanic intrusions. The features of the bat maternity site in Bat Cleft Cave on Mt. Etna are described which make it imperative that the cave not be quarried or disturbed. A suggestion is made that the bat flight on summer evenings could be developed for tourist viewing. Resurrection Cave is suggested as a future tourist cave. The Ghost Bat *Macroderma gigas* is described as being highly endangered. It uses a number of caves in the area but its numbers are probably less than 500 individuals.

In describing the resources, the authors have widened the scope from just a study of the recreational and scientific values of the caves to an analysis which takes into account total tourist and community needs for the Rockhampton region. Rockhampton at the moment does not have a central tourist focus although the commercial caves are estimated to cater for over 100,000 people annually and the numbers up until 1974 have been increasing at an annual rate in excess of 100%.

The authors having established the nature and particular values of the resource develop a plan for the area which includes an enlarged park taking in significant features, not yet included, as well as Mt. Etna. Land use planning proposals which would allow existing uses to continue but would restrict changes which affect landscape values or reduce buffer zones next to the park. Scenic roads would be maintained and developed as such without being developed to highway standards. Guidelines are presented for land tenure, park management, existing tourist caves and for the development of scenic roads, camping and caravan parks and development of further tourist caves and viewing of the bat flight from Bat Cleft Cave.

This book deserves to be read by cavers and conservationists alike. The objective although committed approach to the region as a whole, has put an overall perspective on the Mt. Etna region, which has been lacking to date. It does not go into the subject of alternative limestone deposits to those on Mt. Etna. The book places the question of the future of Mt. Etna firmly back in the hands of the Queensland Government, the Livingstone Shire and the Fitzroy Region. They will be hard put to ignore the many proposals put forward in the book.

NICHOLAS WHITE.

President, A.S.F.

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PUBLICATIONS AVAILABLE.

John Dunkley would also like it known that he has copies of the Mullamullang submissions available at 80c each including postage. Mammoth Books are also available from John at \$5.00 including postage. A complete list of books, submissions etc. will appear in the next issue. Here is your chance to build up your personal speleological library - John's address? Inside front cover!

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