

# ASF NEWSLETTER

THE AUSTRALIAN SPELEOLOGICAL QUARTERLY



photo N Poulter

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MACARTHUR CAVING GROUP	PO Box 537 Campbelltown NSW 2560
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# ASF NEWSLETTER

SUMMER 1983 : No. 102

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## STATE OF THE UNION

### RETROSPECTIVE

1983 was a singularly notable year for the Federation and for Australian speleology generally.

Foremost was the High Court's decision ending construction of the Tasmanian dams, and strengthening the power of the Commonwealth in conservation issues of national and international significance. It was an issue to which many of our members had established a considerable personal commitment.

It is pleasing to note that the influence of the ASF is having real results in cave conservation and management programs around the country.

Several developments demonstrate that real priority is being paid to the Tasmanian heritage of caves and karst landscapes. The Forestry Commission is seeking our co-operation on a professional study of the impact of forestry on the Mole Creek karst, and the National Parks and Wildlife Service has taken its first steps towards long-term management of the superior wild caves of that state by restricting access to ASF Members. I believe that ASF and its member societies must be prepared to assist in these tasks.

In New South Wales, it gives me immense personal pleasure to report that the Federation has been formally invited to act as consultant on the future management of Jenolan Caves, including the redevelopment of the Nellite and Arch Caves.

In South Australia, the ASF Study of Narracoorte Caves is complete and the report has been handed to the Government.

In Victoria, we were invited by the Minister for Lands to nominate a representative to a Government committee concerned with classifying and evaluating the caves of Victoria. The Minister was also assisted in his understanding of the issues by being shown Nowa Nowa Cave, described as possibly the grottiest cave in south-east Australia. Ten centimeters of guano and another twenty of water!

Several long-term ASF projects are at last more or less complete, notably the National Heritage Assessment Study and Speleo Handbook II.

ASF organised the Fifth Australasian Conference on Cave Management and Tourism during May 1983. Cave management authorities from most states were represented. Guests included International Union of Speleology Vice-President Russell Gurnee and Mrs Gurnee. They took the opportunity for some speleological sight seeing in the four eastern states.

It is a matter of some regret that one of our founding members, Sydney Speleological Society, has resigned from ASF. We have had discussions with their members and serious thought must be given to the issues which they raised.

I suppose everyone would like to know what the president himself has actually done. During 1983 I met with the Director and Assistant Director, NSW Department of Leisure Sport and Tourism; the Director, Tasmanian National Parks and Wildlife Service; the Minister for Lands, Victoria; officers of the National Parks and Wildlife Service.

During the year I was able to be present at a



## CERTIFICATES OF MERIT 1984

## NOTES ON THE ASF

total of eight meetings of caving clubs in Sydney, Canberra, Bungonia, Burnie, Launceston and Hobart. I have had correspondence with new caving groups in Katherine, Mt Isa, Burnie and Bathurst. I wrote approximately 120 letters as President and spent an estimated 20 hours on the telephone. Being President is a wealth hazard.

Numerous people assisted me during the year. Lenders of ears and bed space included Nick White, Stuart Nicholas, Roy Skinner, Randall King, Terry O'Leary, Judith Bateman and Philip Toomer. Philip, as President of the NSW Speleological Council, proved an invaluable and reliable contact when things needed to be done in Sydney, for which I am most grateful.

## PERSPECTIVE

Several longer-term priorities must be addressed this year. First, **public relations**. It seems to me that more effort has to be put into building better links with other users of caves, and still more productive liaison with cave management authorities. The interest shown by the Scout Caving Group of South Australia is a promising step towards the former goal.

In NSW, the National Parks and Wildlife Service has an officer who attends meetings of ASF, the NSW Speleological Council and several member societies as part of his official duties. The exchange of views has been immensely beneficial to all of us, as I hope it has been to the NPWS. The Department of Leisure Sport and Tourism made a similar offer which we should pursue.

How sound is the public relations image of your club? How long is it since your club representatives discussed a matter of mutual interest with the relevant Government authority?

Second, the question of **accountability** has been raised by management authorities. Three states prescribe ASF membership as the first criterion for access to certain caves. How far can ASF be held responsible for member's actions? What can ASF reasonably expect of its members? Not easily digestible issues, but there are legal and public relations aspects which need attention.

I am afraid that the days of spontaneous caving are gone.

JOHN DUNKLEY    PRESIDENT

## STUDY EFFECTS OF FORESTRY ON MOLE CREEK CAVES

The Forestry Commission of Tasmania has commenced a one-year study of the effects of forestry practices on the caves and karst at Mole Creek. The study aims to identify karst landforms worthy of conservation measures and means by which this can be achieved.

The Commission has sought the assistance of ASF, in particular of members with expertise in karst studies and karst management. Data on the impact on the caves and karst of vegetation clearing and road construction is being prepared for the Commission by several interested people.

Each year the Awards Commission of the Federation awards Certificates of Merit to individuals, regardless of affiliation, who have made noteworthy contributions to Australian caving and speleology. It is our small way of saying 'thank you' for a job well done. For 1984 the recipients were:

## JOHN BONWICK

In recognition of over thirty years of contributions to Australian speleology through equipment design and construction, exploration, documentation and leadership.

## R MICHAEL BOURKE

For the exploration and documentation of the caves of Queensland and New Guinea, editing of Niugini Caver, and for contributions towards the conservation of Mt Etna caves.

## COL CARTER

For the exploration and documentation of caves of the Macleay Valley, leadership of Kempsey Speleological Society and editing of 'Trog', over a thirty year period.

## STEFAN &amp; ROLAND EBERHARD

For initiating, leading and documenting numerous difficult but highly successful explorations in the caves of Tasmania, especially in Junee-Florentine, and for inspiring and enthusing others to do the same.

## ADRIAN DAVEY

For numerous conceptual and practical contributions to the conservation and management of Australian caves and karst landscapes, and for forging the links with government and conservation organisations necessary to achieve this.

## GREG MIDDLETON

For contributions to the documentation, conservation and management of the caves of NSW and Tasmania, particularly Colong, Bungonia and south-west Tasmania.

## BARRY MOORE

For contributions to biospeleology and for many years service as Trustee of the Australian Speleological Federation.

## ALAN WARILD

For the exploration and documentation of numerous, mostly deep caves of Australia, New Zealand, New Guinea and Mexico in particular, and for the development and promotion of deep caving techniques.

## IAN WOOD

For many years of service to Australian speleology generally, and the ASF in particular, as Newsletter Editor, Chairman of NSW Co-ordination Committee, Conference organisation, and ambassador-at-large.

The 1984 awards were determined in November 1983, and we greatly regret to record the death of Col Carter shortly before the official announcement at the January Council Meeting (see obituary elsewhere in this issue).



THE FIFTEENTH BIENNIAL CONFERENCE OF THE AGE

Tasmania - January 1985

For your edification we present...SPELOMANIA

This is the BICON you have been waiting for and its finally entered the phreatic maze of organisation!

**DATES:**

The conference proper will run from Monday January 7 to Thursday January 10, inclusive.

**COST:**

At this time the cost is estimated to be around \$80 for six days accommodation including food. Needless to say this is subject to the vagaries of economics and other imponderables.

**TRANSPORT:**

Block bookings have been made on the good ship EMPRESS as follows:

Melbourne - Devonport - Friday 4 Jan 1984  
Devonport - Melbourne - Sunday 13 Jan 1984  
Devonport - Melbourne - Sunday 27 Jan 1984

If you wish to said on any of these dates, PLEASE notify SPELOMANIA as soon as possible, giving name, address, number travelling, type of berth (chair or cabin) and car type. Otherwise its up to you.

If you fly please use ANSETT where possible.

**FIELD TRIPS:**

Both pre and post conference field trips will be run, but all will be fairly loosely structured with the emphasis on doing your own thing. There is certainly more than enough for everyone to do, no matter what your interest or abilities may be - we can even provide sites for digs! That prime vertical caving area, the Florentine Valley, may be subject to fire bans and hence access could be restricted at times, however this should not cause too many problems.

Other areas - Mole Creek, Ida Bay, Mount Anne and so on - should have relatively unrestricted access.

**PROPOGANDA:**

The usual T shirts, stickers and such like will be on sale prior to, during and probably after the whole shebang.

**ADDRESS:**

SPELOMANIA  
P.O. BOX 121, MOONAH, TASMANIA 7009

**ON THE SUBJECT OF MAILING LISTS !**

That time of year is upon me again!! I refer of course to the annual deluge of mailing lists. There is only one small problem, namely, that it will do you no good whatsoever to send them to me!

Mailing lists should be sent directly to the Newsletter Manager Ian Mann AND the Treasurer Lloyd Mill. I am sure that Lloyd will also be delighted to receive certain monies that will be due. JB Ed.

## Letters to the Editor

### SPELED ABSTRACTS PLEASE RETURN

I don't know how many Speleos realise that one can gain access to the ASF Library via any local library (it takes a long time to get anything, but, it's usually worth the wait). Recently I started to use this access (since many Speleo groups are unwilling to provide information), but, I came across an enormous problem with this access (besides the time factor). The problem is that one can NOT just borrow a whole Journal (to say photocopy and complete a set of Journals which may be missing only a few publications), but, one is restricted to specifying particular articles on specific pages in specific Journals, and you will only receive these particular items. The question is how in hell do you find out what is in a Journal when you don't have access to it in the first place.

Now, during the late 1960s early 1970s Sydney Speleological Society, put out a publication for ASF called "Speleo Abstracts". So for these particular years you have a comprehensive listing of all the articles written on Speleological subjects, making research in these years extremely easy. But, for every year since and all the years previous to about 1974 there is a vaccum. There is virtually no way of finding out what is in a Journal without actually seeing the Journal, hence, negating the use of the ASF Library.

I must take this opportunity to highly commend SSS for taking on this task over those years it did for ASF, and to say what a great pity it is that the ASF Bibliography Commission hasn't come up with anything for about a decade (if I'm wrong I apologise, but, I personally haven't seen anything for about that long).

It makes life quite frustrating, when you are trying to find out what is happening in the Australasian caving scene, without the Abstracts.

Again I would like to thank SSS for their contribution to this end and I ask ASF is it going to get off their collective bums (mine included) and produce Speleo Abstracts for those missing years and for the future years. Are we going to let this project flounder because we are unwilling to lend our support to such a project? Speleos and researchers, here and overseas, have a need to access the reports and articles that are published in the little seen caving journals. Is ASF going to leave this in the "too hard" basket and hope that nobody else mentions it in public again?

ROMAN LICHACZ

### CHANGE OF ADDRESS

SECRETARY ASF - Cathy Rothery, 8 Bennetts Road West, DUNDAS NSW 2117. Ph. (02) 684 1148.

NEWSLETTER MANAGER - Ian Mann, 1 Somerville Avenue, ASHFIELD NSW 2131. Ph. (02) 799 8097.

### HILLS INCORPORATED

Hills Speleology Club are now Incorporated as a company Limited by guarantee and as such are required to have the word LIMITED after the club's name.



# A HISTORY - ENDEAVOUR CAVING AND RECREATIONAL CLUB

The club was formed on the 27 June, 1973 with an initial membership of sixteen. The aims of the club were to foster speleology within the district, with regard to the needs for safety and the conservation of a limited resource. It was also our aim to keep a record of such activities, and to promote physical and personal enjoyment.

Membership fees were set at \$5.00 per year and this has not been altered to date. Social functions are held regularly to raise funds for equipment. Six of the original members are still active in the club and two of them have been made Life Members for the work they have done over the years.

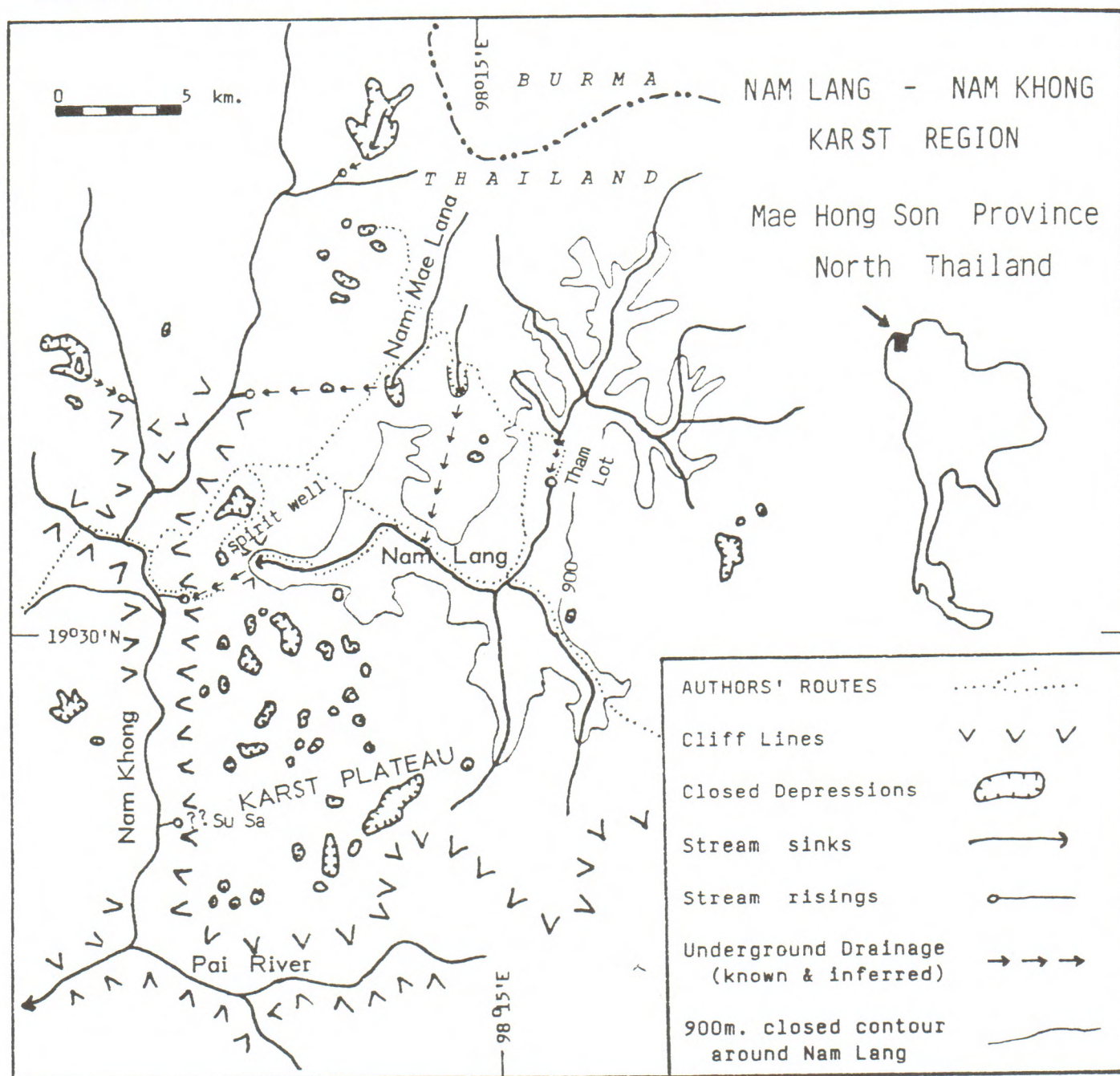
The club has held trips to the following caving areas over the years: Wee Jasper, Wyanbene, Bungonia, Yarrangobilly, Cliefden, Cleatmore, Wellington, Narangullen, Colong, Timor, Tuglow, Bendethra, and Jenolan.

We have attended four Cave Rescue Weekends at Bungonia and held fifteen field days. Our application for associate membership with ASF was approved at the Biennial Conference held in Brisbane in December 1973, with three of our members present.

As a result of the widening interests of the members, it was decided in 1980 to change the name of the club from Endeavour Speleological Association to the present one, and although caving remains the main activity, the members also participate in bushwalking, four wheel driving, canoeing, sailing, water-skiing and other outdoor activities as well as social and fund raising nights. Some thirty or so of these activities have been held to date.

W JEAN PLATT

Ed. Endeavour Caving and Recreation Club were admitted to full membership of the ASF at the Jan.1984 Committee Meeting.





# UNDER THE GOLDEN TRIANGLE

## - EXPLORATIONS IN THE NORTH OF THAILAND

John Dunkley & Paul Greenfield

The far north of Thailand bordering Burma and Laos is notorious as a major source of heroin. Less well known but just as likely to give cavers a high, is the fact that much of the area is limestone with great caving potential. The two attractions are connected: terra rossa soil is, it seems, ideal for cultivating opium, and exploring for caves involves gingerly threading one's way through dolines full of opium poppies.

Three small Australian expeditions have now traversed the area. The first, in 1982 was largely reconnaissance. The second expedition was twice as large and ambitious as the first i.e. it consisted of both of us, and this time real caving was on the agenda. We left Sydney on 12 Jan 83, reached Chiang Mai the following evening and were in Chiang Dao for lunch on the 14th.

The aims of this trip was threefold:

1. To explore known large caves in the Chaing Dao area, and to search for more, approximately 19°30'N, 99°00'E.
2. To reconnoitre a large limestone plateau near the Burma border, at approximately 19°30'N, 98°15'E, north-east of Mai Hong Son.
3. To check out access to a large expanse of what appears from the map to be cone karst, east of Sarabur, approximately 14°30'N, 101°00'E.

The best we were able to do about the last was a typically furious Thai bus ride along the margins which enable us to see that access wasn't going to be easy, and a dusty, expensive and totally unproductive taxi jaunt along what turned out to be the wrong road to a cave (Tham Boddhisat) in the area.

Tham Tab Tao, about 40 km north of Chiang Dao, is a very large cave currently being developed for tourists by Attana, the very enterprising and hospitable Buddhist abbot. We had time to see only the first 800m of what promises to be a very good prospect indeed. An intended return trip was cancelled when both of us were struck by the dreaded lurgi.

Tham (cave) Chian Dao is said to be the longest in Thailand, allegedly extending 10-14 km, but previous information was that access beyond about 1.5 km is stopped by water except at the very end of the dry season, in March. We encountered water-filled passages and in attempting to find high level by-passes, some very hairy climbing was done, all to no avail. Since then, we've heard that a French expedition in 1981 measured 4.8 km in all. There is still good potential; the cave is a seasonally active stream system debouching at the foot of a limestone massif towering 1,700m above the entrance, and covered with rain-forest.

We retreated to the comfort of Chian Mai, rendezvoused with Thai guide Diu and Australian ex-patriate John Spies, and set out next day for

what turned out to be the highlight. A very slow bus ride up and down spectacular mountain ridges deposited us eventually on the object of our attention, the Nam Lang. This stream is shown on 1:250,000 maps as draining 400 sq km of mostly limestone, disappearing and reappearing, then sinking below 400 m high cliffs.

We reached the first sinking point to find a huge through cave, Tham Lot. This is of Devils Coach House proportions throughout its 485m long main passage, and with side passages, exceeds 1 km in length. Striking west from here we passed through several Shan, Lahu and Lisu villages, noting several large dolines and spectacular karst towers and cliffs to the south. One cave explored was reached through a field of opium poppies cultivated by the Red Lahu tribe, and was an active stream sink 172m long.

Two nights were spent at Ban Mai Lana, 19°35'N, 98°14'E. This Shan village is located in a flat, fertile polje-like depression at the far end of which the Mae Lana stream sinks. It is impossible to enter the sink, and we didn't have time to check out a story that an old sinking point used to be enterable. Local intelligence is that the water rises not to the south in the Nam Lang, as the map suggests, but approximately 6km due west in a spring on the Nam Khong. This was said to have been tested with rice husks, but is supported geologically as the local strike appears to be roughly E-W. Paul and John Spies made a long trip next day to a point just below the Burma border to explore another active cave with a massive 120 m high entrance. Checking ridges to the west of Mai Lana, John Dunkley found large dolines, several with flourishing opium poppy plantations, but only small caves.

The following day we Datsuned to the south and walked through a delightful forested valley checking out some sinking points new and old of the Nam Lang. We were shown several interesting caves, including some of undoubted archaeological interest, and told about more. The stream sinks in several impenetrable points and was impressive enough in its dry season flow of about 1.2 cumecs.

Lengthy and laboured conversation that evening provided much local information which needs checking out; we simply didn't have time either then or on the third trip. The Nam Mai Lana and the Nam Lang apparently both emerge on the Nam Khong, along with at least two other known springs, one of which, Su Sa, evidently drains the huge area of suspected doline karst to the south of the Nam Lang. On the third trip a year later we spoke to a Lisu man from a village in this area, called Ban Nai Guet Sam Sip - roughly, "the village of the place where 30 streams go into the ground". Yes, there are caves on the plateau, he said.

These modest expeditions have opened up real exploration prospects in what appears to be a large, dissected plateau which, although in the tropics, exhibits many of the attributes of a temperate latitude karst. We were able to



confirm that the plateau south of the Nam Lang is only thinly populated, possibly because of water shortage, and that caves are known. The maps show large dolines on the plateau at over 1,000m, with a depth potential of up to 700m. We now know where the risings are, and one of them leads to a cave at least 2 km long. Hunting tracks should give access in one day from transport routes.

Intending explorers should note that this region is not exactly secure. No bureaucrat will stop you, and local tourist information won't tell you, but foreigners should not contemplate leaving the road traversed by the bus without knowledgeable Thai and local hill-tribe guides. We were told in 1984 that we the first farangs (foreigners) ever to see the Spirit Well, a 100m deep collapse doline overhung on all sides.

Another modest expedition is planned sometime in the next year, possibly in January 1985, and anyone interested can contact John Dunkley at 3 Stops Place, Chifley ACT 2602, phone (062) 810 664.

#### POSTSCRIPT - Third Expedition, January 1984

Levering this expedition out of the comforts of Chiang Mai wasn't easy either. However the four days in the mountains were immensely productive. Four of us: Thai guide/leader Diu, John Spies, John Dunkley and ex-Jenolan guide Mark McPherson. Another slow, dusty, eight hour bus ride up, down and over the mountains.

Look at the map. That's where we were last year, the Nam Lang, 30 cusecs disappearing, well a cume then. Couldn't get in, anyway. Looks like there's where the water comes out again. You can see the bend in the contours near the cliff line. That depression up on the plateau in between the sinking and the rising of the Na, Lang must be the "spirit well" near the Lahu village. A collapse doline. Hundred metres deep, overhung on all sides. Must be a cave in there somewhere.

Local Shan intelligence says, yes, there is a lot of water coming up through rocks at the foot of the big red cliff. No, there's no cave. Counter-intelligence had it that, yes, if you climbed up over the rocks there is a cave. For a small consideration we'll show you. So we spent several hours splashing along, fording the Na, Khong a dozen times, turn east up the Nam Lang, ah, yes, the water does come up through huge rocks, hell, no way in there. Climb up over the rocks to the very foot of a 300m high, overhanging cliff. Christ, how come no-one knew about this? 30m high, 40m wide, it must be nearly 150m to where the water comes around the corner over there. Resolution: always double check local rumours.

Yes, says the guide, we Shans knew about the cave but nobody's been able to get past the entrance chamber because of the water. Well, what are we waiting for? Down the rock pile, down the water. Running a bit fast and deep, isn't it? And this is only the dry season, well you can see how it banks up there in the wet. We'd better leave the packs here, won't need the compass or batteries or camera, just take a torch, it won't go anyway.

But it did. Round the corner, over some superb, white, metre-deep rimstone pools. Wow, just like the Golden Staircase in Croesus. Back to

the river, walk, wade. Big isn't it? Hell, look, bats, millipedes, big blind white fish, how long would they have to be in here to go like that? Walk, wade, water, wade. Incredible, still 20m high, 10m wide. Ever been Exit Cave, Mark? Rather similar, water's a lot warmer though. More massive flowstone and rim pools. Formed by that small tributary stream I'd say. Probably drains that other big doline west of the Red Lahu village. The Lahu reckon there's a cave there you know, they used to have their village in the doline, only place for water. Can't waste time on it now.

Walk, wade. How far do you think we've come? Can't even see the roof over that rock fall. Looks rather recent, wonder what the rock fell out of? Wouldn't it be fantastic if we came out of the bottom of the spirit well up near the Lahu village? Well, the spirit well is obviously a massive collapse doline, it had to collapse into something, didn't it? Yeah, but the map suggests it's a good 400m higher up the mountain. Must be 40m to the roof, maybe there's a high level passage up there, well we haven't got time to check it out. Walk, wade. I'll be wondering where we are. The Shan fellow's keen, isn't he, coming all this way. I thought you said they never go into caves? No, that's the Black Lahu further north. Look, if we're not careful it'll be dark when we get out, and it's 10 km walk back. Better start conserving light too. Walk, wade. OK, another 20 minutes. Another ten. Five. We'll stop at the next corner. Well, alright, the next for sure. Frustrating, eh? A bit smaller here - only 10m high and wide. Still going strong though.

We'd better pace the return trip to estimate the distance. I'll pace it, Mark, you remember the hundreds. One hundred, five, a thousand, walk wade, two thousand, light's not the best, three, four. Hell, that makes it well over 2 km, may be 2.5. And no sign that we were anywhere near the end. We must have been at least half way to the other side of the mountain. Well, we still have to walk back up the river and over the road 10km. I'm wrecked, there's always next year, got to leave something for the next generation you know.....



(BEWARE! FRESH PAINT)



# PHOTOGRAPHING TRANSLUCENT OBJECTS

Mark Stevens    Electron Microscopy Centre  
University of W.A.  
Norm Poulter    Speleological Research Group  
Western Australia

## Introduction

In 1982, members of SRGWA discovered an aquatic creature in Nurina Cave (N46) on the Roe Plain, Western Australia. A colourless, almost transparent amphipod - it was the first aquatic creature to be found in the underground lakes of the Nullarbor Plan. (Poulter 1982, Knott 1983) For description purposes, photographs needed to be taken of the 8mm long amphipods and, being colourless, this naturally proved to be difficult.

## Specimen Preparation

The amphipods were initially preserved in a solution of cave water and 5-10% (toxic) Formalin. Later, under laboratory conditions, they were transferred to a mixture of alcohol (70%) and filtered distilled water, the filtering necessary to minimise foreign bodies eg. dust, marring the photographs.

The specimens to be photographed were put, individually, into selected flat-bottomed Petrie dishes. Being in a solution, some method of holding the specimens in the field of view had to be devised. It can be quite infuriating if the focussed subject floats out of view. This can be achieved simply by removing the preserving solution until the liquid level has descended to the point where the specimen is held in place by 'surface tension'.

## Photographic Methods

Basically there are four methods that could have been employed to achieve the desired magnification of three times life size (3:1 or 3x)

1. utilizing an optical bright field microscope with colour background;
2. a dark field microscope;
3. a cross-polarizing microscope;
4. a camera with suitable macrophotographic attachments.

The biggest problem was not so much the magnification, but, as the specimen is to all intents and purposes - colourless, obtaining a suitable background to render the specimen clearly visible without shadowing or appearing to blend into the background.

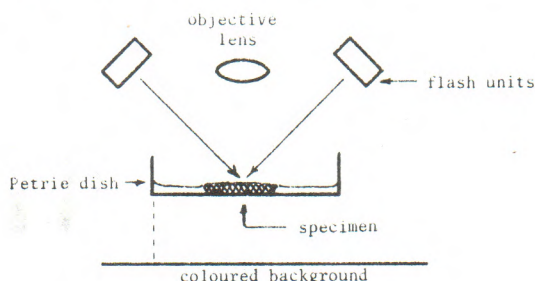


FIGURE 1

OPTICAL MICROSCOPE SETUP

*exploded diagram - not to scale.*

Figure 1 shows a logical optical microscope setup using a suitable coloured background and side lighting. There should be two sources of illumination of equal intensity to minimise shadowing inclined at a suitable angle eg. 45° to avoid both the light beam and/or an image of the light source reflecting off the liquid surface and into the objective lens. Obtaining the most desirable coloured background would be a matter of trial-and-error.

Of the two methods of dark field illumination [transmitted and incident], transmitted is the most appropriate to the subject at hand and is illustrated in Figure 1b. In this method an

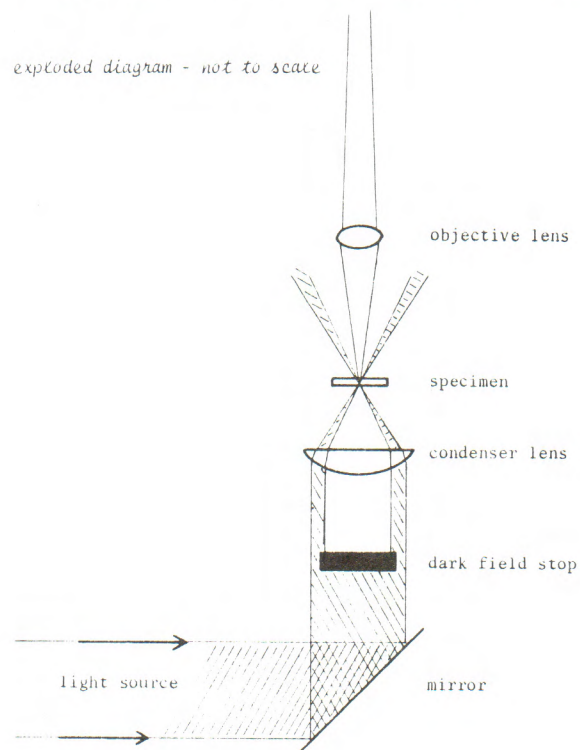


FIGURE 1b

DARK FIELD / TRANSMITTED LIGHT  
OPTICAL MICROSCOPE

opaque disc [dark field stop] is placed in the centre of a light source before it reaches the condenser lens. The 'stop' prevents light from passing through the centre of the condenser but permits light to opaquely pass through the edges of the lens. This light, due to its oblique path, misses the microscope's objective lens. Only the light bouncing off features within the specimen are deflected from their oblique path and into the objective lens, thence to the eyepiece or film plane.

As all the microscope methods described were unavailable to the authors at the time, figure 2 illustrates the method used to obtain usable photographs for Dr. Knott of the Department of Zoology, UWA (also published in ASF N/L #101) to assist in the description of the species - still in preparation.

The principle used was 'cross-polarization',



where the specimen is placed between two polarizing filters and one filter is then rotated until a desirable background is achieved and the specimen is shown in sharp relief. This method also uses back illumination thus eliminating shadowing. A 3mm diameter white plastic disc, the same thickness as the specimen, with a 1mm hole drilled through it, provided a suitable scale for some of the photographs.

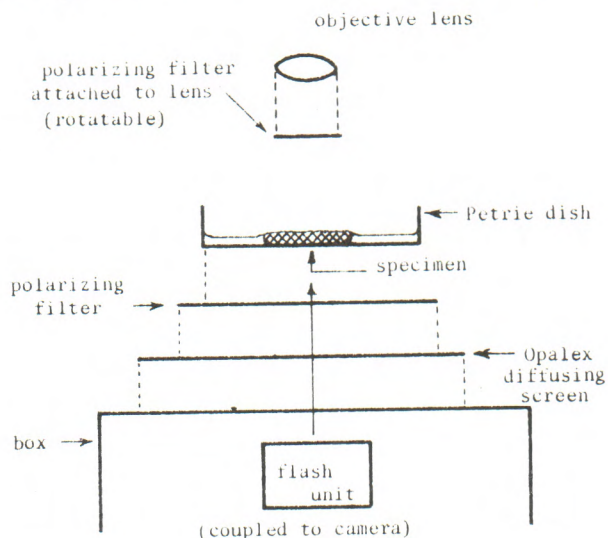


FIGURE 2

CAMERA SETUP USED

exploded diagram - not to scale

### Camera Setup

A 35mm camera with macro lens and extension tubes, set to three times life size, was mounted on a wall-mounted copy stand. A small, open-ended wooden 'box' was manufactured with a hole in the top (fig. 2) on which the specimen, polarizing filter and Opalex diffusing screen were placed. The main function of the box was to allow a modelling (focussing) light to be exchanged for a flash unit without disturbing the setup, while the Opalex diffusing screen was necessary to prevent the image of the flash 'window' appearing in the picture.

Initially, two flash units were used but it was found they gave an uneven distribution of light and despite the huge amount of light lost through the polarizing filters, were too powerful for the job at hand. The flash unit finally used had a 'flash factor' of 55 at 50ASA and the 'window' was no more than 25mm below the specimen. Care had to be exercised while focussing and setting the degree of polarization as the modelling light and remotely located photoflood lights (only used for focussing) could slowly 'cook' the specimen if too much time was spent on those operations.

### Film Used

Exposures were initially made on Ilford FP4 B+W film as its ASA rating was close to that of the Ektachrome 64ASA colour slide film used later. The reason for using B+W film first was manifold:

- economic
- rapid results from on-the-spot processing
- B+W prints were required for description and publishing purposes.

Although 'proof' exposures were made using B+W film, as colour film is somewhat more critical in exposure, trial exposures were still necessary to achieve final exposure density. Kodak Ektachrome film was used for colour work as it could be processed 'overnight' locally.

### Polarization

The filters used were standard 77 and 49mm photographic polarizing filters and, as the degree of polarization was impossible to reproduce exactly if the ad-hoc camera setup had to be dismantled, this necessitated the speed in film processing in order to gauge results.

A polarizing microscope, with degree graduated filters would have been a superior medium but, as already mentioned, was unavailable at the time.

It was found that fully cross-polarizing the specimen was not warranted and presented an unnecessarily harsh background that was unacceptable for B+W prints. The final background achieved in B+W, by slightly de-polarizing the filters [Fig.3] was white with a light grey specimen and pale green with a light 'brown' specimen in colour.

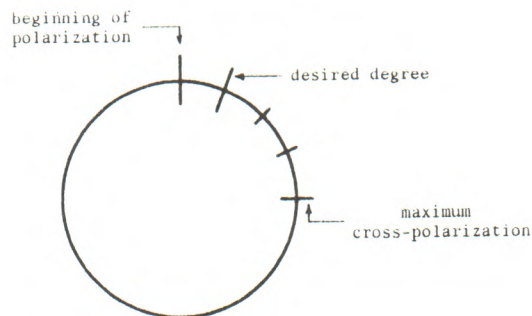


FIGURE 3

DEGREE OF POLARIZATION

### Exposure

The correct exposure was difficult to achieve and governed by the following factors:

- a. the light source had to be directly underneath the specimen to give an even distribution of light
- b. light loss due to the 3:1 magnification had to be allowed for and
- c. the degree of polarization also effected the amount of light reaching the film plane.

The amount of light 'lost' by using one polarizing filter is equivalent to  $\frac{1}{2}$  - 3 stops depending on the degree of polarization. You can imagine therefore, the difficulty of exposure determination using two!!

Although initial exposure was 'estimated' with a flashmeter, readings were inconclusive and hampered by the amount of light lost through the filters and diffusing screen, so experience as well as trial-and-error played a major role in the final determination. The authors achieved the desired results after two rolls of film and 'bracketing' each computed exposure.



## Conclusion

Photographing small creatures suspended in solution is certainly not easy. Photographing creatures that are also translucent only increases the level of difficulty but as has been shown, is not impossible and within the range of most people who have access to the necessary equipment. As with any difficult undertaking, patience and care are necessary virtues.

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???VSA FILES???

"It is reminded that VSA fees are now at \$20 due to an increase in ASF affiliation fees. Of the \$20, \$10.50 goes to the VSA and \$9.50 to the ASF. Even with this increase we are still one of the cheapest caving clubs in Australia." Reprint NARGAN Vol. No.

Editors Note:  
To the best of my knowledge ASF fees are \$7.00.

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## NOTICES and NEWS

### OBITUARY - VALE COLIN CARTER Kempsey NSW

His friends feared that he would go while over extending his weak heart in the Australian bush, hunting for limestone outcrops. This was not to be. Col's heart stopped while he watched TV on 20 Jan 1984, in his 69th year.

Col was well known, Australia wide, by those interested in caving in the Kempsey area. Since helping to found the Kempsey Speleological Society nearly twenty five years ago, he became an authority on the Macleay Valley limestone belt.

Although failing health restricted physical activity he maintained his interest and encouraged others in caving. He was editor of KSS's newsletter, "Trog" and a contact point for visiting cavers.

Col maintained many interests in an active way to the end, including gardening, lapidary, fresh water fish and touring Central Australia.

KSS and speleologists Australia wide send their sympathy to his wife Jean and family.

BARRY DUNCAN President KSS

### ASF CONFERENCE 1984 - SPELEOMANIA

After some hassels a venue has been found and booked for 6 Jan 1985 to 11 Jan 1985 inclusive. This is at the Lea Scout Camp, a few minutes drive from Hobart and should provide comfortable accommodation together with two halls, kitchen facilities, plenty of room for running around and camping. The cost is \$5.00 per night, plus food. Catering will be provided by a charity such as the CWA and should prove both cheap and good value. Individuals should be able to prepare their own food if desired.

Huts at the venue will accommodate about 80 people but there is also ample room for camping, camper vans and so on. Large marquee type tents will be acquired if necessary to provide extra sleeping space. The arrangements may seem a little crude and uncertain but there is quite literally no other venue around at a reasonable cost. The original University college was reasonably priced but owing to a booking blunder on their part we were unable to take that option.

Conferences of late have been expensive and possibly too academic in their outlook. Hopefully this one will bring the whole thing back to grass roots level.

Information is being sent out to all affiliated and associated clubs detailing the arrangements for the conference. An individual mailing list is being prepared as enquiries are received. A bank account has been established with \$500 advance from ASF funds. A Guide Book to our major caving areas is being prepared as well as a guide to all caves over 100m deep. How complete this is remains to be seen.

Field trips are planned for both before and after the conference proper, with the emphasis on doing your own thing. There are not enough cavers in Tasmania to run field trips in any other way. One or two "locals" will be at each



of the major field trip venues primarily for organisation and information purposes.

Block bookings were made in early 1983 for the Empress and an agreement made with Ansett as official carrier. Ansett will provide free printing of publicity brochures together with pens and some other conference materials, which should save some money and time.

For those not familiar with Tasmanian conditions an information sheet is being prepared detailing gear required. Police Search and Rescue have been notified that the conference is on, Hopefully we won't need their services!

STUART NICHOLAS, Co-convenor SPELEOMANIA

#### Dr JOE JENNINGS - HONORARY MEMBERSHIP OF THE NSS

The NSS has awarded Honorary Membership to Joe Jennings. The following is part of the citation that appeared in the NSS NEWS: October 1983.

"This year's recipient of Honorary Membership was Dr Joseph Newell Jennings, of Canberra, Australia. He is considered the father of cave studies in Australia, and today continues to work and encourage students in speleology.

While he already was interested in speleology in his native Yorkshire, England, it was not until the 1950's, when he migrated to Australia, that Dr Jennings began concentrating on his first interest, Karst geomorphology. He has carried out karst and speleological research in Australia, New Zealand, New Guinea and Malaysia as well as many parts of Europe, the Middle East, the USA and China. He conducted the pioneer work, in Australia on the Nullabor Plains, West Kimberly Ranges, the Snowy Mountains and the Chillagoe Caves.

Through his enthusiasm and scholarly background he has encouraged and inspired a new generation of cave scientists through the graduate program at the Australian National University in Canberra.

Dr Jennings has produced more than 150 scientific papers, monographs and books covering caves and geomorphology. His book "Karst" is considered the definitive college text on caves and karst."

Joe has truly made an enormous contribution to both caving and speleology in Australia and on behalf of all of the cavers of Australia our sincere congratulations are extended.

#### CAVING INTERNATIONAL MAGAZINE (CI)

Peter Thompson, editor of CI has notified us that the magazine has folded. I am sure most people who were privileged to receive this publication will be sorry to hear of this. The survival of the magazine has been in question for some time due to a law suit initiated by French cavers who took exception to part of a book published by the company which also publishes CI. The financial strain of fighting this suit has finally had an effect and we are all losers.

STOP PRESS The latest rumor is that the Americans will continue the magazine. Negotiations are apparently well advanced.

#### ARE YOU GOING TO SPAIN IN 1985 ????

Due to the exceptional service provided by the World Wide Travel Service for our group trip to Bowling Green, USA, in 1981, I have approached the manager, Ted Frost, with the idea of making arrangements for the IUS Congress to be held in Spain in 1985.

It appears to be a little early but I feel that we should start thinking about it. Some people in the US are making arrangements which we may fit into and thus save some money.

We already have a possible ten starters and the more we get the cheaper it is. The arrangements for our 1981 trip were very flexible for each member of the group, thus accommodating all interests.

If you are interested in travel arrangements for Spain in 1985 please contact me, or speak directly to Ted Frost on (02) 708 1611, to discuss your requirements.

Don Matts  
176 William St.,  
Bankstown, 2200.

Ed. I am advised that the conference in Spain has been postponed until September 1986! More details next time I hope.

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#### Murphy's Laws for Surveying

1. In any given calculation, the error will never be placed if more than one person is involved.
2. Any error that can creep in, will be in the direction that will do the most damage to the calculation.
3. All constants are variables.
4. In any given computations, the figure that is most obviously correct will be the source of error.
5. The decimal point will always be misplaced.

Reprinted from Descent No. 4

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Did you know that BLUEWATER II 11mm static rope used by cavers around the world will pass two UIAA (factor 2) falls? Of course this rope is not designed as a lead climbers rope but it is reassuring to know that if you get into trouble you can depend on your BLUEWATER rope.

BLUEWATER ropes are designed by cavers to maximise abrasion resistance, reduce sheath slippage when abseiling yet still retain good handling qualities. After initial use the sheath will tighten (which improves resistance) and the rope will feel stiffer. This is normal.

You should wash them in COLD water, with LUX soap flakes. Fabric softener (COMFORT) can be used to give better flexibility and softer handling. Dry the rope away from direct sunlight and do not use a drying machine.

CAVING EQUIPMENT 230 SUSSEX ST, SYDNEY (02) 264 2095.

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# Safety and Techniques

## ACCIDENT REPORT

Greenlink, Takaka Hill, New Zealand  
New Years Day, 1982

During December 1981 and January 1982 a party of nine Australian cavers, mostly from VSA, went to New Zealand and visited several of the caving areas there (Carter 1982). From 29th December to 2nd January we were at Takaka Hill, and on New Years Day eight of us entered Greenlink, which contains an active stream and is one of the longest and deepest caves in the area. Due to a number of problems, mainly involving the fairly high level of the stream and the extreme cold, most people turned back at various stages and only three of us (Brian, Stefan and myself) carried on. Eventually we ran out of tackle with only a 2m handline required to get into the Canal Zone, our destination for the trip (Greenlink has been pushed a considerable distance beyond the Canal Zone, but two sumps must be dived to enter the extensions).

Because of the amount of water in the stream, we decided not to freeclimb the final 2m cascade, and reluctantly started to head out. At this stage I was beginning to feel tired, and I was totally soaked and quite cold (I was wearing a fairly thin canoeing wetsuit and a jumper under a set of waterproof overalls). The first pitch on the way back is Patience Pitch (1m). As I chimneyed off the top of this pitch I remember slipping slightly, but it was nothing serious. However, as I walked away from the pitch my right hand began to tingle. On lifting it up to look at it I was horrified to find a gaping 2cm slash across my wrist. It was bleeding profusely and the tendons of the wrist were clearly visible. For a second I panicked - I couldn't think what to do. Then I remembered my first aid training - to stop bleeding, apply direct pressure and elevate. So I wrapped my handkerchief around my wrist and held it above my head. At this stage Brian caught up with me, asking "Have you cut yourself? There's blood on the walls of the cave".

By this time I had stopped panicking, but I was worried. I was with two very strong cavers, and I hadn't cut a major vein or artery, but I was in mild shock and ahead of me was Flathead Pitch a 17m prussik, most of it with the full force of a waterfall (hence the name). Brian went up the pitch first, then Stefan held the rope for me as I started up. Unfortunately the rope twisted and continually jammed in my chest prussiker, but I gradually inched my way up through the water. Once I got to the top I knew I was going to live (don't laugh, that's how I felt at the time). With some help from Brian and Stefan I made it out of the cave without much difficulty, holding my right hand above my head and climbing with my right elbow rather than my right hand.

When we got out I was driven to the doctor in Motueka, and 4 stitches were put in the cut. It was six days before I could go caving again (in Nettlebed), and I sprained my ankle the same day. This combination of accidents put me in a foul mood for almost the rest of the trip, a very unfortunate occurrence for the rest of the party, who had to put up with me.

What did I learn from the accident? If you can only use one hand, the frog prussik system still works perfectly - a very useful item of information. Secondly, it is essential to be fit and well-clothed before attempting a cave as severe as Greenlink. Thirdly, when you start to feel tired, it's time to think seriously about turning around and going out. It is unwise to push yourself to the limit of your caving ability, as I did in Greenlink.

JOHN WEBB VSA

Carter, B M, 1982. A bantam weight expedition to the South Island of New Zealand. Nargun, 14 (7), 43-50.

## SOME SRT NOTES

### HOW LONG WERE YOUR ROPES?

For several years it has been known that synthetic ropes shrink with use. During the last 12 months I've been taking some comparative measurements to find out how much. While collecting ropes for the Muller '82 Expedition we made a point of marking lengths on all ropes, and quickly found that ropes brought in as 50 m lengths were characteristically only 43 to 46 m long when measured (8-14% shrinkage). Following on from this we found an almost new 100 m Bluewater III to be 93 m long (7% shrinkage).

Muller '82 took 5 x 200 m rolls (measured at 202 m to 204 m) of Beal Dynastat to New Guinea. When cut into quarters, and used a lot we ended up with 4 x 45 m ropes (ie total of 180m; 10% shrinkage)). Equally dramatic shrinkage occurred in my Bluewater 9mm. Bought as a 200 m roll in December, used in New Zealand for 4 weeks its total length by the end of January was 179 m (10% shrinkage). It appears that you can expect a 10% to 15% shrinkage during the first few uses and thereafter it begins to stabilise. So if you want a 50 m rope perhaps it would be a good idea to buy at least 55 m.

ALAN WARILD

### NEW BOLTS IN THE DRUM CAVE - BUNGONIA

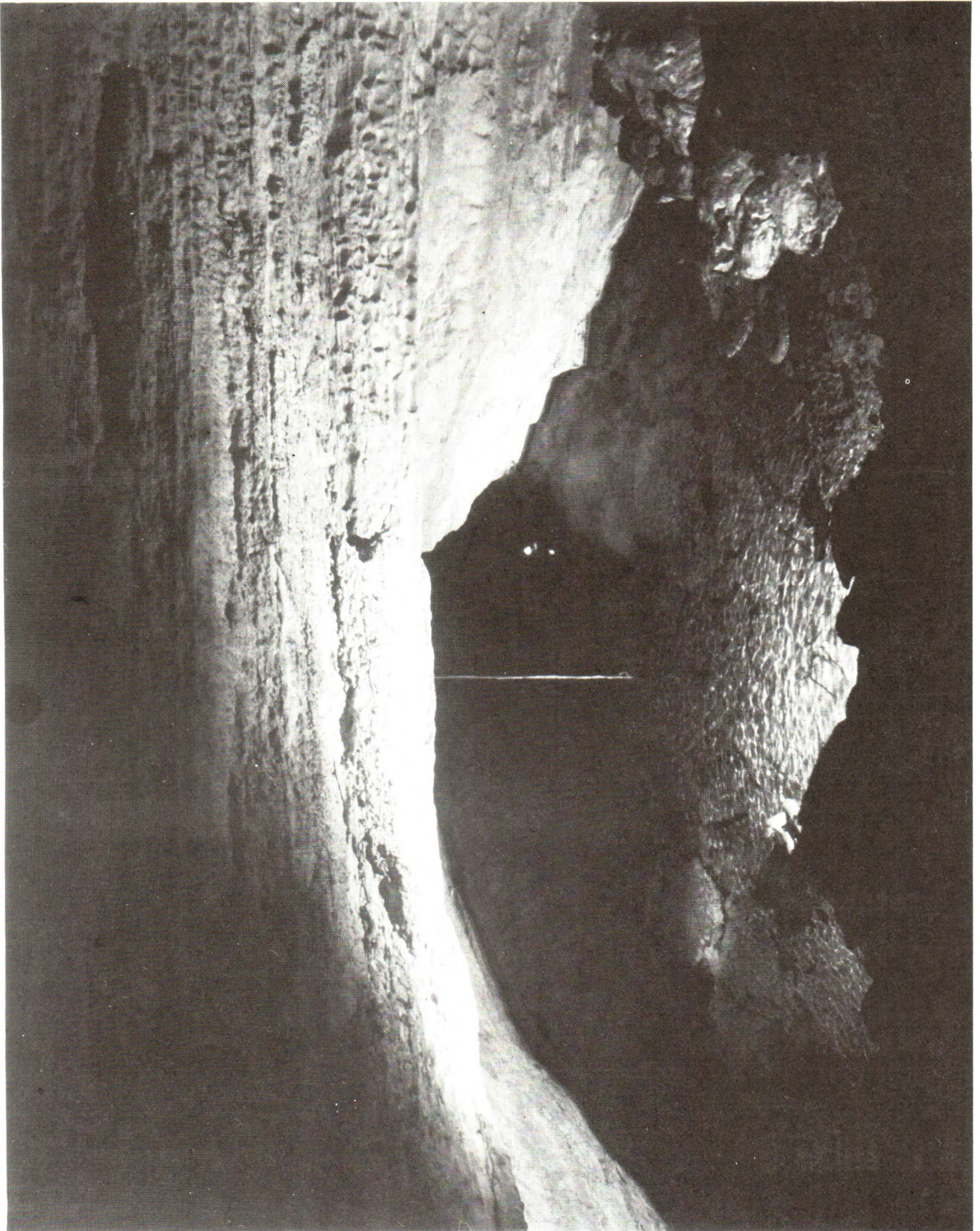
Due to "popular demand" and because of the dangerous state of the old belay logs (which people kept using regardless) 4.5 inch. Loxin bolts have now been placed at the top of the Drum pitch. The top pair are linked together to give a main belay and backup. There is another one on the left wall, just beyond that nasty rock at the top, and the fourth is out on the left wall at head height, and a metre out from the final lip 5 m down. All of the bolts are fitted with large angle brackets and are very easily seen.

Rope protectors are no longer needed, just 3 karabiners (preferably steel, as the angle iron brackets chew alloy krabs a little), a 12 m rope to reach the lower ledge, and a 40 m rope for the almost free drop to the floor.

ALAN WARILD

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LAKE - WEEBUBBIE CAVE

photo N Poulter



# DOWN UNDER ALL OVER

CSS Early 1983 saw CSS active at Cooleman Plain, Yarrangobilly and Burrinjuck, taking advantage of low water levels to visit normally flooded caves. During these trips a track was marked in Murray's Cave extensions and the system documented. A track and a bridge were installed across sensitive flowstone areas in Eagles' Nest Cave. On average two trips per month have been run, places visited including Bungonia, Church Creek, Michelago, Wyanbene, Glen Davis, Cooleman and Yarrangobilly. A week long tour of local areas enabled removal of cave visitor's books. The data from this project is now being analysed for publication. CSS also prepared a submission on the proposed clearance of the Jounama pine forest at Yarrangobilly. Other work at Yarrangobilly includes cave sedimentology with Dave Gillieson (Geography, ANU). CSS members have also been active in Tasmania this year. The social highlight of the year was a dinner for Dr Joe Jennings. The award of Honorary Life Membership of the NSS was celebrated by about 60 cavers of all ages, including some guests from Sydney. A portfolio of vintage Jennings photos and memorabilia was presented to Joe in honour of the occasion.

Dave Gillieson

MUCG 1983 was a busy year for MUCG. A large influx of new student blood brought our membership to over 100. Speleosports '83, which was organised by NSWITSS, was held at Macquarie University. In October MUCG, with the help of Cathie Rothery, hosted the renamed Cavers Annual Dinner. An excellent meal and bunfight was had by all. Work on the new club house "The Caving Cottage" is almost complete. Many members, Dave Rothery especially, have worked hard towards this end. Jeanette Metcalf, the then club president, organised MUCG's contribution to Macquarie University Open Day. As part of the open day display MUCG staged a mock rescue and lifted 2 "victims" up into the air and traversed them across to the roof of an 8 storey building.

Following our elections late last year our new office bearers are:

President	Ross Lardner
Vice-President	vacant
Secretary	David Hamilton
Treasurer	Clare Borchers
ASF Councillor & Publicity Officer	Derek Hobbs
Safety & Equipment Officer	David Rothery.

David Hamilton is looking forward to publishing Quaver Number 6 early in 1984. Thank you for the letter and comments from Perth on Quaver Number 5. Derek Hobbs.

TCC Winter and spring has seen a reduced activity level in TCC. But nevertheless some useful and even interesting work has been done.

The inevitable Growling Swallet trips have gone with the result that the surveyed length is now over eight kilometres. However, it appears that the easily won discoveries may have all been made - passage that one can run down is not limited to short sections between other low roofed sections and the occasional sump. Last year we were saying the same thing and look what has been found since!! The survey drawing is becoming something of a problem owing to its size - the person doing the drawing is contemplating an extension to his house in order to fit it in.

Cave diving is still in vogue although not a lot of new work has been achieved. One of our members took part in the Australian Cocklebidy trips during September which was successful in bettering the French attempt of a few weeks previous. Sometime in '84 we have a trip planned to Mt Gambier for some enjoyable sink hole diving instead of mud grovelling as experienced here. A few Mole Creek diving trips have seen the completion of the survey of the underwater sections of Kubla Khan as well as an interesting rip into Union Cave - one day a return may be made to this sump .... Another dive trip was done to the far north west of the state to push what was reported to be a sink hole rivaling those at Gambier! We returned home with most of the ten tanks taken still full.... More work is planned for the June Resurgence in the near future. Gear pods have been made to transport dry clothes, sleeping bags and so on into "For Your Eyes Only" for push trips in the second sump when it will be necessary to sleep in the air chamber to overcome decompression problems.

Serendipity received another visit during spring with the idea of linking it to Growling Swallet, but this did not eventuate. The trip did however see a lot of surveying in awkward serpentine passage completed. It is obvious now that we have been looking in the wrong place for the GS link. Next trip we'll follow a strong draught found in an apparently insignificant side passage.

Much time has been spent on Mt Anne by a couple of the keener bush-bashing types. The result has been the discovery (re-discovery?) of many shafts and entrances along the whole of the North East Ridge. Loose talus and difficult access have proved to be obstacles but no doubt a concerted effort will bring rewards during the next few months.

Exit Cave and the surrounding area have seen some activity recently when fire bans have limited access to the Florentine Valley. A few members live in the Dover area and have been very active in the Ida Bay area. They have found a few new entrances as well as refinding some that were originally discovered some years back. The area certainly is one deserving of more attention but why drive for two hours when a one hour trip takes us to the Florentine?!

Stuart Nicholas



## DOWN UNDER ALL OVER

SRGWA Work continues on the Yallingup (tourist) Cave cleanup with the Busselton Tourist Bureau providing a generous and welcome lunch for the sweaty band of workers whenever a trip takes place. An added gesture of appreciation comes from the manageress of the nearby Caves House providing evening meals for the Group members. In return, the Group provides an evening slide show for the hotel's guests.

The Group's hut, located in the Witchcliffe region of the Leeuwin-Naturaliste Ridge had the final part of its roof fitted during October - three years after the material was purchased. No sense in rushing things. Throughout the year there has been a modest increase in the 'small circle of friends' who celebrated the Group's 10th anniversary in November.

SUSS Since our interstate activities over the last Christmas vacation, SUSS has had a fairly normal year, visiting the usual place such as Bungonia, Wyanbene, Yarangobilly, Wee Jasper, Cooleman, Wombeyan and Jenolan. We finally dragged the scaling poles out of Spider Cave, Jenolan after a year's sojourn, and moved them onto Great North Cavern in Mammoth. Hopefully, this Herculean labour will lead to interesting discoveries. SUSS members have spotted eels in Slug Lake and Ice Pick Lake in Mammoth on two separate occasions. We would be very interested to know the route the eels used to get there. Also, one or two digs in the Southern Limestone have ceased to be hopeful. SUSS members are, as usual, active in other outdoor sports besides caving. With the skiing season over, canyoning has begun in earnest. We have a fair few active newer members, some of whom lead spectacular draining trips. SUSS once again took out the Speleosports trophy. As for indoor activities, we have finally redrafted our constitution, thanks to a good group effort, but unfortunately have produced very few SUSS bulletins. The usual editorial staff have been swamped by other commitments, but next year will be a better one for subscribers.

The 1983 Christmas vacation will be a little quieter than last year. However a couple of members are going to New Zealand and Tassie trip is planned for February. SUSS will also be at Cooleman for a fortnight.

Kristin Young

UNSWSS The UNSWSS produced caving movies "Crystal Kingdom" (set in Cliefdon Cave) and "Kubla Khan" (set in Kubla Khan Cave, Tasmania) are now available on a VHS video cassette for \$10 hire plus postage and \$20 refundable deposit. The original soundtrack is missing at present but should be replaced early in 1984. An expedition trip is planned for December 84/January 85 to Mole Creek, Junee Florentine and Precipitous Bluff. Any interested starters should contact Ian Charlson.

Numerous trips have recently been run to the regular caving areas - Cliefdon, Jenolan, Wyanbene, Bungonia and Yarangobilly. Scaling poles were used unsuccessfully in Mammoth Cave at Jenolan, while a small chamber was discovered in Lock Cave at Cliefdon.

A good night was had by all our members who attended the Annual Speleos Bun Throwing and Dinner at Macquarie University in October - our thank to Cathy Rothery and the others who organised it.

Our new Editor of Spar is still enthusiastic so we hope to produce many issues in 1984.

Graeme Pattison

VSA

1983 was quite an active year for VSA, with a number of interstate trips as well as visits to local areas.

A large contingent of VSA members went to the Adelaide conference, where they won the speleosports convincingly under the leadership of the Old Fox, Tom Whitehouse. Club members caved at Kangaroo Island before the conference and at Flinders Ranges, Nullarbor and Kangaroo Island afterwards. Everyone enjoyed themselves, even if the weather was incredibly hot; the scenery at Kangaroo Island and Flinders Ranges more than compensated for this. Buchan has been visited frequently, and there have been a number of interesting developments. Trips led by Daryl Carr discovered several new caves, one of them a reasonable size, and there has been a major dig at B32, partly to provide an outlet for the stormwater which floods the tourist camping ground periodically. Peter Ackroyd organised cave diving trips to M4 (sumped after 6.5m) and Dallys (40m and still going, with the possibility of up to 100m of passage connecting to Subaqua).

The Victorian Speleological Navy has been active with trips to the sea caves at Cape Bridgewater and caves along the Glenelg River. At Cape Bridgewater the trip nearly began with a disaster when the Landrover got bogged on the beach after putting the boat in. Luckily we managed to winch it out before it was completely swamped. From the beach the boat towed two rubber rafts out, and these were paddled into the caves in amongst the seals - quite a spectacular experience.

The VS (very slack) Navy trip to the Glenelg River provided the unforgettable sight of three of our larger members together in a small punt with 1 cm of freeboard; from a distance they appeared to be sitting in the river. On this trip the extensions in Cave Ridge were pushed further than previously, but more remains to be explored.

Two trips to the Western District lava caves were held, to Mt Napier and Mt Eccles. No new caves were found, but several old finds were surveyed.

Easter marked the traditional VSA trip to Tasmania, this time to the Junee-Florentine area. Despite some problems, we visited some excellent caves, including Cauldron Pot and Owl Pit, but the highlight was a trip to the Black River in Growling Swallet (thanks to Stuart Nicholas for leading us there).



In July the annual CEGSA-VSA dinner was held at Mt Gambier, giving the VSA people a chance to snorkel at Piccaninnie Ponds and Ewens Ponds (permits had been obtained beforehand). Even though the weather was bleak and the water murky, the fissure at Piccaninnie Ponds was still very spectacular.

The Cup Day weekend trip was to Yarrangobilly, a place not visited by VSA for many moons. We camped at Cottrils Cottage, and had a most enjoyable time despite the rain. The scenery was interesting, and the caves varied between the beautiful and the strenuous, East Deep Creek being the best of both. Thanks to Andy Spate for his help on this trip.

Finally, one of our members, Alex Kariko, spent several months during the year in Honiara on the Solomon Islands, and explored several caves, one of which was entered by walking through a waterfall.

All in all, 1983 was quite a reasonable year for VSA. Due to the efforts of our programme organiser, trips are better organised and more frequent than in recent years.

John Webb

## GUANO

### JENOLAN TO YARRANGOBILLY - A CAVING EPIC

As the result of a monumental effort by two members of CTCG, the old myth that Exit Cave Tasmania, is the longest cave in Australia, has finally and convincingly been exploded. In what may go down in Australian Speleological history as an all time epic in subterranean endeavour, the incredible journey undertaken by members Russell (the ARMPIT) DEMPSEY, and Reg (the FROG) BAMENT, in journeying from Mammoth Cave, Jenolan, to Jersey Cave, Yarrangobilly, has increased the distance by an amazing 430 miles.

The preparation for the trip was not, as would be expected, particularly thorough. The original purpose for the visit was to prove the link between the Lower River, Mammoth, and the take in the tourist cave, Imperial. Already proved by dye tracing, all that remained was to dive the river and follow it to the lake, a distance of about 1400 metres. Training for the trip had consisted of the usual diet of green or gold vitamin pills, according to taste, plenty of vitamin C in a grape juice base, and extensive practice in tight sections and perfecting the breath holding techniques essential in sump diving. (Anyone following the Demps into a tight section soon learns all about holding his breath). Equipment was minimal. 1x100 foot rope, and one section of ladder, to be used in the trip to the lower river, and de-rigged as we went, as it was to be a one way trip. The trip started at 12 midday, Thursday June 7, however no-one in their wildest dreams, could have imagined what was to follow.

It began in fairly normal fashion, the river was reached in quick time, and the intrepid explorers, bursting with enthusiasm and last night's sates, jumped in. Immediately the lack of preparation and study showed. The river was about eight feet deep and flowing at about 12 knots. With hardly enough time for a terrified

scream, let alone a deep breath, the river swept us away, under a rock, and into the blackness beyond. Our bodies were hurled along at incredible speed. With lungs bursting we clawed our way upwards, only to be met by limestone, worn smooth by time and the countless gallons of water that had flowed through. Time and time again we tried, until at last, when all seemed lost, a final, desperate, scrambling swing found us in air. Breathing with great gasps we sucked immense volumes of air into our lungs, and shone our lights around us. What an amazing sight. A lake, stretching as far as our eyes and lights could penetrate, lay around us. This must surely be the legendary lost lake reported by that doyen of cave guides, J. Wilburd, around the turn of the century. Congratulating ourselves, we began to swim in what we hoped was the right direction to take us to the edge and a possible way out. The river had a different idea, however, and we soon realised that our effort was wasted, we were forced to float on our backs and see where the river would take us.

After about half an hour we became aware of two things. Firstly, a dull roar in the distance. Secondly, a faint glimmer of light on our far right. The water seemed to be carrying us towards both, and we began to swim towards the light. The noise grew louder, till finally, with a terrible shock, we realised it was a gigantic waterfall. In desperation we doubled our effort, and struck out grimly towards the lights, our only hope of salvation. We saw that it was the southern section of the lake in Imperial, and could even see tourists reflected in the water. All was in vain. The river had us in its grip, and dragged us further away from the light, and our only hope. With a final, defiant scream of abuse at a cigarette smoking tourist, we were swept away from the light, flung over the edge, and downwards.

Surprisingly the water fall pitch was not vertical. In a series of short drops the river lowered us rapidly, but without undue pain, several hundred feet, until levelling out into a fast flowing river once again. We struggled to the edge, and clambered ashore, collapsing with exhaustion. After a short rest, we considered our position. We could not go back, the return swim up the waterfall, in our present condition, would have been too difficult, and besides, there was no guarantee that the river wouldn't wash us back over the edge again. The only solution was to go on, and hope that eventually we would find some way out. We got to our feet and set off, making the best possible use of our light, and alternately walking and swimming, began to follow the river downwards into Mother Earth. The next 48 hours wholly justified that decision. Time seemed to stand still as we travelled, awestruck by the magnitude, the splendour of it all. Cavern after enormous cavern, each more beautiful, more inspiring than the last. Hunger and fear forgotten, we marvelled at the complexity of mother karst. Great cascading flowstones, some over 300 feet in height, 40 foot straws, stalagmites to make even the Khan look puny, helictites clustered everywhere like giant chandeliers, and everything glistening white, pure and unsullied by human hand. Mile after magnificent mile, and always, the river, thundering beside us, leading us, showing the way out.

We noticed as we travelled that small tributary streams occasionally joined the main river. It became obvious that some of these came from a great depth, as the water was very warm. With each passing mile, these small streams grew



increasingly larger and hotter, till it became difficult to see in the steam. Our skin softened and puckered, wrinkled and white, like dishwashers hands. Mud banks bubbled with heat, and the foul stench of sulphur filled the air. We came to yet another dead end and resigned ourselves to swimming in water nearly at boiling point. We entered the water, and became aware of a great suction, towards the rock face, like a syphon, drawing us under. With no alternative but to go with it, we each took a deep breath of sulphur choked air, and committed ourselves to whatever lay before us. We passed under the rock, and almost immediately felt our bodies begin to rise, with an increasing speed, into a large tube. The heat of the water was almost unbearable, but with each passing moment seemed to grow cooler. Upwards we rose, kicking with our feet to help the water, desperately trying to reach the end. Ears popping, lungs at bursting point, we erupted, like giant corks, into a small pool. We scrambled towards a chink of light, clawing on our hands, trying to find a way out. We could not. The light taunted us, mocked our very efforts, but the rocks held firm.

It is impossible to describe the feelings of misery that swept over us. To have travelled so far, to have done and seen so much, and to be so close to freedom, yet unable to travel that last few feet, brought tears of frustrated rage to our eyes. Filthy dirty, hungry, eyes red rimmed with exhaustion, we sat side by side, sharing the last remaining glimmer of light. We decided to spend our last remaining hours of light exploring the chamber that would probably be the last one we would see. We began to climb up and around the chamber, and started to follow a small lead in the top left corner. It went on, so we found ourselves crawling on hands and knees. The light almost gone, we stopped to rest. Suddenly we could hear muffled voices. We scrambled a few more feet. Light suddenly appeared through cracks in the rock above our head. Elated, we saw that it wasn't rock at all, but concrete. The voices grew louder, and with a desperate heave we pushed on the concrete slab, felt it move, then give way under pressure. Blinded by the sudden rush of light, we clambered out of the hole, to find ourselves at the feet of a small group of tourists, under the control of a NPWS Ranger. Under a barrage of questions, we found that we had emerged in Jersey Cave, Yarrangobilly, at 1.46 pm on Sunday, 10 June, 73 1/2 hours and 440 miles after we had entered Mammoth.

Looking back I find it difficult to believe the events described actually happened. We were unable to photographically record our trip due to damaged gear, and surveying was impossible, even to simple memory sketch standard. Understandably people refuse to believe that this trip is even remotely possible. Only Russ and I know the complete truth. We made the trip and survived, and we know that 440 miles of super cave really does exist. For those of you who do doubt our story, consider this, we know that countless millions of gallons of water disappear into the ground at various points between the two centres. Jaunter, Abercrombie, Cliefden, Wombeyan, Bungonia and Wyanbene, just to name the major areas, all lie in a belt between the two. We also know that the water that supplies the thermal pool at Yarrangobilly rises over 900 metres, and obviously comes from a large and apparently inexhaustible source. Having returned to the chamber that finally brought us to safety, and placed dye in the water, we know that the place is the side of the

hill near the pool, and the water in the pool comes from our super cave.

We have been there and seen it. You prove us wrong.

B J BAMENT and R P DEMPSEY

Note: The reading of this article should be done with background music. (eg. The Journey to the Centre of the Earth).

Ed. Apologies to Mr J Verne and to staff at Jenolan and Yarrangobilly are probably in order. This is not to say I don't believe you, but.....



#### THE DRAGON'S MOUTH

Once there was a land inhabited by a sleeping dragon. The dragon was fierce looking and most of the people of the land feared the dragon and stayed away. But the teeth in the dragon's mouth were reputed to be composed of precious gems and a beauty to behold. Some of the people of the land took courage and went up to the dragon to look into it's mouth to see the wondrous teeth, for the dragon was known to awaken only once every on thousand years. The mouth was truly a beauty to behold from afar and soon more people would venture closer for a better view of the grand sight. As time passed a few brave souls decided to get an even better book by actually climbing into the mouth of the dragon where the precious gems could be seen at first hand.

Most of the people were afraid and voiced their concern for the few who were determined to go into the mouth. They said those who went up to the dragon were fools and those who actually went into the dragon's mouth were crazy and taking a chance with their lives, for if the dragon were to awaken it could consume them all. Those who entered the dragon's mouth said the risk was worth the beauty, grandure, and excitement that was found there. After all, one thousand years is a long time, even though no one knew for sure when the dragon was last awake.

We who climb the winter mountains and accept the challenge of the rock wall enter into the dragon's mouth. We risk avalanches, snow storms, subfreezing temperatures and crevasses because of the gems of grandure and beauty we can behold. We take satisfaction in our accomplishments, knowing that others are afraid to venture where we go.

Stan Hughes.

Source Unknown

I thought cavers would identify with the sentiments expressed. Ed.





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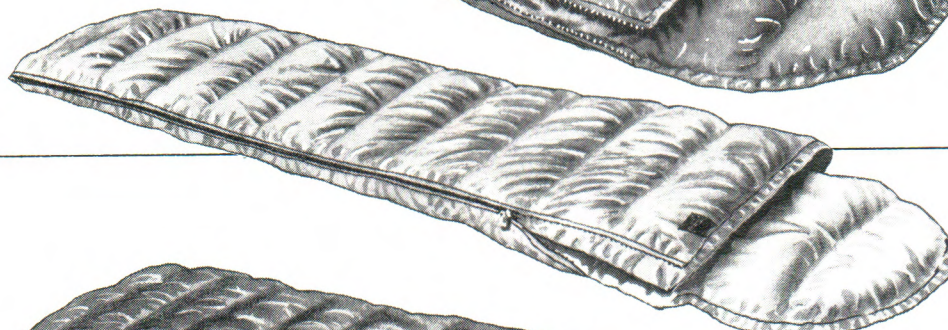
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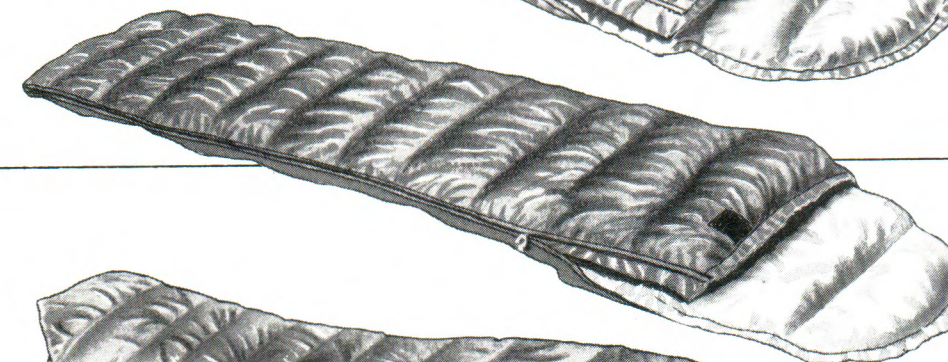
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MELALEUCA	1.55 kg	Box Wall	800 g	550 Loft Down	-15°C	Side Zip	34 x 23
BOGONG	1.60 kg	Box Wall	900 g	550 Loft Down	-15°C	Full Zip	34 x 23
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