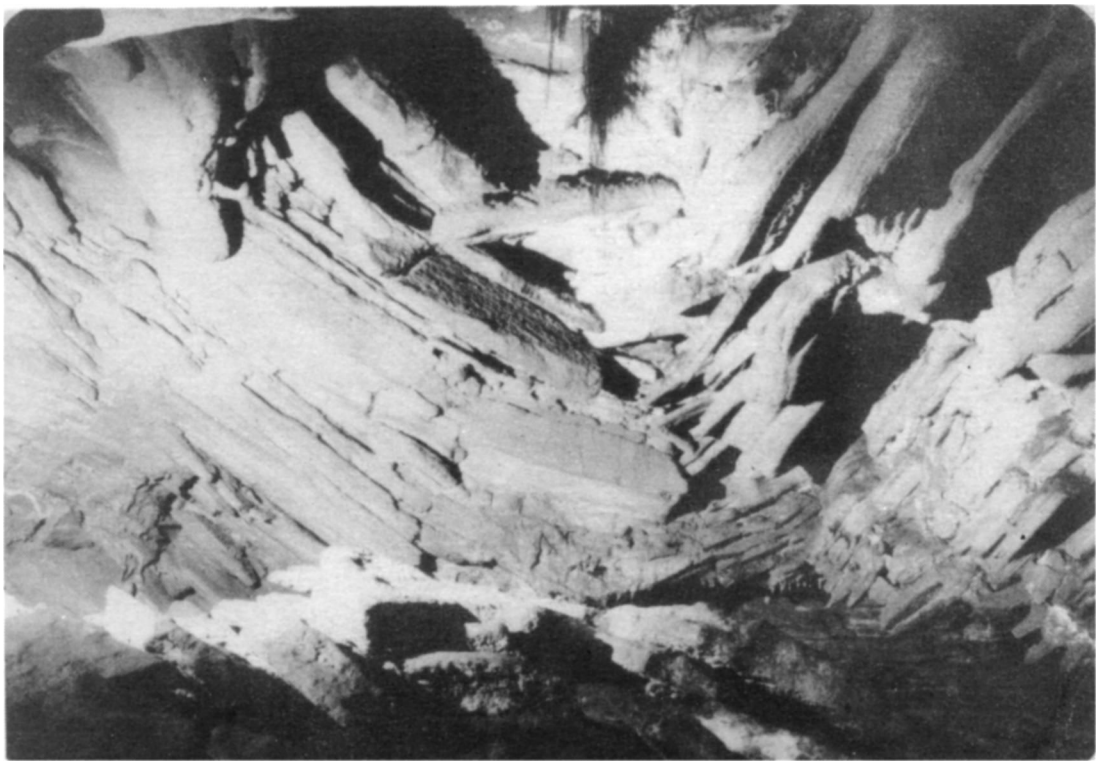
CAVE EXPLORATION GROUP SOUTH AUSTRALIA Inc.

c/o South Australian Museum, North Terrace, Adelaide

VOLUME NO: 26, No: 4 FEBRUARY, 1982

NEWSLETTER



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COVER PHOTO

Roof collapse section in a chamber in L23.

The layers of the roof are "frozen" in an action shot
of the roof of a cave collapsing.

This Newsletter is Registered for Posting as a Periodical, Category B.

EDITOR'S TRITE COMMENTS

I'll let the contents of this Newsletter speak for itself, perhaps the lack of Trip Reports is reflection of interest or activity. You will note we have included a poster in this issue. Please find a notice board at work, school, your Public Library etc., and pin it up. More are available if you want them.

NIMBLE

N.B. ANNUAL REPORT was IN CENTRE OF NEWSLETTER.

SUBTERRANEAN FOUNDATION NOTICE

The Subterranean Foundation invites persons and organizations to submit research data, papers, or proposals to acquire these, for publication by the Foundation. The investigations can be related to any subject of caving, cave diving or karst; including historical information.

The Foundation will pay all expenses related to publishing and will be sympathetic to financing part or all of the cost of research. However, the Foundation has limited resources and will favour projects with the lowest cost. Copyright will rest with the author(s) except that the Foundation obtains the right to print the original accepted submission.

Applications should be lodged by 1st May, 1982 at 66 Eyre Crescent, Valley View, S.A., 5093. They should contain in reasonable detail, the planned or completed research programme, estimated volumes of text and photography, costs involved in the investigation and potential market for the distribution of results.

For further information contact Graham Pilkington (08) 264 2598.

NEW EQUIPMENT FEES

CHARGES PER WEEK

	CEGSA MEMBERS	NON CEGSA
ROPE	$1.00	$2.00
LADDER and TRACE	75¢	$1.50
HELMET	50¢	50¢
KEYS	50¢	Not available
RETURNABLE DEPOSIT	$5.00	$10.00

If gear not returned clean & tidy, deposit forfeited. Late returns charged at normal rate until returned.

TRIP REPORTS

NULLARBOR SURVEY TRIP

PARTY: Rod and Di McDougal, Stan Flavel and Neil Smith. Dec. 26th 195 to Jan. 2nd 1982

Another work-intensive Nullarbor trip which was organised at short notice. By all accounts the trip was enjoyed by all involved although there were several very exhausted cavers both during and for a few days after the trip. The focus of the trip was again the intricate Easter Extension maze area of the awesome Mullamullang Cave (6N-37).

Probably few of CEGSA's present members are familiar with the Easter Extension particularly the more remote regions, which usually seem to require almost 3 hours flat-out trogging just to reach from the cave entrance doline. Less than an hour of this is in the roomy, 'bushwalker' stye main passage, this implies quite a lot of dirt down the neck of one's overalls and rather sore knees and palms.

The trips of the 'golden year' of Mullamullang explorations, 1966, left the Easter Extension map with some confusing multi-level sections and several enticing leads labelled simply 'maze area'. A major effort was made both to 'push' the Extension and to improve the maps in 1977. The much-hoped-for 'major breakthrough' was not realized, although several hundred metres of new cave were found including 'Ixtlan', a low-level section meeting the water table at a beautiful gypsum encrusted crevasse named 'Lake Crelato'. Unfortunately the maps resulting from the 1977 trip were even more confusing than the older ones. Leads from two distinct parts of the extension had yielded tight maze systems which appeared to be superimposed in plan view, but there was no hint of a connection nor any indication (beyond guessing) of which section was above the other.

On a trip in May 1980 involving members of both CEGSA and WASG (and some visitors), eight key positions within the Easter Extension were previously fixed in horizontal position using the electromagnetic (or "R.D.F.") technique. This work provides the 'backbone' for a new, more accurate set of maps. However, these have not yet been drawn because the redrafting seems scarcely worthwhile until better wall detail becomes available following future survey trips. Surprisingly, the electromagnetic survey confirmed that the 1977 new sections were indeed superimposed in plan. The possibility of a 'connection' became even more tantalizing and the determination of relative levels more interesting from a surveyor's point of view.

Owing to the long traverses involved (the Easter Extension, only a part of Mullamullang Cave, is itself longer in surveyed passage length than any South Australian cave apart from Corra-Lynn (Y1) and Victoria Fossil Cave (U1), and owing also to the occurrence of many tortuous crawls and squeezes, conventional cave surveying techniques employing clinometers are unsuitable for precise levelling here. And so are the land surveyors' level and staff. Accordingly, we constructed an apparatus consisting of a long (25m) plastic tube containing water. Barring differences in atmospheric pressure at the two ends, the two water surfaces will assure the same level, allowing a precise comparison of the vertical coordinates of a large number of points within the cave. The beauty of the system is that station inter-visibility is not necessary - the accuracy is quite immune to twists and squeezes. The apparatus actually incorporates quite a few refinements (such as taps to stop bubbles getting into the tube) and a subsequent article is planned to explain the system in full.

Water-tube levelling in the Easter Extension was begun in May 1980, but on that trip the Electromagnetic survey had the highest priority and only a limited amount of other work was accomplished. On the latest trip ('81-'82) three successive cave visits of 10, 12 and 16 hours respectively were devoted to levelling. The job could now be considered virtually finished were it not for the very surprising results obtained. But it now seems likely that levelling in Mullamullang will keep us busy for some time!

Conventional wisdom has it that the water table is flat over large areas of the Nullarbor, in the Mullamullang area sloping very gently towards the sea at a rate of about 1 in 16 thousand.

Accordingly, we expected to find that all water table exposures in the Easter Extension would be level to within a couple of centimetres, which is the expected error of the technique used. Any such error found would mathematically be distributed over all legs, thus 'adjusting' the vertical survey. However, our results put Oasis Valley Lake 1.033m above Easter Lake, with the Lake Crelato a further 0.513m above that. Are these level differences real? Certainly the fact that a floating bottle gently placed into one of these lakes moves in a well defined direction at an appreciable rate suggests that the water table has some gradient. But that much? Despite the care we took, we could have made some undetected gross error, although because the route between the 3 lakes is in the form of a 'Y', there would have to be at least two such errors (get it?). Any inputs from expert hydrologists would be greatly appreciated.

All in all, plenty of food for thought. But a return trip to check at least part of our work is now indispensable. Mullamullang still has its mysteries! By the way, the superimposed sections seem to differ in level by about five metres, and the connection still eludes us.

All this left little time for other activities (bar driving - Mullamullang is 1500km from Adelaide). However, we paid short visits to Kestrel Cavern No 2 and to Abrakurrie Cave. For Stan, his introductory Nullarbor trip; for the rest of us, yet another great visit to a region whose fascination never diminishes.

NEIL SMITH

NARACOORTE

2nd-3rd January, 1982

PARTY: Graham Pilkington, Charni Pilkington, Robert Peterson and Mike Slatter (visitor).

Caves Visited: Monbulla (L5), (L21), Bat (U2), Fox (U22), Pavy's Plunge (U94).

Despite reports from Peter Hill that Monbulla had a large active snake population I decided to go ahead with the planned trip because of the easy entrance for six year old Charni. We made that much noise that no snake was seen nor heard. We parked on the roadside and a loud stroll brought us to the L21 entrance and a surprise. It was choked in household garbage bags. These we had to clear a path through to gain entry. The January long-weekend should see a trip to remove the junk.

The cave showed the effects of recent heavy rains - water, mud, vegetable debris and numerous creepy-crawlers (ourselves excepted) such as grey spiders and white isopods. Near the drain end of Monbulla Cave proper, the floor was a carpet of fine roots streamlined by the flow. The water appears to have entered the system at the drain end of the L5 series of entrances, travelled north alongside the drain for about 40m then doubled back to the L5 system with a branch into L21 via a sump. The above is speculative because the passages were too small for me from the drain to near the sump. The sump is assumed to enter L21 because there is nowhere else to go, L21 is only a few metres away and a clay-free water-filled trench was observed to appear partway through L21 with below-floor passages that were not pushed.

We left L21 at the entrance of the L5 series nearest the drain (L5/1) to examine the drain entry of the water then we proceeded via the surface to Monbulla Cave proper. L5/2 entrance was filled with rocks that looked of recent manual deposition hence we entered on the third and made our way into the large chambers to the west via the east back near L5/2. The main L5 roof-window is the site of the farmers now-you-see-it, now-you-don't farm ironmongery. However, the small but deep entrances up on the rocky rise have had 150mm iron mesh laid over them, held down by rocks. One day some unwitting surveyor will get careless and continue where all others quit.

A night-time trip (ex Charni) was made into Bat Cave for NPWS Ranger Fred to produce an accurate cross-section of the passage at the spot where Mr. R. Marcussen had set up a computerized bat counter and speed analyser. The entrance was also measured to 0.1m accuracy at minimum aperture for the same reason.

A nearly complete bat skeleton was extracted from the cave to go on display in the ticket foyer with the bat photographs.

U22 was just a tourist trip to show Charni that caving is not all muddy grovelling but can attain the peaks of artistic expression; sandcastle building.

In U94, this sand collapse appears to have been stable for several years and we should be able to re-commence shoring and digging. Access to the previously excavated rock-roofed chamber seems probable.

GRAHAM PILKINGTON

TECHNICAL & OTHER ARTICLES

Wilderness Visitors' Code of Behaviour

The A.C.F. has recently produced a Code of Behaviour for Wilderness areas and I feel that it is important for C.E.C.S.A. members to abide by the code. The purpose of the Code is to attempt to preserve the physical and intangible qualities of wilderness areas. In wilderness man is a visitor who neither remains nor leaves any trace of his presence.

SELF RELIANCE	The wilderness visitor is fully self-sufficient and does not use any form of mechanised transport for travel, does not rely on air dropped food supplies and provides his/her own portable accommodation -- a tent.
CAMPSITES	For minimum impact in popular areas, camp on previously used sites. Avoid camping on fragile vegetation. Construction of tent platforms and bed sites, digging of trenches should be avoided. Use of aluminium tent poles, not green timber. Remove all evidence of use before leaving a campsite.
FIRE AND FUEL	Use gas or liquid fuel stoves above the tree line, wherever wood is scarce and during bushfire danger periods. Use existing fireplaces or clear an area for a small fire well away from trees, scrub and grass.

	Use only fallen branches sparingly. Thoroughly extinguish the fire with water, scatter or bury ashes and charcoal out of sight of the camping area. At popular sites on thin soil, simply spread charcoal and ash after extinction.
SANITATION	All human waste and toilet paper should be buried, not merely covered, well away from tracks, campsites and streams. Burn toilet paper in rocky country, taking care not to start a wildfire.
WATER AND WASHING	Keep water supplies free of any polluting agent. Use only soap; wash and rinse utensils, clothing and bodies well away from rivers and lakes. Swim downstream from where drinking water is obtained.
RUBBISH	Carry out what you carry in – everything that will not burn, especially foil, cans, plastic and glass. Bury any unburnt food scraps. Leave the campsite cleaner than it was found. Rivers should not be used as garbage cans - cans and bottles will eventually be washed ashore.
TRACKS AND MARKERS	Use marked or formed routes where they exist and avoid making a new parallel track. Otherwise leave the least possible sign of passage. Blazes, cairns, aluminium tape or any other markers do not belong in wilderness areas. River crossings should consist only of local fallen trees, logs or rocks.
VANDALISM	Rock formations, trees, vegetation, archaeological sites should not be defaced or damaged in any way. Birds, animals and other living things should not be molested.
COURTESY	The sounds of the natural inhabitants should predominate. Noise from radios and other electronic devices is not in keeping with wilderness.

Di McDougal

FROM YOUR TYPIST

The above article should put you all to shame. I have printed it exactly as it was presented, letraset and all. Thanks Di for such a well-presented piece of work.

JAN PETERSON

PROGRAMME

1982 PROPOSED EASTER NULLARBOR TRIP

Some of the planned features are:

Mullamullang Dome and Ezam trip to examine air movements over an extended period with interludes surveying the Ezam and examining for sites that might lead to a way past the Dome blockage. It is planned to remove the corroding telephone wires during this trip.

Witches Cave is possibly the best calcite decorated cave on the Nullarbor and makes Naracoorte fade into insignificance. A survey and exploration is planned.

Thampana Cave is a beauty. The danger of falling down its' 11m entrance shaft is that you might land on your car. This cave contains the only known example under the Nullarbor of a vadose-type pressure phreatic? tube and includes an inverted siphon! Examples of branching gypsum stalactites half a metre long, and other goodies abound.

A search of newly recorded but un-investigated dolines for more gems like Thampana and Witches will be made in the Nullarbor Homestead area.

GRAHAM PILKINGTON

MARCH:

10th	Committee Meeting	10 Chapman Street, Torrensville	7.30 p.m.
24th	General Meeting	Museum Lecture Room	7.45 p.m.

APRIL:

9th - 25th	Nullarbor	Exploration - Graham Pilkington	
9th - 12th	Nullarbor	Exploration - Meredith Reardon	
9th - 12th	Lower South East	Exploration - Gordon Ninnes	
14th	Committee Meeting	10 Chapman Street, Torrensville	7.30 p.m.
26th	Corra Lynn	Touristy - Gordon Ninnes	
28th	General Meeting	Museum Lecture Room	7.45 p.m.

MAY:

1st - 2nd	Field Day - Morialta	Dale Arnott - 10.00 a.m. at the Tower Hotel.	
12th	Committee Meeting	10 Chapman Street, Torrensville	7.30 p.m.
26th	General Meeting	Museum Lecture Room	7.45 p.m.

Naracoorte - Blanche Cave Survey
Fox Cave Touristy and Exploration
Dale Arnott and Meredith Reardon
TO BE ARRANGED.