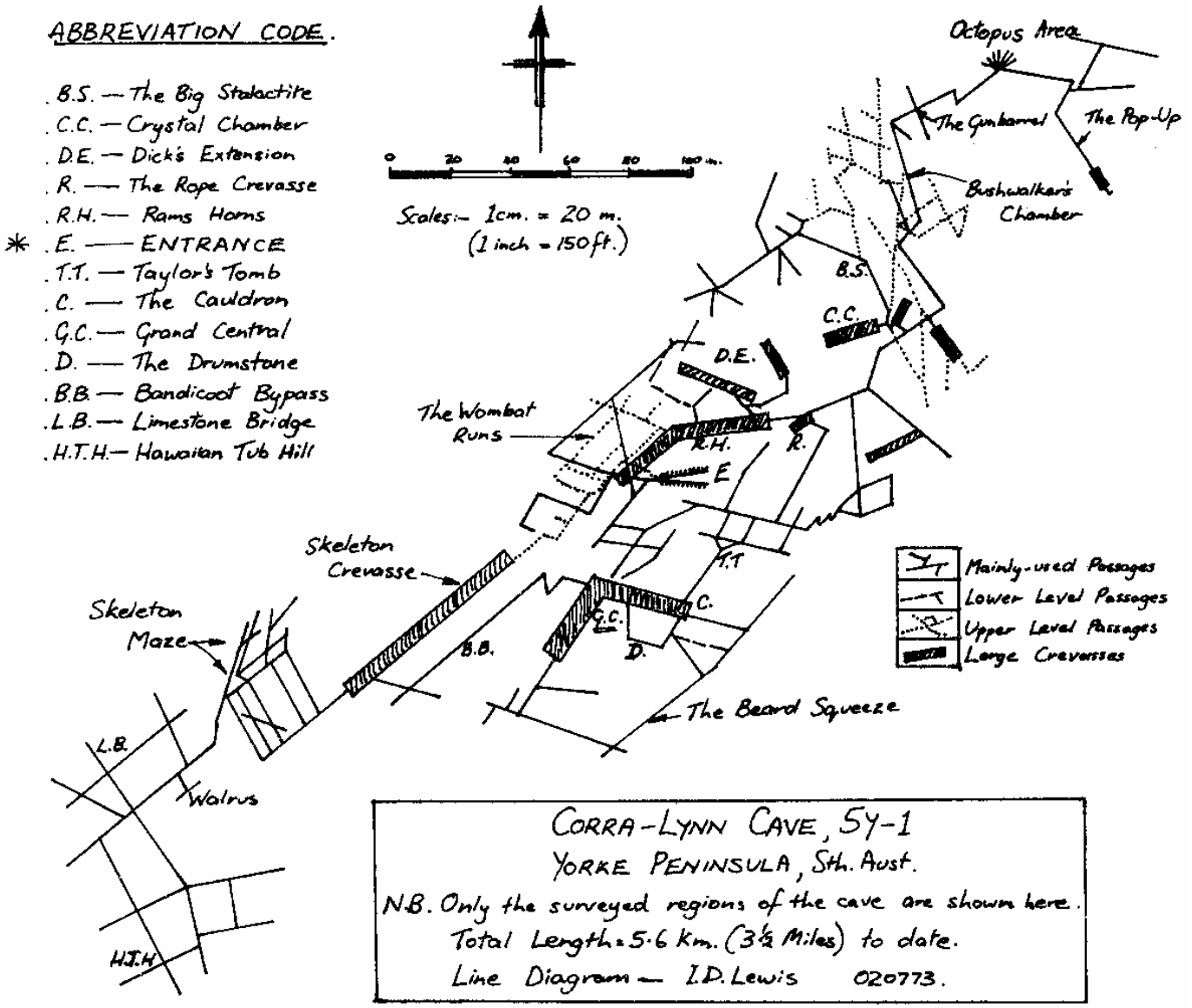
# NEWSLETTER


## Cave Exploration Group

***South Australia***

C/O SOUTH AUSTRALIAN MUSEUM NORTH TERRACE ADELAIDE

Vol. 18 No. 2
August 1973
Issued Quarterly

CEGSA NEWSLETTER - VOL 18 NO. 2, MAY 1973

TABLE OF CONTENTS

## EDITORIAL

Once again, the sinkholes in the South East of S.A. have seen a tragedy. This time, four scuba divers out of a party of nine failed to surface. Over the last four years, the total number of such fatalities in this area now stands at ten.

According to newspaper reports, all were classed as experienced divers. The question cannot help but be asked though "how experienced"? There seems to be an attitude of mind which assumes that experience in open water diving qualifies one for cave diving, and nothing could be further from the truth. Members of CEGSA who go cave diving, readily acknowledge this fact, and the accident free record of the Group supports this.

It is to be hoped that all the thought, investigations and recommendations being actively pursued at the moment, will produce a workable solution to protecting scuba divers, and the sink holes and caves they frequent.

E.H. Bailey

## CEGSA MEMBERSHIP LIST----------JULY 1, 1973

After an awkward start earlier this year, due to the resignation of Ed Sangster as membership officer because of outside commitments, CEGSA's membership lists are now fully up-to-date, at least as far as I can manage. However, there are still people in the Group who have not renewed their membership and they are no longer on the list. This newsletter will be the last one they receive unless they take appropriate action in the near future since it is quite unfair that the committee should have to chase all the time to keep things in order. The current list of 1973 paying members is as follows.... those who notice their names missing will realise that they are no longer "IN".

### FULL MEMBERS

| | | | | |
|---|---|---|---|---|
| E. BAILEY | G. CARTER | G. GARTRELL | A. LAKE | G. PILKINGTON |
| T. BAILEY | B. DASBOROUGH | W. GOEDECKE | P. LAKE | N. PLEDGE |
| H. BAKER | J. DeGRAAF | G. HAVENS | I. LEWIS | B. RIVETT |
| J. BAKKER | B. DUNN | D. HAWKE | V. LINKE | E. SANGSTER |
| P. BOLLAND | J. FOULDS | P. HAWKES | M. METH | A. WILSON |
| R. BOWEN | R. GALBREATH | R. HUTCHINGS | K. MORIARTY | J. WILSON |
| G. BOWLEY | M. GAMBLE | J. HOSKINS | G. NINNES | |
| D. BURKE | L. GARTRELL | A. JACKSON | R. PAILTHORPE | |

### ASSOCIATE MEMBERS

| | | | | |
|---|---|---|---|---|
| T. BISHOP | D. DaCOSTA | S. HUGHES | W. RESTALL | D. SHEARING |
| A. BROWN | M. DENNIS | N. OXLEY | P. ROGERS | D. SUTTON |
| P. CAIRNEY | L. FEILDHOUSE | A. PILKINGTON | G. SARE | J. YOUNG |
| R. CARTHEW | D. GOOLEY | P. PRUST | D. SARE | |

Obviously, serious deficiencies exist in the list of Associates and I hasten to admit that many of those not listed may well have paid at the beginning of the year. If that is the case, I would ask those concerned to contact me and show a receipt or something so I can make the necessary adjustments. However, the list of Full Members is completely accurate as at July 1, so those not listed are indeed non-financial.

I ask your help to straighten up this business so that at the beginning of next year everything will be organized from the beginning. It should be realised that the due date for renewal is March 1 of each year, not July!

Ian Lewis, Membership Officer

## NULLARBOR CAVE DIVING EXPEDITION: January 1974

In January 1972, I led an expedition to the Nullarbor Plains to dive in selected underground lakes (Weebubbie and Cocklebiddy). The trip had a basic party of 32; 7 divers and 25 dry cavers, wives, scouts etc, and our efforts produced 4000 ft. of new cave, all surveyed, in the various holes visited. Large discoveries were made in both wet and dry sections.

The same sort of expedition is being planned for the end of this year, with dates approximately Dec. 26 to Jan. 14, and I am at present asking for applications from anyone interested. Chances of success are ENORMOUS --- new cave everywhere!

The expedition will take place in three stages, revolving around the diving. The plan is to camp for one week at each of three deep caves, to permit thorough diving exploration and survey, and dry cavers will be needed to help carry tanks, wetsuits and survey gear down to the lakes for each dive and back again, for re-filling and drying out. You will appreciate that the diving teams will need all their energy for exploration.

However, I want to divide the 30 or so dry cavers into, say, 3 teams to explore and survey to high standards large caves within the vicinity of the base camps. These will include Murra-el-elevyn, Pannikin Plain, Tommy Graham's (if we can find it!), Warbla and extensions in Weebubbie. We will also be visiting Mullamullang for a few days for work purposes and there will be several days set aside specifically for photography in the big caves. A "MAGNUS!" Diprotodon may be available but Hillii versions will certainly be used.

Cost per person from Adelaide would be approximately $50.00. No divers are needed -- we've got enough! Interested trogs are asked to write to:-

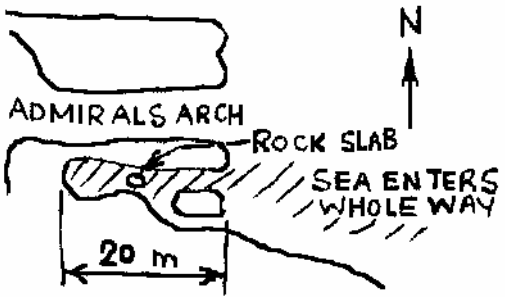
Ian Lewis,
12 McLachlan Ave,
Glenelg North, S.A. 5045.

Please give some idea of your caving experience although single rope techniques will not be needed. Past Nullarborophiles are particularly welcome!

KANGAROO ISLAND TRIP 1973
EASTER PERIOD

The trip began in the early hours of Good Friday at Briscoe's bus terminal. After 1½ hours travelling, the Philanderer then took the thirteen of us, on a rather rough boat trip, to the Island where Robert and Graham Smith met the group and transported us via Seal Bay to the Flinders Chase Board Hut. No caving was done on the Friday but everyone was up early Saturday and on their way to Kelly Hill by nine a.m. Saturday was spent looking for new caves to the south and west of the Tourist Centre. K11 and K14 were not found but a collapse with a single chamber below was found. A dig was started in the lowest part of the cave but ended abruptly at a rock face. This cave is due south of K1 at the end of a ridge, about one half mile distance. Others of that group explored holes behind the Kiosk.

On Sunday the Group split into two, one going on a tourist trip to Cape Borda and the rest to West Bay. At West Bay a party explored the sea cliffs to the west for marine caves, and found very small cave openings and another party spread out in a westerly line parallel to the coast and scrub-bashed inland. A huge sink was found at the end of a river where the water obviously vanished into the silt when the river flowed but no cave was found. After this we visited Cape Du Couedic and a marine cave alongside Admiral's Arch was explored. A diagram (very rough) is drawn below.




On Monday Kelly Hill was visited again and the tourist cave was left open for us to look through as well as Trogs Delight. K1, 2, 3 and other openings were explored. Owing to transport problems four of the group had to leave to catch the boat.

On Tuesday further exploration of Kelly Hill was done and New Year's Eve and New Year's Day caves were explored. These follow an underground river passage but do not as yet connect. In the former cave a dig was done and the water course was found but became too tight to follow after about thirty feet. The latter consists of a cave with entrances at both ends. This was surveyed with compass and tape and was good practice. Tuesday night was spent in Robert Smith's shed and on Wednesday Mt. Taylor and Emu caves were visited. That night, for many, was rather disturbing and on the boat trip back to Cape Jervis there was great interest in looking closely at the boat's screws.

Tony Lake

## GEOLOGICAL RESEARCH AT THE NARACOORTE CAVES

A team from Flinders University has been working for nearly two years to reconstruct the history of the caves in geological terms. The bone deposits are the focus of the activity since we are trying to reconstruct the environment at the time (over 40,000 years ago) the animals walked the surface. To do this we need a complete picture of the range of conditions (climate, soil, vegetation, geomorphology etc.) at the present time, and use this to make predictions about the past. Apart from the bone deposits, the structure of the cave system contains evidence of the nature of the processes which formed the caverns. These processes have varied over the hundreds of thousands of years, leaving clues which we try to piece together.

One of the best clues to the past is the shape of the cave system. The caves occur in a sand-dune capped limestone ridge, dating back at least 700,000 years. At one level in the ridge there is an extensive development of weathered limestone with a honeycomb structure now filled by clay. Most of the low passages are found in this layer, which is evidence of an ancient body of fresh or salt water covering the country-side about the ridge. It is believed this body of water existed in the upper Pleistocene when the sea formed the Naracoorte west dune, but may be earlier or later. Drill cores to be taken soon may answer this. Water from rain on the ground surface seeped down through joints in the limestone, weakening the rock by solution along cracks and carrying clay from the surface soil. There was very extensive soil development over the area at this time, and the water seeping through this to the limestone became highly acidic allowing extensive attacks on the calcium carbonate of the rock. The basic shape of the present cave system was determined at this time.

Eventually the water level in the ridge fell as the lake or sea receded. At times the level would be slightly higher, depending on the climate. As it fell, it allowed the active waters from the surface to penetrate deeper into the ridge dissolving more limestone beneath the honeycomb layer which collapsed along the joint lines, filling the lower caverns. These are now probably filled with sand and clay. Larger caverns formed linear series along the major trend of the ridge (and joints).

This activity varied with the climate on the surface, for this determines factors such as rainfall, evaporation rate and soil cover. Periods of high rainfall and low evaporation, such as during ice ages would have meant increased solution and formation of caves. The type of vegetation also affects the availability of water to the limestone. For instance it has been shown that replacing grassland by pine forest decreases the flow of water through the soil to one sixth or less. Therefore, caves beneath recently removed pine forest should be wetter than previously. Much of the sand now found filling the chambers of the bone deposits entered late in the history of the caves. It is possible that a semi-consolidated sand-dune and beach deposits once covered the limestone in the cave reserve area, protecting the chambers from sand fill. When the last vestiges of this dune were eroded away, possibly in the last ice age, when water runoff was significant, the top of the cave system was exposed, allowing sand and animals to enter freely. A similar situation might occur if the dune covering S102 cave was removed.

It is important to know what was the shape of the entrance by which animals came to be in Victoria cave. If it was a walk in entrance, then the larger animals could have been dragged in by predators or just used it as a shelter and place to die. If it was a hole similar to the Cathedral cave entrance, then some mechanism must be proposed to transport the carcasses from the place where they fell to their present position. We have located a large entrance in a sand filled major depression over Victoria cave. Hand angering showed a minimum of 28' of sand filled cavern. Compressed air drilling (compressor loaned by the Naracoorte District Council) extended this to 34'. We are at time of writing engaged in drilling with a continuous auger on a crawler tractor loaned by the Council. The result should be a clear picture of the shape of the entrance.

Another aspect of the work has been on the ancient water table level marks, now found on the cave walls well above the present level. These tell of significantly higher and lengthy stands of water in the caves, and hence of the outside lakes. If, as is proposed, these date from many hundreds of thousands of years ago, then their present orientation should show whether the South East of the State has been subjected to tilting to the north, as some writers have stated. We have evolved a method of using a 400' long PVC tube filled with water and carrying a telephone line. This is used to obtain levels throughout a cave system, accurate to less than one inch, allowing us to determine the shape of the marks on the walls over thousands of feet. In Victoria cave the honeycomb layer is definitely flat topped. The next stage is to identify this level in other caves over a distance of some kilometres, and survey between them to measure the relative height. One benefit to cavers is the set of Aluminium tags throughout Victoria cave. All these are at the same level and may be used to check surveys.

To fill in the gaps in the sketchy history of the cave system given above, many diverse projects are being maintained by the team. These include monitoring of water levels in a lake in S102 cave to provide information on the permeability of the limestone; geological mapping of the ground surface; paleomagnetic orientation measurements on the clay deep in the caves to see if the layer can be correlated between systems; soil and paleo-soil sampling and analysis to compare present conditions with those of the past; and a major drilling program to core the sediments of the interdune flats. The latter will show the history of sedimentation in the region from the time the sea lapped onto the ridge. From this we will be able to infer the types of environments since that time.

The work is supported by equipment from the Earth Sciences discipline of Flinders University and the Naracoorte District Council. Finance is provided by Department of Environment grants for research on the cave reserve. Together with the paleontological research on the bones, the result will be a reconstruction of the past allowing better understanding of the interplay of forces in the present environment.

Kevin Moriarty

SINK-HOLES AT PORT LINCOLN

WHALER'S WAY - JUNE 1973

On a recent trip to Port Lincoln, I took the opportunity to examine a substantial collapse doline which had formed in late 1970, in an area now known as Whaler's Way. This is a controlled National Park requiring an entry fee of $1.00, for the pleasure of smashing your car into the limestone boulders at low speed or stuffing it into the scenery at high speed depending upon how you drive. For those with the rally driving spirit, there is the added possibility of drowning in the temporary lakes which form all over the road after moderate rain.

It seems that during construction of this "highway", a minor slip was noted to have occurred in the roadway. No further attention was paid to this fact and the "highway" was duly opened. Shortly afterwards, a tourist happened to remark to Ranger Trev White that he nearly got cleaned up by this hole in the road. "I'll bet you were driving a Land Cruiser" said Trev. After much discussion and violent arm waving, the tourist agreed to take Trev to the hole.

"Behold, the hole!" Perfectly circular, about 20-25 ft in diameter and placed smack in the middle of the road where the slip had occurred. A lopsided talus cone dipped at its lowest point to about 15' below ground level "Fantastic" said Trev, scheming up some way to brand it WHITE, without having to call it White's Hole. For the uninitiated, everything else in the park is named after the said gentleman or his fellow Ranger Bob Theakstone or their wives and kids and pets.

Despite all this excitement no one questioned its formation or asked if it was an isolated case. In fact nobody ever had a really close-up look at it to see if it continued anything at all.

Having negotiated the boulders and the scenery I jumped into the hole and began peering under the rubble for black holes. In a few minutes I had established that there were two black holes both of which were blowing out damp air. These were located at the lowest end of the talus, hard against the doline wall. In fact, the presence of air blowing out solved the riddle as to why one portion of the wall was blackened. I had first attributed this to a fire, but the absence of a platform on which to build a fire and the lack of ashes convinced me that this could not be the case. What was apparently happening was that the moisture laden air coming out of the cave was able to support a minor algae growth on the wall closest to the exit. In addition the saturated limestone wall appears darker when wet than dry limestone.

After shifting rock for perhaps half an hour I had also established that the 2 black holes connected and that it was possible to get into one of them. I could not see where the floor was below the initial entrance, and bearing in mind the recent nature of the doline I decided not to proceed alone. I went back to the park entrance to get Trev White to come along. He was quite happy to help me out provided he did not have to go in.

He belayed me into the hole which to my great relief I found to be only 5' deep. Pushing and shoving dirt and rocks for a few minutes enabled me to enter a lower chamber from which the air stream was even more obvious. It had that familiar cave air smell that beckoned me on. From this lower chamber my torch beam illuminated a number of tree roots and negotiable passage, for perhaps another thirty feet or so at about a 60° slope down and away from the doline. Beyond this the roof obscured my view. I did not negotiate this passage as it was blocked by a rock holding back an unknown quantity of rubble.

The doline appears to be formed in a dune limestone which is capped by about 2' of calcreted limestone. Most of the breakdown debris is very soft, but the entrance to the "CAVE" appears to be somewhat firmer.

The area in which the doline is situated is moderately undulating with a fairly dense mallee scrub, carpeted by a thick mass. About 25% of the ground surface is exposed limestone, occasional outcrops showing typical karst development with minor solutional pitting and solution flutings.

## HALDANE'S PLACE - JUNE 1973

Port Lincoln fisherman and farmer Ross Haldane had once promised to show me a large sinkhole which he claimed was located on his property. I held him to his promise recently and was duly misguided to a spectacular collapse doline situated about 9 miles West of Port Lincoln. I was suitably unimpressed to hear that he had used the sinkhole in the tradition of all farmers, by unloading an old tractor into it. However my fears were shown to be unfounded upon reaching the site.

"Behold, the hole!" Once again, almost perfectly circular, 15-20' diameter and perhaps 20' below natural ground level at the lowest point of the talus slope. Leaping forward in anticipation of a major cave, I heard my guide matter something about "mad dogs and Englishmen". Undaunted I scurried about in search of black holes, but alas, none were to be found; not even a breeze.

The doline appears to have formed in the same sort of material as that at Whalers Way i.e. dune limestone capped by about 2' of calcreted limestone. Most of the breakdown material is fairly firm but this may be due to calcretion on exposure. A number of small bushes are growing in the sinkhole and yet it does not have the appearance of great age. I would estimate it to be about 20 years old.

Surrounding areas are slightly undulating with sparse mallee growth and large clearings. About 5% of the ground surface is exposed limestone increasing to about 50% on the ridges. There are many examples of surface solution sculpture on these ridges with very pronounced pitting in places. Numerous small dolines pock the area but none approach the size of the main doline.

These areas certainly warrant further investigation and digging.

J. De GRAFF

## REPORT ON THE SURVEYING SIDE OF THE 2 RECENT TRIPS TO

## CORRA-LYNN CAVE

The first effort in a revitalized campaign to map Corra-Lynn Cave ("...this continually expanding, surveyor's nightmare!...") began-on the long weekend in June. The survey party consisted of 11 people under the leadership of Jim Rossiter, who have been responsible for large quantities of high-standard mapping in the South-East under Fred Aslin. They can be credited with surveys of Snake Hill, Five Corners Cave (we haven't got any ends there either!) Mt. Burr Cave and lately Furness' Cave —— achievements which CEGSA would do well to emulate. I divided these people into 3 teams, each with a miner's dial, and allotted 3 sections of Corra-Lynn Cave to them, which were either unknown or most inadequately mapped, so 3 separate grade 6 surveys were commenced. The weekend's result was about 900 feet (270m) of map with the inevitable unmapped side tunnels off in all directions, which will now be added directly to Bob Sexton's original 8000 ft (2440m). Timothy Burke and myself raced through the maze system above the Crystal Chamber and Bushwalkers, spraying compass bearings and flinging tape ends all over the place in the shortest possible time to "knock off" 1200 ft of grade 3 survey in 6 hours which bypassed several small lateral crawls, showing them only as question marks. However short the time was, the emphasis of this survey was essential DETAIL and every single sandfill or rockchoke has been noted together with an idea of its dimensions at present and its estimated potential.

The poor old grade 6 teams who had to plod along because of the time needed to record all the detail, long sections etc. did an excellent job of mapping the 2 right-hand flattener systems in the Bushwalkers Tunnel near the Rope Crevasse and along the Bushwalkers itself for some distance. They also rediscovered and mapped the long-lost and practically untrogged Dick's Extension (involving a HAIRY access climb) and headed off into the west beyond Crystal Chamber and past the Big Stalactite to the end of that particular system.

2 weeks later we returned to go on with the job. Max and I trundled off down to the Big Stalactite to tidy up with hand-compass and tape those little loose ends left by the grade 6 team previously. 6 hours later we had surveyed 250 ft of maze and commenced a dig which later Max pushed through for another 200 ft or so and this was only the FIRST TUNNEL on the right-hand side. In fact, it wasn't even past the Big Stalactite anyway! Bleaaaahh...

After introducing 10 Uni. students to the joys of Grand (Central) Touring and grovelling, a party of 5 went back to the Big Stalactite area and did round it off to the tune of 300 ft of extra passage and a dig was commenced… this has no air flow but heads in the right direction and is a diggers dream (remove a cubic yard of soft dirt and go to sleep in it while the other bloke digs his lot!)

At this stage it was decided, to commence work on the hitherto practically unmapped Bushwalker's and the "ON and ON", and the last effort of the weekend produced 600 ft of map, RIDDLED with roof and floor holes as well as the usual $n^2$ unexplored side passages.

In 2 successive trips, 3000 ft (900m) of the cave, never before mapped although well-known, was added to our previously scant knowledge of Corra-Lynn's northern end.

Special thanks to:-

Max Meth for his transport, patience and tolerance of the mapping maniac who kept sending him into tighter tunnels with a tape.

Denis Burke for his "Information Sheet" which he handed out to all 93 people at the cave over the long weekend, and for his signs that were placed in the cave to keep all non-surveyors out of the survey area.

Jim Rossiter and all the others for their willing help and organization and Timothy Burke for being the fastest and most efficient chairman on any survey I have conducted.

Ian Lewis.

## SHORT AND LONG RANGE POLICIES for SURVEYING of CORRA-LYNN CAVE 5Y-1

### Plus a brief mapping history.

Elery Hamilton-Smith (the character who in days gone by lit his trog lamp by kicking over his motorbike while holding the spark plug!) began the first serious survey of Corra-Lynn Cave but only got as far as the Grand Central region. CEGSA has recently come into the possession of his final draft and this must surely be the group's most sacred document (apart from the bloody constitution!) and at present it is being stored until it can be framed — the Group's oldest map.

Bob Sexton then took up the job of surveying in about 1960 and in the course of a year or so he produced an excellent grade 6 map of all the Grand Central Network, Wombat Runs and Rope/Ramshorns, totalling 8000 ft (2440m) and featuring 156 cross-sections. The final draft of all this work was done in 1961 and at that stage R.T.S. became involved in other things, leaving caving altogether. Because he still retained all his notes and maps, CEGSA's only map of Corra-Lynn was a photocopy of a pencil tracing or something slightly better, which featured incredibly vague doodlings off each end reputed to be Bushwalkers, Dick's Extension etc.

Another CEGSA original, Bob Davies, ran a grade 4 survey through the Skeleton Crevasse and into the maze beyond and that was IT.

Max Meth has done some surveying of odd sections, principally off the end of the skeleton Maze in the new rambly section, and the Bandicoot Bypass (once known most inappropriately as the Railway Tunnel) and you can see his trig point markers amongst all the others that decorate the whole cave, if you can crack the colour code to tell whose is whose.

When I came back from NIBICON looking for a South Australian cave that could provide competition for Mammoth Cave, Jenolan, I was urged to start on Corra-Lynn. However, it became quickly obvious that nearly all the maps, sketches etc. and memory reports didn't fit together beyond the ends of the map that Sexton did, so I decided to attempt to collect all the old records together before starting any actual fieldwork --- no point in mapping what was already done. It was a real stroke of luck that I met Bob Sexton only a few weeks before he went overseas and was given all his field-notes (still in first class order) plus... "The MASTER PLAN".

Obviously, the ultimate goal is to have the whole cave drawn to the same high standards that he initiated, but with lack of time, lack of knowledge of the cave and the spectacular new finds by Graham Pilkington, Denis Burke and Max Meth, I felt that the high-grade surveys should be put aside for the time being. After discussion with the Committee, it was agreed that grade 3 surveys of everything we can find is the best way of establishing where the cave goes and for how far. Hence the surveying policy.

I think that at the rate our grade 3 surveys are going, by the end of this year all of the known cave will be mapped to this standard. It is of course quite on the cards that the relentless digging teams may break through into something new, and I certainly hope that they do. If not, then next year the grade 6 surveys could commence. All in good time, of course.

At present, a fairly shrewd estimate of the cave's length is 3½ MILES or 5.6 KILOMETRES ... second only to Mullamullang and Exit Caves, and probably a neck in front of the Jenolan Cave complex in N.S.W. and Johannsen's Cave in Queensland. I feel confident that we will reach 4 miles with little effort, but beyond that it is truly quite impossible to guess although the others are working at several digs of high potential. What will they find? Maybe plenty, maybe even nothing, although it would take a true pessimist to propose the latter.

About ¾ mile away to the north-east at the bottom of the hill containing Corra-Lynn Cave is the Curramulka Town Cave. Up until recently it was regarded as a very short sporting cave (Eastern States interpretation of grotty, wet and arduous) with a 100 ft (30m) entrance pitch, restricting entry only to a few experienced trogs. It was firmly established earlier this year that in fact the cave is too big to be toured (that's a stretched sense of the word) in a one-day trip. Its southwest and northeast ends are certainly not well defined and recently a horrible hole was pushed in the S-W corner which led to clean white flowstone (a real anachronism itself) and an upper level extension that was not examined. For years, cavers have dreamed of joining this cave to nearby Corra-Lynn, although healthy pushing in the latter has only given us a maximum depth of 100 ft, which because of the hill that the cave exists in is still some height above the top of the Town Cave entrance. The 2 caves appear to be in quite different types of limestone, although this would need to be verified, so joining the two is unfortunately still a long way off, if indeed it is even possible. I think that pushing in the S-W end of Town Cave is more likely to be rewarding in closing the gap between them, but the energy reserves and fitness required are beyond most of CEGSA's personnel. Truly a job for the diehards and as such it will have to wait for the time being.

CEGSA! we can be proud, of Corra-Lynn Cave at last. It has shown itself in the last year to be a cave deserving much more praise than it normally receives. It also deserves much more work since it is so close to home (day trips are possible) and it is this State's record holder. The time is NOW to keep at the jobs of digging, exploration and mapping and I feel that perseverance will reward us greatly. Let's not make this cave a 9-day wonder! Remember —the cave doesn't stop just when you decide to, and it is often that insignificant little squeeze that leads to the breakthrough!

Ian Lewis

The Alan Hill Memorial Library Fund

You intended to make a donation to the above Fund? You have not yet done so? We would still be pleased to receive your donation at any time. The fund now totals $311, and will be used for the purchase of appropriate books to establish the Alan Hill Memorial Library. If there are any particular books you feel should be included in this collection, please inform our librarian, Max Meth or any other member of the committee.

G. Gartrell

The CEGSA Annual Dinner and Others

The Naracoorte Hotel is still standing after the recent combined VSA-CEGSA dinner. This chair popping, coat hanger stretching occasion was a pretty good show from what anyone can remember of it, and bound to be repeated or improved upon in years to come.

Meanwhile, there is a Group Dinner to think of. Tentative plans are in hand for Saturday 8th December, 1973 at a suburban or near hills hotel - so watch this date. The Saturday night is chosen so country members have a chance to get there. We would like to hear from you on what suits you best, since it is your dinner after all.

We will have to book early, so please drop a line indicating support or suggested changes as soon as you can.

The dinner guests will total about sixty, if you have any ideas on eating houses. And of course we cannot forget about the slide competition no matter how hard we try!

G. Gartrell

A road from Curramulka somewhat towards Port Vincent
Fence line
SOME SURFACE RELATIONSHIPS
OF CORRA-LYNN CAVE, 5Y1.
Scale: 1cm. = 55 metres.
Town Cave and
the Quarry are
about 1.5km away.
A small
shallow doline
Gate
Fence line
300m more
unsurveyed
Doline
30m diam
A road somewhat towards the town of Minlaton
N

## SOME SURFACE RELATIONSHIPS OF CORRA-LYNN CAVE, 5Y-1

As you approach Curramulka on the road towards Minlaton, over to the left above the township, the trees near the Cave can be made out at the top of a gentle hill. Passing through the town, there is the Town Cave, the depths of which used be the local water supply and then the quarry in the same line (220°) towards Corra-Lynn Cave.

The admirable patience and co-operation of the owner of the property, Mr. D. Correll allows CEGSA and other interested bodies to visit the Cave and work in it without a great deal of hindrance, but, of course, it is desirable to notify one's intention preferably before hand.

On the front cover of this newsletter is reproduced a composite line diagram by Committee Member Ian Lewis. It was drawn from his own work, that of Bob Sexton et al., Max Meth and numerous others. Mapping is in the ascendancy in 1973 and this is the first composite map in existence. To illustrate the surface relationships, a reduction to a 0.343 stage was effected and this was superimposed on the local scene on page 25.

North of the Cave compound, is the top of a small hill about 0.25km away. The ground falls away gently in the other directions. Two known dolines are marked. Other dolines have been farmed out over the years. The one down south beside the road was impressively big but had no known cave entrance largely from lack of exploring for one.

The compound itself is square and contains several rows of relatively unhappy trees. It is fenced to prevent stock from trying trogging or otherwise coming to grief.

The rock is an uncommon limestone of Cambrian age (600m years or so). The survey shows the passages spread over a wide band from northeast to southwest. There are no definite borders yet but up in the NE at the end of the On-and-On is a point where 30m of a different rock are met at a T junction, either as a joint or a fault. This new rock is smooth and breaks into square chunks and does not seem to be caverniferous. The point is tentatively known as OFF. The surface relationship is unfixed.

The relationship of the compound and the cave passages, especially the principal ones and the best known areas, may be read off the maps. Grand Central is over under the water tap in SW corner. The privy is in the NW corner above the Wombat Runs. The Rams Horns Crevasse is totally enclosed and the Skeleton Crevasse and the Maze and the newer sections are down in the fields ahead.

Beyond Hawaiian Tub Hill, there is a further 300 m or so of known passage unaccounted for as yet and there are more finds yet to be made and surveyed no doubt, both here and elsewhere. As the maps are upgraded, certain subtle changes may have to be allowed for to correct errors which come to light, but the new line diagram is a valuable and a significant development.

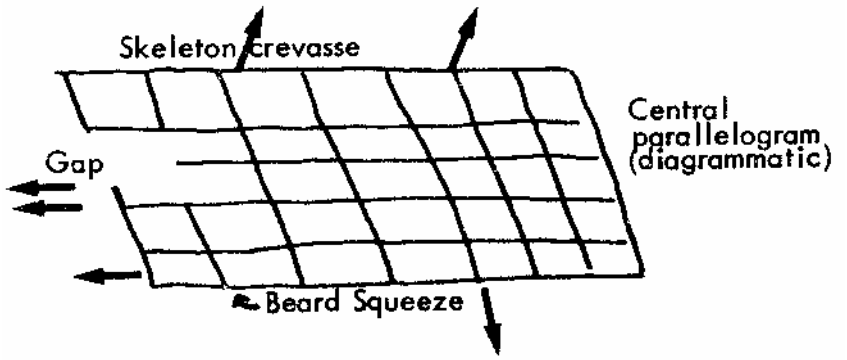
D. Burke.

Illustrations for p.28

This cave system is based on a series of parallel joints. Those across the page are here called intersectors and those running up and down are perforators. The joints are eroded in varying degrees and then filled likewise in varying degrees with soil, clay or stone debris from walls or roof. A quite deep crevasse may be left totally filled or pretty empty at this stage. If joints cross, more material may drop there.

The central parallelogram is made up of at least six intersectors. Top is the Skeleton crevasse and lowest is the unnamed passage carrying the Beard Squeeze. There are at least 8 perforators, back as far as the entrance. The western (actually SW) edge is not complete as there is a dig to do to link through to the end of Skeleton Crevasse.

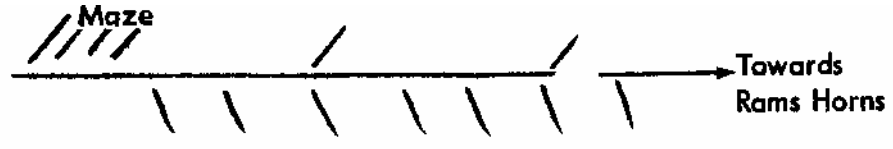
In the diagram, there is nothing known to exist at the top, bottom or to the left. This, then, is the theory of the use of surveying in choosing diggable digs. Digs with good potential are indicated by arrow.




Skeleton Crevasse Herringbone:

On the cover map, perforators running up to the crevasse (eg. Grand Central) are coming from the SE. However, on the other side (towards the NW) strangely the perforators come downwards from the North. This creates a herringbone effect. It is unexplained, but the water seems to have come down through various places from the North. One of these odd perforators is found in the side wall of the largish chamber at the end of the Skeleton Crevasse. Four more are in the Maze and there is another beneath the ladder point where the Wombat run drops into the Crevasse.

Skeleton Crevasse joint line of




Nomenclature:

Being a little short on new names, because of the pace of new discovery, there is an invitation offered to submit new names to Max or Ian. It is to be hoped that the standard of new naming will approach that at the Mammoth in Jenolan. There the names have been exquisitely well chosen. It is also necessary to seek a complete list of known names for known features.

## SOME PROSPECTS FOR FURTHER EXTENSION OF CORRA-LYNN

In another article in this Newsletter, Ian Lewis points out that this Cave now ranks third in Australia for actual length. It may become second if the present progress continues. Certainly, it is an interesting cave, a wonderful maze of passages grouped around a central entrance. Within restrictions, there are passages of all sizes tightly compressed into three levels (in places) in a shallow zone of the limestone, perhaps only 25 metres from top to known bottom. The water table is a long way down beyond.

It is not yet known if the absolute depth of the passages (which are relatively close to the surface) will follow the slope of the land. Mapping is still in progress. But one thing stands out, at any point there ought be several ways back to the entrance, so complex is the system. Yet, even so, there are many frontiers.

The possibility of climbing into a new section is limited. Every obvious easy climb has probably been eyed off or done by others. Pole scaling work is just possible, here and there, but scouting around may lead one to the opposite side. Then, there's no water so there is no siphon cracking to do. So one is back to digging, and in the past five months, an average of 60m/week of new cave has been found through digging. The perverse thing about digs is that those needing the least effort seem the most fruitful.

Early this year a new low passage was entered through a dig. It ran back from the end of Skeleton (pigeons, etc) Crevasse towards the distal end of Grand Central. This was known for a short while as the Railway Tunnel but now is Bandicoot Bypass for it has been noted to start in the Wombat Runs just before the sharp left hand squeeze. It offers an almost straight line run from the entrance to the Maze. Anyway, this passage was to trigger another great dig when Paul Dixon, Graham Pilkington and Timothy Burke and others used this bypass (Vol 18 p7; 8th April trip) en route to what is probably the most famous dig. 600 primary metres of quite exciting cave with only 2 G-picks and only 2 troghours of actual work. .and not even a shovel. (A troghour is a unit of work; when compared with achievement, it can be built into an efficiency unit. Thus, the dig at the foot of Hawaiian Tub Hill, a 225 troghour dig, was of poor efficiency … but how does one know this in advance?)

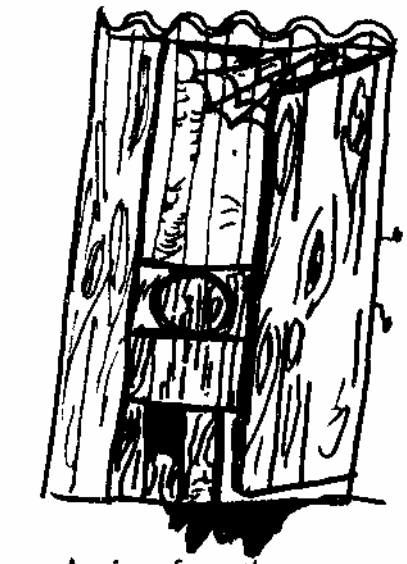
The whole of the known cave at Corra-Lynn bristles with digs, some inviting and some uninviting. The inviting ones have the softest dirt fill. One often finds, however, soft clay spread over a solid clay bank. To the North, the South and the West of the central parallelogram, there are numbers of obvious digs, all being frontiers. One side of this parallelogram, the western, actually needs a dig to complete the link between the un-named passage there and the passage coming back from the Bandicoot Bypass. Max Meth dug there on 17th Feb but was fouled up by foul air.

Talking of foul air, even in digs of as little as 5m it is possible to use up a great deal of the oxygen. Lighting in digs is best provided by a simple candle or two and, from the candle flame, one can learn a lot. Normally the flame envelopes the wick and is above the end of the candle. As the oxygen falls, the flame stays the same size at first but becomes yellower and drops down to the candle. The end of the wick is exposed and glows. As light is lost through yellowing in poor combustion, vision is also gently failing by oxygen lack. However, successful field tests (21/7/73) of the Guzoff Ventilator may greatly increase comfort and efficiency in digging. More on this later.

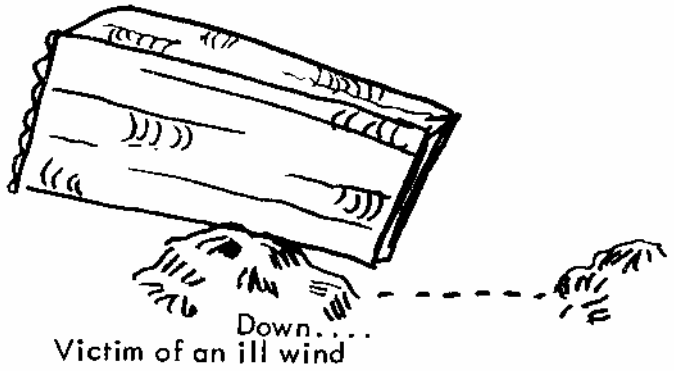
D. Burke.

# THE SQUARE SUNKHOLE, 5Y1¼

As approached from the south.
Note the kunkur mound.



A view from the east
Note the angle of tilt.




Victim of an ill wind

For well over a century, the local facilities for visitors to the Corra-Lynn Cave left something to be desired. The stripping of trees from the best part of the York Peninsula was handy for the smelters at Wallaroo and at Moonta but inconvenient here.

In fact, the nearest major trees were a small stand of gums down south on the road near the large doline (and past the first and second bull etc). Elsewhere, wide sweeps of fields.

A few years back, noises by a local Board of Health resulted in a special trip to dig a big sink hole in the kunkur up in the NW corner of the cave compound. The result is well worthy of a national trust type classification.

Certainly it has its own definite atmosphere as captured by the illustrations here. It was intended to be approached from above the ground and, in fact, the excavation did not break into negotiable cave.

There are red backs under the seat and these are matched by the white ants chomping at strategic places. Occasionally, perhaps, a visitor may be distressed to find the ever-blowing wind has been all too persuasive. Mr. D. Correll tells of one time when he heard very low mournful mooing and had to bring up a front end loader to extract a very considerably wiser calf. About the only thing that might yet happen is for a swarm of bees to take up residence along with the red backs and the white ants.

Immortalised in verse:

> O Privy in the corner near,
> How glad we are that you are here,
> For if your structure would not be,
> We'd have to use the nearest tree.

(Poem & drawings by Katy Burke)

## CAVE EXPLORATION GROUP (SOUTH AUSTRALIA)
### Programme August - October 1973

August

| | | |
|---|---|---|
| Wed 8th | Committee Meeting 8.00 p.m. | 4 Parsons Road, REYNELLA |
| 11th – 12th | Curramulka (L) M. Meth | Corra-Lynn surveying and digging. |
| Wed 22nd | General Meeting 8.00 p.m. Museum Lecture Rooms | Speaker - Gary Havens on his U.S.A. trip. |
| 25th – 26th | Curramulka (L) I. Lewis | Corra-Lynn and Town Caves. Surveying and digging. |

September

| | | |
|---|---|---|
| 1st – 2nd | Naracoorte (L) G. Gartrell | Victoria Cave more digging. |
| Wed 12th | Committee Meeting 8.00 p.m. | 43 Semaphore Road, SEMAPHORE |
| Sun 16th | Sellicks Hill (L) B. Dunn | Digging and surface exploration. |
| 22nd – 23rd | Curramulka (L) M. Meth | Corra-Lynn surveying and digging |
| Wed 26th | General Meeting 8.00 p.m. Museum Lecture Rooms | Speaker - Max Meth on Corra-Lynn Cave. |

October

| | | |
|---|---|---|
| 6th – 8th | Flinders Ranges and/or the lower South East | Details later |
| Wed 10th | Committee Meeting 8.00 p.m. | 2 Boorman Avenue, PASADENA |
| Sun 15th | Reynella Field Day 10.00 a.m. | Through gate at end of Grants Road. Follow track. BYO-B-B-Q. |
| Wed 24th | General Meeting 8.00 p.m. Museum Lecture Rooms | Speaker - Stephen Hood. Short illustrated talk on Cave Diving in the South East of S.A. |
| 27th – 28th | Naracoorte (L) J. Foulds | Digging and surveying |

### CONTACT LIST

| | | |
|---|---|---|
| Max Meth | 12 Cleve St, MANSFIELD PARK | (W) 870361 (H) 456744 |
| Ian Lewis | 12 McLachlan St, GLENELG NORTH | (H) 956582 |
| Grant Gartrell | 45 Marlborough St, BRIGHTON | (W) 596298 (H) 982203 |
| Bernie Dunn | 4 Parsons Rd, REYNELLA | (W) 822722 ext 207 |
| John Foulds | 500 Fullarton Rd, MYRTLE BANK | (W) 434162 |

### SEARCH AND RESCUE

| | | |
|---|---|---|
| Bernie Dunn | as above | |
| David Hawke | 49 Semaphore Rd, SEMAPHORE | (H) 497070 |
| Grant Gartrell | as above | |