AUSTRALIAN CAVER

THE AUSTRALIAN
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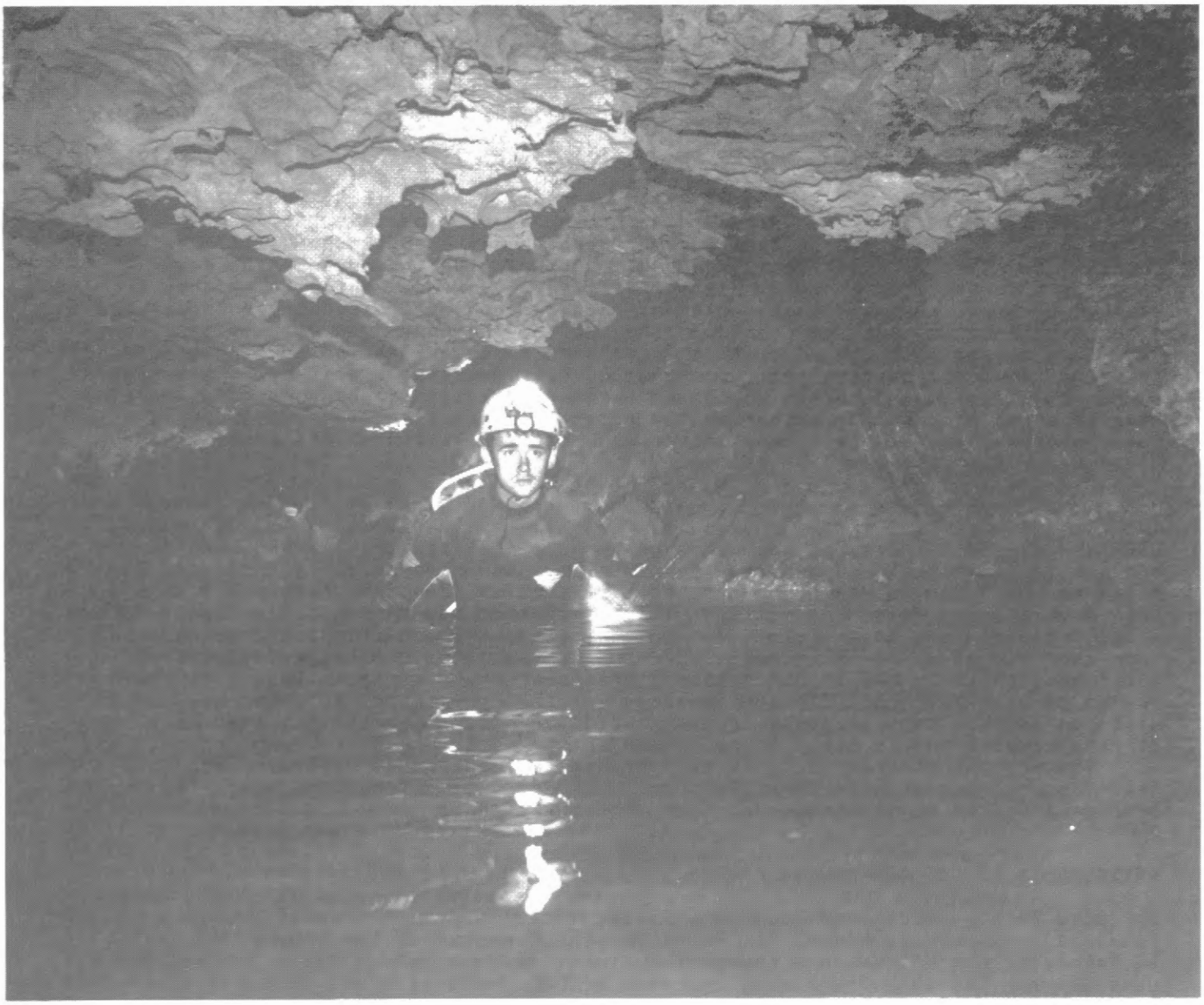
No. 120 1989



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CONTENTS

DEADLINES FOR FUTURE ISSUES:

No. 121 : end August 1989 No. 122 : end November 1989

The opinions expressed in this journal are not necessarily those of the A.S.F. Inc. or the Newsletter Commission.

Cover Photograph: "River Passage in Dalley's Sinkhole [M-35] Buchan,Vic." by P.Ackroyd Oct.1988

UP-COMING EXPEDITION - EXPLORATION, SURVEY, TOURIST

Nullarbor Plain Caves - 23.9.89 to 9.10.89. Visiting several caves, some with untrogged areas! e.g. Old Homestead (over 14 km long) and Thampanna. Details: Graham Pilkington, 66 Eyre Cres., Valley View SA 5093 (h)08 2642598, (w)08 2747620.

DOWN UNDER ALL OVER

SRGWA

Things have been quiet in Western Australia although the Group has still been continuing with their usual trip-a-month programme. During November/December Robert and Norman Poulter spent a month visiting Thailand. While there they managed to visit several caves in the north and south of the country and captured numerous biological specimens both on the surface and underground. All specimens have been lodged with the Australian Museum and copies of the collection list sent to one of the universities in Thailand with which Norm was liaising. The Group is currently planning an expedition to the Kununurra region of WA where caves have been reported that do not appear in the Australian Karst Index. The group is also contemplating a return to the Nullarbor at Christmas to finish the Weebubbie Cave Cleanup; assistance would be welcomed.

OSS

OSS is not dead!!!! Despite many rumours being circulated that we had been down and out for the count, we henceforth refute any such rumours as is evidenced by this report. 1988 has seen OSS grow steadily and we have been reasonably active with caving trips occurring at least twice a month. Most known caving areas (and a few unknown) have been visited during the past year, and six keen members even made the trip north to Tropicon. Our many thanks to the Chillagoe Caving Club for their hospitality. One of our members; President Bruce Howlett (leader of the Orange people) left only SIX months early for the conference, to motor his way in style up north. Upon arriving at Rockhampton he became heavily involved with the Mt Etna dispute and is still there. Keep up the good work Bruce, our thoughts are with you and the others. Hope to see you and the members of Central Queensland Speleological Society in NSW in October. For 1989, a variety of caving areas have been proposed to be visited, from Cape York to Tasmania.

ARTICLES IN FUTURE AUSTRALIAN CAVERS

ASF Cave Safety Guidelines, and Cave Diving Code.
Tasmania's Wilderness Karst: The Franklin, the Forests and the Future
An Extremely Low Maintenance Expedition Light
Cave Leuwin: The 18th Biennial Conference of ASF.
Submission from Ron Allum re "Renovation" of ASF.

CHILCHOTLA '87

Chilchotla '87 was the second Australian expedition to Zongolíca in the municipality of Santa María Chilchotla at the northern end of the Sierra Mazateca, Oaxaca. The aim was to continue exploration of the caves in and around the village of Zongolíca in the hope of finding caves in excess of 1000 m deep and preferably a world depth record cave. The Zongolíca area has a theoretical depth potential of 1900 m but a perched base level at 650 m asl may mean it has only 1450 m potential. Our expedition in 1985 (Australian Caver No 112) had already proved the area to be a great place for deep caves - 4.3 vertical kilometres in 9 weeks caving.

The True Story

Life in the Sierra Mazateca is rarely dull. The Mazatec Indians live at a near subsistence level selling a few coffee beans and firewater known locally as caña to buy those little extras that they can't grow or make. When a bunch of strange people from Australia arrive (few of them understand where that is - a state of the USA perhaps!), the reactions are varied.

At one stage we were asked to check out a cave as a possible village water supply. While many villagers wanted us to look for water, the nearest resident to the cave though otherwise. He screamed at us in a language we could not even begin to understand but the machete he was waving made his intention clear. If that wasn't enough, the village school teacher wound up his PA system that night and broadcast across the hills accusations that we were stealing gold and artifacts from the caves. A few weeks later the story went around that we were capturing seals in the caves and carrying them off! Any story about what we were doing there seemed to be believable except the real one - that we were going into holes in the ground for fun!

An advance team of Stefan Eberhard, Mark Wilson and I set up camp and started exploration ahead of the main group who arrived at the end of November 1987. The first cave to fall was Yuá Nita - "Suck Cave". Perhaps it was the strong "in" draft or maybe the nasty tight stretches of passage between pitches. The name stuck. But in all truth, Yuá looked good from the start. A 90 m shaft in the forest which led to drop after drop, there was no mistaking where this cave was going. At -680 m it hit a large collapse chamber, a classic Zongolíca "death of a cave" formation. Sure enough there was no way out that we could find. Suck Cave had run out of slurp at -704 m.

With two and a half months to go, one cave "bombing out" was no problem. Anyway, another had already taken precedence. R'ja Man Kijao, better known to us as Black Bull Cave has an entrance at 2044 m altitude making it one of the highest caves in the area. Any cave at such an altitude without a large catchment could not be expected to be good, and it wasn't. R'ja Man surely must be the classic of its kind. Tight, nasty, dirty and unrelenting. At the bottom of every pitch was another slimy hole which popped out over yet another miserable pit. At a lower altitude it would have been left for future generations.

On Stefan's fifth push trip, this time with Anne Gray, - his companions rarely lasted more than one trip - a foul mud wallow took him into large, clean passage. Not much farther on they encountered a big stream entering as a waterfall and flowing on down the largest river passage yet seen at Zongolíca. The horror of the entrance passages had paid off, all that remained was to follow the river to base level 1300 m below. Around the corner the stream sank into the boulders of a large collapse chamber. Done again! Stefan was so deflated that he could hardly face another cave. Fortunately the other 11 cavers in camp could and daily groups were heading out and poking into any hole that they could find. A few days of prospecting but not finding gets anybody down. Cavers get irritable, depressed and desperate.

Desperate can be the only word to describe rerigging Guixani Ndia Kijao, deepest cave of the 1985 expedition. Right at the bottom, -940 m down, was a lead seen only by me and at the time left as "too horrible" when there were other good caves going. By now we were desperate for an all-consuming cave to give some direction to our efforts. So began the rerig of Guixani and the inevitable jockeying for position.

Who was going to be THE ONE to pass the -1000 m mark? There are no friends when it comes to "booty" a kilometre down! Anne and Mark won the first push and got their booty. For hours they groveled through grit, dug sand, slithered in mud. They never did find the climb that I remembered but they did stop at a strongly drafting squeeze just above water level. Next day they emerged totally disillusioned.- "If Warild doesn't rush straight back to a lead it isn't worth anything." they were saying. I never said it was going to be easy.....or nice!

The bottom of Guixani is a particularly scary piece of cave. Between Anne and Mark's visit and mine and Judy McNeall's it had rained a little, perhaps a millimetre or so. At the bottom of Guixani the water level had risen 30 cm. The problem was that the squeeze to be pushed was only half a metre above water level.

With a little hammering the breakthrough came but after some climbs the air dispersed through rocks into an even more desperate lead. Two days later it rained properly, the water level rose ten metres and stayed that way until well after we gave up and derigged the cave a month later.

Just before Christmas, Ross Bannerman and Keir Vaughan-Taylor rechecked an entrance which had been found some days before but not entered. Like all good cave prospectors though, they were carrying torches. In their somewhat dim light they were able to follow the rain swelled stream along a meander to the top of a gushing first pitch. Immediately there was an eager rush to help them explore the cave. That night the intrepid explorers hit the cerveza and decided to call the new cave "The Club" (members only!) Unfortunately for them, the Mazatecs had found it several hundred years before and called it Sonconga. The expedition was back on the rails and the headlong rush to the bottom had begun. People who had previously been too sick or sore to move were suddenly filling their packs and getting down there as fast as they could. The mediocre quality of the upper cave and the mud of the 400 m level finally relented and we found ourselves dropping down through clean black rock, almost dodging the stream as we went.

On one push trip Anne, Mark, Rolf Adams and Ed Holliday got a first hand demonstration of why the lower reaches of Sonconga were so clean. The rain began in the late afternoon but the flood pulse didn't hit them until 2.00 am. Fortunately Sonconga is warm (14°C), open and the rigging "dry" enough for the cave to remain passable. They emerged suitably impressed and VERY clean! They had also rigged down to -840 m and -1000 m fever had well and truly set in.

Despite another day of rain, Stefan and Judy stuffed a pack full of rope each and headed in. The jokes stopped abruptly when six hours later Judy calmly walked into the house with blood all over her face. At -450 m she was emerging from the mud into clean passage. Running past the waterfall or because of mud on her boots she slipped and crashed headfirst into the only sharp rock available. The cut in her right eyebrow was serious so after dumping their loads they came out as fast as possible. With a surprising lack of fuss the cut was sewn up by Anne, a medical student, while Judy held a mirror and gave directions. As a vet she had sewn up more cats and dogs than Anne had sewn people! Several of the fainter hearted "club members" couldn't cope with this and the room became deathly quiet as they crawled off into their sleeping bags to hide.

The limit of exploration was a decidedly wet pitch which showed all the signs of having been rigged by a half asleep caver in the middle of the night. We clipped past the anchors and descended gently! Five drops later was a collapse chamber covered in mud. 900 m down and another dead end. At the far end of the chamber I stopped at a hole in the floor with the sound of water rising from it.

Stefan swapped me a survey pad for the lead and on we went, down the drop, along a stream, a climb, another big room. By this time Stefan was far ahead but as we surveyed down Ross and I could hear the characteristic chink-chink-chink of a bolt being drilled over the sound of rushing water. Another big "dead" chamber had an escape route out the bottom. We sat in its dry comfort to let Stefan get ahead again but before we knew it he was coming back up. We were almost too disgusted to take the survey down those last two pitches -945 m down and stopped by a puddle!

So the long drag up began. At 1.00 am your judgement is not what it should be. Back at -840 m Stefan was in front, then me, with Ross half asleep at the bottom of the drop. Instead of delicately prusiking up the rope I was powering up at full speed to avoid a total soaking, when the bolt burst out of the rock above me. I was dumped back onto a ledge under the waterfall as the rope pulled tight to Stefan who was almost at the top of the pitch. While I retired to a drier location, Stefan did a quick repair job on the rigging and resumed his climb out. As he was clipping past the double anchor at the top there was a sudden flash of red overalls as he dropped two metres and a clack as his Jumar hit the rock beside me. Just above him swung the belay, a football sized rock, still attached to the tie-off sling. Ever so carefully we teetered up the remains of the "Space Cadet Pitch" and got the hell out of there.

For a week we had no great going caves. It was also time for many people to leave when Olegario, our "landlord" showed me a hole he'd found while clearing the forest. Like all caves which "go" it looked good. There was no shortage of cavers willing to help explore "Nita Chó". The end of the first day's exploration saw me dangling at the knot in the end of a 45 m rope.

Another real cave booming down, good stream, good airflow and only five of us left to explore it. Luxury! For a change no footprints up your back on the way to the lead! This time it was a 20 m drop nearly 400 m down. Anne and Mark dropped down it to a very dead looking rockpile then retired in disgust to continue the survey. Several hours of groveling led to 200 m of passage and a better choke. On the way out, a quick look at a lead at -160 m confirmed that it "went", so the ropes were left in a heap and out we went. As a diversion from this serious business of caving, I was handed a note one evening as I returned from Nita Chó. It contained a garbled message about our truck, which was parked an hour's walk away down the mountain, being attacked. Next morning in the pouring rain I went down to have a look. It seems that a passing group of soldiers decided that it was their duty to break into our truck and check it for contraband. The owners of the nearest house also felt it was their duty to protect the truck which was left in their care. Being good soldiers they beat them up. The final outcome two days later was typical of Mexico. The soldiers were tactfully allowed to escape so as to spare the villagers any more harassment and the foreigners who all have bottomless wallets got to pay the damages. Some days it makes you wish there were real caves in Australia!

Nita Chó had not gone away and the next few trips down yet more excellent passage saw us peering into a sump at -864 m. Chó was left for drier weather while we checked other possible caves - none of which went far enough. Next trip down, the sump was gone. One last drop on our 7 mm "bootlace" rope and I landed on a rock choke. The cave ended with no hope of continuation at exactly the same level as Guixani, only 100 m away. Chó was finished at a final depth of 894 m and we had only four days to derig it, clean and pack the gear and leave before our truck's insurance ran out.

After all that, the "score". - Just what did 17 cavers and 3 1/2 months produce?

Cave	**Length**	**Depth**
Sonconga	1844 m	943 m
Nita Chó	2554 m	894 m
Yuá Nita	1360 m	704 m
R'ja Man Kijao	2347 m	613 m
Ská Kijao	1095 m	380 m
Stonindó Kijao/Nita	660 m	330 m
Dachiki Nita	1769 m	283 m
Cuetzo'jia Kijao	368 m	220 m
Na'cha Jao Nita	348 m	220 m
Ching'ya Nita	310 m	216 m
Na'cha Jan Nita	250 m	200 m
Nita Decho	450 m	200 m
Nia Quien Nita	312 m	160 m
Nita Chingón	150 m	150 m
Ya' chao Nita	150 m	150 m
Total Cave Depth		**5.66 km**
Total Cave Length	**13.97 km**	
Gold	-A$ 2,500 per person	
Seals	0	

ZONGOLICA'S CAVES

The area is typified by extremely vertical caves which tend not to connect to form systems. The typical Zongolica cave has a depth far in excess of its plan length. The usual trend, apart from down is north to northwest, a good direction for maximum depth potential. The two caves which reach the lowest altitude (Guixani and Chó) both end at the same level and 100 m apart. Both also flood back easily after rain indicating a possible base level at 600 m asl which may be difficult to pass.

Major Cave Descriptions

Sonconga (Hollow Place) Length 1844 m, Depth 943 m
Sonconga begins as a walk-in entrance to a streamway which carries a good inflowing breeze. The first section has pitches alternating with meanders after which the cave drops more steeply. Initially the cave is relatively dry with no remarkably good or bad features until -400 m. Here the stream is lost for a while and the way down lies through some disgustingly muddy passage. The water abruptly returns and is followed through excellent wet passage most of the way to the bottom. Three times it is possible to escape out the bottom of large rockfall chambers, only to have the cave end in a sump as it picks up more water. This sump is 115 m above the 600 m asl "base level" and as the cave was explored during wet weather the sump may disappear in milder conditions.

Nita Chó (Animal Cave) Length 2554 m, Depth 894 m
Chó begins with Peligué Pozo, an angled shaft which immediately picks up a stream at the bottom. The stream is followed to -160 m where it is lost down a hole. The obvious overflow route soon comes back to it and goes through a meander, after which it drops steeply down dry pitches to a boulder choke. The choke goes 150 miserable metres until it becomes impossible but still carries strong air and water flows. At -160 m a short climb up leads to a separate down passage and stream which also carries a strong "in" breeze. This streamway is followed until it drops down a hole at -700 m. An obvious over route drops down 200 m of spiraling shafts to the bottom - a rock choke or in wet weather a sump. Naña Nita is a higher, smaller entrance above Peligué Pozo which connects into Chó at -200 m. Several leads still exist. At -640 m the breeze is lost up a shaft. At -250 m there are extensive fossil passages. At -180 m there is a separate stream and descending passage.

Yuá Nita (Suck Cave) Length 1360 m, Depth 704 m
So named due to the strong airflow and nature of the passage. Almost the entire cave is developed down a fault such that the cave zig-zags back and forth in an East-West direction with almost no North-South development. The predominant direction is down until the final chamber. The cave begins as a 90 m entrance pitch and is a series of drops interconnected by small, short passages and squeezes. Near the bottom it changes character to go through a meander, pitch then large passage into a long collapse chamber with no way out. The airflow at the bottom is very strong but cannot be followed once in the big chamber. A shaft entering the final chamber may well be where the air goes but would require considerable climbing to explore.

R'ja Man Kijao (Black Bull Cave) Length 2347 m, Depth 613 m
The highest cave explored on the expedition (2044 m asl.). The first 300 m is characterised by tight dirty fissure pitches, often with squeeze starts and nothing to recommend them. A clean, wet 50 m pitch signals a change. It leads to a dry, rotten 50 m pitch and a mud wallow - so much for the change! When all appears lost a rapidly improving flood overflow is reached which runs to a large 10 L sec^{-1} streamway at a waterfall. This runs some 200 m to a terminal rockpile chamber. A bypass some metres back leads only to a deeper but even deader chamber.

Ská Kijao (Seal Cave) Length 1095 m, Depth 380 m
So the locals thought we were catching seals in the caves.....A big entrance at a respectable altitude leads to a big breakdown passage and after a rockpile, to a 100 m pitch series. A section of ancient coral lined passage drops to a small, gritty streamway which only gets worse before it chokes in rockpile without a single seal.

Stonindó Kijao/Nita (Over the Hill Cave) Length 660 m, Depth 330 m
An impressive cave at a lower altitude. Stonindó Kijao has an abandoned vadose walk-in entrance which leads to a series of big, dry, spectacular pitches into a large rockfall chamber at -300 m. Several streams converge here and a way out can be found through rockpile to a dirty streamway which gets no better before it ends in a muddy rockpile. Stonindó Nita has a spectacular pit entrance with a second pitch of 150 m to a big chamber. From there four small pitches lead back to the "final" chamber in Stonindó Kijao.

TRANSPORT

A total of 2 tonnes of food and equipment was freighted in. First by post or personal baggage to the USA. Then van to Chilchotla and finally by burro/horse/mule/human the last few kilometres up to Zongolíca. Most of the food was bought at Tehuacán, the last major town and only special items such as granola bars came from the USA. Buying a van is a major outlay but offers mobility and also allows the equipment to pass easily into Mexico via a land border rather than fight its way through customs in Mexico City.

GEAR

Three kilometres of rope were taken, mainly 9 mm to be rigged Alpine style (although several people rigged sub-alpine and damaged ropes). 1600 m of rope and 100 m of tape was bought at a wonderfully low price from BEAL Ropes and the rest was personal rope brought on the basis of 100 m per person, although for various reasons many people brought other than what they were supposed to. Bolts and slings were the main rigging gear. Bolts were used extensively, (sorry Terry). 500 were bought, of which about 400 were used. Approximately 80 of the 500 "Spit" brand anchors had flat teeth and were next to useless. Pegs were used about three times and the same for nuts.

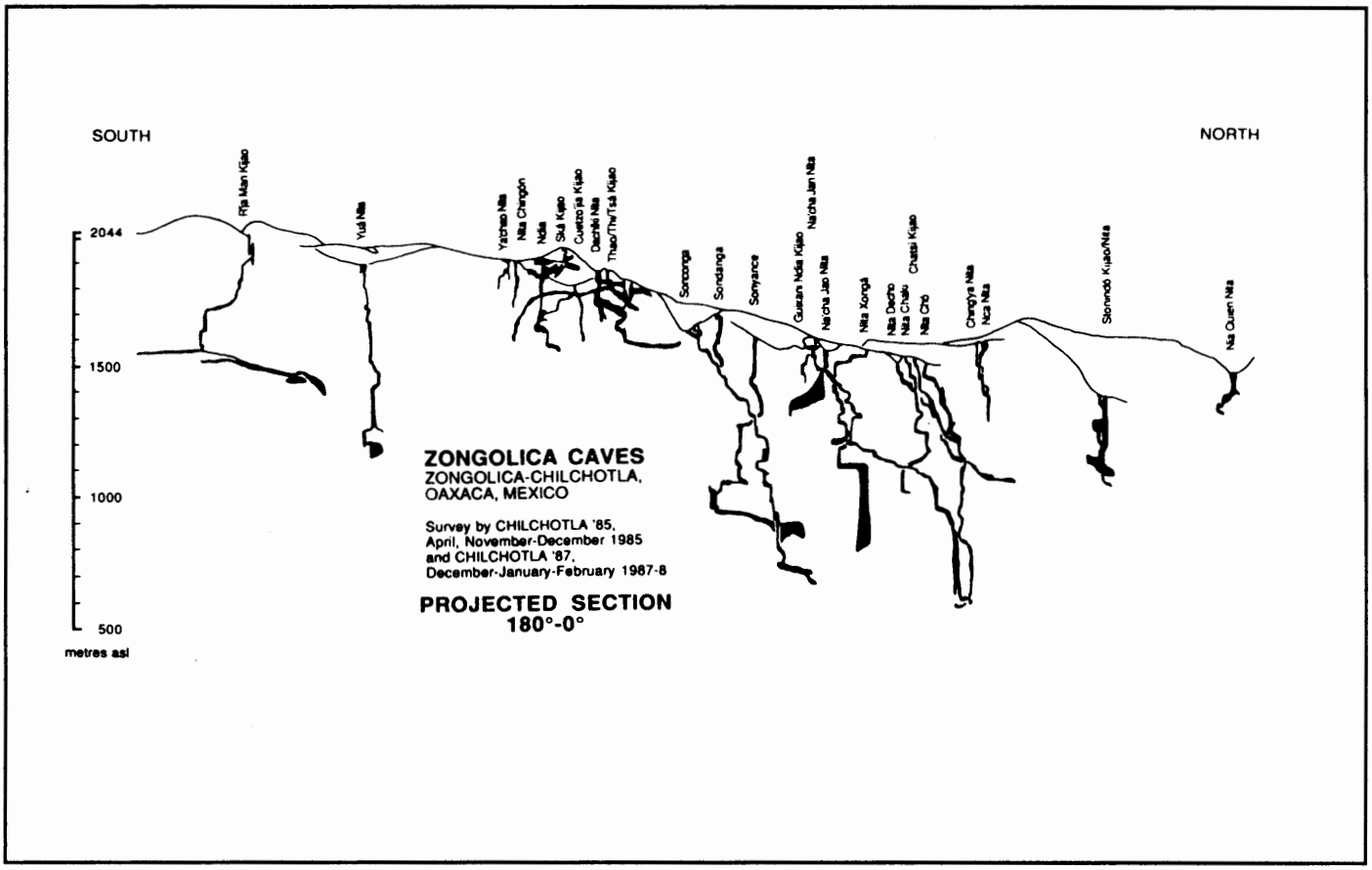
Expedition members were-

Stefan Eberhard	Nov-Jan
Mark Wilson	Nov-Feb
Alan Warild	Nov-Feb
Mark Bonwick	Dec
Julia James	Dec
Nick Melhuish	Dec (3 weeks)
Judy McNeall	Dec-Jan
Anne Gray	Dec-Feb
Keir Vaughan-Taylor	Dec-Jan
Ross Bannerman	Dec-Jan
Rolf Adams	Dec-Jan (5 weeks)
Phil Cole	Dec-Jan (3 weeks)
Richard McNeall	Jan (2 weeks)
David Martin	Jan
Sue Cade (NZ)	Jan
Ed Holliday (USA)	Jan (2 weeks)
Bob Runser (USA)	Jan (2 weeks)

Thanks must go to our sponsors, BEAL Ropes of France who gave us an unbeatable deal on their excellent "Antipodies" rope and tape. Australian Geographic gave A$2000 cash which went a long way towards paying for the rope and its transport.

Special thanks go to - Diana Northup, whose Albuquerque house we invaded, Kenneth Ingham and Ziggy for tolerating us in the above house, Fritzi Hardy for minding our truck and yelling at bank managers for us and Olegario and Porfirio de la Cruz who looked after us in Zongolíca as well as showing us more caves than we could check in a year.

Alan Warild


SOUTH
NORTH
2044
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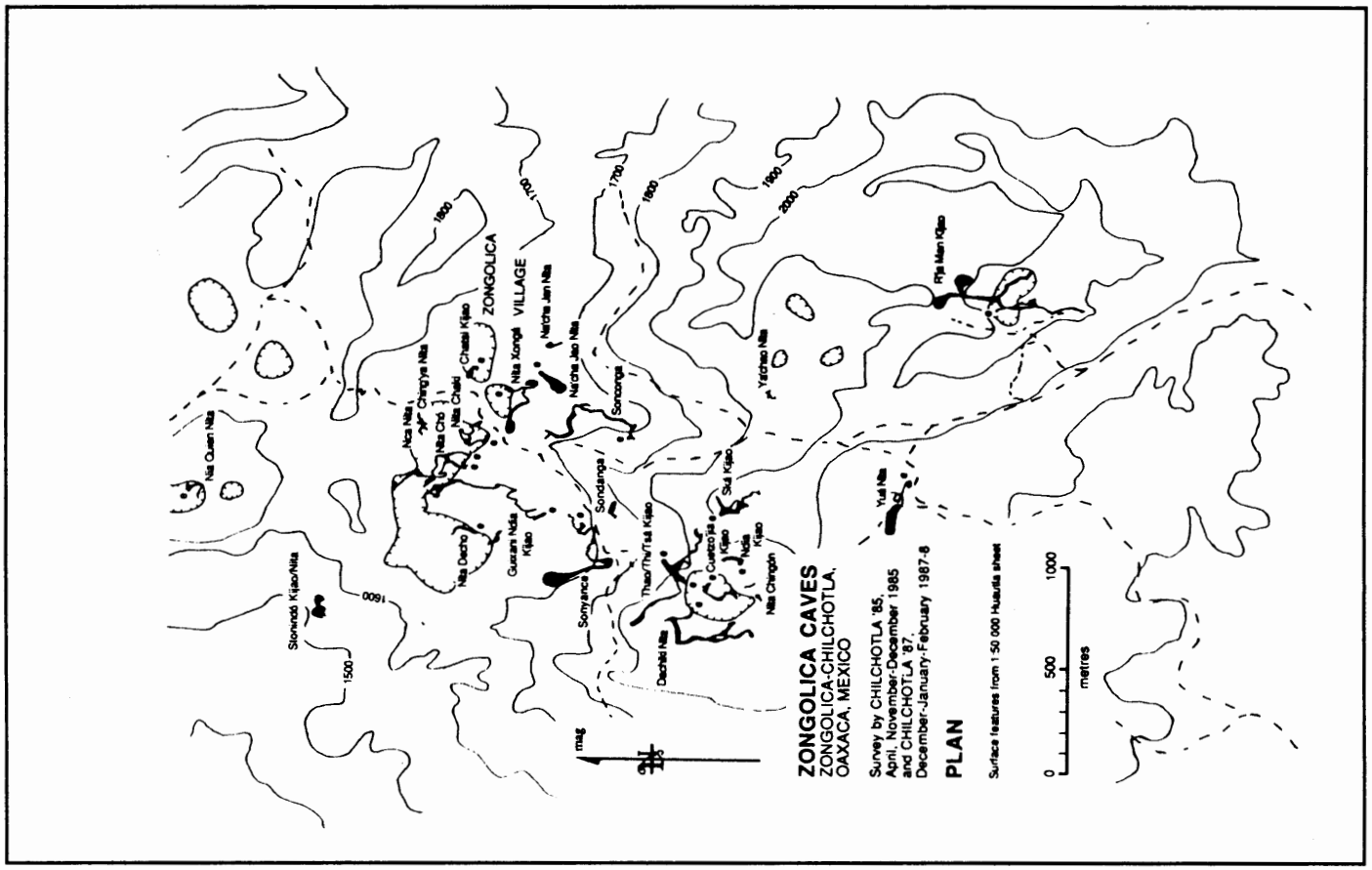
Rja Man Kjao
Yuti Nta
Yachao Nta
Nta Chingón
Ndta
Sta Kjao
Cuetzo'ja Kjao
Dachti Nta
Thao/Tha'Tsá Kjao
Sonconga
Sondanga
Sonyance
Guezan Ndta Kjao
Natcha Jan Nta
Nta Xongá
Nta Dacho
Nta Chaki
Nta Cho
Chaatsi Kjao
Chingya Nta
Nca Nta
Stonndo Kjao/Nta
Na Quen Nta
ZONGOLICA CAVES
ZONGOLICA-CHILCHOTLA,
OAXACA, MEXICO
Survey by CHILCHOTLA '85,
April, November-December 1985
and CHILCHOTLA '87,
December-January-February 1987-8
PROJECTED SECTION
180°-0°


ZONGOLICA VILLAGE
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ZONGOLICA CAVES
ZONGOLICA-CHILCHOTLA,
OAXACA, MEXICO
Survey by CHILCHOTLA '85,
April, November-December 1985
and CHILCHOTLA '87,
December-January-February 1987-8
PLAN
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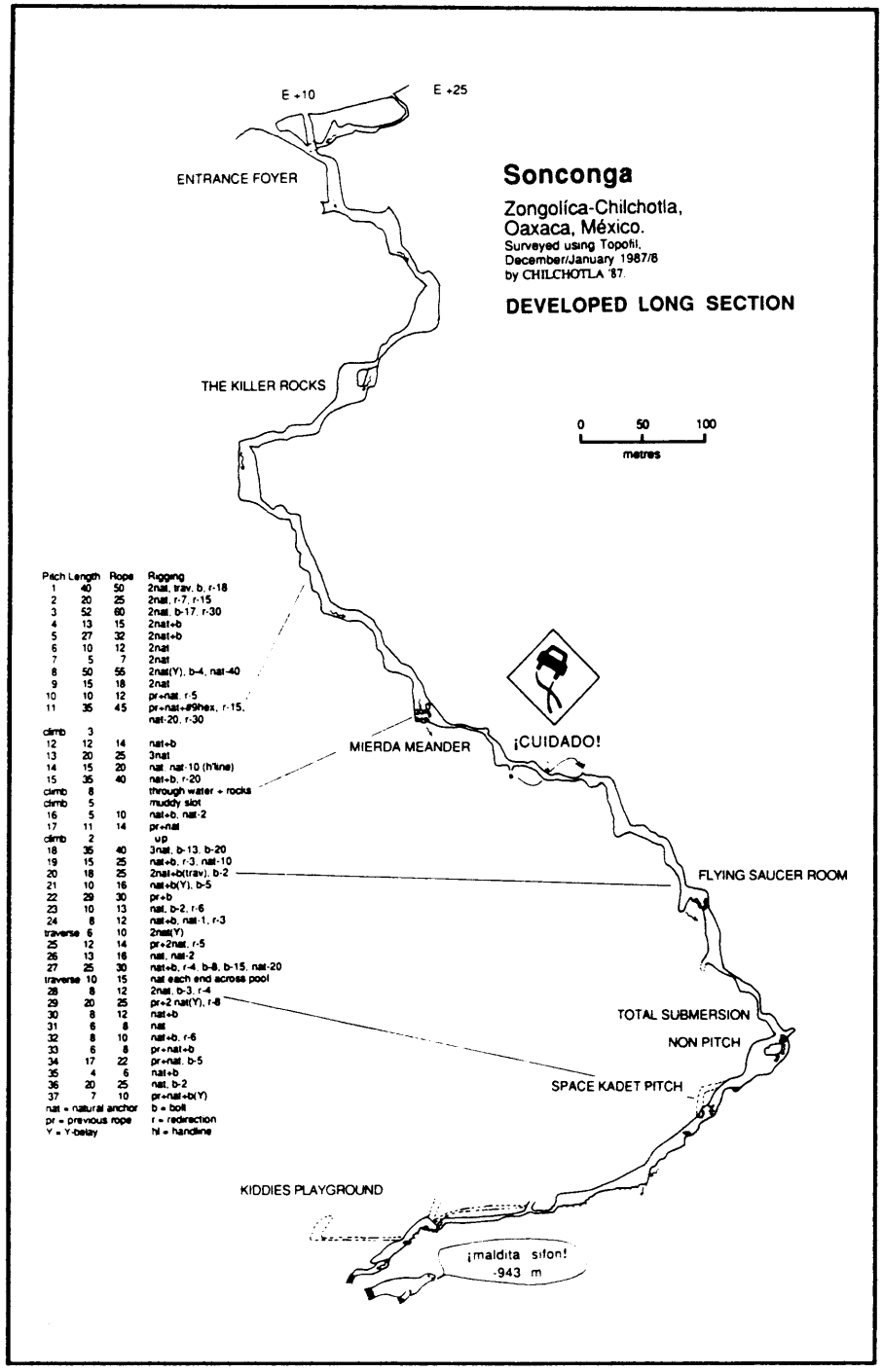
metres



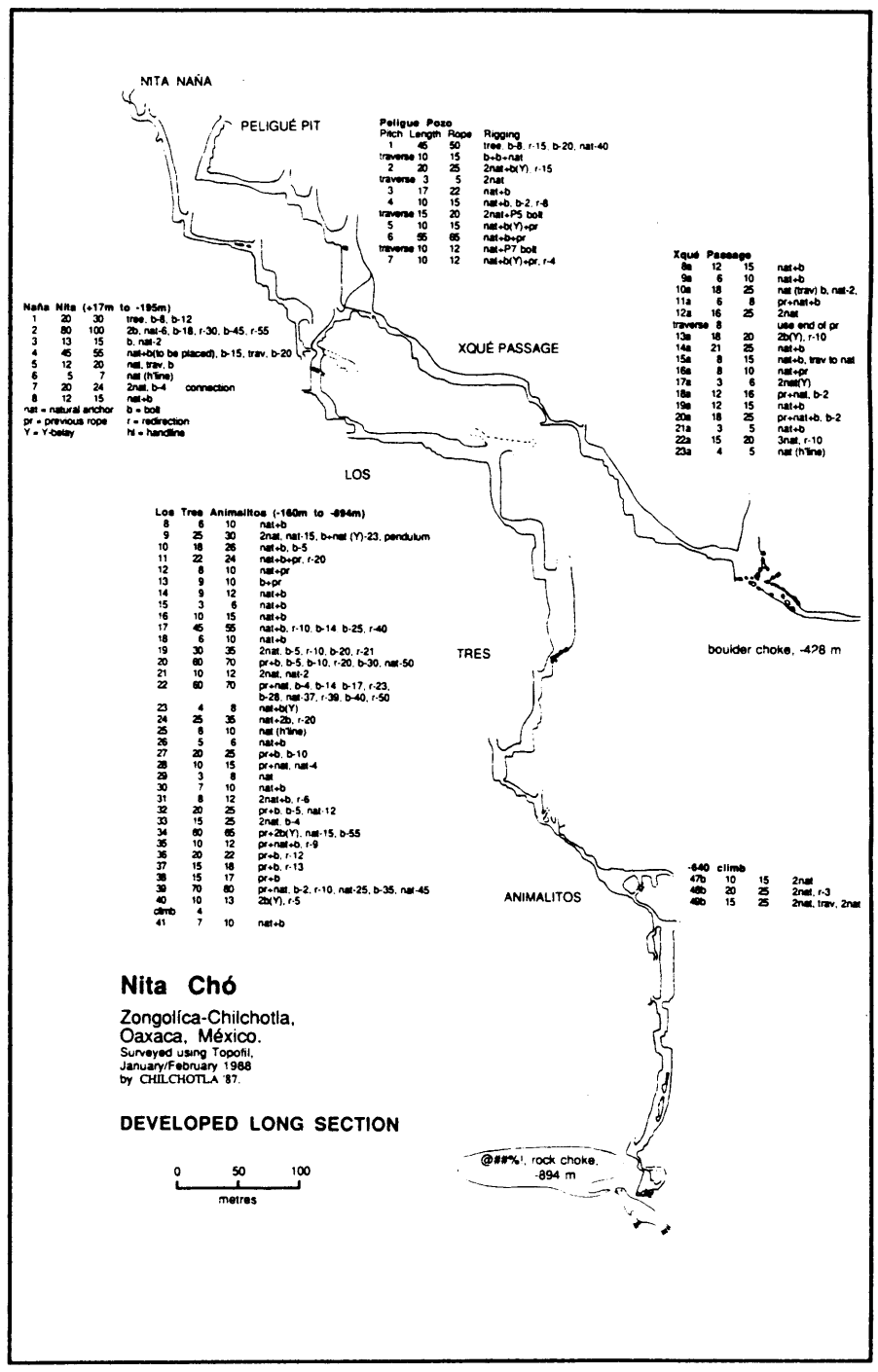
Sonconga

Zongolica-Chilchotla,
Oaxaca, México.
Surveyed using Topofil,
December/January 1987/8
by CHILCHOTLA '87.

DEVELOPED LONG SECTION

Pitch	Length	Rope	Rigging
1	40	50	2nat, trav, b, r-18
2	20	25	2nat, r-7, r-15
3	52	60	2nat, b-17, r-30
4	13	15	2nat+b
5	27	32	2nat+b
6	10	12	2nat
7	5	7	2nat
8	50	55	2nat(Y), b-4, nat-40
9	15	18	2nat
10	10	12	pr+nat, r-5
11	35	45	pr+nat+#9hex, r-15, nat-20, r-30
climb	3		
12	12	14	nat+b
13	20	25	3nat
14	15	20	nat, nat-10 (h'line)
15	35	40	nat+b, r-20
climb	8		through water + rocks
climb	5		muddy slot
16	5	10	nat+b, nat-2
17	11	14	pr+nat
climb	2		up
18	35	40	3nat, b-13, b-20
19	15	25	nat+b, r-3, nat-10
20	18	25	2nat+b(trav), b-2
21	10	16	nat+b(Y), b-5
22	29	30	pr+b
23	10	13	nat, b-2, r-6
24	8	12	nat+b, nat-1, r-3
traverse	6	10	2nat(Y)
25	12	14	pr+2nat, r-5
26	13	16	nat, nat-2
27	25	30	nat+b, r-4, b-8, b-15, nat-20
traverse	10	15	nat each end across pool
28	8	12	2nat, b-3, r-4
29	20	25	pr+2 nat(Y), r-8
30	8	12	nat+b
31	6	8	nat
32	8	10	nat+b, r-6
33	6	8	pr+nat+b
34	17	22	pr+nat, b-5
35	4	6	nat+b
36	20	25	nat, b-2
37	7	10	pr+nat+b(Y)

nat = natural anchor
pr = previous rope
Y = Y-belay
b = bolt
r = redirection
hl = handline



Peligue Pozo

Pitch	Length	Rope	Rigging
1	45	50	tree, b-8, r-15, b-20, nat-40
traverse	10	15	b+b+nat
2	20	25	2nat+b(Y), r-15
traverse	3	5	2nat
3	17	22	nat+b
4	10	15	nat+b, b-2, r-8
traverse	15	20	2nat+P5 bolt
5	10	15	nat+b(Y)+pr
6	55	65	nat+b+pr
traverse	10	12	nat+P7 bolt
7	10	12	nat+b(Y)+pr, r-4

Xqué Passage

8a	12	15	nat+b
9a	6	10	nat+b
10a	18	25	nat (trav) b, nat-2,
11a	6	8	pr+nat+b
12a	16	25	2nat
traverse	8		use end of pr
13a	16	20	2b(Y), r-10
14a	21	25	nat+b
15a	8	15	nat+b, trav to nat
16a	8	10	nat+pr
17a	3	6	2nat(Y)
18a	12	16	pr+nat, b-2
19a	12	15	nat+b
20a	18	25	pr+nat+b, b-2
21a	3	5	nat+b
22a	15	20	3nat, r-10
23a	4	5	nat (h'line)

Naña Nita (+17m to -195m)

1	20	30	tree, b-8, b-12
2	80	100	2b, nat-6, b-18, r-30, b-45, r-55
3	13	15	b, nat-2
4	45	55	nat+b(to be placed), b-15, trav, b-20
5	12	20	nat, trav, b
6	5	7	nat (h'line)
7	20	24	2nat, b-4 connection
8	12	15	nat+b

nat = natural anchor
pr = previous rope
Y = Y-belay
b = bolt
r = redirection
hl = handline

Los Tres Animalitos (-160m to -894m)

8	6	10	nat+b
9	25	30	2nat, nat-15, b+nat (Y)-23, pendulum
10	18	26	nat+b, b-5
11	22	24	nat+b+pr, r-20
12	8	10	nat+pr
13	9	10	b+pr
14	9	12	nat+b
15	3	6	nat+b
16	10	15	nat+b
17	45	55	nat+b, r-10, b-14, b-25, r-40
18	6	10	nat+b
19	30	35	2nat, b-5, r-10, b-20, r-21
20	60	70	pr+b, b-5, b-10, r-20, b-30, nat-50
21	10	12	2nat, nat-2
22	60	70	pr+nat, b-4, b-14, b-17, r-23, b-28, nat-37, r-39, b-40, r-50
23	4	8	nat+b(Y)
24	25	35	nat+2b, r-20
25	6	10	nat (h'line)
26	5	6	nat+b
27	20	25	pr+b, b-10
28	10	15	pr+nat, nat-4
29	3	8	nat
30	7	10	nat+b
31	8	12	2nat+b, r-6
32	20	25	pr+b, b-5, nat-12
33	15	25	2nat, b-4
34	60	65	pr+2b(Y), nat-15, b-55
35	10	12	pr+nat+b, r-9
36	20	22	pr+b, r-12
37	15	18	pr+b, r-13
38	15	17	pr+b
39	70	80	pr+nat, b-2, r-10, nat-25, b-35, nat-45
40	10	13	2b(Y), r-5
climb	4		
41	7	10	nat+b

-640	climb		
47b	10	15	2nat
46b	20	25	2nat, r-3
46b	15	25	2nat, trav, 2nat

Nita Chó

Zongolica-Chilchotla,
Oaxaca, México.
Surveyed using Topofil,
January/February 1988
by CHILCHOTLA '87.

DEVELOPED LONG SECTION

ASF "Renovation and Renewal"

When an organization starts losing more members than it gains, it's got problems. Unfortunately the last people to realize this are usually the people running the organization. Such is the case with ASF. By the next Council meeting the ASF will have virtually no presence in Tasmania and capitations will have probably dropped to 500 which is 300 less than 10 years ago.

So obviously the ASF has some problems. Problems of relevance, finance, decision making, and inter-club relationships. At the last Council meeting Derek Hobbs and myself (Lloyd Mill) undertook the task of trying to come up with solutions to some of these problems. The purpose of this paper is to air some of my personal views as to what these problems are and to suggest some solutions. This is to prod you, the reader, into thinking about these issues, and responding, either via your club delegates at the next Council meeting or in writing. You can respond publicly through the pages of the Australian Caver or write to Derek or myself. One submission has already been received and And will be in a later issue of AC.

Progress is being made. The first step in solving any problem is to acknowledge that a problem exists - this has been done. The second step is to identify the problem(s). The third step is to come up with solutions. The fourth step is to implement the solutions. The fifth and final step is to make them work.

The biggest ASF problem at present is Finance and this is directly related to the Capitation fee and the Newsletter costs. The clubs that have dropped out, and the large Associates who want to go further, cite the cost of membership as a major reason for their non-involvement. Many would rubbish this saying that $15 per year is not a lot. However it is a concern of a lot of cavers and needs addressing.

The bulk of the money goes towards the Australian Caver. The A.C. is currently in a bit of a bind. Cavers say that as a magazine it's not worth the money they are obliged to pay for it. There is nothing in the content because hardly anyone writes articles for it. Because no-one writes it's not worth the money they pay for it. However when it is suggested that we scrap it, delegates at Council meetings raise their hands in horror and say that we need a medium of communication.

The communication to me seems one way, from "someone else" to you, the average caver. When no-one communicates with you, you grumble that the medium is not worth the money you pay for it. When this happens across the country the A.C. looks fairly empty. Besides writing for it, and making it worth the money that's spent on it, what concrete options do we have regarding Finances and the Newsletter?

I see the options as:

i. **Scrap the Australian Caver;** capitations could be pruned right back. Easy to implement but we would lose our national communication medium.

ii. **Severely cut back the Australian Caver;** in quality of printing, paper, size, and number per year. This is already being implemented on a trial basis this year. Problems could be the added burden on the volunteers who produce the A.C. and whether cavers would unite for a lower quality magazine.

iii. **"Privatize" the Australian Caver;** why not give the A.C. to a club or caving-related organization. They could collect the subscriptions (which could be optional), produce the magazine, distribute it (possibly in conjunction with their own) and if market forces allow them to make a profit - good luck to them. Of course this means surrendering control of our national magazine and probably our address list.

So there are three options. Which do you prefer? Or have you other ideas? Let us know.

The second problem is the unrepresentative nature of the ASF Council (and the NSW Speleo. Council). I've said before that ASF is financed (taxed?) on a per-

capita basis but votes on a per club basis. The word for this is gerrymander. Admittedly a gerrymander allowed to continue because of the apathy of large clubs like my own (VSA) but never-the-less a gerrymander. The situation is most keenly felt in NSW where large clubs like SUSS feel frustrated when they are out-voted by 2 or 3 small clubs whose combined membership is half theirs. It has also been cited as one of the reasons for the departure of SSS and the lack of interest in Full membership by the Chillagoe club.

The best solution in my view is to give, say, every club one delegate for the first 20 members and an extra delegate for each subsequent 20 members (if necessary one delegate could hold proxies for the others). This would also allow differing viewpoints within the one club to be represented. The numbers in the club would be determined solely by the number of capitations paid by the club. Which gives the added benefit of encouraging clubs to pay up on time, and to pay for all their members. An alternative is a more Federal structure. Each state would have a certain number of delegates elected by all the cavers in that state. This relates to the sixth problem, NSW, which I will be discussing later.

The third problem is the nature of ASF membership. At present the ASF is a federation of clubs with some token individual members. (I say token because at present they can have no input in the dealings of ASF. They have no status at ASF meetings). The status of the member clubs vis a vis ASF varies across the country. Certainly for many of us in Victoria VSA is the ASF whereas in parts of NSW (like Sydney) ASF assumes much more importance.

It has been suggested to me that ASF should be composed solely of individual members in a way similar to the British Cave Rescue Association. In other words membership of ASF is open to anyone with an interest in caves, the national and international scene. Those cavers who are only interested in going caving with their friends in their favourite area would not join ASF. Local clubs would of course still exist but their status would be, at most, Associates of ASF. ASF members may or may not be members of local clubs.

Similar to this is the NSS (of the USA) model. Members of NSS are individuals but can also be members of local clubs ("grottos") which are chartered by the NSS. In a local grotto some members are NSS members, others don't bother. The government of NSS is vested in the Board of Governors which is elected by the membership at large. The "B.O.G." meets about three times a year across the country. At the annual Convention there is a Congress of Grottos where those grottos interested enough to send delegates can raise issues. The decisions of the "C.O.G." are not binding on the B.O.G. It has been said that we are the only country in the world who has a national caving Federation which is club based.

After finances (and NSW) one of the ASF's biggest problems, which has largely gone unrecognized, is its extremely poor and insufficient decision-making and implementation mechanisms. This was high-lighted in the last year by the Jenolan fiasco. Basically it is unclear whether anyone can do anything in the name of ASF between Council meetings. The Executive, which is dispersed around the country, doesn't really have the authority to deal with any new issues which arise during the year without reference to a Council meeting. And there's another problem; Council meetings! A chairman's nightmare! An excessively long Agenda with booby traps everywhere. Delegates having to make decisions about issues they know nothing about and their club members (who they represent) know even less. Important issues put off, either to end when everyone wants to get away, or worse still, until the next meeting. Delegates (and others) who love the sound of their own voice and have to say something about every issue. Motions put together at the last minute, quibbling over words. The list goes on - they are a real horror.

The first steps have already been taken to try and solve this problem. At the last Council meeting the following motion was passed:

Executive Mandate - in response to controversy over the input by various ASF officers to the Jenolan Draft Plan of Management, the prerogatives of the Executive were clarified, viz.

> 'That pursuant to Clauses 11.3.1 and 21.1.1 of the Constitution of the Federation:

1. This Council delegates to the Executive the government of the Federation, subject to the Constitution and subject to any directions or resolutions of the Council.
2. Only the Council may make policy for the Federation and, in conducting the business of the Federation, the Executive shall implement and interpret the policies of the Federation.
3. No Executive officer, liaison council, convenor of any commission or ad hoc committee, or other representative of the Federation (hereafter 'ASF officers') shall publicly interpret the policy of the Federation without the prior consent of the Executive.
4. This resolution takes priority over all other by-laws, terms of reference and delegations of authority to ASF officers.'

This is a start but I don't think it goes far enough. I would strengthen the powers of the Executive even further. I would allow the Executive to make ASF policy between meetings. I would allow them to interpret and implement policy coming from Council meetings **as they see fit**. If the delegates to Council don't like what the Executive has done they can overturn it and replace the Executive members. To go with a strengthened Executive, the way it is elected should be changed to make it more representative and more continuous.

The Executive should consist of 9 members elected by the delegates using Proportional Representation (like the Australian Senate). 5 members are elected at each Council meeting, the first 4 serve for two years, the fifth for one year only. The mechanics of this are not difficult but they do require nominations before the meeting and ballot papers prepared. I will be discussing this further. As soon as practicable after the election the Executive would meet and allocate the positions of President, Secretary, Treasurer, etc. amongst themselves. Delegates to Council would no longer be directly electing people to be President, just Executive members. Similarly we would not have to cast around to find someone willing to be President etc. Once elected, the Executive has to find one of their number prepared to do the job, but maybe for only one year.

The Executive could co-opt people to be non-voting Vice-Presidents for the purposes of regional representation and up-coming Conferences (eg. if no-one from WA is on the Executive, it co-opts someone over there). Quorum of Executive meetings and other details can be sorted out later. The Executive should meet at least once a year in October. All agenda items and reports for the upcoming Council meeting should be on the Agenda of this meeting. Any contentious items should be identified and, if possible, resolved. Any reports or agenda items not received by this meeting can only be tabled at the Council meeting, not discussed. They can, if necessary, be dealt with by the Executive after the Council meeting, or held over to the next Council meeting. This might encourage more efficient Council meetings and less decision making in the dark. At the last Council meeting it took the Executive approximately 10 hours to come to some sort of resolution on Jenolan. I hate to think what would have happened if we had not met and the whole issue had gone to the full Council meeting.

Still on the Executive; another problem is the small pool of talent from which we select our Executive candidates (and the inconsistent way we elect them). All we have to choose from, usually, are those people present at the Conference or meeting. This can be a real problem at the off-Conference meeting, and particularly so when someone resigns unexpectedly. The Americans have a committee called the "Nominating" Committee (or something similar). Their job, during the year, is to accept nominations AND GET NOMINATIONS from suitable people. They then prepare ballot papers and run the elections. We need a similar committee.

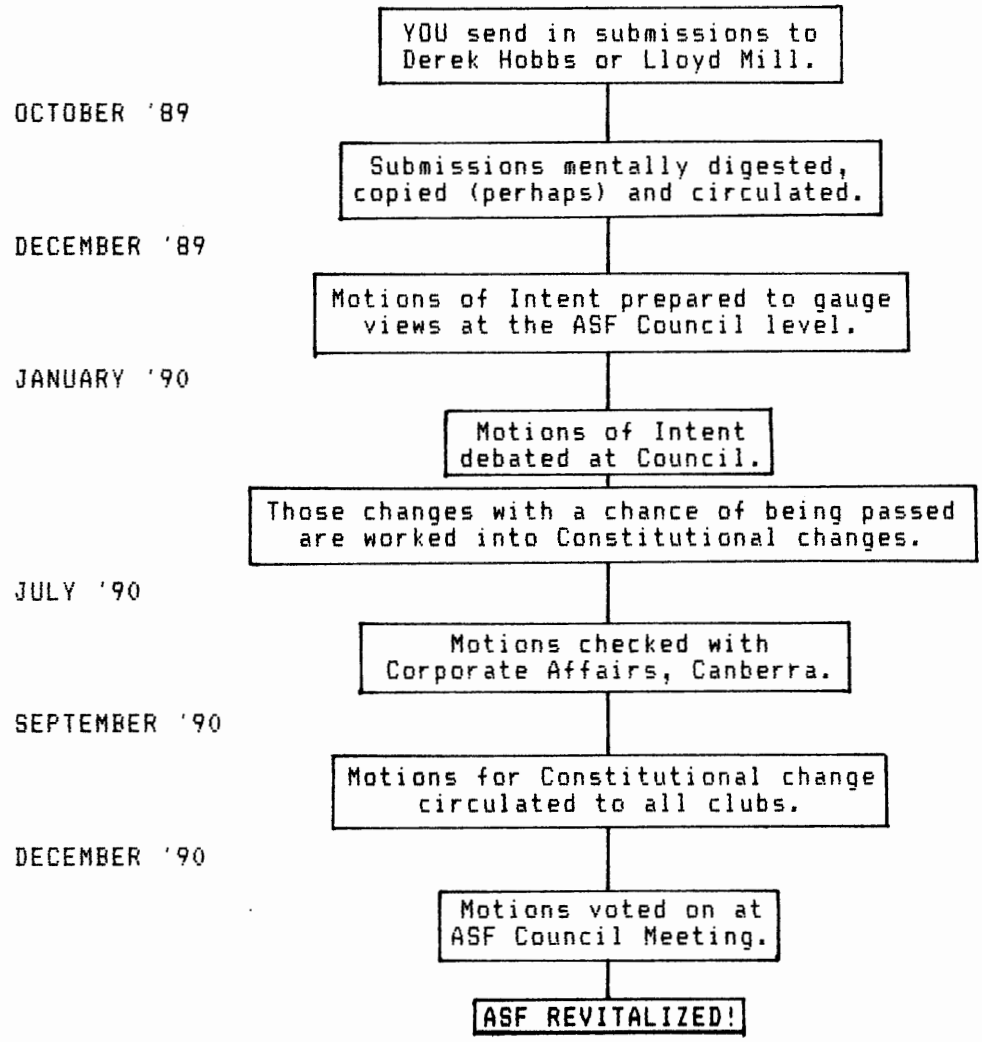
Finally, one of ASF's biggest problems is NSW. Those of us from other states who go to Council meetings are exceedingly sick of being asked to judge problems which, if they were ours, would be resolved within the state. ASF should deal with national problems not local ones. **JENOLAN WAS NOT AND WILL NEVER BE A NATIONAL PROBLEM - IT IS A NSW PROBLEM AND SHOULD HAVE BEEN RESOLVED THERE.**

The rest of Australian caving is sick of being used as a wider court of appeal. We need a strengthened, more representative and autonomous Speleo Council which will sort these problems out so that matters rarely come up at a full ASF Council meeting. It needs to be set up on similar lines to what I've described for ASF. It needs regular meetings which move around the state. It needs its

own funding. It needs a leadership elected by the cavers of NSW. It needs the interest and support of all cavers and caving clubs/societies in NSW.

So, if you've stayed with me this far, hopefully the brain is working and the emotions have been stirred. "Yes!", you're thinking, "I want to help save ASF from extinction. What can I do though?" Well there's lots you can do. Put your thoughts on paper. Send copies to Derek, myself and the Australian Caver. Get your club together to discuss these issues and send a club submission. Send someone with radical ideas to the next Council meeting, not a conservative.

This diagram shows what we hope to do over the next two years.



SPELEO SYNOPSIS

October 1988 - February 1989

AUSTRALIA

Speleo Spiel 242, 243 (Oct & Nov 1988). These two issues contain a detailed report of the TCC expedition to Precipitous Bluff (southern Tasmania) at the end of 1987. Surveys of *Bauhaus System* [PB-6], PB-8 and PB-9 are included.

EUROPE

Caves and Caving 41 (Autumn 1988). Speleo historian, D J Irwin, has a run-down on picture postcards which feature caves. These became popular in the UK around the turn of the century, and provide a photographic record of changes wrought in some of Great Britain's more popular caves. Other articles cover expeditions to north Spain and Dachstein (Austria) in 1987. The series on Llangattock caves is

continued with "Part 3: the Explosives Engineers (1966-1982)" - this is great reading.

Descent 83 (incorrectly numbered 82)(Aug-Sep 1988). The body of Alex Pitcher, who disappeared during a British expedition to the *Gouffre Berger* (France) in Aug 1987, was finally found in June 1988. It appears that he had entered a section off "the Meanders" which hadn't been visited for 35 years, where he had fallen to his death.
Ogof Igam-Ogam is a new cave in Wales discovered during Easter 1988. It is 520m long with the 4th sump proving troublesome at the moment. The 1987 Australian expedition is also featured in this issue. The byline says Dave Martin, but it appears Al Warild wrote most of the exciting story of searching for the deepest cave in the world. The last article of note documents the push dive by Rob Palmer in *Gough's Cave* (Mendip) during June 1988. 90 metres of passage were gained in sump 3 with a continuing upward trend from the maximum depth attained of 58m.

Descent 84 (incorrectly numbered 83)(Oct-Nov 1988). There has been a cave fatality in Argyll, Scotland, when an experienced mountaineer, caving for a day, died of hypothermia while trying to prusik a 12m pitch in a waterfall. A summary of the 1988 BCRA Conference contains a brief report of each paper presented. An historical account of early exploration of *Lamb Leer Cave* in Mendip includes a facsimile of part of a 17th century description.

Caves and Caving 42 (Winter 1988). For cave photographers, a simple circuit diagram for a flashgun slave unit. Reports on expeditions to China, Poland and Austria.

Proceedings - UBSS 18(2) (1988). With its Proceedings the University of Bristol Speleological Society sets a standard for club publications that is enviable. This issue contains a very detailed article on the history of discovery and exploration of *Charterhouse Warren Farm Swallet* (Mendip, Somerset), an extremely important archeological site. Other articles include a description of Pleistocene deposits at Wells, Somerset; bird bones from *Soldier's Hole* (Cheddar, Somerset); the hydrology of the Upper Fergus River catchment (Co. Clare, Ireland); a review of E A Martel's visit ti Mendip in 1904; an update on recent discoveries in *Little Neath River Cave* (South Wales) including a revised survey; and many short historical articles.

Descent 86 (Feb-Mar 1989). A British expedition to Borneo "Mulu '88" added 16km of passage and a connection between *Cave of the Winds* and *Clearwater Cave* at Gunung Api. The second part of 'First Aid for Cavers' appears in this issue followed by a beat-up about radon in caves. Further articles include reports on major extensions in *Eastwater Cavern* (Mendip) and *Peak Cavern* (Derbyshire), a connection between the two caves in Wales revealed only after an accurate re-survey was conducted and a report on one solo caver's experiences in *Quaking Pot* (Yorkshire).

NEW ZEALAND

NZSS Bulletin 7 (140)(Dec 1986). This issue contains trip reports on *Wairakanui Stream Cave* (Kawhia), a 290m cave in calcareous sandstone and *Opening Day Cave* (Waitomo), a small cave rich in fossil and sub-fossil material. Also in this issue is an article on a sonar tape measure employing a radio link, a search and rescue summary from 1978 to 1988 and a report on a rescue call-out on 29 Oct 1987 to *Broken River Cave* (Canterbury) following the drowning of a girl on a school caving trip.

NZSS Bulletin 8 (141)(Mar 1987). This issue deals with the discovery and exploration of *Windrift* (Mt Arthur, South Island) during 1985 and early 1986. The cave is listed as 4.4km long and 362m deep and contains a large stream which presumably flows to the *Pearse Resurgence.* A discussion of the geology and biology of the cave is included.

USA

NSS News 46 (8)(Aug 1988). This News leads off with a report of the exploration and first through trip of a 2.5km long river cave, *Sumidero of the Rio Atima*, in Honduras. The remainder of the journal is taken up with a report on the 1988 NSS Convention in South Dakota.

NSS News 46 (9)(Sept 1988). The letters page in this issue is filled with the rights and wrongs with having a beach ball at NSS Convention dinners. You've got to read it to believe it! Jim Smith, noted US 'hard man' talks about the exploration of *No Business Blowing Cave* (Tennessee). So far he's upclimbed 7 shafts and conducted 6 blasts over the 4 years of pushing. Trip reports include one from Bahia in SE Brazil and a cave dive by Sheck Exley in *Nacimiento del rio Mante* (Mexico) to 238m depth.

Speleonics 10 (June 1988). A relatively new publication from the NSS Communications and Electronics section. Their motto is "Better Caving Through Electrical Stuff"! In this issue there are articles on security of radio transmissions during cave rescues, early experiments using radios in caves during the 1920s, and on converting an avalanche beacon (as used by skiers) into a low cost cave RDF device. A review of electronic compasses leads to an interesting question: Can cave survey data be automatically logged and transferred to a computer for processing?

NSS News 46 (10) & (11)(Oct & Nov 1988). These two issues together form a detailed study of the discovery and exploration of *Lechuguilla Cave* (New Mexico), first opened in 1986. Now over 34km long and reaching 457.5m depth, it overshadows the nearby *Carlsbad Cavern*. A dedicated and well organised team of western States (mainly Colorado) cavers have documented this astonishingly decorated cave which must be rated as the discovery of the century in the US.

Compass and Tape 6 (1)(Summer 1988). This journal is the official newsletter of the NSS Survey and Cartography Section. Unfortunately it reveals a rather rough and ready attitude to cave surveying with one author suggesting it is a waste of time drawing field maps to scale, and another stating that survey grades (indicating accuracy) are pointless.

NSS Bulletin 49 (2)(Dec 1987). Special issue on speleogenesis.

Speleonics 11 (Nov 1988). This issue has detailed information on the construction of magnetic coil antennas and home-made coil winding machines. Also two battery powered hammer drills are reviewed with regard to bolting in caves.

Nylon Highway 27 (Dec 1988). This issue marks a watershed really. An article by John Ganter suggests that American vertical cavers have been left behind by the rest of the world, and moreover that the best overall ascender is not the Gibbs. Other articles suggest modifications to climbing systems and hardware to make them more efficient, and 6 non-handled ascenders are reviewed with respect to their manufacturing and quality of finish.

NSS News 46 (12)(Dec 1988). The major article reports on an expedition to the sea caves of the Hawaiian island of Kauai. The caves are thought to be flooded lava tunnels up to 350m long. A lengthy obituary to Roberta Swicegood who died while cave diving in June 1988 is also in this issue.

Compass and Tape 6 (2)(Fall 1988). The lead article in this issue describes the application of CAD (Computer Aided Drafting) software to cave mapping. A review of the development of American cave mapping over 50 years, two articles on why only one eye should be used to read Suunto instruments and an evaluation of the Autohelm fluxgate electronic compass (1° of tilt leads to 2.5° reading error) follow.

ON BELAY - MAY 1989

Due to budget cutbacks and space restraints in "AC", you now have another three months to comment on the draft Cave Safety Guidelines sent around in February. The final version may be published in "AC" 121.
So far, the only WRITTEN input has been a point-by-point critique from CQSS (thanks guys, now get back to that Mountain!); other comment by OSS, CRS, MUCG and HILLS; and six pages of notes and comments from former ASF Cave Safety Officer, Judith Bateman - thanks Judith! I've also asked a few 'special' people like Neil Montgomery and Al Warild to comment. At the suggestion of the CRS and Judith, the "climbing calls" section of the Guidelines has been radically changed. This area has always evoked the most discussion at all stages of the development of the Guidelines. Further discussion on these calls will appear in a future edition of "AC".

CAVE DIVING CODES: A couple of years ago, and quite independently, Ron Allum developed what is now ASF's "Cave Diving Code Of Practice", which deals with Scuba diving in caves. Currently, Ron is working on a complementary "Free Diving Code of Practice", most immediately applicable to the free diving of short sumps. This Code needs time for further development and discussion.

CAVE LEEUWIN

18th Biennial Conference of the Australian Speleological Federation Inc

Now that the euphoria of the Tropicon Conference has subsided, it is time to start thinking about **CAVE LEEUWIN** to be held at Margaret River from 30 December 1990 to 5 January 1991 inclusive. Margaret River is a pleasant tourist town midway along the Leeuwin-Naturaliste Ridge, famous for its magnificent Karri trees, caves, surfing, fishing, bushwalking, and for those so inclined, wine grapes. Multi to single star hotel accomodation is available along with guest houses, caravan/camping grounds and lodges,the details of which will be published at a later date.

All enquiries should be directed to **CAVE LEEUWIN** P.O.Box 120 Nedlands WA 6009