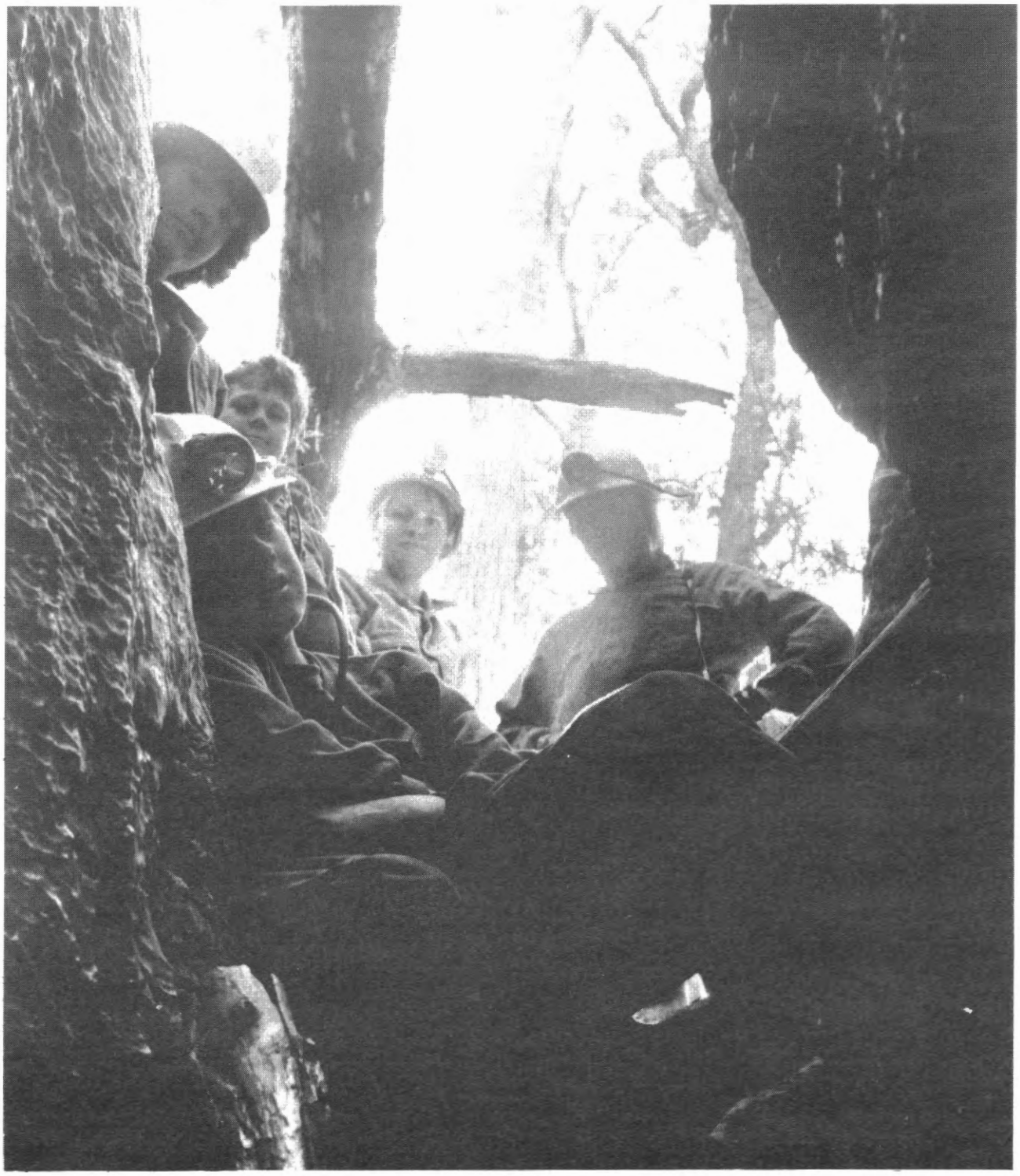
AUSTRALIAN CAVER

THE AUSTRALIAN
SPELEOLOGICAL QUARTERLY

No.115 1987



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THE AUSTRALIAN SPELEOLOGICAL QUARTERLY

No.115 1987
ISSN. 0817-8240 Formerly A.S.F. Newsletter

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All articles, reports, tests, photos and reviews are welcomed for publication. These may be sent to:—

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DEADLINE FOR COPY

All articles should be submitted to the editor by the end of:—

FEBRUARY
MAY
AUGUST
NOVEMBER

If you find writing a chore, why not phone the editor directly???

COVER PHOTOGRAPH:

Coming Up in Air for the Entrance of Fossil Cave (B4), Bungonia. By Chris Lloyd

TASMANIA: NEW VERTICAL CAVES

Rolan Eberhard

Tasmania is this country's home of deep and vertical caves. The potential for original exploration is an additional attraction of caving in this state. The past two years have witnessed the discovery of several exciting new cave systems.

The ultimate goal of exploration in the Florentine Valley is the discovery of a Master Cave shich, at least in the minds of the dedicated, links the Junee Resurgence with Growling Swallet and numerous other deep swallets that feed the resurgence. The Main-line breakthrough in Growling, and the discovery of open passage beyond the first sump at Junee, has given impetus to speculation, but the Master Cave has remained elusive as ever. Nevertheless, some sporty caves have been turned up in the process. As many of the easier leads become exhausted, cavers have been forced to pursue some of the more exacting prospects. Flick Mint's Hole and Porcupine Pot are examples of these hard won caves, where exploration has been demanding as well as very rewarding. In a different area, Ida Bay, a large number of new holes have also been explored and surveyed. The possibility of additional vertical entrances to Exit Cave is never out of the question, although most new systems have so far proved choked with rubble at depth. Mt. Weld is an area that only recently attracted the attention of cavers. The existence of a fine cave such as Arrakis demonstrates the potential rewards for those prepared to expend the effort reconoitering some of the less accessible, that lies scattered throughout Tasmania.

The following caves are all challenging additions to the repertoire of sporting trips available here.

Milkrun (IB-38): 208m

This pothole was explored in April 1985. A small entrance revealed a spacious 41m shaft, followed closely by a couple of short steps where a handline is useful. The next three pitches (4m, 26m and 49m) are in quick succession, the last a superb free-hanging shaft. From here two seperate routes lead down to a horizontal streamway: a 12m handline preceeding a 35m pitch, or alternatively, a single 30m pitch. Progress downstream at the bottom is limited by a constriction in the passage.

Milkrun has become a popular tourist jaunt; it's straightforward nature and rapid succession of pitches make it an enjoyable trip. Access is from Bender's Quarry, along the new Exit Cave track and roughly thirty minutes walking is required.

Cyclops Pot (IB-57 : 192m

Like Milkrun, Cyclops is a cave of relatively simple form. A series of five pitches follow immediately one after another: 36m, 4m, 7m, 45m, and 36m. During the exploration in October 1985, a single 200m length of rope, tied-off initially at the entrance, was used for the descent. The trip report described Cyclops as "a sporty, utterly vertical cave". Unfortunately it terminates with a small sump.

Access is also via the new Exit Cave track.

Skyhook Pot (IB-34)

This cave provides a new entrance to Exit Cave, although it is realkly litle more than a parallel side-shaft that extends the known dimensions of Mini Martin proper. However, Skyhooj Pot can be considered a seperate trip in its own right.. It offers the novel possibility of an exchange trip with Mini Martin.

Mini Martin plunges dramatically from the surface to intercept the Exit Cave streamway some 220m below. Only a short distance downhill of Mini Martin lies the entrance of Skyhook Pot. It leads directly down a series of pitches that are connected with Mini Martin by a large rift at one point. The existence of a side fissure halfway down the first shaft of Mini Martin, was noted during the original descent on ladders, almost two decades ago, but it was only recently shown to be associated with another entrance. At the top of the third pitch in Skyhook Pot, there is a spectacular view across the misty half-light into Mini Martin.

In 1986, a Mini Martin/Skyhook Pot exchange trip was organised. Two teams simultaneously rigged and descended both caves, meeting again in Exit Cave at the bottom.

Both teams took the alternative route for their ascent. The experience of abseiling or prusiking in Skyhook Pot and being able to observe another caver, less than 30m away, dangling on a rope in Mini Martin made it a particularly unusual trip.

Arrakis (Mt. Weld) : 235m

The stiff two hour walk that is required to reach Arrakis is well worth the effort, if only to admire the magnificent entrance. Spanning one end of the massive crater-like doline, is a huge natural arch, facing the sheer walls of the opposite side, which drop 50m from the rim of the doline to the floor. It is possible however, to free climb down into the doline beneath the arch, where a steep slope leads to the head of the first shaft. This pitch is undoubtedly one of the best in the state; light from the surface filters onto the domed ceiling and one can savour the dimensions of this almost perectly cylindrical 68m pit. To further drops of 3m and 8m lead to a rubble choke at the deepest point.

Arrakis was explored in 1986 and a convenient dry cave in the side of the doline, provided an ideal campsite for a mini-expedition. For a cave of 235m depth, it is a remarkably easy trip and can be done comfortably as a day trip from Hobart, with an early start.

Flick Mints Hole (JF-371) : 204m

In late 1984 a circular shaft was found in the rainforest above Serendipity. A pitch of 43m, then another of 14m led to a draughting squeeze, that thwarted progress at the time. It was not until July 1985, that cavers returned and set to work enlarging the obstruction. A nasty constricted tube lay beyond and was appropriately dubbed, "The Cramps". After struggling through this obstacle, the explorers were rewarded with a superb 55m shaft. A short pitch (8m) preceeded a further secction of very awkward passage. Progress required wriggling sideways along a narrow vadose canyon, sometimes a couple of metres above stream level. Below an 18m pitch the cave opened out to a chamber of congenial dimensions. After descending through rather precarious rockfall, and abseiling a 12m pitch, an even larger chamber was entered. "Omnium" was an impressive feature, with a total length of 120m. It also proved to be the end of the cave, and a small stream that had been followed to this point flowed into unstable rockfall.

The altitude of the entrance and a strong draught within suggested very good potential for depth, perhaps even a connection with Serendipity itself. Although it did not quite fulfill these expectations, the exploration of Flick Mints Hole was thoroughly exciting, if at times a little arduous.

Porcupine Pot (JF-387) : 202m

Porcupine Pot earnt its name from the spiky, abrasive rock and torturous nature of the first part of the system. It also seemed very stubborn in resisting attempts to penetrate beyond various wedged boulders and other obstructions that lay inside the entrance. But persistence paid off, the fifth attempt finally saw a break-through.

From the entrance doline a constricted passage descended sharply with a couple of short pitches, entertaining climbs, and thought provoking squeezes Respite followed three more drops (20m, 22m, and 6m), where the cave opened out to a rockfall chamber at a depth of 160m. From here a pleasant streamway continued. All too soon the ceiling abruptly lowered and a crawl was encountered. This flat-out grovel in the water persisted for a demoralising 75m, eventually leading to a junction with a much larger trunk passage. Many hundreds of metres of horizontal cave have now been explored in both upstream and downstream directions. In some places the streamway is wide with a lofty ceiling, at other points half-submersion in chilling water is required.

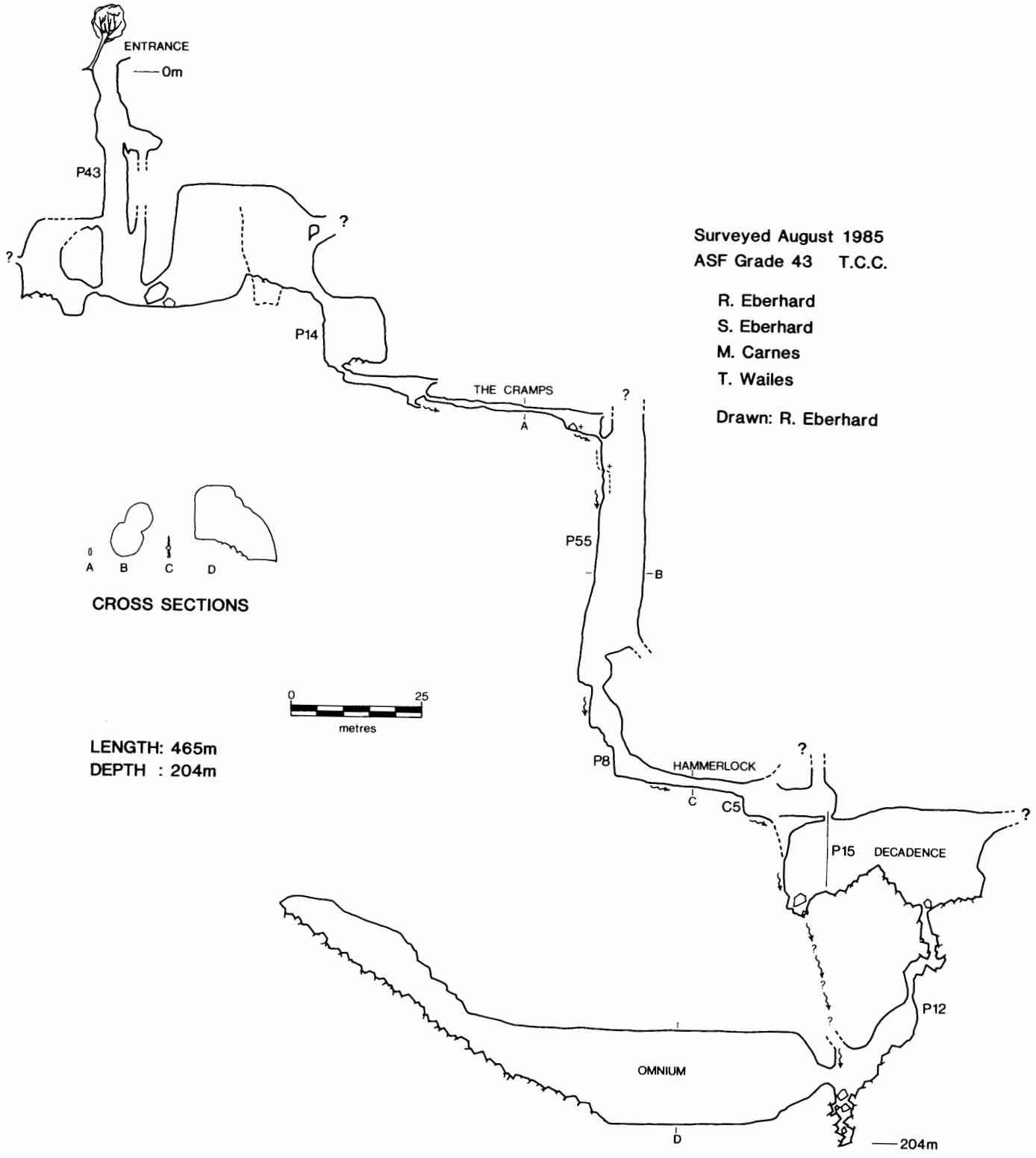
The length of Porcupine Pot currently stands at 1800m, with some leads yet to be pushed. The entrance lies below the Nine Road to the south of Tassy Pot. This location is an interesting one, and was previously notable for the absence of significant caves. The major stream way at the bottom of Porcupine Pot, apparently represents drainage from unknown swallets to the north of Tassy Pot and Owl Pot and flows in the direction of Growling Swallet. Further exploration and hydrological testing in this area may considerably extend the known catchment of the Junee Resurgence.

The Twenty Deepest Caves in Tasmania

1.	Anne-A-Kananda	373m
2.	Ice Tube (Growling Swallet System)	c354m
3.	Khazad-dum	323m
4.	Serendipity	278m
5.	Cauldron Pot	263m
6.	Owl Pot	244m
7.	Tassy Pot	238m
8.	Arrakis	235m
9.	Mini Martin (Exit Cave System)	220m+
10.	Milkrun	208m
11.	Sesame	207m
12.	Flick Mints Hole	204m
13.	Midnight Hole (Mystery Creek Cave)	203m
14.	Porcupine Pot	202m
15.	The Chairman	197m+
16.	Cyclops Pot	192m
17.	Big Tree Pot	189m
18.	Peanut Brittle Pot	c186m
19.	Deep Thought	185m
20.	Udensala	181m

FLICK MINT'S HOLE JF371

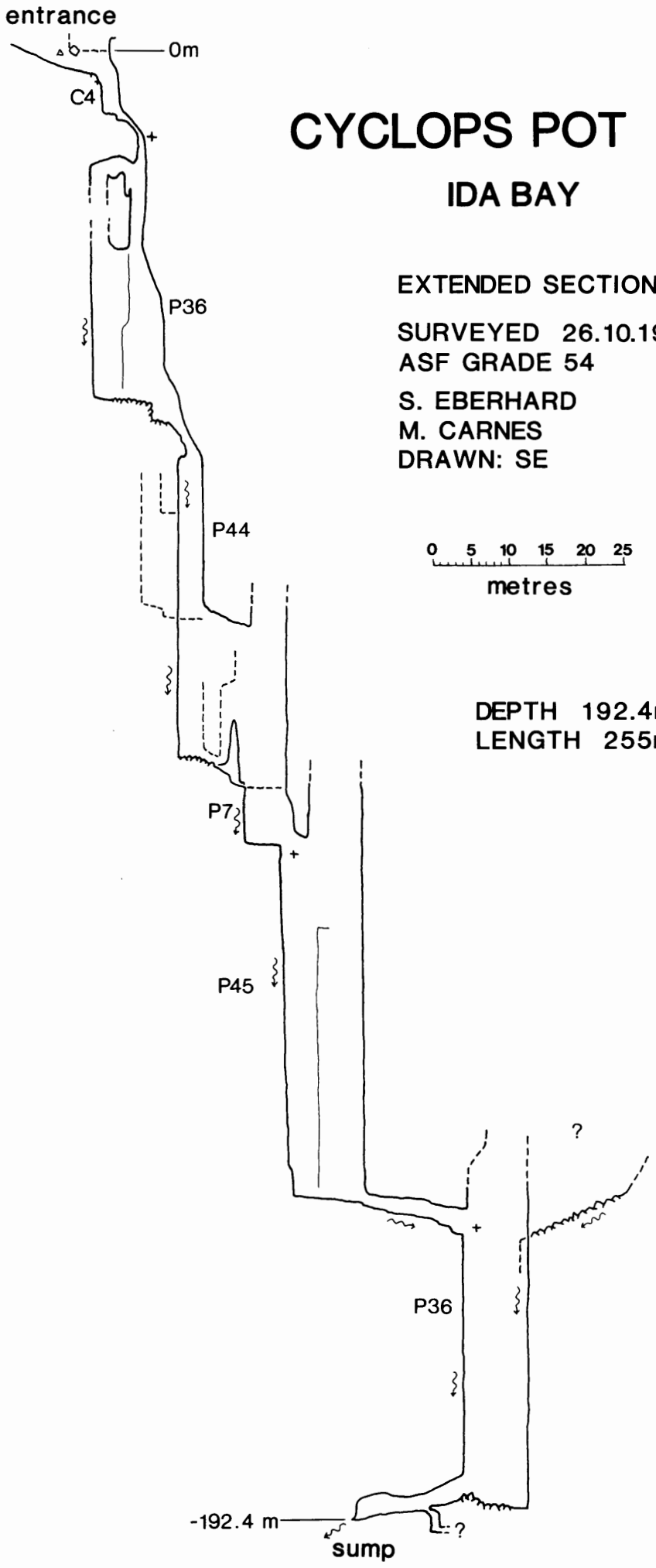
EXTENDED SECTION



Surveyed August 1985
ASF Grade 43 T.C.C.

R. Eberhard
S. Eberhard
M. Carnes
T. Wailes

Drawn: R. Eberhard



CYCLOPS POT IB57

IDA BAY

EXTENDED SECTION

SURVEYED 26.10.1985
ASF GRADE 54

S. EBERHARD
M. CARNES
DRAWN: SE

0 5 10 15 20 25
metres

DEPTH 192.4m
LENGTH 255m

THE RESTORATION OF THE JEWEL CASKET, Yallingup Cave, W.A.

Norman Poulter

INTRODUCTION

Yallingup Cave is a well decorated cave situated in the Cape Naturaliste region of the Leeuwin-Naturaliste Ridge, the northern end of the most popular caving and tourist areas of the state.

Now surrounded by National Park, the cave was discovered by Edward Dawson in 1899, while searching for stray horses. The cave was opened for public inspection in 1900 with Mr. Dawson as guide, a position he held for about thirty years. Two troglobitic creatures are known to exist in the lowest reaches of the cave, an isopod and centipede

The lower tourist section, known as the Main Chamber, has high humidity, enhanced CO^2 content and abundant decoration, a fair proportion of which is still active. Two pieces of decoration in this chamber, which help set the cave apart from other tourist caves are a cross-banded shawl (its most famous feature) and the Jewel Casket, a small remnant pool where stalactites, amongst other decoration, became encrusted with calcite crystals, the focus of this paper.

The cave is currently vested in the Busselton Tourist Bureau Inc.

DESCRIPTION

The Jewel Casket is a remnant pool, entrapped by a flowstone covered wall, small columns and stalactites. Most of the decoration is damp, caused either by continued seepage or condensation from the cavern atmosphere.

To enable this enclave to be illuminated and viewed by the public, a number of stalactites and columns were removed - thus creating a 'hole' in the wall. This hole is large enough to permit human entry, albeit small humans.

No barricades or other protection were installed around the feature which is surprising, given the excessive wire netting attention that other, less attractive decoration received at various times in other parts of the cave.

It could be argued that the Jewel Casket received 'adequate' protection while guided tours were conducted through the cave. Guided tours ceased in the early 1970's to be replaced by self-guided tours. With the inception of self-guided tours it became traditional for a guide to give a short introductory speech at the beginning of the Main Chamber's trail and then sit at a convenient site some 15m away from the Jewel Casket (to await the next tourist/s).

During the early 1980's, when asked, SRCWA recommended that a clear plastic screen be placed over the viewing hole. This advice was not acted upon.

DAMAGE

Sometime during the school holidays of September 1985, somebody reached into the Jewel Casket in an apparent attempt to break off one or more pieces In the process of that act, all free hanging, calcite encrusted stalactites were broken with one major crystal cluster being stolen. Several smaller pieces disappeared, either being stolen or falling into small apertures to the side of the feature, but nonetheless un-recoverable.

Due to the characteristic noise that must have resulted from such action, it is fair to assume that several people were involved with the breakage and that the guide must have been distracted by another group of tourists.. The damage was not detected until mush later.

The broken pieces were left where they fell until an SRCWA trip to the cave one month later. It was then proposed to the Bureau that a repair, using 8 hour Araldite epoxy, be attempted on the largest piece. This proposal was acepted.

FIRST ATTEMPT

The necessary items were purchased from a nearby town and the piece glued to the stump of the stalactite. A stiffening rod was positioned behind the decoration, the free-flowing Araldite kept in place by adhesive tape dams. In an attempt to keep the decoration dry and the cave's humidity at bay while the Araldite was setting, a gas burner was placed to one side of the decoration and left to burn overnight.

To keep the decoration in position, a plank was placed underneath it and upward pressure applied with a vehicle jack. (fig.1)

On inspection the following day - the repair appeared successful and support removed. Unfortunately the bond failed six days later resulting in the

decoration breaking into three pieces which were later recovered and taken to Perth for restoration. Moisture attack is suspected as the principle cause of the bond failure.

PROTECTION

In consultation with the Busselton Tourist Bureau, it was deccided to install a clear plastic screen over the Jewel Casket viewing hole and effect repairs to the decoration during 1986.

Subsequently, a sheet of 12mm acrylic (Perspex) sheet was custom fitted and affixed into the viewing hole using plastic wall plugs, chrome plated brass screws and stainless steel brackets. A 75mm camera port was cut in the centre of the screen to allow unimpeded viewing and enable easy handling of the screen.

Independently, the Busselton Tourist Bureau erected a 'temporary' pipe and weldmesh fence, joining with two pre-existing fences either side of the feature. Although a now further and unnecessary barrier, the fence is unlikely to be removed.

REPAIR

The broken pieces were taken to Perth to enable them to dry out and be pieced backk together. Some crystals had broken off the clusters and a mini-jigsaw puzzle ensued working out where they belonged. These small pieces presented no serious problems in Aralditing back into place - the tell-tale trace of epoxy being hidden amongst the many shiny crystal surfaces.

Larger pieces did present problems. Although, larger surface areas presented a prospect of stronger bonds, it was decided to further enhance these prospects by drilling randon angled 3-4.5mm holes into the calcite where possible, as well as inserting a notched 3mm stainless steel rod along the decoration's centreline. The notches to form a 'key' for the Araldite. (fig.2)

These repairs occupied several months. The method to be employed gluing the large restored stalactite back into place, was to have a vertical stainless steel pin in the centre of the sections with thin stainless steel cross-pins passing through it and then glued into place with epoxy. The stainless steel pin would then support the estimated 3kg weight and not the epoxy joint. (fig.3)

TECHNOLOGY

At this stage,advances in technology came to our asistance. The use of gas burners to defeat the effect of moisture on the Araldite, was considered too cumbersome and ineffective. Hot air blowers were an obvious alternative. Domestic hair dryers were considered incapable of delivering the temperature required over long periods of time and industrial blowers, although capable of the required time/temperature duration were judged too cumbersome.

Just at the right moment, Bosch released the PHG 520 hot air gun, a lightweight 2 speed gun capable of delivering 320° and 520°C temperature at 240 and 420 litres per minute respectively. The guns, although light, were rugged and compact. By mounting a board on a small camera tripod, the gun could be rested on the board, aimed in the right direction and switched on.

In order that the decoration did not become too hot a HPM series 797 timer was used in the power circuit. This domestic electro-mechanical device allowed the hot air gun to be activated automatically for 15 minute increments.

From conversations with technicians at the University of Western Australia, it was theorised that Sodium Silicate could prove a viable alternative to Araldite epoxy. This water soluble chemical reacts with calcite and certainly forms a very strong bond - on dry decoration. It was found that this reaction can take several days - unless heat is applied and re-immersion in water dissolves the medium. More testing will need to be performed to prove this method.

SECOND ATTEMPT

The smaller cluster, was the first to be glued back into place during the second restoraton attempt. This cluster was actually two clusters from seperate stalactites, that had joined together. However, during the initial breakage, a section of one stalactite had disappeared and so, rather than rejoin the cluster in its original position and so create a strain-point on the joint, in consultation with the attendant guide, it was decided that centralizing the cluster around one stalactite would not adversely effect the aesthetic appearance of the decoration.

After thoroughly drying the two sections with the hot air gun, the cluster was held in place, while the 5 minute Araldite epoxy 'went off'. A section of 3mm acrylic rod was placed underneath the cluster to support the joint. The hot air gun was placed in position and left to run overnight. As epoxy glues take several days to attain full strength, the support rod was left in position for a month, when it was judged that the joint was sound enough to have the support removed.

The re-installation of the larger stalactite cluster presented problems when the epoxy prematurely 'went off' before the lower portion with the pin installed, could be correctly positioned. This necessitated a change in plans as to how it was to be re-joined to the upper section of stalactite.

The pin was removed, with difficulty and after the offending epoxy had been removed from the joint, a fresh mix was applied and the joint successfully made. A 6mm acrylic rod was placed in position under the cluster and a stiffening rod glued over and behind the joint - held in position with paste Araldite ie Araldite mixed with talc. Holes and wide joints were filled and blended to match the texture of the decoration, using paste Araldite. Again the hot air gun was left to run overnight, by way of the timer.

A decision will be made during 1987, as to whether or not the supporting rod can be safely removed. At this stage, it is felt that the rod will become a permanent but un-obtrusive part of the decoration

An engraved sign was placed nearby, explaining how the damage occured and that SRGWA was responsible for its restoration.

CONCLUSION

This paper has attempted to describe the methods used to restore the broken stalactite clusters of the Yallingup Cave Jewel Casket. The salient points were that;

1. the decoration was close to the floor of the cavity thus allowing easy floor support,

2. being moist, the decoration precluded the use of water soluble adhesives,

3. due to the close proximity of other decoration and restricted acces to all sides (of the decoration), mechanical jointing methods could not be employed,

4. the use of internal stainless steel support pins and random 'key' holes were judged essential for strong bonding,

5. hot air guns make life easier when working in humid caves or with active decoration, the power being supplied from mains, as with commercial caves or generators in the case of wild caves.

6. Sodium Silicate appears a viable alternative to Araldite, when dealing with dry decoration in low humidity caves.

ACKNOWLEDGEMENTS

The Speleological Research Group Western Australia, would like to thank George Husca of the Electron Microscopy Centre UWA ,for advice and assistance in regard to the use of Sodium Silicate and the Busselton Tourist Bureau for funding and lunches, while the restoration was taking place. The EM Centre kindly allowed use of its Bosch hot air gun and the Physics Dept. UWA provided materials and equipment for the manufacture of the sign.

CAVE DIVING DISCOVERY AT JENOLAN

Cave divers **Simon McCartney** and **Ron Allum** have discovered a major new cave at Jenolan when diving an upstream sump in Barralong Cave. They reported this sump to be 200 metres long and 16 metres deep and is complicated by two tight sections making it the most difficult sump yet encountered at Jenolan. On the the far side of the sump the divers found 100 metres of large vadose passage, before encountering another sump 7 metres long and 3 metres deep. The divers explored a further 100 metres of passage before turning back. They report that the cave is still going, and high level leads in the first dry section and many inviting leads in the second dry section are as yet unexplored. Have the divers discovered the Southern Limestone Master Cave? detailed report and survey will appear in the SUSS Bulletin soon!

THE DISCOVERY OF EXIT CAVE'S "BACK DOOR"

Lou Williams

DATES: 7-18 March 1987

PARTY: Daryl Carr, Lou Williams

This trip was to be a surface and shaft bash in order to try to locate new caves or entrances. After settliing into the railway huts at Ida Bay on the 7th March, we spoke to Arthur Clarke at Dover to find out the latest hot tips.

The following few days we spent scouring the Northern flank of "Marble Hill" and the Western flank of "Lune Sugarloaf", turning up a few 12-20m deep shafts but nothing startling.

On the 13th, we decided to move onto the western side of Marble Hill, which is above the 'back end' of Exit Cave (IB-14). Neither of us had been in this area before, so we headed for a known feature, Western Creek Swallet (IB-18). The turn off the 'La Perouse' bushwalking track is marked by two blazed trees. We followed a taped trail to a waterfall, then backtracked a bit and began contouring the ridge.

After the frustration of the last few days, Daryl swore he wasn't going to be interested in anything unless it had a good draft. With Daryl high and me low, we contoured through the ancient and untouched forest. We were rewarded with many entrances, dazzling sunshine and lyrebird displays, but no drafts.

Shortly Daryl called down that he was at a small bluff with several holes at its base, but none with a draft. I continued along and down to a small sinking stream with an open hole, one that already had a tag, IB-19.

We continued walking for half an hour, until I suddenly entered a collapse doline with a freezing draft coming from one side. Dropping the pack I stuck my head in a hole to see a short drop to a dolerite boulder floor. Scrambling in and moving a few of these, resulted in the rest moving too, so I decided to get out again.

Calling up to Daryl, I reported my find but he thought it was a con to get him down for lunch. Eventually he came down, saw the hole and went for it. After awhile our hands became numb with the cold, still we dug until the whole floor again moved. We stopped for lunch.

Looking at the existing map of the Exit Cave System we appeared to be a long way from known cave. Therefore, if the draft we felt was from Exit as seemed certain, we had a lot of cave yet to cover.

Following lunch, we decided to walk further down the valley looking for other entrances. We came across a small outcrop with a short through cave. The rest of the valley has many features and beautiful pristine open forest with plentiful wildlife.

The standard phone call to Arthur Clarke, resulted in an excited Arthur promising to join us the next day with helpers.

We took Arthur, his boarder Warren, friend Jerry and a jouth hostel resident, 'Wrong-Way' Thompson, to the drafting hole and quickly set to work. After several minor collapses, we could see some real cave passage just beyond a pretty big rock. Removing this obstacle was not easy, but four of us got it out to reveal a 1.5m drop. Moving ahead quickly now, clearing as I went, I reached a small chamber, then a short 2m climb over dolerite boulders into solid walled passage with a 3m drop at the end. Arthur free-climbed this down to a watery flattener. We waited here for the others to catch up, then slipped through getting thoroughly wet in the process.

We now crawled to the top of another short climb with a pool at the bottom. After another bit of passage and a further 2m climb, we got into a narrow serpentine fissure. To move along this, we had to keep the body horizontal and shuffle along halfway up the fissure, where there was just enough room to fit. Wrong-Way Thomson found a spot where we could drop down a bit, struggle around an 'S' bend to be overlooking a shaft with a stream at its base. Arthur had a go at free-climbing this, but after a couple of metres we talked him out of it, then had to haul him back up. We arrived back at the railway huts at midnight after a rewarding 16hours.

The next day Arthur rang to say that he, Warren and Jerry were too buggered to join us, so just Daryl, Wrong-Way and I arrived at the new cave to continue exploration and begin surveying and photographing.

We began surveying from the tag (IB-120) that Arthur had installed the previous day. After five

Continued Page 12

SPELEO SYNOPSIS August - November 1986

Peter Ackroyd

AUSTRALIA

NEW SOUTH WALES

Speleograffiti 1 (1986). Trip reports from Mt. Fairy, Cooleman Plain, Wee Jasper and Wyanbene; an article by NUCC's safety officer "Safe Caving".

JSSS 30 (8). An early report of caves at Buchan dating back to 1867-1873; a reprinted newspaper article indicating that water was flowing in normally dry caves at Millicent, SA, following deforestation of Mt. Burr Range; "SRT Equipment" - Australian made SRT gear is reviewed; first-aid for cavers; two reprints covering bone collection in Skull Cave (Augusta region, WA) and aboriginal hand stencils in the Maxwell River region, Tasmania.

Trog 22 (1-3). Relocation of caves at Willi Willi, including Merv's Cave (WW-16); treasurer's report 85/86; description of WW-16.

Hills N1 2 (2). 'Canyons of NSW' is continued with Kalang Falls; 'Back to Basics' covers abseiling and anchors; trip reports on Mt. Fairy, Wee Jasper, Glenrock (89 caves now known), Bendethra; descriptions of Billy's Creek caves BC-1 to 10.

JSSS 30 (9). A reprint from an 1889 book on Mt. Gambier; an attempt to trace the draught in Mammoth Cave, Jenolan; a report on Gloucester Caves (Mayvale), GL-2 & 8 visited; a brief report on the Barcelona International Congress by Ben Nurse.

Hills N1 2 (3). A grant of $5000 has been given to SUSS by Dick Smith to try and deepen Australia's deepest cave Anne-A-Kananda; Spring Creek Canyon is described; trip reports from Mount Fairy (MF-8 surveyed, maps of MF-8,9,10 & 12), Glenrock (GR-91 & 92 tagged, GR-93 to 98 located), Colong, Wyanbene and Big Hole; description of Myall Lakes Karst.

Spar 94. Description and maps of recent discoveries at Cliefden, CL-73,94,95,96 and unnumbered caves Milkcrate and Thistledoo; caving with computers in the 80s; trip reports from Bungonia, Cliefden and Narrangullen.

Spar 96. Discussion of cave tagging policies; comparison of various abseiling devices; access policy for Borenore caves; trip reports from Bungonia, various Blue Mountains canyons, Wombeyan, Tuglow; map and description of W-110.

Spar 97. Annual reports; map and description of B-126 and EG-5; trip reports from Wombeyan, Cliefden, Moore Creek, Colong and Bungonia (B-15 connection to B-4 has increased traffic to this cave).

Spar 98. Trip report from Nullarbor Plain (usual caves visited), Moore Creek (map of MC-3), Jenolan, Cliefden, Bungonia.

SUSS Bull 26 (2). An interesting cave found in folded quartzites and sandstones at Weabonga, northern NSW; a trip report from Glenrock includes cave maps and location map; trip report from Odyssey Cave (B-24) in which the 'Sirens' were visited using SCUBA gear; a small chamber 'The Attic' found in Dwyer's Cave (J-41); report on limestone outcrops at the northern tip of Jenolan; trip report from Mt. Etna, Qld; description of a chaotic trip to Tasmania (Ida Bay and Junee-Florentine).

SUSS Bull 26 (3). Consists of reprints from SUSS rule book and the Australian Karst Index 1985.

JSSS 30 (10). Whole issue is taken up with Al Warild's report on the Mexico '85 Expedition, maps and cave descriptions included.

Trog 22 (4) & (5). Highest numbers allocated in Kempsey area to date - YE-91, MP-27, WW-74, SC-41, KG-19; trip report from Sebastopol (Willi Willi) at which many caves had tags attached; trip report from Crystal Ridge (Willi Willi).

QUEENSLAND

Down Under 25 (3). Trip reports covering Ashford/Texas caves (NSW/QLD), Chillagoe (QLD) (paleontology), Camooweal (QLD) and Katherine (NT) (bat collecting and surveying).

SOUTH AUSTRALIA

CEGSA N1 31 (2). Trip reports from Naracoorte (diving pools in SOS Cave), Mt. Gambier (surveying a new extension in L-179); a rundown on Peter Horne's activities in the south-east; a trip report from Florida, USA (cave diving); an article written in 1965 describing an early trip to Mullamullang Cave (N-37).

TASMANIA

Speleo Spiel 219. Descriptions and locations of IB-98 & 99; a report on cave numbering policy in force at Ida Bay and descriptions/locations of Ida Bay caves IB-1 to 24; map of Holocaust (IB-45).

Speleo Spiel 220. Descriptions of Warhol (JF-392), JF-339,400,401 and unnumbered cave near JF-400; descriptions of surface work near entrance to Ice Tube (JF-345); trip reports on Slaughterhouse Pot (JF-337), Weld River area, Arrakis (Weld River) and Milk Run (IB-38); map of JF-392.

Speleo Spiel 221. An expedition to examine a depression in the Cheyne Range turnded up some dolomite but no caves; cave hunting in the west of Tasmania did not turn up much in the vicinity of the West Coast Range; descriptions and locations of IB-25 to 42; report on discovery of a rift cave in sandstone at Mountain River; notes and maps of JF-370 & JF-380.

VICTORIA

Nargun 19 (4). Joint UNSWSS/VSA trip to Yarrangobilly; report on a highly successful joint VSA/Police S & R search and rescue practice held at Buchan; food requirements for cavers; trip reports from Lloyd Mill's European caving; maps of Ragnarok (M-169) and Rift Cave (M-61).

EUROPE

Caves & Caving 32. Divers have found more cave (= 600m) in Notts Pot (Yorkshire); a history of exploration of P-5 (Yorkshire) is given; descriptions of 3 expeditions: Mexico '85, Austria '85 and Matienzo (Spain) '85, all with significant finds; an accident in Swinsto Hole (West Kingsdale) - a novice fell 15m (two crushed vertebrae, broken pelvis, broken ankle) when he abseiled down the wrong side of a 'pulldown' rope being used on a through trip; a summary of the BCRA Cave Survey Study in which the 'Topofil' unit features.

Cave Science 12 (4). A descriptive list of Norway's 34 longest (10km max) and 23 deepest (-620m max) caves from D & S St. Pierre's cave index; a brief paper on 7 caves at Wallingford (Jamaica) describing their paleontological significances; a review of a dating scheme in southern France which has resulted in a revision to the dating of evolution of Neanderthal man; abstracts of the Nov 1985 BCRA Cave Science Symposium; ecology of the Crocodile Caves of Ankarana (Madagascar); the morphology and Hydraulic modelling of an active phreatic cave, 670m long, in Svartisen, North Norway, entirely explored and surveyed by cave diving.

Descent 72. More on SSSIs - Mendip cavers are not publishing surveys or descriptions of new finds for fear of them coming under the Nature Conservancy Council umbrella and suffering the same fate as out-of-bounds Swildon's, etc; an introduction to the National Association of Mining History Organisations; an exciting report on the first through trip connecting north and south sides of Llangattwg (Llangattock) Mountain (South Wales). The 7 hour trip involves a 300m dive (some of it in the Agen Allwedd main streamway) from Daren Cilau to Elm Hole; another report chronicles the huge efforts being undertaken to open the main Agen Allwedd resurgence using air lifts and explosives; camping underground has allowed cave diggers to open lots of passage in Darne Cilau; a report by Al Warild tells of the discoveries made in Mexico on the Chilchotla expedition, late 1985.

Caves and Caving 33. Recent dye tracing in South Wales indicates a single cave system under Llangattwg; a cave re-discovered in North Wales, Ogof Llyn Du; an article on caves in Transvaal, South Africa; the Mendip area is still struggling to come to terms with SSSIs (Sites of Special Scientific Importance) (The problem is that landowners are not willing to allow cave exploration if their area could be scheduled as a SSSI as a result of a cave find. SSSIs have onerous restrictions on permitted surface activities, like no ploughing!); several hundred metres of new passage in Gough's Cave (Mendip) have been discovered by divers; a description of one group's experiences in a flooding cave (Gingling Hole - Yorkshire) on a weekend when the Cave Rescue Organisation had six separate callouts (one death); a full rundown on all the discoveries in Daren Cilau (South Wales) now 13 miles long; a geological article covering geological terms.

Cave Science 13 (1). Blue Holes of South Andros, Bahamas, (includes hydrology, speleogenesis and biology); visitors and carbon dioxide in Altamira Cave, Spain; Indonesia Expedition - Irian Jaya and Sumba.

NEW ZEALAND

NZSS Bulletin 7 (135). Some details on small caves north of Wairoa, especially Sabrini Cave; Maori remains in caves south of Kawhia; list of longest and deepest caves in NZ, longest - Nettlebed Cave (23km), deepest - Castle Keep - Bulmer system (-782m); list of bird and animal bone remains found in Kings Cave (South Canterbury); a description of Easter Pot (Oparure); description of a dye trace trip into Windrift (Mt. Arthur); a personal account of the discovery of the 'Laundry Chute' (Nettlebed Cave); Tim Williams reviews cave diving activities 1983/85 - main gain is in sump 3B of Riwaka Cave.

UNITED STATES OF AMERICA

NSS News 44 (6). Gary Soule relates an amazing tale from cave-poor Wisconsin - 10 years of digging with power winches, backhoes and trucks to gradually create a cave (Paradise Pit) in dolomite that is mostly crawlway and is now 546m long - Wisconson's second longest; Great Expectations, a stream cave in Wyoming at an elevation of 2600m is also featured. Pete Shifflett and Don Coons surveyed it, with others, over 3 weeks while camping in the Big Horn Mountains. Apparently the depth record it has held since 1981, was established by an overland traverse between entrances, no-one wanted to go through its freezing waters to survey it inside; Bill Main is profiled in the cave diving column; more on NSS-owned Trout Cave - This time the case against gating it; Dyas Digest contains an item about 5500 L of gasoline leaking from a station's underground tank into Pless Cave (Indiana). All life in the stream cave was poisoned and the vegetation near the entrance was affected.

NSS Bulletin 47 (1). A summary of progress so far in the surveying of Western Kentucky's caves. Geology, surveys and cave development are all covered for 25 caves; an 18 month survey of the temporal changes in CO_2 concentration in Altamira Cave's Painting Chamber (Santander, Spain) shows the efficiency of temperature variations in mixing cave air and thus reducing high CO_2 concentrations four unusual speleothems, two of which may be minerals, are analysed and discussed in an article by William B White et al on Rohrer's Cave (Pennsylvania): a moving air hypothesis on the deflected stalactites of Dan-Yr-Ogof (Wales, UK); allophane flowstone from Newton Cave (Washington State); a study on caving practices matched with personalities of NSS cavers; conference reports, abstracts and book reviews, make up the remainder of this issue.

NSS News 44 (7). Terry O'Leary pillories Steve Knutson (editor of American Caving Accidents 1984) in the Cavers' Forum section; the early history of Nickajack Cave (Tennesee) is explored through the letters and graffiti of four civil war men; a brief rundown on how to go about caving in Belize (central America); an article discussing the ramifications of the proposed Federal Cave Resources Protection Act; and Dyas Digest mentions five more deaths in Florida's caves - open water divers attempting cave diving.

NSS News 44 (8). Many reports on the 1986 NSS Convention in New Mexico - almost waashed away by flash floods; a report on an agreement signed between the Bureau of Land Management and the south-west region of the NSS; an article on the energy levels found in various cave environments and the implications for cave management.

NSS Bulletin 47 (2). Special edition covering regressive evolution - an historical perspective; a discussion on adaptive value of reduction processes; several case studies; comparative study between cavernicolous and epigean relatives; time-keeping mechanisms and their significance in cavernicolous animals.

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From Page 9

hours of awkward sights and 1.5m survey legs, we were rigging a ladder over the pitch. I climbed down into the 'New World Streamway' and saw that I was in a 20m high fissure, with a draft coming from a square shaped tunnel. Upstream was a short climb with water cascading down it.

We had lunch, then set off dowstream, passing many side passages with good decoration. We saw no signs of previous explorers but felt sure we were indeed in Exit Cave. After about 30m we came to a high passage leading off to our left. It had a small stream trickling along its far wall and lots of flowstone over the walls and floor. One set of bootprints could be seen over the flowstone. We followed this passage down a deeply cut canyon passage for about 200m, till we arrived at a major junction.

In the middle of the junction chamber, was a huge talus block and on that was a stalagmite and on that was a blue survey tag with the number '13'. We continued downstream to a junction with another stream (which e later found out was Skeleton Creek) and another survey tag.

Further on we heard water falling and found an enormously high showering aven. (During a later trip (18th April) Darly and I found a way through this aven to an equally impressive second one). We had been in the cave for 12hours, so decided to exit via the 'back door', now named Valley Entrance.

Arthur had asked me to ring him with the news we had, no matter what the time. So at 2.30am, a very sleepy voice asked "Who the f....g hell is this?". However, his tone changed when he heard who it was and I fed him the details, Arthur informed us that we had reached a remote part of the cave in back of Skeleton Creek/Echo Chamber, so our find was indeed the much sought after 'back door', although it also meant there was something drastically wrong with the Exit Cave survey.

The following two days we took a break. Photography in Bradley Chesterman Cave (IB-4) and giving a workman at the Ida Bay railway huts a look at Mystery Creek Cave (IB-10). We felt that the 12 days hard slog and the discovery of Valley Entrance (IB-120), had earned us a rest.

TROPICON '88

As mentioned in Australian Caver No.113 the categories for the photo competition have been decided upon. Now you can start clicking away and know where your slides will go.

The competition will be divided into the folllowing categories:

A. Colour Slides

Divisions

1. Abstract - use your imagination
2. Flight - bats, swiftlets, etc
3. Karst - entrances, chambers, speleothems, etc
4. Water - caves behind waterfalls, stream passages, etc
5. Scientific - geological, biological, paleotological, etc
6. Humorous - must be able to raise a laugh

B Prints

A series of 5 to 10 prints on any theme.

1. Monochrome prints - minimum size 25cm x 20cm, mounted
2. Colour prints - minimum size 18cm x 13cm, mounted

Video

5 minute video on any theme (preferably on VHS)

Conditions of Entry

1. A list of 2 entries per division in the slide and photo competition.
2. All entries must be taken by the person entering them and have been taken in the period Jan '87 to Dec '88.
3. Only 33mm slides will be accepted (5cm x 5cm mounts).
4. All prints must be mounted.
5. Humorous slides will be voted on at the presentation of the slides after the Caveman's Dinner
6. A prize will be awarded to the winner of each category.

Judging Criteria

The following aspects will be examined by the judges when making decisions on the quality of an entry:

1. Subject matter - appealing to the eye
   pertinent to the topic
2. Composition - general composition in the frame
3. Technical Quality - sufficient lighting
   - direction of lighting
   - subject in focus

The Judges reserve the right no to award a prize in any category, if insufficient entries are received, or those received are not of acceptable standard.

Cave Map Competition

To promote surveying as an acceptable and necessary component of caving, Tropicon '88 wil have a cave map competition. No specific categories have been set, so your cave map could be a passageway, total cave, or the relationship of a cave to its surrounding topography and geology.

If you require further information on the Photographic competition or have any queries, please write to:
Tropicon '88,
C/- Chillagoe Caving Club (Inc),
P.O. Box 92,
Cairns 4870.

Remember that car stickers and helmet badges are for sale - see our advertisement for further details.

Jan Parr

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EDITORIAL

With Christmas fast approaching many Australian cavers will be thinking of possible major trips. As you can see in Speleo Synopsis there are many expeditions and major trips going overseas. If you have anything going or just gone that would be of interest nationally many readers would like to read about it in Australian Caver.

Speleo Synopsis is now going to be one of our regular features thanks to Peter Ackroyd who laboriously goes through all the magazines and periodicals from around Australia and the World. Many thanks, Peter!

Many Speleological clubs in Australia are now becoming incorporated in response to possible prosecutions as a result of accidents. There are many pitfalls in doing this and to facilitate clubs who are thinking of doing this I would like to hear from anyone with some good advice.

Yours in Caving

Kerrie!!!

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