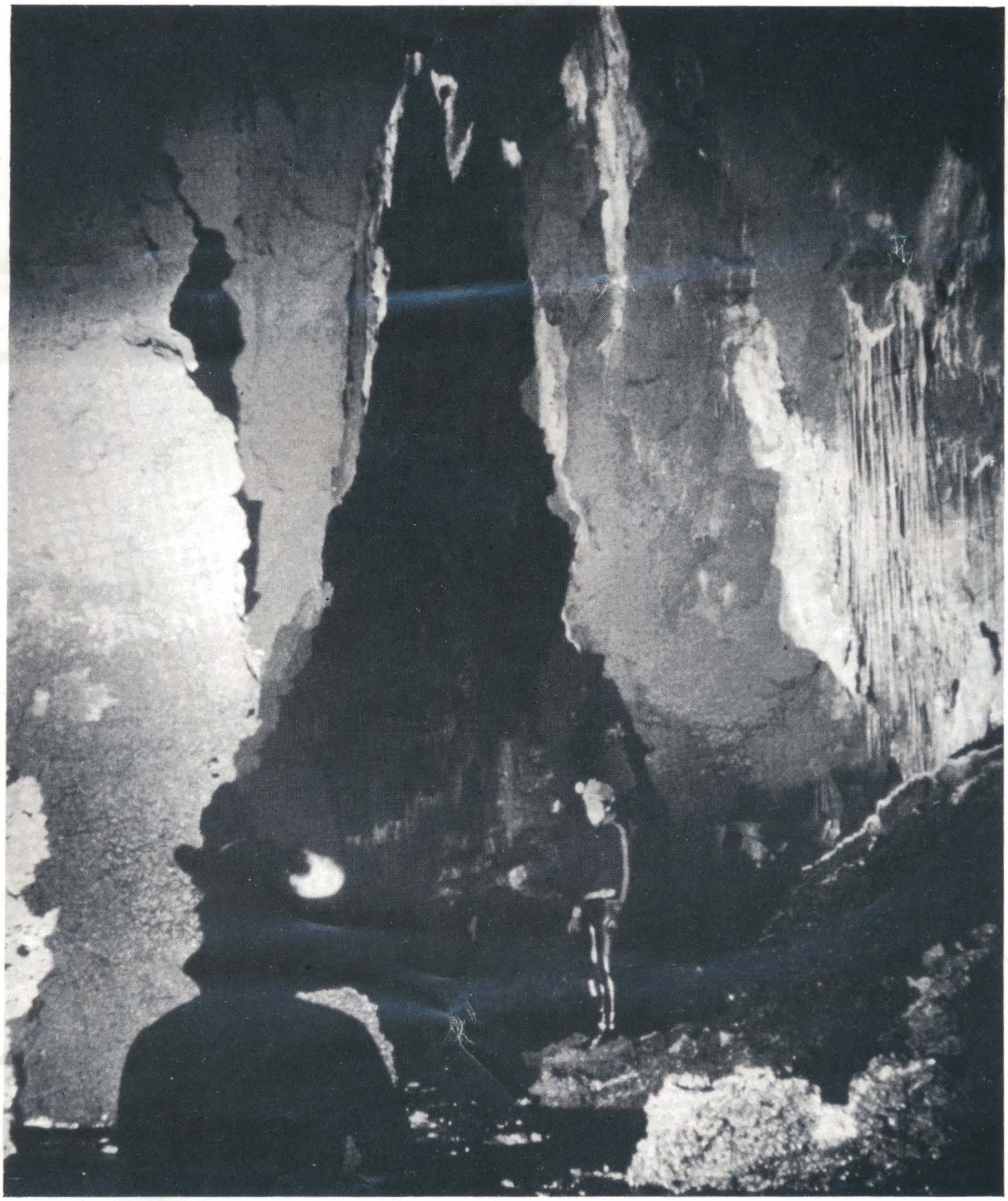
SPRING 1983 : No. 101

ASF NEWSLETTER

THE AUSTRALIAN SPELEOLOGICAL QUARTERLY



"FOR YOUR EYES ONLY" - Beyond the First Sump - MASTER CAVE - JUNEE

photo NICK HUME

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Letter to the Editor

WHAT DO I GET FROM ASF

This a question I've heard so frequently not only from my own club but also from members throughout the country.

The activities of the ASF were shown on page one of the previous ASF Newsletter but in my opinion the ASF has an additional important role. ASF provides a uniting body for the cavers of Australia, whether they be scientific, pseudoscientific or sporting cavers. Conferences and the NEWSLETTER are part of this.

I feel at conferences Australian cavers can both meet socially and more formally to compare the activities, developments in techniques and issues of the proceeding two years. Unfortunately only one sixth of the total ASF membership usually attend conferences. I wonder what it wsould be like at the 1985 Tasmanian conference if 600 - 800 people turned up! It happens in the USA so why not here?

People say that conferences are boring and full of "armchair cavers". That was my impression before attending CAVE CONVICT in 1981 (my first real contact with ASF). The impression was soon proved false. Both during the conference in Melbourne and on the ensuing Buchan field trip I made many new interstate friends, the friendships will lasts for years to come!

At SPELEOVISION it was again the case that I made new friends and renewed old aquaintances. I anticipate that SPELEOMANIA and other future conferences will be the same.

The NEWSLETTER is the other means by which we fulfill the role of uniting members of ASF by providing an avenue for communication. All members can aid in this essential function.

In recent months the NEWSLETTER has slow to appear. It is not for want of trying. The basic problem has been a lack of copy and hence no NEWSLETTER. It is not a new problem as previous editors and managers are well aware. If one goes back through the previous issues you will see that the majority of articles were written by the same few people. No matter how much one calls for more copy it is the same few people who answer the call. Thankyou again to them, but what about the rest of you?

For the NEWSLETTER to continue to be viable and be of the quality you have seen over the last year contributions to all sections of the NEWSLETTER are essential. It may even be financially benificial to you (remember the CAVING EQUIPMENT awards which are given at each conference).

We are now well organised, our only problem is copy. Once copy is received we have an enthusiastic team to edit and publish each issue. Within two weeks of receiving finished copy from the editor the newsletter can now be posted out to members.

This NEWSLETTER has used practically all of the material obtained by the editor. The next NEWSLETTER will be posted on time (in early December) regardless. What is in it will depend on **YOU**. So perhaps the question you should really ask yourself is

"WHAT CAN I DO FOR ASF?".

IAN MANN - NEWSLETTER MANAGER

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NOTES ON THE ASF

AWARDS FOR 1984

All clubs are asked to give consideration to suitable nominations for the following awards for 1984:

1. Edie Smith Award: For outstanding service to Australian speleology
2. Fellowship of the ASF: For outstanding service to the Australian Speleological Federation
3. Certificate of Merit of the ASF: For particular noteworthy contributions to Australian caving and speleology.

Nominations may be forwarded to the President or to either of the ASF Trustees (addresses inside front cover) as soon as possible.

"Cave Management in Australia IV" Published

John Watson, Assistant Director, National Parks Authority, WA, has written to mention that the Proceedings of the Fourth Australian Conference on Cave Tourism and Management are now available from the National Parks Authority, Hackett Drive, Nedlands, WA 6009. Price $6 including postage.

Tantanoola Caves: Draft Plan Released

The SA National Parks and Wildlife Service has released a draft management plan for public comment. Copies may be obtained from SA NPWS at Box 1782, GPO, Adelaide. The managment plan was drawn up by an ASF team consisting of cavers from SA, Victoria and NSW.

THE FIFTEENTH BIANNUAL CONFERENCE OF THE AGE

Tasmania - January 1985

For your edification we present...**SPELEOMANIA**

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

DATES:

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

COST:

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

TRANSPORT:

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

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

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

FIELD TRIPS:

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

PROPOGANDA:

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

ADDRESS:

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

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Amphipods From Nurina Cave - Nullabor Plain

Dr BRENTON KNOTT

Whilst engaged in speleological pursuits on the Nullarbor Plain earlier this year, Mr Colin Barnes and Mr Norm Poulter collected three amphipods (Arthropoda: Crustacea) from the lake in Nurina Cave (6N-46). Since this represents the first discovery of aquatic cavernicoles from the Nullarbor Plain (see, for example, Richards 1971; Lowry 1980) the finding by Messrs Barnes and Poulter has zoological significance worthy of reporting in the Australian Speleological Federation Newsletter, pending publication of the formal description of the crustaceans.

Only preliminary steps have been taken towards identifying the amphipods, since the specimens have not long come to hand, but tentatively they appear to belong to the family Gammaridae, near to the melitids. There is some conflict as to how melitids and associated forms should be classified: for example, Barnard 1969, 1972a, 1972b) includes the genus Melita and related genera within the Gammaridae; Bousfield (1973) on the other hand segregates Melita and related genera into the family Melitidae. Much study remains to be done before the Nurina specimens, which incidentally are blind but otherwise do not show obvious adaptions to a subterranean existence, can be confidently identified and classified.

The longest of the amphipods is nearly 7 mm in length. Unfortunately they are fragile and have not tolerated the rigors of preservation and transport very well. Hopefully more specimens will be collected so that type specimens in better condition can be lodged in Museums on completion of the species description.

If the amphipods are 'melitids', then they clearly are of marine derivation: this is considered by the present author to be the most plausible alternative. However, one should not reject out of hand at this early stage the possibility they have derived from freshwater ancestors. The present distribution of freshwater Malacostraca (crustaceans with limited powers of dispersal beyond the aquatic environment) in Western Australia, South Eastern Australia and Tasmania, suggest they were once distributed across the Nullarbor Plain, and there is much to be learned concerning the morphology and evolution of the Australian freshwater Amphipoda.

Given the specimens in question belong to a melitid stock, their occurrence in Nurina Cave is perhaps not totally unexpected. The cave is approximately 28 km from the coast of the Great Australian Bight with the lake 21.3 m above sea level lying in yellowish bryozoan calcarenite of Lower Miocene age called by Lowry (1970) the Abrakurrie Limestone. This limestone, of high porosity, carries large supplies of salt water (Lowry 1970).

The salinity of Nurina Cave lake is (with total dissolved solids (TDS) of 31700 ppm - data from Lowry 1970) lower than salinity of water in the Great Australian Bight (TDS of 36000 ppm - data from Lowry 1970) but probably not significantly so for an amphipod stock which has invaded estuaries elsewhere in Australia and New Zealand (Barnard 1972a, 1972b). The actual ionic properties of the lake water (the data is presented in Lowry 1970, Table 6, p 170) show some evidence of geochemical modification from the sea water (an increase in relative proportion of Ca^{++} & HCO_3) rather than simple dilution effects, not a surprising feature of water in limestone areas!

It is quite feasible, to contemplate two mechanisms by which the amphipod's ancestors invaded Nurina Lake. Either the ancestors actively invaded the lake, migrating through the pores and fissures of the Abrakurrie Limestone (but note that Richards 1971 did not think it likely that animals would migrate through the limestone: she used this to help explain the apparent absence of aquatic cavernicoles from the caves of the Nullarbor Plain,) or have been left behind as relics from the higher sea levels of the Pleistocene when the southern extremity of the Nullarbor Plain was eroded leading to the formation of Roe Plain on which is found Nurina Cave (Lowry 1970).

Finally, it is appropriate to muse on whether aquatic animals may occur in other inland caves of the Nullarbor Plain. It is now known that caves in south western Australia harbour a diverse and abundant aquatic fauna, especially amphipods (see eg. Austin 1982; Burt 1982), but these crustaceans are typically microscopic and usually, though not always, associated with tree root material. It is not clear from her account whether Richards (1971) sampled for microdocopic animals in her study.

A search of microscopic aquatic cavernicoles in waterbodies in caves on the Nullarbor Plain further inland than in Nurina Cave and of different origins may well be worthwhile and lead to discoveries of zoologically significant forms but such a search would be tedious and exasperating.

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Amphipods are crustaceans flattened from side to side. Some live in fresh water, but most are marine. The 'beach fleas' so-called becuse they are flattened and jump about, live a more or less terrestrial life on ocean beaches, feeding on plants and animals washed up by the waves.

Female Amphipod **scale (approx) 7mm**

Male Amphipod **scale (approx) 7mm**

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There is a Silver Lining to Every Missing Cloud

DAVE GILLIESON, JOE JENNINGS, ANDY SPATE

The old saying, "It's an ill wind that blows nobody any good", fits well with drought and cavers as witness P Ceapa's account of the Burrinjuck activities of the Hills Speleology Club in ASF Newsletter No 98.

At Cooleman Plain the 1967-8 drought came to speleological fruition at the beginning of 1968 by draining all the Murray Cave watertraps and the one in River Cave downstream of the junction of the entrance passage with the stream passage. Canberra Sepleological Society seized the chance to complete the survey at CRG Grade 6D of Murray Cave from the first watertrap to the final breakdown. For River Cave, a Sydney University Sepleological Society lead by H.Wright carried out a useful traverse line some 240 m beyond the previous downstream limit of exploration to what even now appears to remain the present point of penetration. Both surveys contributed very much to a better understanding of the underground course of the South Branch of Cave Creek (Jennings et al. 1969; Jennings 1969).

The cluminiation of the recent long drought allowed many visits to the end of Murray Cave between 4 December 1982 when the duckunders still had to be passed and 21 May 1983 when the third watertrap was closed again. River Cave was open downstream for a short period around 19 March; by 26 March the second watertrap was blocked once more. To the best of our knowledge the upstream watertrap never opened. The following comments arise from various visits to Murray Cave by the authors either together or separately and a single quick trip down to the bottom end of River Cave.

The previously published account of Murray Cave (Jennings et al, 1969) is satisfactory in most respects but needs correction in one regard and some enlargement. The most important features that escaped the 1968 survey were rock terraces about 1 m above the stream bed. The statement in the 1969 paper (p.27) that "Rock shelves due to shallow vadose incision consequent on a slight rejuvenation are not found in the inner part of the cave; such effects would not develop upstream of a siphon in a system" is wrong. There are such shelves in the inner part of the cave and the inference is faulty, though it may be true of a siphon proper. In fact the watertraps here are inverted siphons - U-tubes - and at levels higher than the top of an inverted siphon, vadose incision can occur upstream and downstream. This new information calls for no further modification of the comments about the rock terraces, the successive cave outflows and the aggradational terrace outside Murray Cave in that paper and in Jennings (1966).

There are more pressure tube cross-sections surviving in the inner part of the cave than the previous account suggests. Also that account failed to bring out the fine speleothems present. These would certainly warrant stringent management policy by the NSW Parks and Wildlife Service when this cave is open. With the moral support of the Service, CSS instituted a system of track marking and 'soft' regulartory signs which should preserve many of the more accessible and perhaps less obvious features of interest.

Although mud coatings were described as prevalent before, no mention was made of dripholes and residual mud pyramids fashioned by drips during the exposure of the mud at low water levels. Fine clay vermiculations - thin wormlike deposits on bedrock - coat passage walls and are due to the contraction of drying clay films. Thus they can be used as an indicator of periods of standing water in a cave.

Sand banks are characteristically located upstream of inverted siphons whereas coarser materials, mixed sand and gravel, and coarse gravel, are found on the downstream, rising limbs. There is a size gradation in the clasts here, declining from bottom to top. The steep angles of some of the coarsest banks, even exceeding 35^{o} are most impressive (cf. Milanovich 1974, Fig.124). These features are indicative of the tremendous energy available when these siphons are functioning. Cross-bedded coarse sands are also present again suggesting high velocities when the passage is intermittently active. Visitors to Murray Cave when it is flowing in the forward part will remember the effort needed to press upstream through some of the constrictions in the cave at such times, though here one is only contending with gravity.

The black coatings of the gravels, probably of manganese and iron oxides, are in much better state in the inner cave than in the much trodden forward part. Similar black coatings are particularly present on passage walls in and near the siphons.

Flat roofs truncating the bedding carry in parts scallops which belie the misconception that these current markings are a criterion for vadose flow. They only distinguish between the faster currents of vadose and dynamic phreatic flow from the very slow movement of nonthephreatic conditions.

On bedrock flows, there are not only scallops but also symmetrical solutions cups and transitions between the two kinds of feature. Drips and standing water in the long periods of time between the occasional river floods through the cave are modifying the current markings which, though they may be inherited from a past period of perennial river action, are still maintained by the occasional flood. Mechanical abrasion effects are also present, complicating floor sculpture further.

Micro-flutes in close sets, each about 5 mm across and 50 to 100 mm long, and aligned parallel downslope, were seen carved in tbe bedrock. They must have formed above stream level but whether from spray of turbulent stream flow gathering on the wall or from the effect of surges consequent on flood pulses cannot be resolved.

This time the final rockfall was completely dry, permitting closer examination than before by a number of groups, despite signs of present

collapse activity. At floor level to the sides of the rockfall, there are remnants of two bedrock passages, each with scallops; there has been collapse into them as well as across the full width of the pasage at a higher level. The limestone at this collapse appears to be impure and mechanically less strong than in the rest of the cave; this may have facilitated the collapse. Soil-derived sediments have penetrated downwards through cracks between the collapse blocks, and are indicative of an overlying depression.

Indeed there appears to be a good deal of lithological and structural control over the orientation of Murray Cave, especially for the inverted siphons. These seem to be located at points where the passage intersects parts of the limestone with many impure siliceous bands, which may have deflected the phreatic passage laterally or downwards.

Inspection of the bottom end of River Cave in a completely dry state was a more cusory affair and not much is to be added to the previous desciption of H.Wright (in Jennings 1969). In morphology it is very much a continuation of the well known part of the stream passage, with low parts in watertraps and the most of it having a canyon-like cross-section with lateral enlargement at floor level, and much coarse gravel. In the downstream section from the tributary passage entry, there are further watertraps beyond the second one to which a detailed survey has been carried, but at normal water levels they are short and shallow. In the rising limbs of the inverted siphons very steep cobble banks occur as in Murray Cave.

As Wright says, the cave contracts sharply at the present limit of penetration but a strong party must attempt to get farther here on a future favourable occasion. A little before this point, a short branch runs north along two major joints to end in tight rockfall. Whether this is Wright's branch to the 'west' 300 feet short of the end or his rockfall close to the limit of exploration is debateable. However, there can be little doubt that it is the other side of the Murray Cave final breakdown. The overall gradient of River Cave remains the same throughout, confirming the previous estimate that the floor at the end of River Cave is about 8 m above the floor at the inner end of Murray's. What provides the threshold preventing all but extreme flood flow from getting into Murray Cave through here was not readily apparent in a quick scan. Maybe resurvey of the surface between the two cave entrances is advisable also in this connection.

Cave Hill, flooded in 1912 by Burrinjuck Reservoir before its dam was completed, was exposed in 1968 (Hawken 1968) and this last summer for a considerable time, when it has received much careful attention by the Hills Speleological Club and others. We were as much interested by the surface of the hill as by the caves. Most intriguing is the way solution flutes show progressively greater loss of sharpness of the ribs between them and more smoothing of the surface as whole from the top of the hill downwards. This should be followed along the same beds because of lithological control of such sculpture. The progressive downhill changes must relate to increased time of submersion from top to bottom of the hill. Waterlines visible in the cliff above the main cave entrance indicate particular standstill levels in the storage but whether distinct steps in the change of flute form could be related to them is doubtful. Modification of these subaerially fashioned features is probably more mechanical than chemical in nature because of wave action. Nevertheless chemical action of the lake waters with their aquatic life will differ from than of rainwater and play its part also.

Equally interesting is the tremendous cleaning away of soil from the hillslopes as wave action has shifted its plane of operation up and down, with water being withdrawn for irrigation and replenished by runoff. Much exposure of subsoil solution sculputure results; this is best described by comparing it to Henry Moore sculpture but on a smaller scale. Fossils are etched out by subsoil solution very effectively and their roughness contrasts raggedly with the general smoothness of rock surface. Normally one gets small chance to see this kind of sculpture so Cave Hill is an education in this respect.

The cleaning of the rock removes also the sandpaper rough greyness characteristic of subaerial weathering with the help of lichens and reveals the actual colours o the limestone here, which vary from white through grey to blackish as one moves over the succession of beds with their different lithologies. Micro-faulting and distortion of calcite veins associated with the folding of the rocks also stand out with great clarity.

The caves submerged for so long are striking for two things above all. The first are the widespread, 40 cm thick coatings of glutinous black and leathery grey mud deposited from the lake waters. Hawken (1968) described its grotesque effects on SSS exploration and members of other clubs have no immunity. The fine reservoir muds overlie extensive deposits of brown cave earths with abundant bone content. From them came the first desciptions of extinct marsupials such as Thylacoleo by Krafft and Ethridge of the Australian Museum. Flowstones which overlie the bone-bearing deposits were collected for rediocarbon dating. Gravel and cobble beds, blackened by manganese or iron, are also present and testify to a former fluvial stage of the caves.

The second striking effect of drowning is the extensive re-solution of speleothems. This is most pronounced with the large stalagmites in the wide entrance of No. 1 Cave (Jenkins 1882), which is most probably the Gudarigby Caverns of Bennett (1834) and the Bone Cave of Etheridge (1894). These are exposed to waves generated by winds blowing south over the lengthy reach of the reservoir along the Goodradigbee River valley. Wave motion will not only promote solution but remove any fragments loosened by solution.

There does not seem to be any evidence to justify Ceapa's claim that the Cave Hill caves are of tectonic origin. Few caves seem to be of tectonic origin and these are to be found in young orogenic belts such as the European Alps or the New Guinea mountains. Many caves are located and influenced in their form by structural influences but with them, as in most limestone caves, their origin is to be sought in the action of water. The Cave Hill caves are certainly influenced by the open folds of the limestone so plainly visible on the washed surface of the hill.

What then are the origins of the caves here? Gudarigby Cavern is clearly a former river outflow cave at two levels. Some of those hgiher up the hill may be inflow caves and the obvious suggestion is that a right bank

tributary of the Murrumbidgee (after it emerges from its gorge into the last basin of the reservoir) formerly flowed over Cave Hill where it was engulfed. The relief hereabouts must have been different then. Over the hill patches of creamy speleothem calcite and pinkish cave breccia stand out plainly; they are relict from the fills of former cave entrances or possible more inward parts of caves. Maybe a good deal of the hill has been denuded since the caves formed.

There is some irony in the fact that the first cave to be mapped in this country, as Gudarigby Cavern by Bennett, was drowned in the reservoir. Since then the Texas Caves of great interst for their physical and biological speleology have gone under. Let us hope that the archaeologically invaluable Fraser Cave and its neighbours will not suffer the same fate.

The reservoir basin, in which Cave Hill is situated, may owe much to the weakness to erosional forces of limestone. This strike belt of limestone extends from Cave Hill to well south of Wee Jaspar. At the southern end of the submerged area under Burrinjuck is the striking limestone tower called Cathedral Rock. When we visited it, we looked upwards to its top, form which a chain dangled down. That chain was put in to anchor a buoy marking this danger to navigation in the stormy water of Burrinjuck Dam. The erratic climate of this incontinent continent plainly has its advantages for the doubly inverted outlook of the curious Antipodean speleologist.

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Safety and Techniques

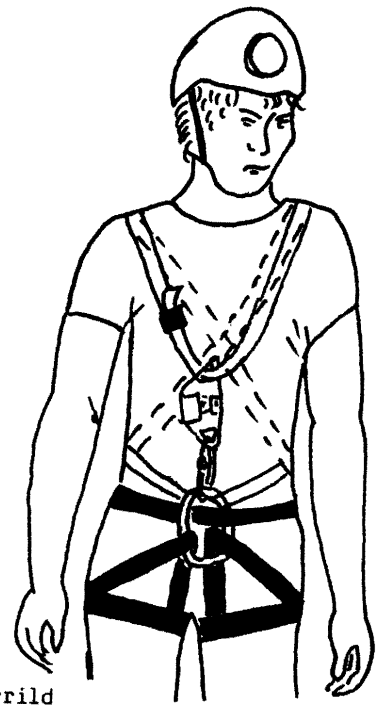
MORE SRT NOTES

For those who use a "Frog" Prussik System and have had trouble finding a comfortable and adjustable chest harness, here is one which has been kicking around Europe for a few years. Having recently tried one on some fairly serious caving I would say that it is the most comfortable harness I've ever used for Frogging. It is simply constructured from about 2.5 m of 20-25 mm flat tape with a buckle or double rings at one end rather like an extra long belt. In case the diagramme is not clear enough it is put on thus:

1. The 'belt' is threaded through the top eye of the chest ascender so that the buckle just pokes through to the right of the ascender.
2. The bulk of the belt is threaded over the left shoulder, and diagonally down across the back to appear just above the waist on the right.
3. The belt is then threaded through the main seat krab or equivalent and then continued across the body and around the back.
4. continue diagonally up across the back and the last 0.5 m comes over the right shoulder, and down to the buckle.

Features

exceptionally comfortable
light weight
easy to adjust, fits over any amount of clothing and will fit anybody
doesn't restrict breathing
buckle has relatively little load on it, so doesn't need to be exceptionally strong
easy to make, the buckle can be sewn, riveted or knotted
almost useless for rope walking rigs.



Alan Warrild

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ACCIDENT REPORT

- Easter 1983 - Junee-Florentine, Tasmania

During Easter 1983 a party of 11 cavers, including myself, from the Victorian Speleological Society (VSA) visited the Junee-Florentine area in Tasmania (Ackroyd 1983). While we were there a number of accidents and near-accidents occurred, due to a combination of poor preparation, lack of fitness and bad luck.

On the Saturday a party of 5 entered Cauldron Pot, and progressed quickly through the cave to the final pitch. This pitch is rigged via a bolt traverse to avoid a waterfall, but the rope does not hang free; there is a wide rub point on a sloping section of rock approximately half-way down. The rope used on the pitch was a 10 mm Edelrid caving rope.

The last person to abseil down the pitch placed a protector at the rub point, but immediately he had abseiled below it he noticed that the stretch in the rope had caused the protector to move out of position. He prussiked up and repositioned it. When it came time to prussik out, everyone found that the bounce in the rope made the protector shift out of position. Everyone attempted to place it correctly, but it had always moved by the time the next person prussiked up to it.

Although the rock at the rub point appeared to be smooth, by the time the last person prussiked up the rope the continuous rubbing, probably aided by a sharp projection, had cut the sheath two-thirds of the way round the rope, exposing the core. This can only be regarded as a very close call, and illustrates the need to be absolutely sure about rope protection at all times.

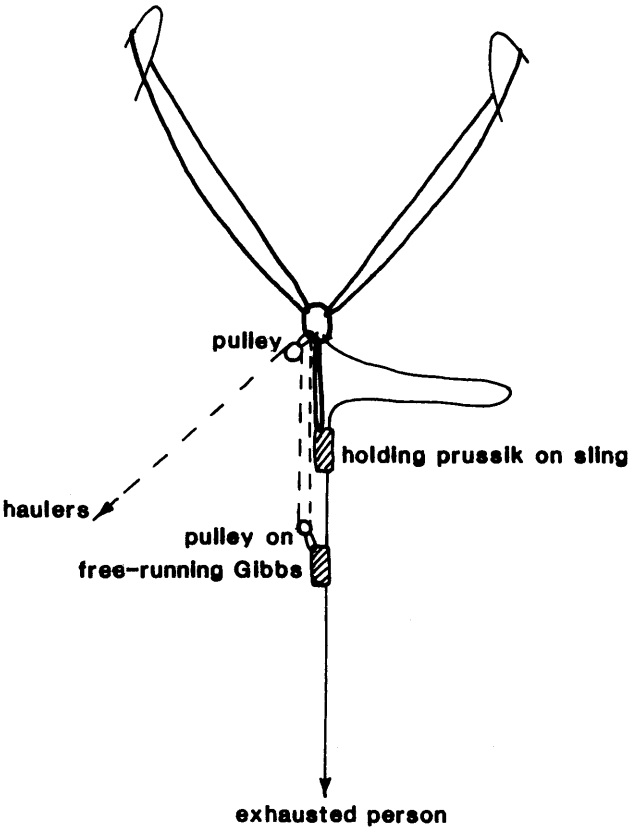
We should have used 2 or 3 protectors at the rub point rather than one (all we had at the time), and attaching them to the rope at both ends (rather than just the top) would have stopped them moving around the rope. A less stretchy rope (eg Bluewater) would have lessened the problem considerably. It should be noted that previous parties (eg see King 1976) have had similar problems with he final pitch in Cauldron Pot, describing it as a "protection nightmare" that caused severe rope abrasion.

While one party was having problems in Cauldron Pot, the others had a close call in Growling Swallet. Three of them decided to check a possible extension, and the leader ascended a short climb. At the top of this he dislodged some loose rubble, including a rock the size of a soccer ball, which fell 2 meters onto the person below, striking him on the left side of his head. Luckily he was shaken but unhurt, due largely to the effectiveness of his Joe Brown helmet. This accident emphasises the danger of standing below someone on an unstable slope. Rockfall is an everpresent danger in caves, and unstable areas should be traversed or climbed one person at a time.

Potentially the most serious accident occurred the following day, again in Growling Swallet. A party of 6, including a Tasmanian guide, made rapid time through the cave, down the 25 metre pitch, and on to the Black River.

Some members of the party looked at the Black River sump, and one of the Victorians, who was soaked to the armpits, soon began complaining of the cold. On the way out of the cave this person came close to exposure; when prussiking up the 25 metre pitch he became totally exhausted about 7 meters up and was unable to go on. Furtunately the pitch was dry at the time and voice communication between the bottom and top was quite easy.

Two members of the party were carrying hauling systems, consisting of 2 pulleys and a free-running Gibbs ascender. One set of hauling gear was at the top of the pitch, but there was no spare rope to rig it, so one of the people at the bottom prussiked up, over the stuck person, with a short length of rope. A Z pulley system was quickly set up (see diagram), and the exhausted person was hauled to the top without any trouble. After being fed chocolate and jelly beans he was assisted from the cave with no further problems.



Diagrammatic illustration of the hauling system used. At least two people are needed; one to haul, and one to feed the main rope through the holding prussiker. Of course two people hauling makes it much easier.

If the pitch had been wet, or if no-one had been carryng hauling gear, this incident could easily have ended in death.

Despite the fact that everyone on the trip had been told to bring suitable clothing, the person involved was wearing little more than cotton overalls. Never underestimate how arduous and severe the cold wet caves of the Junee-Florentine can be. Looking on the bright side, the hauling gear worked extremely well and

most party members were proficient in its use. The need for caving parties to be equipped for and trained in self-rescue was well illustrated; parties in vertical caves should always carry a set of hauling gear and a short haul rope.

Having read through the above list of accidents, I suppose your're wondering how anyone in VSA survives in a cave. Well, at least we're prepared to admit our mistakes and hopefully, learn from them; maybe you can too.

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JOHN WEBB

Diving in WESTMORLAND CAVE - MOLE CREEK - photo Nick Hume

DOWN UNDER ALL OVER

CSS Despite rumour to the contrary, CSS is active and even growing! The first half of 1983 has seen a considerable number of trips to a wide variety of destinations.
Under the influence of northern enthusiasm, mid January saw us at Yarrangobilly for a weekend. We enjoyed the thermal pool and celebrated the first birthday of the writer's daughter. We also inspected Eagles Nest Cave and were horrified to find an area in Flatbed Cavern carefully cleaned by CSS last year was muddied by cavers' foot steps. Following discussions with the NPWS, we returned to Eagles Nest Cave in late March to install a bridge and mark a trail in Flatbed Chamber and Railway Tunnel. We also recleaned the same formation, which should now remain clean.
The first half of 1983 was a contrast of drought and rain. In early February, we visited Cooleman Plain and River, Murray, Glop Pot and Easter Caves. The water level in Murray Cave was so low that the party led by John Brush was able to proceed beyond the norally impassible third water trap. They marked a track through the cave and installed a visitors book. The book will be collected during the next prolonged drought. In 1995? There may not be many names in the book as the next CSS trip was called off due to heavy rain closing the road.
Taking advantage of the drought, we also visited Cave Flat on a number of occasions. This is an area of spacious caves, one of which was well decorated, on the bed of Lake Burrinjuck. Usually 20 meters below the water level, the caves were well explored, despite the putrid aroma of drying mud. One one trip, those present were able to boat through the cave entrance. Two weeks later we had to walk in as the water level had dropped by 2.5 meters!
The drought broke the weekend CSS was at Church Creek. The first day of the long weekend saw a desperate shortage of water. The last day saw us virtually swimming back along flooded roads! Church Creek is not recommended for a wet weekend.
During the first half of 1983, we also visited Wyanbene for some stream passage surveying, Mt. Fairy, London Bridge and Wombeyan. Several trips to Drum Cave were planned, but did not quite get there!
Perhaps the highlight was he 'grand tour away with the boys' in early June. After a weekend at Yarrangobilly, there followed a caving expedition through south-eastern New South Wales visiting Narrengullen and Wee Jasper before fetching up in Marble Arch and Wyanbene for the following weekend. The purpose: to remove and/or record visitors books, a long term project. That weekend we also celebrated an important event, the fortieth birthday of CSS stalwart, Neil Anderson. Congratulations, Neil.

Derek Synnott

TCC Last spring and summer saw many trips to that family favourite, Growling Swallet in the Florentine Valley, with the result that a considerable amount of cave was discovered and surveyed. The total length now exceeds seven kilometers with much more awaiting discovery and/or surveying. Of the discoveries, one of the more significant was the finding of over two kilometres of large active streamway with a complex series of fairytale sand passages extending from near the inevitable downstream sump onwards into the never never. These two passage series are known respectively as Mainline and Dreamtime. Early winter saw an even more outstanding event - the linking of Australia's second deepest cave, Ice Tube with Mainline, described above. The linking passage is somewhat tortuous, however, and would not make for an easy through trip. This link has added about 15 metres to the depth of Ice Tubes and of course a considerable amount to the vertical range of Growling Swallet.
Diving in the Junee Resurgence last year, the breakthrough that some deemed to be impossible was made - after 210 metres of silty and fairly deep bubble blowing, a spectacular large open streamway was found. The effort involved in this project extended over more than a year and the discovery of "For Your Eyes Only" was a just reward for those involved. Walking upstream revealed over 200 metres of formation lined passage until the roof dipped low and a second sump was found. Exploration of this slump is proving technicallly difficult because of decompression problems and the cold, but work is continuing and hopefully a satisfactory result will be forthcoming.
Three of our members spent summer in New Zealand, participating in the Nettlebed expedition and playing a major part in the continuing exploration of this ongoing cave system. Visits were also made to some of the other classics in the area such as Greenlink and Harwood's. Their trip was concluded with a successful climbing season in the Mt Cook area.
During Easter this year the usual TCC expedition took place, this time to the remote and rugged North East Range of Mount Anne in Tasmania's shrinking South West. The aim of the trip was to break the Australian depth record previously held by Ice Tube in the Florentine Valley. A couple of gear carries were done during the previous week and on the last day of the main trip the aim was achieved - **Anne-A-Kananda was pushed to -373 metres**, at that time 28 metres deeper than Ice Tube. What had been a very dry cave during previous exploration, turned out to be unexpectedly wet, catching the team by surprise and giving evryone a good drenching. A couple of subsequent trips to the cave were made during more severe weather, the huge entrance doline becoming nearly impassable because of

DOWN UNDER ALL OVER

snow! In order to reduce costs to individuals, some sponsorship was obtained from a number of companies which was most welcome and appreciated by all concerned.
Also over Easter, a group from VSA made their annual pilgrimage to Tassie, concentrating their efforts this year on the Florentine Valley near Maydena. After a couple of fairly arduous trips, some members threatened to give up and take on the job of camp wallah! However, all enjoyed themselves and have indicated their intention to return with renewed vigour next year. It was great to cave with such a friendly group intent on enjoying themselves and just having fun.
Other visiting groups over summer and autumn were from SUSS and SSS. Both enjoyed the rigours of Tassie caving and no doubt will return in the near future.
A brief visit from a vice president of the IUS, Russell Gurnee and his wife Jeanne made for an interesting evening when they presented a slide show depicting some of their cave development and management work.
Following the Easter antics, three days were spent with an ABC Nationwide film crew filming for a segment on what is normally a fairly staid and political show. The end result was a thirteen minute extravaganza on the "search for the longest cave in Australia". Despite being centred on Growling Swallet, filming actually took place in Welcome Stranger and the Junee Resurgence as well as GS. Great fun was had by all even if a few restrictions have had to be imposed concerning the gear taken on TCC photographic trips....
Another TV filming session took place recently in Kubla Khan at Mole Creek. This time the crew was from the Mike Walsh Show and the segment aimed at housewives instead of the conservative gentry. There was even money involved for the players - professional cavers!
Not much has been happening since Easter, but a number of new members have appeared recently so it won't be long before the "Valley" reverberates again to the sound of sweating cavers carrying overly large packs full of caving paraphenalia, intent on another conquest of the underworld.

Stuart Nicholas

Copy Deadlines

AUTUMN : 1984 : No. 103

1 Feb 1984

Safety and Techniques

MORE ON ROPE

I would like to comment on the letter by Shane Wilcox in the ASF Newsletter number 98 regarding Beal 10.5 mm Dynastat caving rope.

His letter does I believe tend to "write off" Beal Dynastat as a rope that is not suited to caving while producing little evidence to support his condemnation of the rope. As far as I know no tests of the ropes abrasion resistance have been published and hence he is basing his comparison of its abrasion resistance with other ropes purely on field observations during the Muller 83 Expedition.

I too took part in this expedition and from memory the ropes that were abraided to the point of requiring, replacing or rerigging were: Bulewater III, Edelrid and Downs. Whether a length of Beal was abraided or not is of little consequence as any comparison of abrasion resistance with the other ropes used is very difficult considering the variability of the conditions under which ropes were abraided.

Several points in the ropes favour were overlooked by Shane and I would like to make these known to readers. Besides the obvious one, of an excellent price, the Beal(10.5mm) is lightweight compared with ropes such as Edelrid(11mm) and Bluewater(11mm). Hence it is very useful when large quantities of rope are required for "pushing" trips. On the Muller 82

Expedition 100 m lengths of Beal were carried on several occasions that I can remember. The rope was then cut to pitch lengths as the exploration proceeded.

With regard to stretch I found that the rope did not stretch excessively when compared to ropes such as Downs, Edelrid or Interalp. Its "dynastat" properties are I believe another of its advantages. If any climbing is to be undertaken on a push trip then it is only necessary to take one rope - Beal - because it can be used as a climbing rope and then when the climb is complete left as a fixed rope. As one of the few people to 'take a fall', during the expeidition, while belayed on Beal I can certainly testify that - 'it works'.

Regarding the statement made about the discarding of rope at the end of the expeidition it should be pointed out that as it was necessary to reduce our weight for a helicopter lift several lengths of rope were discarded. However they were certainly not discarded on the basis of Beal first everything else last. Obviously the older and more seriously abraided ropes were discarded first. As to what followed was entirely up to the person trying to reduce the weight!

Finally I hope that I have indicated that Beal Dynastat caving rope has certain advantages and that the rope should not be "written off" lightly until some testing has been carried out.

Rauleigh Webb

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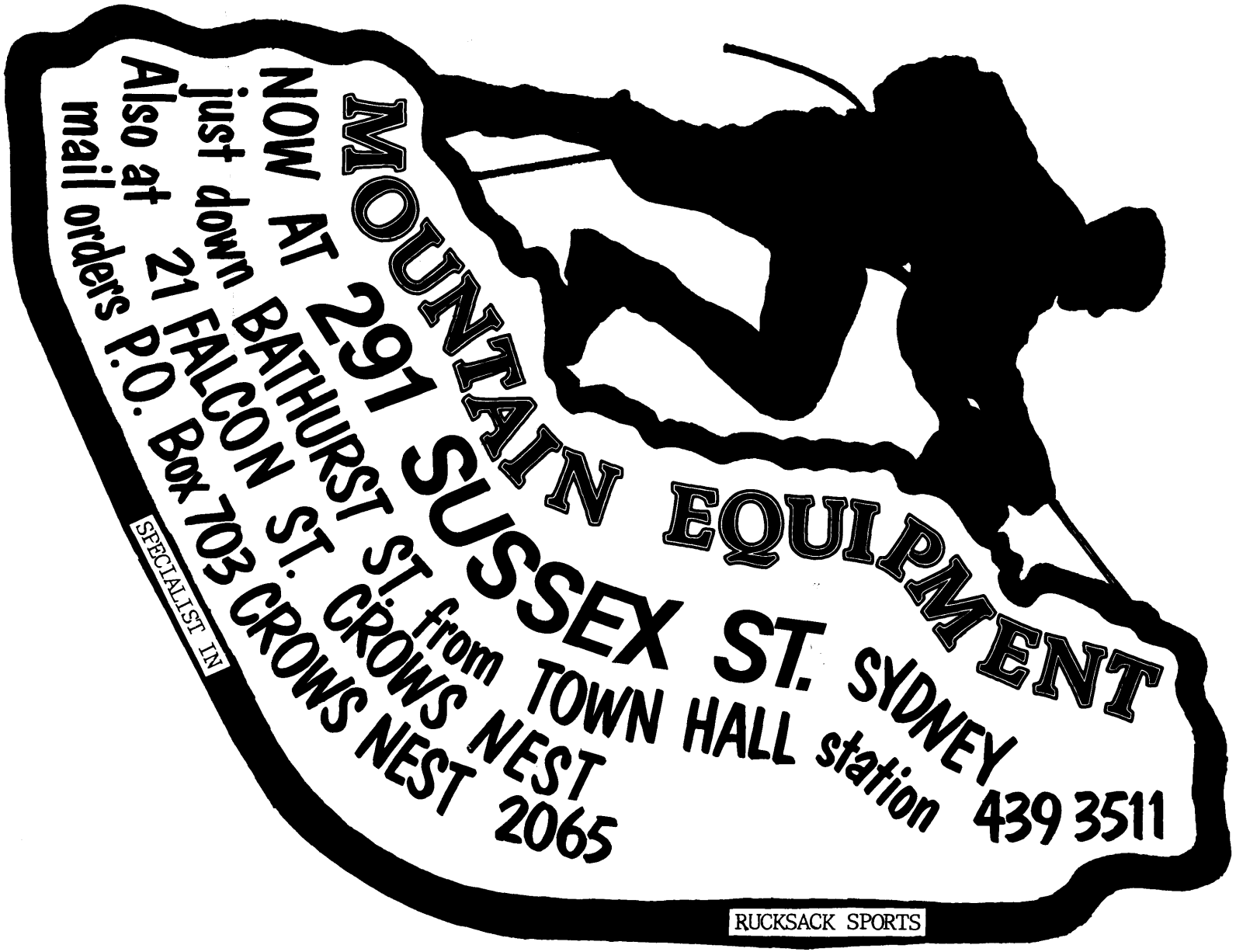
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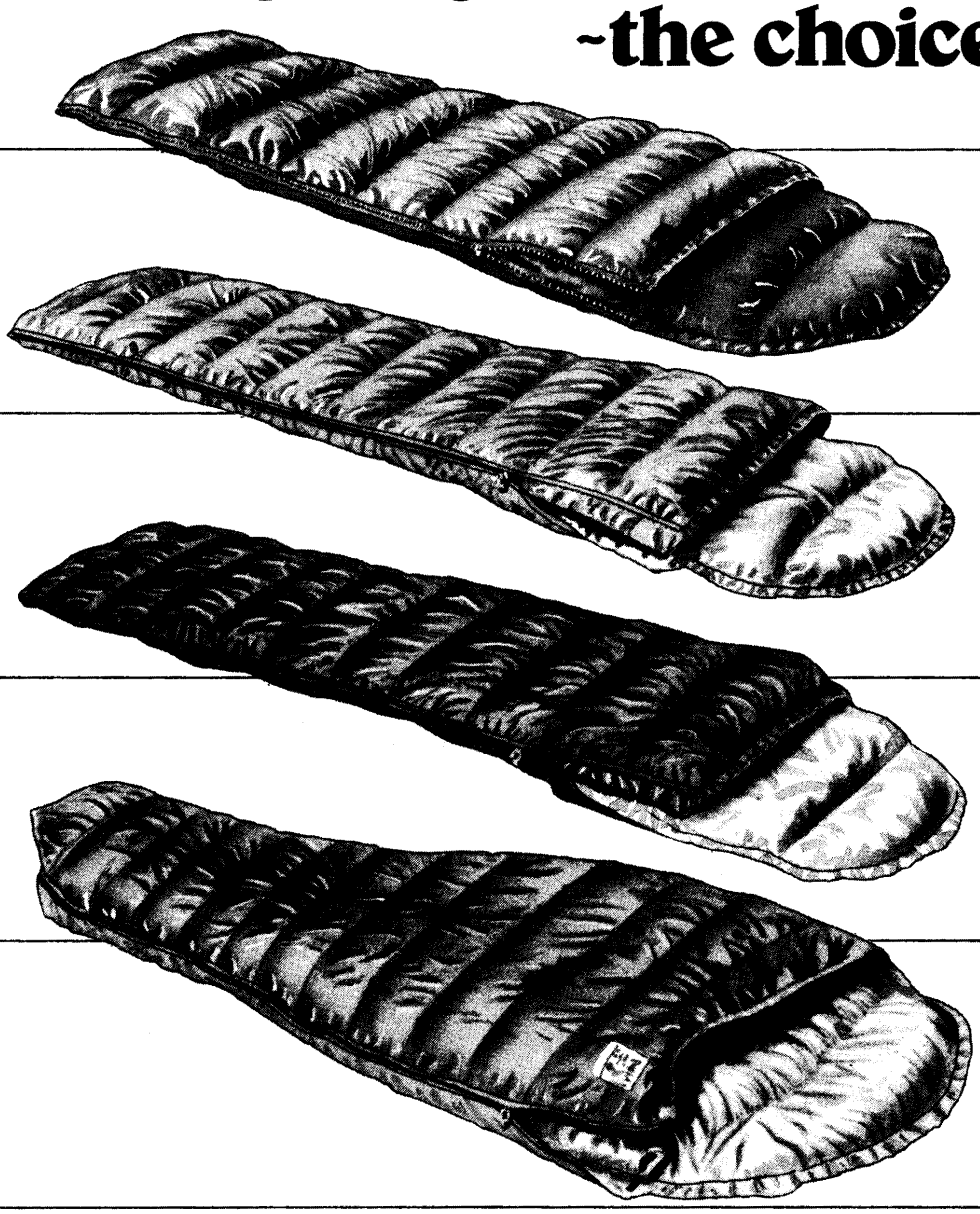

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PADDYMADE SLEEPING BAG COMPARISON CHART

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KIANDRA	1.25 kg	Sewn Thru	500 g	550 Loft Down	5°C	Full Zip	30 x 17
BIMBERI	1.00 kg	Box Wall	550 g	550 Loft Down	−5°C	Side Zip	30 x 17
HIGH PLAINS	1.80 kg	Box Wall	1100 g	Featherdown	−5°C	Full Zip	34 x 23
HOTHAM	1.60 kg	Box Wall	700 g	550 Loft Down	−5°C	Full Zip	34 x 23
MELALEUCA	1.55 kg	Box Wall	800 g	550 Loft Down	−15°C	Side Zip	34 x 23
BOGONG	1.60 kg	Box Wall	900 g	550 Loft Down	−15°C	Full Zip	34 x 23
SNOWLORD	2.00 kg	Slant Wall	1100 g	550 Loft Down	−25°C	Side Zip	37 x 27

All bags fit people to 190 cm (6ft 3in) tall; bags to fit people 205 cm (6ft 9in) are available in most models.
*Temperature Ratings are a soft measurement — they represent an average expected performance level for a standard person although individuals will differ by up to ± 10°C. Paddymade reserves the right to alter these specifications without notice.

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