



SOUTH WALES CAVING CLUB

CLWB OGOFEYDD DEHEUDIR CYMRU

Newsletter

No. 114

1994



South Wales Caving Club

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Expedition members explore Tien Liang Dong, Xingwen, China 1992, by Tony Baker.

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Opinions expressed in this Newsletter are the contributor's own, and not necessarily those of the Editor, or of the South Wales Caving Club.

Editorial

by *Tony Baker*

Firstly, thanks to everyone who made appreciative comments about the last edition of the Newsletter. It was good to have some feedback, and everyone who spoke to me said they liked it. If you disagree, though, let me know. I'd like some more feedback about this one, too - please, please take the trouble to let me know, whether you like it or not. Drop me a line or talk to me in the pub.

This issue, like previous ones, contains a range of articles on vastly differing subjects: I particularly want to know which you enjoyed and which you didn't. I'd like to turn this into a sort of readership survey, which will help me to plan future issues. If, for example, lots of you like one particular article, then I can approach the author to do some more, or ask other people who may be able to produce similar work. I'd also like to know if you have any suggestions about ways to improve the Newsletter; about the layout, the text, the printing, the photographs, the cover, whatever.

The hardest part of this job is extracting material from people. I think that many of you feel you can't contribute unless you've been to far-flung foreign parts or found some exciting new cave, but nothing could be further from the truth. In fact, I'd like articles about anything you think might be interesting. Write about any caving trip, anywhere. Write a gear review or a book review if you've acquired something new. Write a short story, a humorous piece, a report on a weekend in another caving area, anything you like but do it NOW and send it to me. And don't forget to include some photos, a survey, a map or a cartoon or something to illustrate it with.

Most of the contributions published in this issue - and previous ones - come from well-established club members, but please don't feel excluded if you're only a provisional member, or even a non-member; articles are very welcome from any quarter.

If you use a computer, then a disk is the ideal means of sending stuff to me, but I don't really mind how it comes; typed,

handwritten or scribbled on the back of a fag packet as long as I can read it. Don't worry if you can't spell, I'll sort it all out and even send it back for you to check if you like. But please, please do it.

A while ago, we started offering copies of the Newsletter for sale to non-members, at a cost of £2-00 per copy. These are available from Duty Officers or from Dragon Caving Gear, and so far we've sold a reasonable number. The last issue, the Gouffre Berger special, sold well, mainly to people who were going to the Berger themselves this summer. This was due in part to a mention in *Descent* (thanks Chris) which meant that more people knew of its existence.

It seems to me that this is a worthwhile enterprise, since the cost of printing a few extra copies is minimal and every one we sell reduces the overall cost to the club. If you can think of any ways in which we can extend the idea, and increase sales, I'd like to know.

Obituary: David Jenkins

by Frank Baguley

David Jenkins passed away suddenly on January 16th 1994, at the age of 75. The funeral service was held on January 25th in Holy Trinity Church, Llandrindod Wells, at which the caving fraternity was well represented.

David was a distinguished and dedicated member of the South Wales Caving Club from its early days, having joined around Easter 1947. He served as a committee member for some years and then as its Hon. Editor, Records Officer and Hon. Secretary from 1957-1961. He became President of the Club from 1965 to 1975, and was appointed one of its three trustees when the present club premises were acquired.

He was the very epitome of service to the community locally and also to the club, and gave a large part of his life to participating in its activities, helping to run its affairs and assisting younger members to acquire a sound knowledge of the sport. He steered the club through difficult periods, and it has lost a trustworthy and faithful friend. It will be difficult to appoint another trustee like him. Integrity was his prime qualification and he was basically an administrator, though not a caving "politician". He played a major role in the

starting and building up of the club records, which now constitute an outstanding caving reference library at the Club HQ. In those days when there were few caving publications, club secretaries had to be knowledgeable, and serve as the main source of information, which, if they could not provide it personally, they could refer an enquirer to someone who could. Thus David was able to give advice and information on caves such as Ogof Gam, Llygad Llwhwr, Pwll Swnd, Foel Fawr, Dolphin's Hole and Daren Cilau.

It was in 1959 following the acquisition of the new Nature Reserve, Craig-y-Cilau, that the Nature Conservancy (later the Nature Conservancy Council, now Countryside Council for Wales), announced that a permit would be required to visit Eglwys Faen and Agen Allwedd. It is mainly due to David's efforts and proposals, regarding the method of access control, that cavers enjoy the present arrangements. The Nature Conservancy then realised that cavers were responsible persons, and this led to the setting up of the Agen Allwedd Cave Management Committee. His advice, in conjunction with that of Dr. Jeff Jefferson and others, also assisted in the setting up of

the Ogof Ffynnon Ddu National Nature Reserve.

He was very impressive physically and vocally at meetings. His stentorian voice commanded attention (he enjoyed a long career as art teacher at Llandrindod High School, rising to the post of Deputy Head), and he could be dominant without being dominating or domineering. His words conveyed authority resulting from experience and acquired knowledge.

In the early days he used to cycle to the club on a motorised bicycle. Many of the cavers in those days used to cycle to the caving area from all over South Wales, at a time when possession of a car was an exception, and a caver could send his baggage on in advance by rail to Penwyllt Station! Then later, he and his wife Margaret stayed in his caravan which he parked at the Gwyn Arms, which in those days, was the club members' pub. His enthusiasm for work, his attention to detail, his help and advice, especially to the younger members of the Club were legendary. He welcomed cavers who visited him at his home, usually to seek his advice, which he gave freely. Such visits usually lasted much longer than anticipated, and there was always an invitation to call again, with

the offer of accommodation and sustenance.

The benefit of his advice was well illustrated in the case where on April 4th 1958, he was taking a young member of the Club (Bill Birchenough) on his first trip into Ogof Ffynnon Ddu I, to the Waterfall Series. David had a fall, sustaining an injury to his head rendering him unconscious. But, such was the careful instruction that he had given, Bill was able to exit on his own and alert the rescue, despite the traumatic experience which he suffered as a novice! Many other cavers also pay compliments to David for his excellent advice and instruction underground. (This injury did slow him down somewhat.) Mel Davies recalls his favourite condemnatory saying - "they are only clothes-line cavers". He was not one of them, he was in a different class.

His job as Records Officer was no doubt the stimulus for him undertaking the production of the first complete record of the Welsh caves, *Caves of Wales and the Marches* in conjunction with his co-author Ann Mason-Williams (now Ann Edington), in 1963. Such was his devotion to detail and correctness, that he visited every cave in the book to ensure that the entries in respect of national grid reference and

local name of each cave were correct. There is no doubt that this work led to the setting up of the Cambrian Cave Registry, and later acted as the stimulus for Tim Stratford to produce his publication *Caves of South Wales* which has reached its third edition. Alan Ashwell, the recent Hon. Secretary of the Registry endorses this work by David. He also had a great interest in the metalliferous mines of Mid-Wales particularly during the 50s & 60s, on which he kept personal records. His knowledge of them was employed by the Hydraulics Research Institute during their investigation of the Severn and Wye catchment areas when a small band of cavers spent many weekends water tracing in them.

He was also interested in cave art, and Man's association with caves in this country and Europe. Ann Edington recalls the occasion when David went to visit her in the Underground Research Centre at Moulis in the Pyrenees, his route taking him along the road which runs through Mas D'Azil. He was so engrossed in the cave itself and the engineering of the road that he drove off it and came to rest "leaning" against one wall of the cave in a lay-by. None of the family were injured this time! This is the only known case of

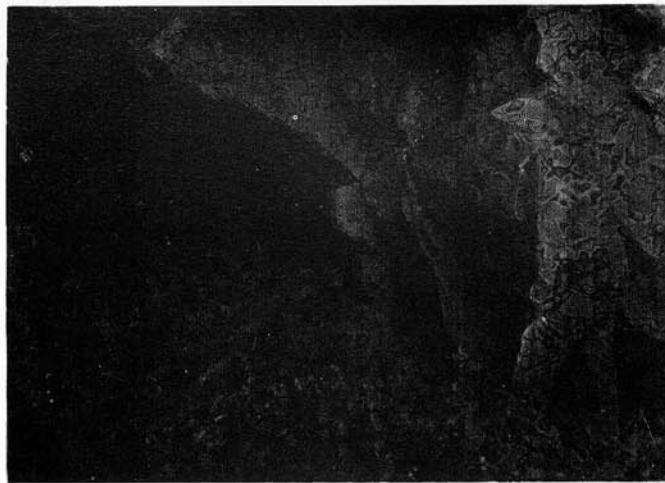
any UK caving club sustaining a motoring accident inside a cave! He had not enjoyed the best of health in later years. A serious eye condition resulted in major surgery, but still he and his wife continued to serve the community in which they were much respected. The turnout of local inhabitants and cavers at the church services for both David and Margaret (who died a few years ago) was an indication of the high esteem in which they had been held. We extend our sympathy on behalf of the caving fraternity to Barbara and Paul and their children on their sad loss.

I am indebted to the contributions provided to me by several club members who had known David over a longer period than I have: Alan Ashwell, John Barrows, Bill Birchenough, Mel Davies, Dr Ann Edington, Peter Harvey, Les Hawes, Gary Jones, and Roger Smith. A book could be written about David, I have only been able to touch on some of his attributes, thanks to these members.

Harding's Down Cave

by Mel Davies

Despite some 150 years of cave discovery and exploration in Gower it is still possible for an unrecorded, large open entrance to turn up. Such is the entrance to Harding's Down cave (see section), which is 5m high and 4.5m wide. The cave is situated in a faulted north westward extension of the south Gower carboniferous limestone; the entrance faces west and is hidden in a tree-filled hollow produced by a quarry excavation probably during the last century - drill marks are still visible on the



Mel Davies at the entrance to Harding's Down Cave

quarry face which is some 10m high and 30m long. The cave owes its origin to a syncline clearly marked by three shale bands with a thickness of about 15cm, 30cm and 15cm respectively the latter two outcropping in the upper walls of the cave. The south wall is heavily incised by phreatic solution hollows, the north wall less so, and an outward direction of water flow is indicated. The back of the cave is partly collapsed and there is evidence of some continuation in that direction. The whole cave is only about 10m long, so it is very possible that a passage exists underneath what is now a

remarkably flat floor and that water once emerged from this passage.

There is no evidence of any archaeological excavation in the cave, something probably

unusual in Gower, and no old floor levels marked on the walls. It is possible that the cave was only opened by the quarrying process, if so such an event would have been expected to have found its way into the local guide books; however, it is not recorded in J D Davies's four volumes (*History of West Gower*, 1877-94), nor in any potholers list, but Mr J G Rutter (author of *Prehistoric Gower*) has in his possession a drawing of a cave called Brown Lays Cave, near Llangennith, by a W W Goddard of Swansea and it is evidently of this one dated approximately 1880-85. Mr Rutter searched for the site in

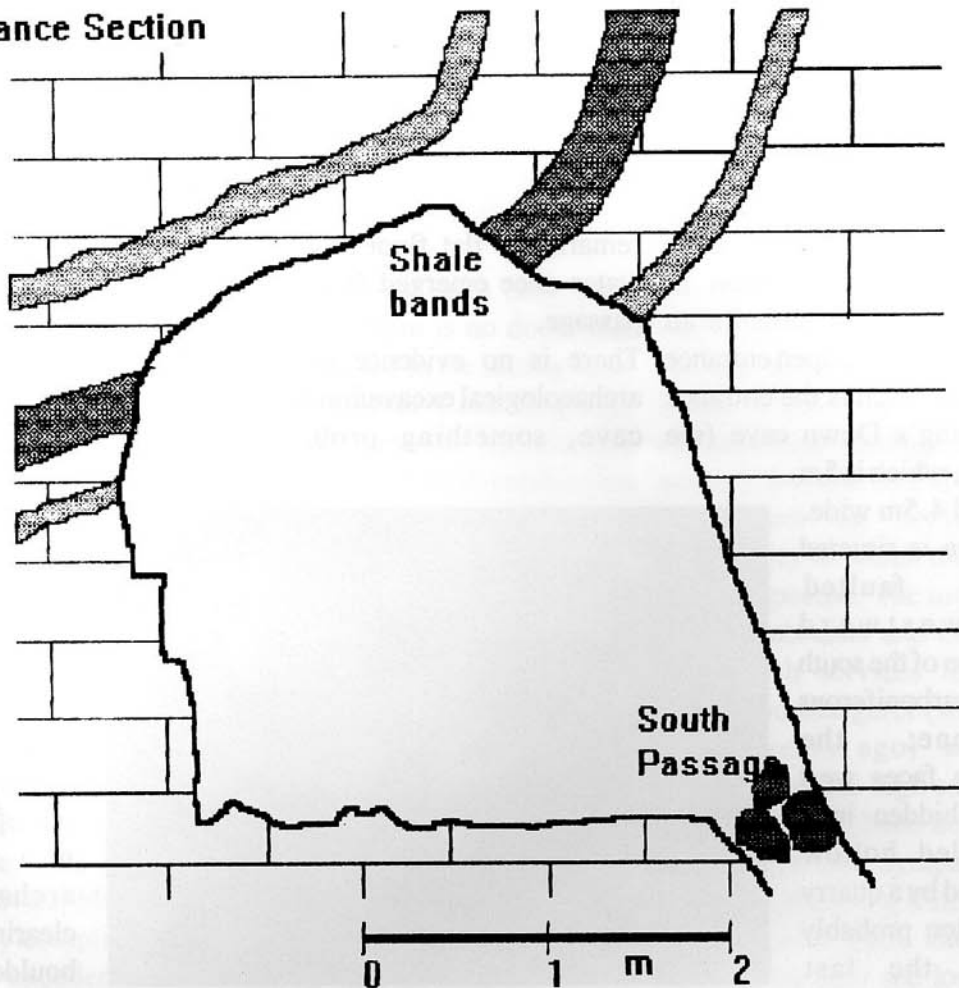
the 1940s but was unsuccessful. Before investigating further the cave was thoroughly photographed on 20th June 1994 using flash and a half-metre scale. Rear walls were photographed for detailed examination later in case they carried any prehistoric or later markings. A search was then carried out for any evidence of occupation or minimal archaeology by clearing some of the boulders against the south wall. Mixed with the boulders

was a deposit of dry brown earth, then sub-angular limestone slabs with a thin film of stalagmite. No bones, shell material or anything else was found, but a passage loosely filled with post-glacial deposits seemed to continue southwards. The fact that archaeological remains are entirely absent from the superficial layers does not mean that the depths are equally bare. The excavated area was then photographed the flash clearly illuminating the partly-blocked continuation of the passage.

By early August it was discovered that the Countryside Council for Wales had scientific

HARDING'S DOWN CAVE, SS 4327 9091

Entrance Section



control of the cave under what is known as a "Tir Cymen" agreement with the landowner, so it was re-visited accompanied by a CCW officer. Bat droppings were found so the south passage was opened out further to encourage its use as a bat hibernacula. The following temperature readings prove that the cave does extend, possibly in two directions, and that it may well be eminently attractive to bats:

South Passage	51.8 deg.F
Main inward passage	53.8
Outside shade	66.0

These temperature values are not so low as in the lengthy caves high in the Brecon Beacons, and they should be compared with other caves in the Gower peninsula, for example:

Ogof Ffynnon Wyntog (300m long) water: 50.7 deg.F

Twll-y-Flwyddyn, emergent draught: 53.8

Outside shade (5-7-93): 69.6

In summary Harding's Down Cave, also known as Brown Lays Cave, is now under the protection of the CCW, it is not archaeological as far as is known but has a clearly-displayed syncline probably contributing to its origin, and the cave is an important nesting site for certain bird species. Two passages lead off from the entrance chamber currently too low for humans, but they will be monitored for bat usage during the winter.

Harding's Down Cave is located at SS 4327 9091.

To Dig With Nig

by Paul Tarrant

“Dai had been having more nightmares about collapsing boulder chokes and Paul Tarrant again insisted on giving moral support from the rear”. So I read about myself in Nig’s article in SWCC Newsletter No. 112. Such caution has enabled me to carry on caving for a good few years, and has delayed the onset of greying hair. However, it seems that when I go on trips with Nig, excitement levels are nearly always elevated by something happening. The following is an illustrative tale which goes some way to explain why I have emigrated to Luxembourg!

I accompanied Nig on several trips over the years to the Mynydd Ddu/Black Mountain. It has the advantage that few other folk apart from the Tony Baker combine and the Garimpeiros are prospecting the area, and it boasts an area of vast open wilderness, and great beauty. It is also a place of ancient Welsh myth and legend. Ogof Dan Y Lleud Wen (Cave Under a Pale Moon) had attracted our attention several

times since its initial discovery by an ISCA member two years ago. The cave is about 45 minutes walk from Herbert’s Quarry, just above the old mining town of Brynamman. The cave lies on the western flanks of Foel Fraith hill.

As a caving trip it is quite interesting since the small entrance passage drops into a large trunk passage which gives the impression that a major cave has been entered. The reality is that the passage continues but so far the cave has not revealed its full potential. It has a few small pitches and displays a grand high rift passage at the end, which boasts a large chamber with a rather splendid rock bridge. There is also a lower series which both Nig and Liam Kealy have paid some attention to.

The main trunk passage at the foot of the entrance pitch had seen Nig and I pay two trips to bolt a wall climb and to “dig” a promising looking rift. Both projects came to nought since the climb entered an alcove and the dig, although promising to

start with, looked expensive in the term of man hours to achieve headway.

Liam Kealy had looked at the boulders in the floor of the passage and had recently made an extension of about 60 metres. He had been stopped by a tight rift. He told Nig about it, and Nig had visited the extension and been able to get some way along the rift during a solo trip. He told Liam that the passage continued but in a reasonably tight fashion and would require slight modification to allow more general access.

Liam therefore gave Nig the nod and so it passed that the pair of us made the familiar walk from Herbert’s Quarry laden with plenty of gear, which seems to be the usual hallmark of a trip with Nig.

The entrance appeared to have changed after some recent rainfall, and the dampness of the black peaty mud is one of the only places in the cave where one is guaranteed to get filthy. A squeeze gives access to a low passage which gets higher, developing a keyhole cross sec-

"... a trip doesn't go by without me developing some sort of aversion to the passage Nig decides to dig in..."

tion as the main passage is neared. A pitch of 8 - 10 metres is or was ready rigged with a ladder which drops to a floor of massive boulders and unstable blocks. Going left would lead to the further reaches of the cave, going right soon encounters a condensation soaked choke which must connect to the surface.

The way to Liam's extension lay underneath the floor of boulders close to where the ladder enters. Nig had been surprised that he had failed to look at the hole beneath the boulders since it was a good candidate for a dig. He comforted himself with the fact that he had been relatively "warm" in choosing the descending rift to dig in close by.

Nig issued warnings of the dire effects of touching any of the boulders. Indeed, they looked highly dodgy but Nig had rigged an SRT rope in such a way as to achieve a good drop, avoiding the need to touch the worst of the blocks.

The pitch was only about 7

metres deep and dropped into a large rift passage which constituted the true floor of the main rift passage above. The large boulders chocked in, and forming a roof above, is the floor upon which cavers are happily stomping along, blissfully unaware of what does not lie underneath!

Nig wanted to dig an obvious downward trending passage on the right hand wall. He passed a squeeze over loose boulders and then beckoned me down with more warnings to be careful. Just as I was going to follow, the hole through which Nig had gone appeared to shrink visibly as something moved. Nig ignored the degree of alarm in my voice (a trip doesn't go by without me developing some sort of aversion to the passage Nig decides to dig in) and he started to coerce me through, saying that things looked alright from his angle.

Just as I safely negotiated the squeeze, a large flake comprising the left hand wall decided to change from vertical to hori-

zontal mode and fall on me. Fortunately I was able to block it back in place. Nig by now knew something was amiss and on looking at the block decided we best do something about making it safe.

His suggestion that I go back out of the passage and boot the offending flake in and down the passage had me wondering whether I was about to seal Nig in, but life so far was not that exciting really and the flake broke up nicely as it rolled down the passage safely away from Nig.

The block was safely disposed of and Nig suffered no ill effects. This enabled us to explore the passage which closed down to miserable dimensions all too quickly. We found that a dog had beaten us to it (there seems to be a bloody rash of caving dogs lately in Wales!) but it was not in good shape as its head was separated from the rest of the skeleton.

We cleared the place from the list of potential digging sites and returned to the main drag of

"Nig thought that the whole rift had fallen in. He was quite philosophical about it and reflected on how long we would probably have to wait before being rescued..."

the rift that Liam had recently discovered. The passage leading up to it was very promising since we left the area of unstable boulders and dropped down a side rift which entered good solid passage with a small streamway.

An awkward climb up into the rift was not made easy by the gear we had to transport and I could see why Liam had been reluctant to follow it to its conclusion as it was very tight and downward trending. A climb down at the end dropped us to the stream passage floor.

Disappointingly, the streamway which had received some prior attention from Nig seemed a forlorn hope and a very long term project. Instead, we tackled a passage high on the left which seemed promising but would require enlarging before we could get in.

We took it in turns drilling bolt holes for the etriers and we then made preparation to remove some rock. Just as that point there was an ominous rumble from behind and beyond the rift

which quickly transformed into a steady roar that lasted four or five seconds. We both looked at each other as further isolated boulders could be heard continuing to fall for some time.

Nig thought that the whole rift had fallen in. He was quite philosophical about it and reflected on how long we would probably have to wait before being rescued. I was a bit concerned that I'd miss me tea!

It was Nig who retreated back to see the state of the devastation which surely must lie beyond the rift. I just sat, awaiting his return and his verdict on our predicament. After an age Nig returned with the incredible news that everything was OK and that wherever the boulders had fallen, it was not in our vicinity.

Encouraged by this, we pressed on with the plan to remove some boulders that barred our access at the top of the short climb and exited with a minimum of delay. The rift provided an awkward obstacle due to its uphill nature, and the tackle bags we were carrying. We made a care-

ful study of things on the way out but could see no evidence of boulder movement and this led us to conclude that a collapse had occurred in some part of the loose rift area which was not visible to us. Perhaps something might be further found in that area.

The fresh air and fine views of the Carmarthen Fans were so very much appreciated on our exit from the cave. The last of the daylight provided sufficient light to change by before the obligatory walk back to Herbert's Quarry.

Six Eyes, Eight Legs

by *Chris Howes*

I looked at the spider. It looked at something or other - it might have been me, but who's to know with all those eyes? Six, to be exact. Anyway, it was probably a bit blinded as this spider had, until comparatively recently in its mundane little life, been sitting happily on a stal. Then along comes a bloody great bright cyclops thing that shines in its face and zaps out all its visual nerve endings. Poor little eight-legged sod.

The beast was actually quite helpful, staying still while it was studied. It was a pale, anaemic-looking thing shaped a bit like a suet dumpling that's been ironed. That is to say, it was extremely flat, pasty white, with crinkly bits around the edge. A miniature disc with legs. This should be interesting, I thought. Such ideas are often proven to be classics of understatement, and this was no exception.

The day had started well enough, with a matt black, starlit sky growing bright a little after 6am. Judith and I were camped at the edge of the Etosha pan, Namibia's jewel of a game reserve in the north of the country. It was winter, with dried grasses and an August drought forcing game to the few waterholes, making for ideal, almost predictable photography. The choice was game, or caves. Reluctantly, very reluctantly, I had to acknowledge that the

latter were beckoning.

It was a Friday. A packed post office served as a reminder that, even here where things were "civilised", this was nevertheless Africa. A grille divided a long, wooden room into two - by far the larger part of which was inhabited by one man while a telephone booth and six jostling people filled the other.

"What you want?" I was asked. I gave him a Grootfontein number. I waited. Eventually, twenty minutes later, he pointed to the booth. No dial-your-own around here - the operator places your call, you answer when your phone rings. I waited some more, then spoke to Wolfgang, a contact I'd written to before leaving Britain. He was to fix up a caving trip; I was supposed to give a slide show and talk to the Namibian Scientific Society in return. The name should be enough to indicate Wolfgang's background: German speaking, as is much of Namibia's white population (while English is the official language, Namibia - the former South West Africa - was once settled by Germany, and the legacy remains). We therefore depended on his English, which was thankfully quite good. Yes, we could be at a certain farm on Sunday. Yes, we could find it alright. No, there was no problem in giving the talk on Monday.

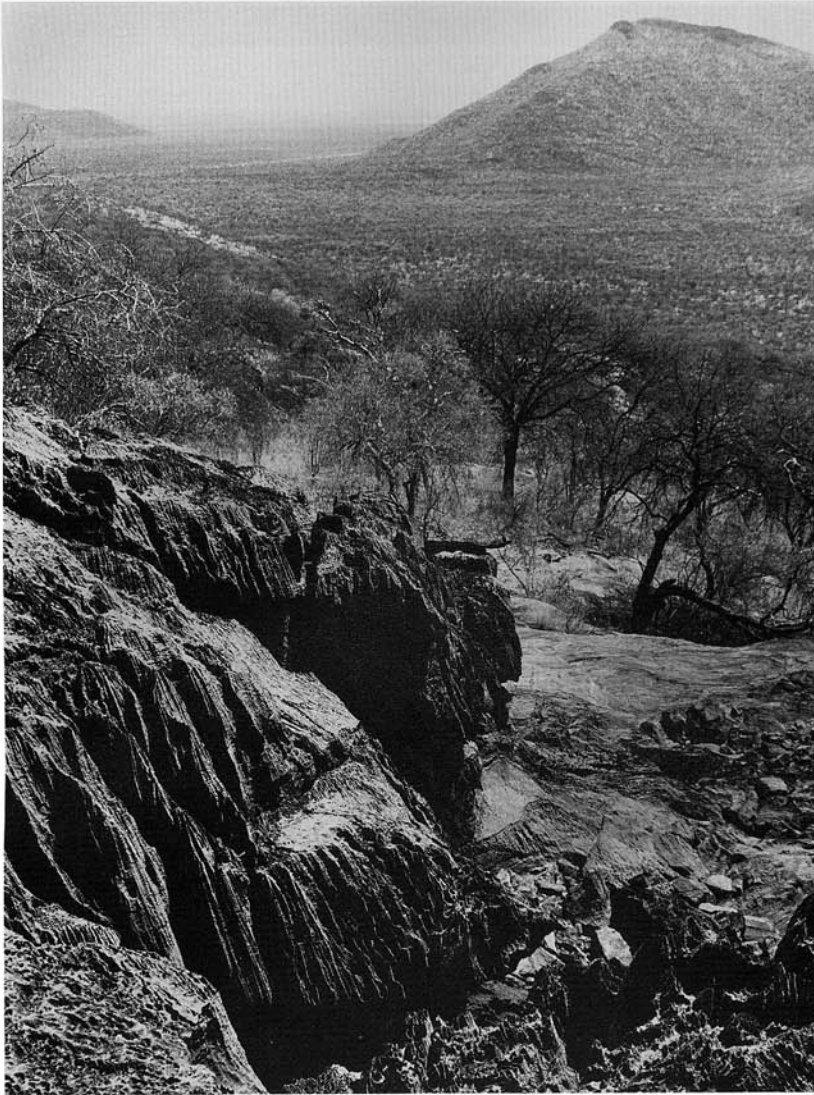
Two out of three were right.

Sunday. We hurtled down a dirt road through an arid, scrub landscape, insidious dust billowing high into the air. It penetrated everything: clothes, cameras, car; to slam a door was to create a dustcloud inside as fine, orange soil spurted from the upholstery.

To either side of the road hills reared up. From our last turn we were to look for a "geological port" in the landscape at 54km, where we would find the farm. The problem was, we were late, we were travelling at high speed, and we didn't know what a geological port was. I tried to keep watch for ruts, Judith scanned the scenery. Wolfgang hadn't managed to explain it further. By the time we got to 100km beyond the turn, and were faced with a wide, sweeping veldt, we knew we had gone too far and the farm must have been the only habitation we had passed. We tore back up the dirt and, yes, there was the farm set back from the road behind a gate and low, wire fence.

A veranda gave way to a wire mesh door; I rattled it and a stream of people emerged, all German speaking and shaking hands. First were the farm's owners and their daughter, Antje, a tall, slim lady who spoke good English.

Hannes was next to appear. He was short and wore shorts to match. Thick, dark boots and a



Karst terrain near Uhlenhorsthöhle

bright green vet's jacket completed his ensemble. He looked dressed for walking Swiss Alps all day, and was probably the sort of companion that would talk cheerily whatever the conditions. It transpired he worked as a vet in Namibia, although he had no training - his formal background was as a geologist. The last out of the door was Wolfgang, an older, round-faced man who was somewhat quiet. We too shook hands, then went inside to the cool and coffee. The Eggers explained, carefully, that we must sign an indemnity before we could go to the caves. There was also a visitor's book, and more expla-

nations that the caves were so beautiful that they didn't broadcast their whereabouts in case the government wanted to take them over (and the reason why no surnames and not too many clues appear in this story).

By the time we were ready to leave in Hannes's 4-wheel drive vehicle we felt overdressed. We had thin oversuits, which almost matched Wolfgang's white boilersuit, but Antje and Hannes wore ordinary clothes. A dirt track led for 3km into the depths of a valley at the edge of the hilly region, where the "geological portal" opened out to the plain. Uhhh! We bounced and lurched over scrub roots

and rocks as the realisation set in of how simple words - portal & port - go wrong between languages.

The valley became increasingly steep sided, limestone glaring in the heat of a noon sun. Hannes parked beneath a thorny tree and we loaded up with gear and water, and headed up the hill. The limestone was quite dark and fretted; Hannes talked of the plants and trees as we pushed through long, bleached grasses. This place was a natural heat trap in an oven-ready land. There was a slash across the hillside, the Einbruchshöhle (Einbruch = "a rift"), where water must have sunk once. There was a multitude of shafts, pots and clefts to glance at as we climbed; this place must be wide open for exploration. Limestone as far as could be seen, but who wants to prospect in this sort of terrain? Then, we reached the first of two caves we were to visit: Uhlenhorsthöhle; Owl's Nest Cave. We drank clear water from a ice-solid bottle, and went down the fixed chain ladder into the dark pot and cool air.

Wolfgang had a Gaz lantern, which he swung from side to side as we entered the cave, sloping down from the base of the pitch. Rock here was polished smooth by baboons, but became more friable and jagged as we entered a chamber with pure white stal. A few crawls led off, but everything closed down and appeared dead. Antje told us that in the summer, when it was wetter, the gours filled and water ran from the formations.

With not much more to see, we soon headed for the main objective further up the hill:

Märchenhöhle; Fairy Tale Cave. Here, at the head of another 10m shaft, Hannes unpacked the white cotton sack he had been hauling like a swag bag over his shoulder.

“Here, see,” he said, displaying a genuine, honest-to-goodness rope ladder with huge, wooden rungs. Its weight and carrying comfort value were high and nil, in that order. Hannes grinned, tied it off to a convenient tree, and dumped it into the entrance. The rung spacing was huge, the sort of thing that might have suited a yeti, only this was the wrong climate.

From the pitch the cave dropped down a rift to where the passages opened out and turned to form more chambers to the right, a fixed ladder helping gain the lowest point. Fairy Tale Cave was indeed apt; it was impressive. Formations abounded, glittering and echoing in the light and background hiss of Wolfgang’s lantern. Every wall seemed draped with straws, and long, pointed stal hung from the roof. Surfaces were encrusted with popcorn formations, and everything was covered with secondary crystal growth.

At the far end, up a climb to an area like an enormous subterranean mouth with pointed teeth aimed up and down, there was the classic sight of a pair of bats hanging on the ends of stalactites, just like cartoon drawings. Perfect. This place was delivering everything it had promised.

Then Judith spotted Mr Eight

Legs, reposing on a stal.

Many years ago, I found it best to keep quiet when finding a good cave bug. The theme is: look at it, study it, photograph it, *then* tell the others as they are bound to disturb it. Today was to prove every part of that principle.

We stared at its flattened body, a strikingly unusual feature, as was the way it ignored the camera lens coming closer. It was small, only 10mm to 15mm across, and just refused to react. The camera wavered then steadied, the flashes went off, and the others came over.

Now think of it from the spider’s point of view. It’s already been exposed to the highly unusual presence of light, plus a good bit of noise in its normally quiet world. Then there was the lightning flash of the electronic guns, which is definitely a feature it wouldn’t have seen before. Its life must have seemed quite strange, confronted with a couple of interested speleologists.

Then came Hannes.

Now Hannes, nice chap, you will remember is classed as a Namibian vet. Presumably he deals with big things and little things most of the time, the sort of things you would be likely to find in Namibia. Things like cows and bulls and cows and bulls and, perhaps, ticks and mites and other parasites of cows and bulls and cows.

Definitely not spiders.

“What is this?” he asked, proving my point. “Ah, a spider,” immediately disproving it. I was

just steadying the camera for another shot when, like a striking rattlesnake, a blunt-fingered hand shot out and scooped up the little arachnid. It sat, still, in the palm of Hannes’s hand while everyone had a good look. This did not seem a good time to point out the folly of disturbing cave fauna.

Hannes prodded the creature a couple of times with his pachyderm-thick skin, raised it to eye-level and peered at it from close quarters, then prodded it again. It was a good job the spider was already flattened. If it had possessed a normal, podgy body it would have long ago followed the hedgehog into a search for a flat mate. My last hopes for another picture ended then as, with interest finally lost, Hannes flicked it away into the dark.

Yet where there was one spider, there must be more. Within seconds we found another, scurrying across a wall to hide in a crack. This was a different species, the body long and thin, with hairy legs that gave it a more threatening look. It was something like three or four times as large, and could move. I mean, it could *move*. This thing twitched and was gone, and it didn’t even need a set of jumars. If there is a Le Mans for arachnids, this spider would win it every time without even needing a pit stop.

Not even Hannes could catch one, and there were plenty to choose from. I never did get a photo. Later, back at the farm, showered, we fed on bread,



Judith Calford in Märchenhöhle. Photos: Chris Howes

cheese, sausage and freshly squeezed lemon juice, taking in the warm, late afternoon air on the veranda. Then, off in a dustcloud for Otavi and the evening's talk on cave photography.

Otavi was a typical Namibian town: wide, hard-packed dirt streets, a railway, low buildings with dust-laden, fading paint. The meeting was to be held at "the hostel", which turned out to be a boarding school. As we arrived, the last few children were retiring and we were bid goodnight in German by a so-polite boy of about ten years old who bowed and shook hands. It felt like he might have clicked

heels, had he had shoes on. In the classroom/canteen where the seats were laid out, it was obvious that everyone attending from the Scientific Society was a German speaker. There's always a cure for that: speak slowly and clearly and hope that someone understands. Wolfgang helped out, translating an occasional word, and a push-me, pull-me slide projector used to hopefully good effect, the talk was eventually over.

It was another couple of days before we arrived in Windhoek, the capital, for the next step in the spider saga. We had a contact there, Eugene Marais, who

(we hoped) would help with the identification of our six-legged photographic models as he was known to be an expert on cave fauna. The basic problem was that, even though we had an address, nobody we could find spoke English. It took several hours to track him down in the government buildings, but it was well worth it. The flattened spider was *Sicarius lahnii*, the Six-eyed Crab Spider, while the fast mover was a species of the *Loxosceles* family, the Violin Spider.

Both were highly venomous. "But all things are relative," said Judith. "What does 'highly venomous' mean in this case?" Eugene considered his answer. "Well," he said without a trace of accent. "Let's put it this way. In the last six deaths known to have been caused by *Sicarius*, the pathologist has refused to do a post-mortem!"

One bite from this, the most poisonous spider in Southern Africa (the Violin Spider is third on the list), and death from massive internal bleeding inevitably follows. And there it was on the veterinary surgeon's hand, prodded, poked and finally flicked into oblivion. Hannes didn't know how lucky he was not to be in oblivion himself. In the interests of conservation (human and arachnid), we wrote and told him that, if there is a next time, poking our six-eyed, six-legged friend wasn't such a good idea.

Perhaps the inhabitants of Märchenhöhle will appreciate that, sat happily in their dark, cave recesses.

Ogof Fach Trefil and Ogof Fawr Trefil

by Mel Davies

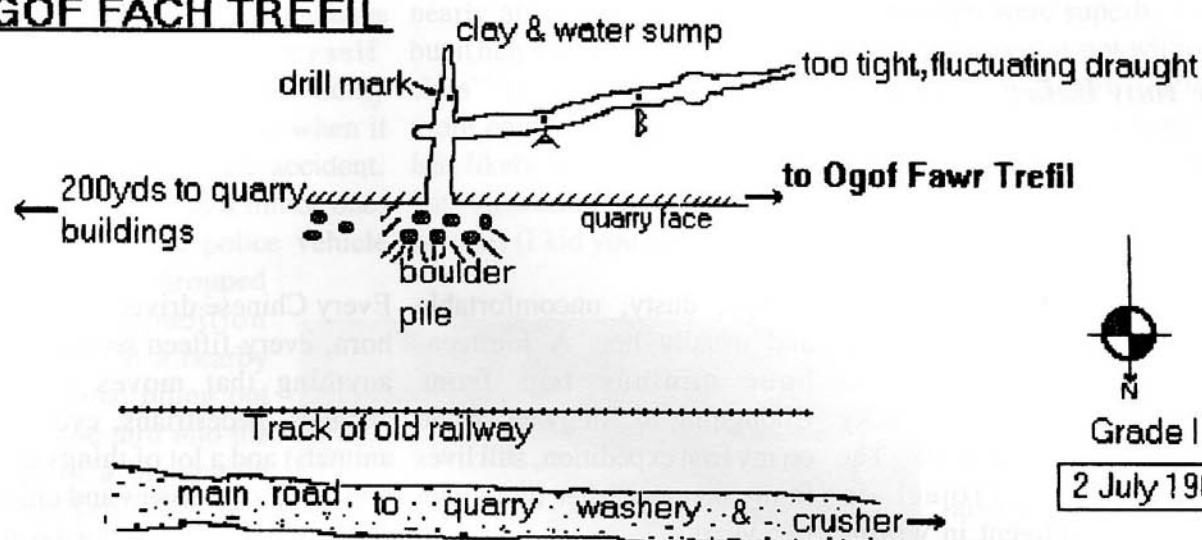
Ogof Fach Trefil is about 140ft long, and is situated in a recently-disused quarry face at the Trefil Quarries owned by RTB. It lies only 200yds from the eastern quarry buildings and the entrance is high in the quarry face barely 15ft from the surface. Two other openings are visible just to the east - they probably connect but not with this cave. The first exploration was on 2nd July 1961 when John Williams climbed up to it to be joined by Mel Davies and Russell Sullivan of the BNS Speleology Section. The passageway was partially blocked by stones and flaky clay in several places. In the main passage there was a hole against the west wall, coming in from the ceiling and continuing through the floor, obviously a drill hole. At A in the plan there was a patch of red clay and at B an eccentrically-shaped stalagmite. The first straight passage ended in a clay and water sump while the main side passage was a crawl all the way, finally becoming too tight although it had a fluctuating draught. It was possible to turn around about 10ft from the end.

(from notes and survey prepared in July 1961)

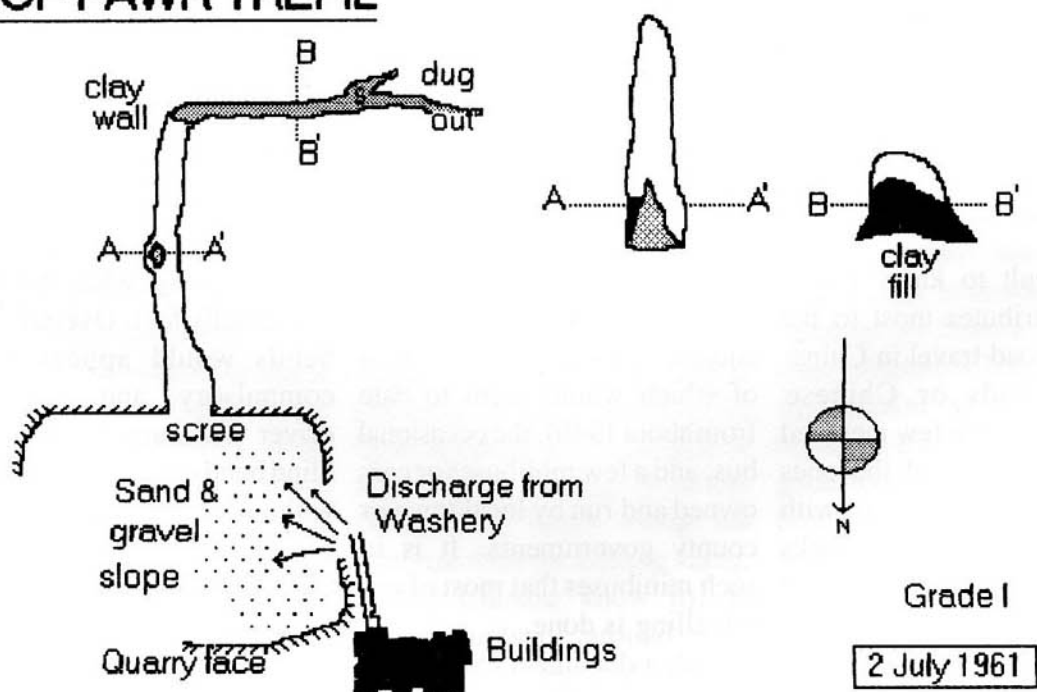
Ogof Fawr Trefil is about 300ft long, and is situated in a recently-disused quarry face at the Trefil Quarries owned by RTB. It was explored by Mel Davies, Russell Sullivan and John Williams of the BNS Speleology Section on 2nd July 1961, but others had been in previously and caused much damage to the stalagmites. The entrance is in loose rock 30ft up from the quarry floor. The passage continues with a floor of boulders and the passage is highest at A-A' in the plan where it reaches 30ft. A clay wall is met with at the first bend, then there is a clay fill reaching to within one or two feet of the roof. Part of this was dug out and it was clear that only one or two people had ever been as far as S in the plan where there is a small chamber. Eventually the passage became too low but a strong, intermittent draught blew through. It appeared that this was the first trip by cavers, although the cave had been known to quarrymen for months if not years. The cutting in which the entrance was situated was unfortunately used for tipping slurry from the washery buildings, and it was clearly only a matter of time before the cave would become sealed.

(from notes and survey prepared in July 1961).

OGOF FACH TREFIL



OGOF FAWR TREFIL



Caving in China

by *Tony Baker*

There is little point in my writing, for these pages, a report on either of the two China expeditions I've been lucky enough to take part in. The China Caves Project is remarkably diligent in writing up reports for the caving press and producing glossy publications, complete with surveys, maps and photographs. What these reports don't cover, however, are the everyday realities of taking part in an expedition in a country as different from ours as China is. Over the next few pages I hope to provide something of an insight into those aspects of the trip.

Travel

It is difficult to know which factor contributes most to the misery of road travel in China: Chinese roads or Chinese drivers. There are few metalled roads in China, and the ones that do exist are riven with potholes, littered with rocks (which no-one seems inclined to move) or just falling apart. The rest are single-track dirt roads in varying states of disrepair. All road journeys in China are therefore prolonged,

bumpy, dusty, uncomfortable and usually hot. A fourteen-hour minibus trip from Chongqing to Xingwen, made on my first expedition, still lives in my memory after more than two years.

There is comparatively little vehicular traffic in China; there

Every Chinese driver blasts his horn, every fifteen seconds, at anything that moves (other vehicles, pedestrians, cyclists, animals) and a lot of things that don't. Chinese towns and cities echo twenty-four hours a day to the sound of horns being needlessly leant on. Meeting another vehicle coming the other way on a single track road becomes a duel of horn-blasting until one driver grudgingly moves over by enough inches to allow the other to squeeze past. Most drivers in China drive far too quickly, and are perpetually in too high a gear (they seem to be taught that high gear = fuel economy without



A typical road scene in rural China

are next to no private cars, so the only vehicles one sees are ancient, creaking trucks (most of which would seem to date from about 1940), the occasional bus, and a few minibuses or cars owned and run by local town or county governments. It is in such minibuses that most of our travelling is done.

If such a document exists, it is my guess that the Chinese Highway Code contains just three words: Use Your Horn.

understanding what the gears are actually for). Overtaking on bends would appear to be compulsory, and a Chinese driver will happily pile into a blind bend on a single track road without dropping his speed, because he is leaning on his horn to warn anyone coming the other way that he's doing this. No matter how many near-misses this technique causes, no-one ever seems to learn that the driver coming the other way

is doing exactly the same thing. Having spent a total of more than nine weeks in China, and travelled thousands of kilometres by road, I count myself extremely fortunate to have only once been in a vehicle when it was involved in an accident. (Luckily this was a minor one, caused when a police vehicle which had dropped other expedition members at a nearby cave came piling out of a side turn into the path of a minibus in which I and other team members were travelling. Bent bumpers and hurt pride were, fortunately, the only results.) On the 1994 expedition, however, I witnessed the aftermath of two fatal

accidents, one involving a cyclist and the other a motorcyclist. (In 1992 more than seventy thousand people died on China's roads, and this in a country with only 1.1 million vehicles spread over nearly ten million square kilometres.)

The risk of death or serious injury presented to expedition members by road travel far outweighs that from any caving activity. As the volume of traffic increases (and Volkswagen predicts that China will eventually have 450 million vehicles), not only are the roads quite incapable of handling the load, but the death toll will be astronomical unless some serious changes take place.

Fortunately, train travel is a lot less stressful. Many of the trains are powered by steam, and they

amble through the countryside at a leisurely pace, allowing for good sightseeing. The trains are nearly always full-to-bursting, but it helps if you can get a "soft class" ticket, as the seats are more comfortable and you are less likely to share the carriage with significant numbers of farm animals (I kid you not). Food is

lag. Meals were of a reasonable standard, and the views along the banks as we cruised gently downstream were superb. This form of transport is not without its hazards, though: after disembarking just after dawn at Fengjie, we watched from the bank as several ferries manoeuvred around the jetty, and witnessed a spectacular collision between two of them. Fortunately, there was little damage.

The 1994 expedition also involved my first experience of Chinese internal flights (from Beijing to Chongqing and back), and I am pleased to report that none of the things I'd heard about them were true. The only thing the Chinese airlines

have yet to get to grips with is the provision of edible food. Which brings us neatly to...

Food

Before you go to China, all the people who've never been there tell you all about the food you're going to be faced with. So, for the record, we didn't eat any dog, iguana, or monkey's brains scooped out from a hole in the poor creature's head. Sorry to disappoint you. We did, however, eat some exceptionally good food, although little of it bore much resemblance to what we in Britain know as Chinese food. Both 1992 and 1994 trips were largely based in Sichuan, and the province is renowned for its food, and in particular for its hot, spicy dishes, although it should be remembered that as



The result of some over-enthusiastic driving by a Chinese policeman (see text)

readily available on China's trains, which is just as well for the Chinese who seem to eat constantly while on them. I swear the two ladies who sat on the seats at the end of our bunks on a sleeper train in 1992 didn't stop munching from the moment we joined the train at Chengdu to the time we left it at Chongqing, ten hours later.

Another leisurely means of travel in China is the river ferry. On this year's trip, we travelled from Chongqing to Fengjie in this way, a journey of nearly twenty-four hours along the Yangtze river (or *Chiang Jiang*, as the Chinese know it). In temperatures of around forty Celsius, we lounged on our bunks or on deck, spending much of the time asleep as we struggled to overcome our jet-



The contents of soup bowls should always be carefully examined before tucking in



A banquet provided by local government officials in Chongqing for visiting expedition members



Limestone scenery at Xingwen

"honoured guests" (paying ones, too) we were given food far superior to that which the local people would eat, with plenty of meat and fish. Chicken and duck made regular appearances on the table, as did eggs, freshwater fish, superb vegetables plus a few oddities such as frogs (tasty but without a great deal of flesh), chickens' claws (considered a delicacy) and the internal organs of different animals, which for some reason the Chinese seem to prefer to the flesh. If in doubt about what you're about to eat, it's usually best not to ask but discreetly poke with your chopsticks and see if you can recognise anything. The contents of soup bowls should also be carefully examined before you tuck in.

Ironically, the most unpalatable food usually appears when one is being entertained at a banquet. First prize in this category goes to buffalo stomach, which those of us on the advance party in 1992 were unfortunate enough to be treated to on several occasions. Buffalo stomach is, of course, rather indigestible (otherwise it wouldn't be much use to the buffalo, would it?) and for those who might wish to try it, here's a close approximation of the recipe: take one of those rubber bats that you used to hang from the ceiling when you were a kid, cut the wings off, stir fry them, dip in chilli sauce and serve. That, honestly, is what buffalo stomach tastes like.

At mealtimes, everyone sits round the table and the various dishes are placed in the centre at intervals as the meal progresses. (You soon become very adept at

using chopsticks, when ten of you are seated around the table and something tasty is placed in the middle.) Rice tends to be served towards the end of the meal, to fill up on, and the only thing served by way of dessert is the occasional apple.

Breakfast in China is often a tricky meal for western tastes to adapt to: usually a selection of sweet or savoury steamed dough rolls, along with plain rice porridge and glasses of warm milk, although we often had peanuts, hard-boiled eggs and sometimes even fried ones.

Drink

At mealtimes, copious quantities of Chinese beer - *pjiu* - are usually provided, and in truth this is actually pretty good. It's a bit like cheap lager, and is a safer bet than Chinese soft drinks, which are usually sickeningly sweet imitations of western ones. At the aforementioned banquets, Chinese hosts consider it great entertainment to repeatedly toast their guests with what they call white wine, which is actually a spirit. This looks and smells not unlike turps, but tastes considerably worse. I have found that it's best to resist any attempt the Chinese make at pouring this into your glass, although this sometimes requires considerable persistence. If you stick to beer, you will have to down a glassful every time the toast - *gambei!* - is called but at least you won't feel like throwing up with every mouthful.

Away from the dinner table, tea is the universal drink. Every Chinese carries a jam jar with tea leaves in the bottom, which

they top up with hot water at intervals through the day. I've not seen coffee in China, although Pete Francis and his team were given some at the last area they visited this year (expedition members who are serious caffeine addicts usually take their own supplies). Otherwise we are usually kept supplied with bottled mineral water while out and about, and this also comes in handy for cleaning teeth. Chinese mineral water bottles always carry inflated and poorly-translated claims about the health-giving properties of their contents, and I particularly liked this example, which I quote word-for-word: "This art is deep underground nat. sandstone crevice water. It contains H₂SiO₃, Sr, Se, etc. (various trace elements essential for human body)'n is sweet'n pure in taste. Drinking regularly can regulate the functions of digestive tract, heart blood vessels'n nervous system, make you healthy'n prolong your lite." Sounds like ideal stuff for cavers.

Accommodation

Many of the caving areas we visit are off the beaten tourist track, and don't always have hotels as such. In such places, we usually end up staying in local government apartments, and these are usually basic but comfortable enough. Food is then provided in the communal dining room.

Where there are hotels, these rarely come up to western standards, and usually feature dodgy plumbing and wiring which would make your hair stand on end (literally, if you're

not careful). They are, however, more than adequate for the purposes of a caving expedition. Mosquito nets are provided, and each room is equipped with a large flask of hot water (replenished regularly) for making tea. Some hotels have air conditioning and even a TV (but since there are few English-language programmes this is of limited use to visiting cavers). Electricity is often intermittent, as the Chinese method of regulating its use is the prolonged power cut. Even when the power is on, there appear to be no light bulbs in China brighter than fifteen watts, which sometimes makes bedtime reading a struggle. It's not fair to be critical, though; everywhere I've stayed in China has been vastly superior to a tent, and what more could you ask than that?

Toilets

Despite the fact that many changes are taking place in the China of the late twentieth century, modern sanitation has yet to reach the country to any significant extent. Those of a delicate constitution would be shocked, quite honestly, at some of the loos one is expected to use. The best way to describe the current state of play, vis-a-vis toilets in China, is to use a grading system devised by previous expeditions.

When cavers first started visiting China, they soon realised that their hosts might be offended by disparaging remarks about the toilet facilities. Hence a system was devised of rating loos, giving a grade based on the standard of the facility and its cleanliness. A number is used

for the facility itself: 1 denotes a proper western-style toilet with pedestals in individual cubicles; a 2 has individual slit-trenches divided by low walls; a 3 is one long communal trench, and a 4 is just a room. A letter is then added for cleanliness, so A approaches western standards, B is rather unsavoury, C is filthy bordering on disgusting, and D is unthinkable.

A 1A would be most unusual in China, found possibly only in some of the bigger Beijing hotels. Most of the toilets one encounters are around the 2B mark, with the occasional 3C found on roadside stops in rural areas. While a 4D exists in theory, no-one has yet encountered one since such a place would repel a potential user long before he or she reached it, as in; "I think that one was possibly a 4D..."

Landscape

With the exception of Beijing, Chinese cities are ugly, dirty, noisy and chaotic. Consequently most have little to recommend them to visitors, especially since there is currently a desperate rush to erect modern skyscrapers, a process which is obliterating any trace of history. Outside the cities, the landscape is dominated by agriculture; even the most precipitous mountain slopes have a crop of some sort. Rice is the main crop, grown in attractive terraced paddy fields. In drier areas, maize is a more common crop, and the lessening of restrictions on cash crops has led many farmers to grow tobacco: most farmhouses have lines of the leaves hung up to

dry outside. In Sichuan, every farmer grows chillies, and these are also placed outside to dry in the sun. You also see lots of tomatoes, sweet potatoes, aubergines and blackbeans. Tea is sometimes seen on higher ground.

Chickens roam around every farmyard, and the crowing of cockerels begins in the middle of the night. Every farm also has at least one pig, but the Chinese have no liking for dairy products so the few cows are kept only for their meat. The closest any Chinese farmer gets to mechanisation is a buffalo to pull the plough.

Houses are usually mud-built, and scattered randomly through the countryside rather than clustered in villages. Caving areas usually have the bonus of some great scenery; this year we had spectacular gorges, dramatic cliffs and rivers meandering down U-shaped valleys.

People

Chinese people are almost all extraordinarily friendly and incredibly generous. Walk past a farmhouse and a teacup will inevitably appear, followed soon afterwards by food. If a Chinese farmer has been asked to show you local caves, he will insist on carrying your rucksack. (One chap who showed Pete Francis and Phil Goodwin a cave insisted on carrying them, one at a time, over a pool of water so they wouldn't get wet feet. He later entertained them with a superb meal at his home.) Walk past a group of Chinese and one of them will usually call "Hello!", and they'll all laugh when you

shout back.

The country is also very safe for visitors; hotel rooms are rarely locked, and stuff left in them never touched.

The first thing that struck me, though, was the Chinese people's insatiable, and sometimes unsettling, curiosity about us. In most of the areas we visit, the people will have seen few, if any, westerners and we are a source of endless fascination to them. A simple operation such as loading caving gear into a minibus outside a hotel will, within a minute or two, attract a large crowd who will stand and stare until you leave. Something as crazy as descending a cave will often attract a crowd of 150 people, and they'll all still be there when you come back six or seven hours later. The most infuriating aspect of all this is that in caves with easy walk-in entrances, a crowd of Chinese will follow you, without lights, shouting, smoking, spitting and casting litter in all directions. It drives you mad, but there's no way of deterring them.

The other thing that takes some getting used to is the spitting. Most Chinese men spit about once every two or three minutes, but it's no ordinary spit. This is the full, ten-second, hoick-from-the-back-of-the-throat, followed by an almost desultory flob. This performance starts at about five in the morning, right outside your hotel room window. Which brings me to the next infuriating thing about the Chinese; they have no concept of peace and quiet. They have no compunction whatsoever in idly blasting their car horn at five in



the morning while parked outside your hotel, noisily slaughtering a pig at 2.26 am (that one woke us all up), or doing anything else which can be guaranteed to disturb your sleep.

Language

The Chinese language - Mandarin Chinese is standard across most of the country - is pretty unintelligible to western ears. The key to speaking it is the pronunciation; apparently one word can mean many different things depending on how you pronounce it. Add to this the fact that the Chinese alphabet consists of around forty thousand characters, of which ten thousand are in common use, and it is small wonder that expedition members don't get beyond a few key words. Fortunately some of our hosts from the Guilin Institute speak reasonable English, and act as interpreters. Sometimes conversations are hard work, as they must find English as difficult to learn as we find Chinese, but generally there are few problems. Most expedition members can manage the words for "thank you" (*xie xie*, pronounced "shay-shay"), "hello" (*ni hao*, pronounced "knee how") and "beer" (*pjiu*, pronounced "pee-zhoo"), and these seem to cover most situations.

Weather

Southern China in August and September is usually hot and sticky, but not necessarily sunny. On arrival in Chongqing this year, we learnt that the



A typical crowd of onlookers gathers to watch caving gear being loaded outside the hotel



View towards the entrance of Xiang Shui Dong, Xingwen



Scenery between Fengjie and Xinlong on the 1994 expedition

temperature there that day had been 42 Celsius, but thankfully it was somewhat cooler by the time we reached the first caving area. The only significant rain fell over a night and day of heavy thunderstorms towards the end of the trip, but this did spoil our plan to explore a resurgence cave that day.

Unfortunately for those keen on photography, China seems to be covered by a thick haze for much of the time, which even heavy rain doesn't clear. I have very few good landscape photos of the country as a result, although we were lucky enough to have a clear day for sightseeing in Beijing at the end of this year's trip.

Health

No-one, but no-one, escapes at least one major dose of the shits while on a China expedition, but if you're lucky this doesn't keep you from caving activities for too long. This year, we were generally a pretty healthy bunch, although two expedition members separately contracted bad chest infections, possibly connected with very dusty road journeys.

On the Xingwen trip in 1992, a few people - including Pete Francis - were struck down by something rather more serious, which sapped all their strength and laid them low for several days. The film crew, keen to clutch at a possibly sensational story, tried to construe a link

between this and the pollution encountered in some of the area's caves, but this was never really established.

Before you leave for China, though, you need more jabs than a pincushion. As well as the usual tetanus, polio and typhoid, you need to be immunised against rabies (a



The main chamber - christened "Spider Chamber" because of the eight adjoining passages leading from it - in Tiencuan Dong, Xingwen, 1992.

course of three jabs), hepatitis A (three more), and Japanese Encephalitis (three more). Oh, and you need to take anti-malaria tablets before you leave, while you're there, and for a month after you return. This, though is preferable to being treated for suspected malaria; in 1992, the expedition's doctor thought that this might be the cause of a fever I was suffering with, and administered the recommended drug. I spent the next three days feeling worse than I'd ever felt before, dividing my time almost equally between bed and the loo. Worried by the state I was in, he stopped the treatment and I soon made a complete recovery.

The Caves

Ah yes, the caves. Well, there has to be a reason to put up with all of the above, doesn't there? China has masses and masses of limestone, some amazing karst scenery and loads of magnificent caves. Apart from short forays into the easy bits, the Chinese have hardly touched them,

which is just as well since the first thing they do is smash off any stal: the ridiculous notion persists that it has some benefit in traditional Chinese medicine.

Chinese explorers have usually penetrated only as far as the first vertical drop, or pool of water; pass one of these obstacles and you're usually in virgin territory.

Expeditions have often returned having surveyed thirty or forty kilometres of new passage, which is of course the main attraction. Much of this passage has been huge, spectacular and well decorated, and ample reward for the hardships and expense incurred. On the Xingwen trip in 1992, we explored, surveyed and photographed more than thirty kilometres of massive cave, and while all this was very impressive, it was all fairly easy caving. This year, the first half of the trip involved probably the best caving I've done anywhere, ever, while the second area didn't fulfil its considerable promise. The last week was spent, in my case, receiving two

new areas, neither of which was particularly exciting.

The Chinese have recently acquired an insatiable appetite for show caves; town and county governments have realised that show caves = tourism = money, and the consequence of this is any significant cave soon has concrete walkways and bodged electric lighting, rushed into place with no regard for the cave environment and destroying much of it in the process. (One of the exceptions is Furong Cave at Wulong, a recently opened show cave which is huge and well-decorated but sympathetically developed under the direction of

Professor Zhu and his team from Guilin.) Most worrying of all, a recent directive from the government to rural areas tells people to carefully examine all caves; if they prove to be suitable as show caves, rewards will be paid. Fair enough, you may say, it's their country and it's up to them what they do with their caves. True, but experience shows that all too often in developing the caves the Chinese destroy all of the reasons that anyone would want to see them in the first place. When we've been asked to give opinions about show cave development, we have always tried to emphasise the need for conservation and sympathetic development, but ultimately money is the driving force and the rush for tourists'

cash tends to trample over such considerations.

Bureaucracy

China runs on red tape. Our hosts in China, Professor Zhu Xuewen and his team from the Institute of Karst Geology in Guilin, have to spend many



Pete Francis meets a local resident whilst walking back from a cave entrance, Xingwen 1992

months before we arrive arranging all the necessary permissions, transport and accommodation and then we come along and want to change everything, which causes endless problems. Part of the trouble is that the Chinese consider it discourteous to say "no", so they agree to all our requests but it all falls apart on the day. Two examples stick in my mind from this year's trip: a team had noticed a significant resurgence on the opposite side of a river, while being driven back to the hotel. They decided to investigate this the following day, and asked Prof. Zhu to arrange the transport. Next day, having sorted all their gear, piled into the minibus and been driven halfway there, the driver

would not cross the river, because this was another town's territory; a wasted day which could easily have been avoided. On another occasion in the same area, a promising area was examined on the map and a team was despatched to investigate. Outside the hotel, the bus drove off in the opposite direction, and wouldn't be deterred, since a local government leader had tagged along and he his own ideas about what he wanted the team to look at. Infuriating though this is, it is a fact of life in China and you have to live with it.

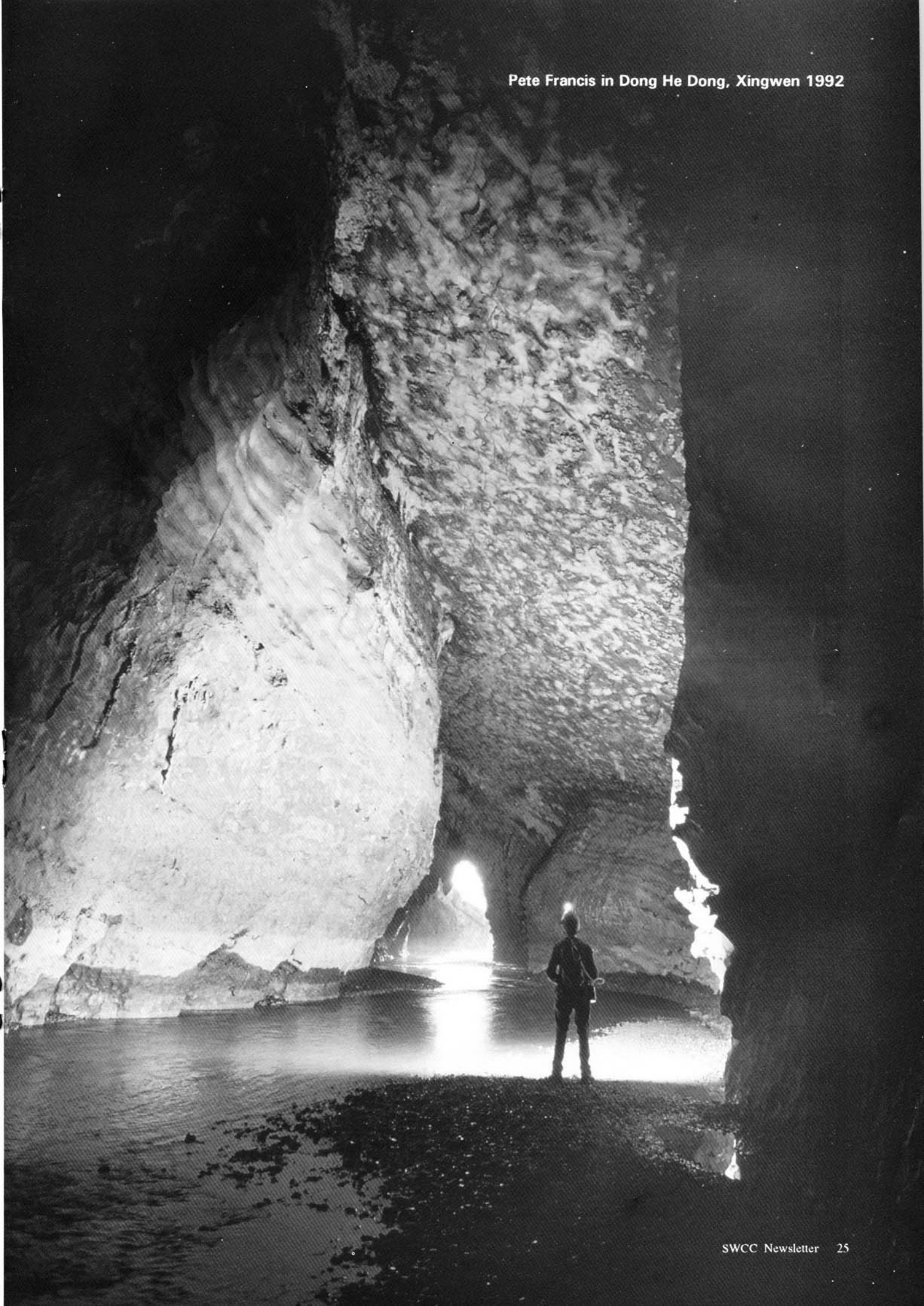
At the end of this year's trip, the expedition divided into three groups, and looked at

several different areas. Myself, Dick Willis and Adrian Gregory were due to spend the last two days examining a gorge reported to have a 200m pitch down to a cave, but just prior to our arrival we learnt that the county boundaries had been re-arranged and our permission was no longer valid: two more wasted days ensued, and we asked for - and got - some of our money back.

What it Costs

The Chinese government considers that visiting cavers fall into the same category as mountaineers, and we have to pay accordingly. At present, this is US\$40 per person per day, which over a month-long

Pete Francis in Dong He Dong, Xingwen 1992





**View near Jiang Kou, the second area visited on the 1994 Yangtze Gorges expedition.
All photos: Tony Baker**

expedition amounts to a lot of money. We pay the money to Professor Zhu in a lump sum, and he then pays for everything; anything left over at the end goes to the government. The \$40 per day does, though, include all our costs while we're in China; accommodation, transport, food, the lot. (And while you're in China, there really isn't anything to spend your money on, until it comes to buying gifts and souvenirs at the end.)

Nevertheless, this makes an expedition to China a costly affair, especially when you add the air fares; each member's personal contribution to this year's trip was £1450, and would have been considerably more if we hadn't done well for grant aid from the Sports Council,

Ghar Parau Foundation etc. Given that the last part of this year's trip fizzled out a bit, in my case, and that I've now been twice and seen plenty of the country, I will need to be convinced that any future expedition is going to damn good areas before I part with the amount of money and annual leave that going to China involves. There are, of course, other places in the world with caves to be explored...

Conclusion

China is a fascinating, bustling and vibrant country and visiting it on an expedition is, even leaving aside the caving, a fantastic way of seeing parts of it that the average tourist never sees. It's not a place for those who like luxury and comfort or those

with limited patience; some of the things about the country and the people can soon arouse the temper of even the most placid person.

If, like me, caving is your prime motivation for foreign travel, then there can be nowhere else in the world with such untapped potential for discovering new passage, provided you can live with all the hassles and the hardships and the petty bureaucracy that the country inevitably involves.

Stackpole Warren Caves

by Mel Davies

Date of Visit: Sunday 27 March 1994

It rained solidly, non-stop, all day. There was the grandfather of all gales gusting as well which made standing near the cliff edge quite perilous. In other words great potholing weather! Parking at Broadhaven Bay, the weather kept away all the tourists so we had the "changing rooms" to ourselves. The team, consisting of Owen Clarke, Dave Lewis, Roland Atkins, Graham Stark, Keith West and myself trooped over to what I call Nichols' Cave. It's a site at SR 9831 9418 shown me by Sue Nichols, then a lecturer at Orierton Field Studies Centre, which we visited on 9 March 1970.

Unfortunately our visit was curtailed by an accident to a pupil, and tides and jobs had kept me away for 24 years. This time we were planning to get to the end. It is a resurgence cave with walk-in entrance and a sandy floor, and is only accessible for about one-and-a-half hours either side of low spring tide. After twice descending to hands-and-knees crawling we stood up in a small

chamber. Another crawl led into the final chamber with small stalagmites everywhere, nothing more than 60cm high. To the left lay a flat out crawl which Roland investigated. This again was blocked but Roland noted a bone sticking out of the sandy clay and retrieved it. The bone was a left tibia of a deer (see full description below), and despite a careful search we found nothing else. There is no draught in the cave and storm waves must penetrate to the very end. The sea cave alongside was also explored but it was even shorter than 40m.

Some large caverns across the bay were then explored, one being suitable for a lunch stop. Cave development existed but only at high level and the three holes we thought promising were left for a drier visit. Discussion ensued about curious red deposits; were they gash breccias of Triassic age (ref.1) or something younger from the Pleistocene? As the tide came in we climbed out of the bay and stumbled on to the cave I had spotted and photographed from the Army vessel during a coastal patrol in June 1993. I had failed

to locate it in February but this time I paced it out - 200m west of "Lattice Windows", an easily recognisable headland pierced by several old caves. A slippery descent to a grassy ledge at SR 9925 9470 revealed a cave 3m wide and almost 2m high, but it closed down within 2m into a thin bedding plane; and it had looked so exciting from that boat.

By this time the SRT experts wanted some practice but we had to avoid certain cliffs with nesting birds, so all scrambled over the fence at SR 9923 9476 to examine a deep rift-type pothole. Fencing of potholes is a problem because a stile, while keeping out sheep, might invite the public to take a look but others including speleologists and geologists want legitimate access to the edge of the hole. This particular pot was partly descended by Phil Jones of Cwmbran CC on 25 August 1966 to a ledge, life-lined by me. A ladder was thought necessary to get further. This time the SRT gear enabled Dave and Graham to reach the bottom some 40m down, where they explored much of the sea cave

we knew was there because of the booming noises. This site is not to be confused with another pothole about 0.5km away on the north side of Barafundle Bay at 9938 9535. That one was descended by Little and Christopher of South Wales CC in 1967 with 25m of ladder. They ended up with a swim out through a sea cave (ref.2). Finally our day ended with a quick look at Stackpole Head pothole at SR 9931 9427. Again it was fenced off, with no stile for access, although there was no fence on 3 July 1966 when it was first descended by Pinckheard and Pope of ICI Fibres CC (ref.3), (ref.4). By this time all were wet, getting hungry, and some of the "over-60s" were tired. The pot was left for another day; at least it is not affected by the state of the tide so can be descended any time.

The drive home, with windscreen-wipers humming, was interrupted at a cafe near Llanddowror for a cuppa and a discussion about what turned out to have been a very successful day.

REFERENCES

1. Thomas, T.M. 1970. Field meeting of the South Wales Group on the Stack Rocks to Bullslaughter Bay section of the South Pembrokeshire coast. *Proc. Geol. Assoc.* 81, 241-8.
2. Christopher, N.S.J. (& Little, W.H.) 1968. Lochs and Quays. *South Wales Caving Club Newsletter* 58, February 1968, 19-20.
3. Davies, M. 1966. Stackpole Head Pothole. *South Wales Caving Club Newsletter* 54, September 1966, 21-2.
4. Davies, M. 1966. Speleology (Report No.366). "Fibrespot", 8th July 1966, ICI Fibres, Pontypool.

A DEER BONE FROM A CAVE AT STACKPOLE WARREN, SOUTH PEMBROKESHIRE

Nichols' Cave is a sea cave at SR 9831 9418 on Stackpole SSSI partly explored in 1970. During the visit by members of Cwmbran Caving Club and South Wales Caving Club described above, a bone was discovered at the very end of the cave in a position which makes further excavation both difficult and dangerous.

The cave is about 40m long with fresh water emerging from it. While the entrance is comfortably 2m high, the passage reduces to a hands-and-knees crawl in water and ends in a small chamber 2.5m high. Storm waves can reach this chamber and access to the cave is only possible for one-and-a-half hours on either side of a low spring tide. Branching left from the chamber is a crawl only 0.4m high on loose stones ending within 3m in a blockage of grey, sandy clay. The bone was protruding from this deposit to a height of some 70mm.

The bone is the left tibia of a deer, length 267mm, found standing nearly upright with some 70mm of the proximal end

slightly eroded. The rest of the bone is undamaged but about halfway along the stem there are 5 small indentations (2 to 8mm wide and 1mm deep) on the left side, and 2 shallower indentations on the right side. With a spread of 22mm such marks could have been caused if the bone had been carried in the mouth of a small carnivore such as a fox. However there are no gnawing marks on the bone and there is no evidence of rolling by the sea.

Therefore the bone was either carried into the recesses of the cave at a time of lower sea level, (and 40m in darkness is no hindrance to a fox), or it fell through an open shaft together with the sandy clay.

With regard to species, the tibias of red deer (*Cervus elaphus*) and reindeer (*Rangifer tarandus*) are very similar, so the bone was taken to the National Museum of Wales where it was compared with validated specimens from the Noddle collection in the Zoology Department. Two reindeer tibias were 285 and 289mm long respectively while red deer tibias were considerably longer, indeed with good feeding conditions for the animal they can be 340 to 397mm in length.

Taking into account these differences and structural differences in the proximal and distal articulations, it was concluded that the Nichol's Cave bone was reindeer. Reindeer is known from many caves in south Wales, the nearest to Stackpole being on Caldey Island 15km distant (ref.1). It is regarded as an animal of the tundra and the more open country of the taiga zone in the Palaeartic region (ref.2), and it does not appear to have survived in South Wales the main Late Devensian ice advance of 18 to 15 thousand years ago. Radiocarbon dates are few but the youngest available (ref.3) is 15,700 years before present for reindeer bone from the Little Hoyle cave near Tenby. Another date from this cave places reindeer at 17,350 years ago (ref.4).

The sandy clay containing the bone was only cursorily examined due to the rising tide, and no further bones were found. It is hoped to return to the site after wave action impelled by autumn gales has had an opportunity to produce further, possibly revealing, erosion.

REFERENCES

1. Lacaille, A D, and Grimes, W F, 1961. The Prehistory of Caldey, *Archaeologia Cambrensis*, CX, pp.64-6.
2. Corbet, G B, 1978. The Mammals of the Palaeartic Region. British Museum (Natural History), Cornell Univ.Press.
3. Roe, D A, 1986. Studies in the Upper Palaeolithic of Britain and Northwest Europe. *BAR International Series 296*, p.109.
4. Rae, A M et al., 1987. A comparative dating study of bones from Little Hoyle Cave, south Wales, UK. *Journal of Archaeological Science*, 14, 243-250.

Edison-Screw Flash Guns for Caving Use

by Bob Hall

Introduction - by Tony Baker

Despite advances in electronic flash technology over the years, for photography in large passages there is no alternative to the good old-fashioned flashbulb. Some people may be surprised to learn that flashbulbs are still manufactured, as they are used by industrial photographers, among others, who need to light large areas away from sources of mains electricity. Bowens make the current equivalents of the old PF100, the M22 and M22B (the B denotes the blue coating which renders the bulb suitable for use with daylight-balanced colour films). These are rather expensive (more than £1-60 each) but are really the only light source suitable for very large passages.

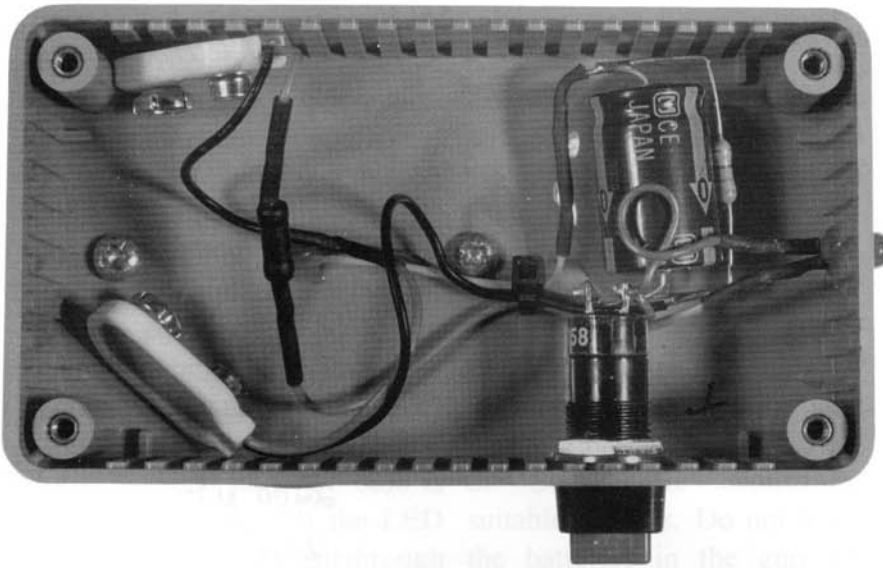
The (home-made) bulb guns lent to me a couple of years ago by Gavin Newman were in poor condition and rather

unreliable, and the "caving electronics" training weekend seemed an ideal opportunity to make some replacements before going on expedition to China. However, a lack of support for this event led Bob Hall to cancel it, and he promised to help me make the guns I needed (in fact, he made them for me). They functioned perfectly, and the other expedition members (who, of course, are the ones who have to fire them) were very impressed with their reliability. Thanks Bob. He now takes up the story...

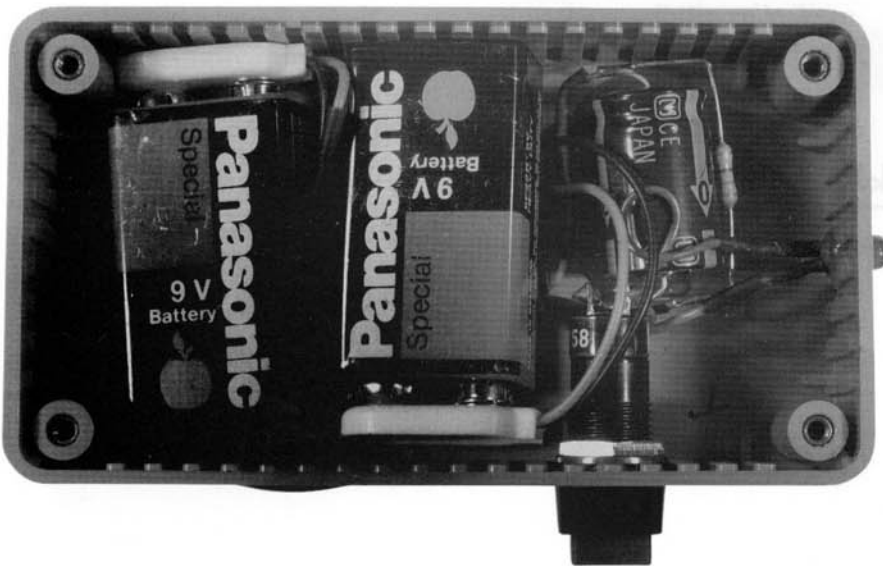
Having assisted Tony Baker in taking photographs in the large passages of the Gouffre Berger I was well aware that his equipment for firing large PF100 flash-bulbs was on its last legs. I consequently offered to make some more reliable guns for him to use in China this year. In

the event, as is ever the case with me, the job was left until the last minute and I had little time to experiment with sophisticated circuitry. My approach was to aim for "electrical overkill" - lots of volts and lots of amps! This makes for a gun that is heavy and rather costly in batteries but this is offset by electrical simplicity and the use of a battery type that is widely available. What follows is not a construction guide but rather the verbatim text of the documentation I supplied with the guns. This was intended to allow field repairs and lash-ups to be made in the event of any problems!

Tony's photographs give the general idea. The box was a standard ABS box from RS (Stock No. 508-914) and the switch was also from RS, (Stock No. 331-758). The ES batten holder was from a local electrical



View inside the case, batteries removed for clarity. The red LED can be seen protruding from the right-hand end of the box.



The same view with batteries fitted. Note the "head-to-tail" arrangement as recommended in the text.
Photos: Tony Baker

wholesaler. Components were wired together directly using the switch for support. The capacitor was subsequently secured with Araldite. Extensive use was made of heat-shrink sleeving to support joints and thereby to increase reliability. It might be of interest to potential constructors to note that my brief investigations into the characteristics of PF100 bulbs suggested that as much as 100mA was a "safe" test current that would not fire the bulb and that the resistance of the bulb as measured with a digital multi-meter was about 1.8 ohms.

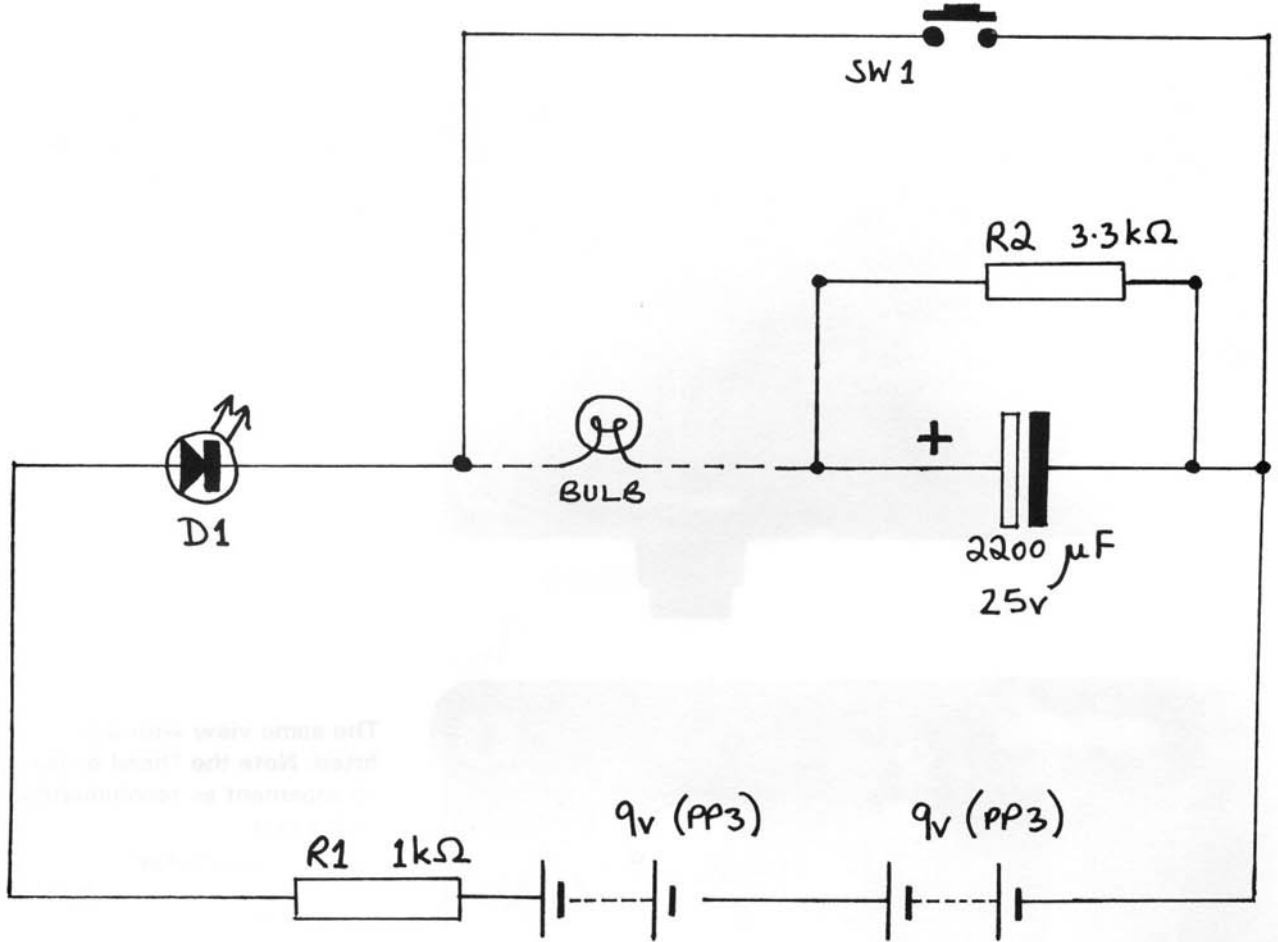
General Description

The flash gun is designed for the hand-firing of PF60 and PF100 flashbulbs having an Edison-Screw cap. The gun is powered by two PP3 batteries and the bulb is fired by a capacitor discharge circuit. The gun is fitted with a test facility that can confirm both the battery condition and completeness of the circuit through the bulb.

Fitting Batteries

It is possible to use any PP3 style battery giving about 9V and having "press-stud" connectors. Alkaline (ie. Duracell) types are preferable

both for their long life and their leak-proof qualities. Rechargeable (NiCd) types may also be used. To fit batteries remove the lid (4 screws) and clip two batteries in place. Depending on the make of battery chosen it may be helpful to use a small scrap of wet-suit material or corrugated card to provide some packing. The batteries are best fitted "head-to-tail", i.e. in opposite directions in the box. When fitting the batteries avoid bending the red battery lead that has a resistor incorporated in it.



The first photograph taken to test the new guns: Pete Dobson, Pat Hall, Daniel McRae, Kelty Peat and Adrian Davies in Big Chamber Near the Entrance, Ogof Ffynnon Ddu Photo: Tony Baker

Firing Procedure

With no bulb fitted the condition of the battery can be confirmed by pressing the firing button which should cause the red LED to glow brightly. A dull glow or none at all indicates a lack of battery power.

Screw a bulb into place. As soon as contact is made the LED should glow brightly and should remain alight until the bulb is fired or removed. If the LED does not light the circuit through the bulb is incomplete or the gun has developed a fault.

To fire simply press the red button. The gun has been designed to be gripped with the right hand for firing with the index finger.

Everyday Care

Keep the gun as clean and dry as possible. If conditions are damp then it is preferable to open the back of the box to allow complete drying. This is important to avoid corrosion. In some circumstances light cleaning of the bulb holder might be required. A domestic pan-cleaning pad such as "Vileda" or "Scotchbrite" would be suitable for this. Do not leave the batteries in the gun for extended periods to guard against the possibility of leakage. During transport be aware that pressure on the firing button will cause the LED to come on and will cause a slow drain on the battery. This would not be important during a caving trip but might not be acceptable over a period of several days. To be safe, transport in such a way as to avoid the problem, or best of all with the batteries removed.

Technical Information

The circuit diagram is given opposite. The function of the components are as follows:

R1: Limits the current drawn from the battery to a level suitable for the LED. (1kohm)

R2: Provides a current path after the capacitor is fully charged so the test

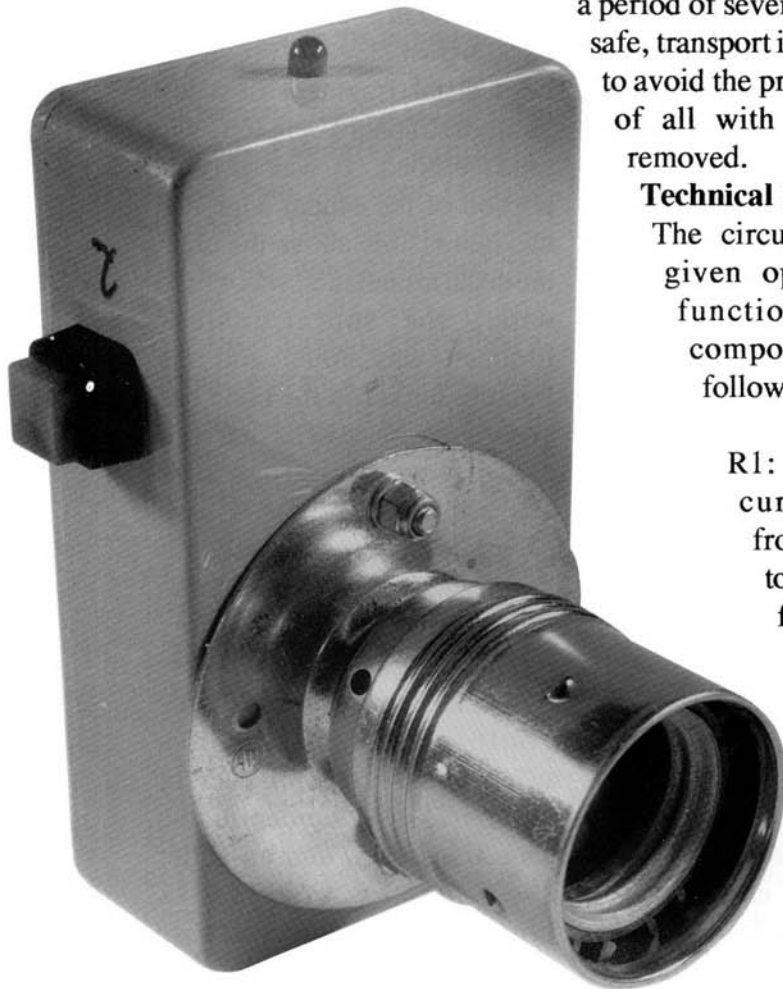
function of the LED is available. It also ensures that the capacitor is fully discharged when the gun is not in use. (3.3kohm)

C1: Stores sufficient charge to fire the bulb when SW1 is closed. During firing no significant power is drawn from the batteries. (2200 microF, 25V)

D1: Lights when the circuit through the bulb and R2 is complete to test the bulb. (Any high-brightness LED) Also lights when SW1 is pressed in the absence of the bulb to test the battery.

Note: In an emergency a flash bulb can generally be fired by direct connection to a single PP3 battery. Thus the internals of the gun could be modified with a knife or pliers to allow this. Similarly, the gun could (probably) function with only a single PP3 in the circuit, for instance if batteries were in short supply: to allow this the contacts of one the battery connectors would need to be shorted together.

Note: To undo the ES bulb-holder the outer contact must be pressed down: this acts as a ratchet to prevent unintentional unscrewing when a bulb is being removed.



Two High-Altitude Bone Caves near Trefil

by Mel Davies

Two archaeological caves have recently been examined at high altitude on Llangynidr Mountain some 7km north-west of Tredegar in south Powys. Animal remains of considerable antiquity were identified in both although one of the caves has, in fact, been known since 1968. The range of species present throws new light on the habitats existing at altitudes between 450m and 600m in south Powys in post-glacial times. The two caves are Ogor Pen Crawnon (SO 100151, altitude 450m) and Ogor Garn-y-Bica (SO 089138, altitude 595m).

Ogor Pen Crawnon was discovered in 1992 by J Parker and J Hill of the Craig-a-Ffynnon Caving Club. A crawl-height passage ran south-east for about 4m to a blockage comprising stalagmite over clay. When this was excavated to gain further passage an antler fragment was uncovered from underneath a slab of stalagmite about 10cm thick. Further excavation in search of dating evidence on 15th May 1994 did not reveal anything further except that the way on is completely sealed with wet clay and boulders which can only be dug from a prone

position. The antler has that yellow, flaky appearance of a fragment affected by stalagmite, and there are no tooth marks; it is 18.5cm long with a single tine 9cm long only slightly chipped at the tip. The beam is 11cm long with a maximum diameter of 37mm, and it has the nearly-oval cross-section typical of reindeer (*Rangifer tarandus*) with only faint surface ridges. As the entrance is not very obvious, being on a steep grassy slope situated below a limestone cliff 10m high, it was photographed from several angles so that it may be easily re-located.

Ogor Garn-y-Bica has been known since 1968 when it was discovered by the Severn Valley Caving Club whose members had to clear the collapsed entrance and employ explosives to reach the final depths of the cave some 30m below the surface (ref.1). They reported "numerous bones" and some of these were noticed years later by J Parker who subsequently organised a visit on 22 April 1994. A crawl entrance leads south-eastwards from a doline over collapsed slabs to the edge of a shaft within about 5m.

Some bones were visible on the brink of the shaft which is some 8m deep while others must have fallen into the depths. Excavation was difficult in the constricted and dangerous space at the shaft mouth, but bones were retrieved from between slabs while a larger bone was just visible in a surface of moist, dark-brown clay. It proved to be a distal fragment of a left humerus of deer 13cm long and much eroded. It was a 10cm portion of the caudal edge that had been visible above the clay; the distal articulation was 45mm wide, the supratrochlear foramen was holed and the fracture higher in the bone had every appearance of having been crunched and gnawed by a small carnivore such as a fox or wolf although the bone surface was too eroded to retain actual tooth indentations. The other fragments gathered up were examined later and proved to be a rib (64x32x13mm thick) from an animal the size of deer or small ox, two unidentifiable bone fragments, and an antler fragment measuring 62x37x17mm thick. The latter was sawn through to determine its interior structure and it does appear to



John Parker at the entrance to Ogof Garn-y-Bica, Trefil on 22 April 1994

be a palmate fragment suggesting reindeer (*Rangifer tarandus*) rather than red deer (*Cervus elaphus*). The vicinity of the finds was too constricted for any photography.

The 1968 account mentioned a second entrance and this was examined on 15th May 1994. It led via a difficult, flat-out crawl between boulders and a contorted change of direction over 10m into a chamber just large enough for two persons to examine the mass of bones that lay on the floor. This floor consisted of slabs jammed together and cemented in position with stalagmite.

Drips of water fell from the ceiling at several points depositing a light covering of yellow-brown clay in some places, but washing away

sediments in others. Some bones could be picked up easily, others lay jammed between boulders, cemented in position, or buried in clay. Considerable quantities must lie underneath the floor and helmet light-beams showed cavities a further 3 or 4m down. There was sufficient space for photography from several angles.

It soon became clear that all the bones immediately visible were from a large species of ox and that two individuals were represented. There was no obvious evidence of skeletal articulation, indeed one pair of left and right astragali lay 1.5m apart. Of course the chamber had been entered two or three times by potholers but evidently care had been taken not to tread on the bones. None had any

evidence of gnawing and even the thin blades of the three scapulae examined showed no signs of damage.

Considerable stalagmite covered some bones; one metatarsus of ox was buried vertically showing only some 10cm of the proximal end. Its other end was deep in wet, brown clay suggesting perhaps centuries of burial and that the oxen were not unfortunates from a modern, grazing herd of cows.

It was concluded that the animals had entered the chamber by falling down an entrance which had later largely collapsed. In addition to the two oxen, a skeleton of a juvenile ox was found some 4m further on and 1.5m higher where it could only be reached by climbing over large, partly-stalagmited slabs,

while one bone of pig was found in the semi-darkness 2m nearer the cave entrance. This was situated between slabs in black earth and was the only pig bone found. For more detailed investigation a selection of complete bones was brought out as follows, but for a full interpretation see the discussion below:

Ox horn core, assembled from 3 pieces, 24cm long; diameter at base approximately 70mm. A skull fragment 11.2cm long is also present being part of the temporal bone, but not quite adjacent to the root of the horn core, Ox occipital fragment 11.1cm long from the skull.

Ox right ulna of large size with thick stalagmite covering some 14sq.cm of the articular processes (about 6sq.cm not covered).

This stalagmite is 2mm thick at maximum, the head of the ulna is damaged just below the epiphyseal line so the top is missing.

Comparative ulna widths are as follows:

Ogof Garn-y-Bica 81mm

Modern cow (large type) 76mm

Ogof-yr-Ychen, South Wales,
Bos primigenius 110mm

Modern ox (ref.2) 55mm

Ox right radius, the partner of the ulna but they cannot be re-assembled due to stalagmite on both articulations. The proximal end is damaged while the distal end is missing, and the whole bone is much eroded. Its length is 29cm but the original length would be over 30cm which makes the bone larger than the

radius of modern cow. There is a hole 2cm wide and 1.5cm deep 6cm from the distal end, perhaps caused by a sharp stone falling on the bone on to its dorsal side. Stalagmite is only present on its caudal side.

Ox right metatarsus, length 26.3cm, proximal width 58mm, distal width 66mm. There is some erosion of the proximal end, patches of stalagmite, and surface flaking of bone over 70mm and 50mm separate lengths of the anterior side. Comparative sizes of bones of *Bos primigenius* (ref.3) are:

Ogof Garn-y-Bica Length: 26.3cm, Prox. w.: 58mm, Dist. w.: 66mm

Wetton Mill Rock Shelter Prox.w.:59.5mm

Starr Carr Mesolithic site Prox.w.:58-66mm, Dist.w.:62-73mm

Pleistocene Prox.w.: 55-74 mm, Dist.w.:67-80mm

The bones of the juvenile ox, on which there was very little stalagmite due to its more sheltered position, comprised the following:

Skull consisting of three parts of the left and right frontal, occipital, and left maxilla with three teeth; both sides of the mandible assembled from three pieces, each side with three teeth and two more about to erupt. Left scapula, left humerus 14.8cm long but with both epiphyseal ends missing. Right femur 18cm long in the same condition; right ulna 13.5cm long; metatarsus 16.5cm long, side undetermined with distal epiphysis missing and the proximal epiphysis incomplete.

First and second phalanges both with proximal epiphyses missing. In addition to this individual a second left juvenile humerus was found in the main bone chamber proving that a second, but slightly older, young ox had found its way into the cave.

The pig was represented only by a left ulna 17.7cm long, with a damaged head and stem, but with articulation complete. It carried a small patch of stalagmite about 1sq.cm in area so there is no reason to think it is a modern introduction.

Taking all the measurements into account, it seems probable that the large oxen in Ogof Garn-y-Bica are either Aurochs, *Bos primigenius*, or Bison, *Bison priscus*, and it is well known that it is difficult to differentiate skeletally between them. They would certainly be small examples if the former as the horn core diameter of only 70mm is much smaller than the 122mm quoted for an aurochs found recently on the shore of the Gower peninsula (ref.4). There was a size decrease in both species with the amelioration of climate from the Pleistocene to the Holocene (ref.5), and it is not considered here that the remains are older than the Holocene. The environment cannot have been severe for the wild boar is also present; on the other hand if the deer antler fragment is, in fact, reindeer, a tundra environment is postulated, and reindeer is generally believed to have become extinct in this area at the end of the Pleistocene. It is also possible that the animals fell into Ogof Garn-y-Bica over a



Bones inside Ogof Garn-y-Bica, comprising two individuals of *Bos Primigenius* Photos: Mel Davies

long period of time and that the two caves were open only during very different periods. Bones of large mammals are rare in high-altitude caves in Wales, for example, the only example in south Wales is an aurochs at 540m from Ogof Foel Fawr (ref.6) which was never fully published, and reindeer is only known from the coastal caves. Surprisingly perhaps, cattle today are still allowed to graze up to about 400m, but only in summer, however the large size of the horn core, ulna and metatarsus from Ogof Garn-y-Bica clearly differentiate the remains from bones of any domestic ox of the last two millennia.

If geological evidence is considered in dating the remains in the two caves, the wet clay and boulders covered by stalagmite in Ogof Pen Crawnon

suggest a late glacial deposit, so the reindeer antler in the clay is chronologically acceptable. There is no such clay and boulders in Ogof Garn-y-Bica, and it is believed that, while the passage itself may date from the glacial period or even earlier, the archaeological deposits and the collapsed slabs are entirely post-glacial. Greater precision in dating will only be possible with radiocarbon tests on the bones, or isotopic determinations on the stalagmite.

REFERENCES:

1. Ogof Garn-y-Bica. 1975, *Caves of the Central Northern Outcrop*, p.22, (ed.) A D H Oldham, Crymych, Dyfed.
2. Schmid, E. 1972, *Atlas of Animal Bones*, Elsevier Publ.Co.
3. Clark, J G D. 1971, *Excavations at Starr Carr*, Cambridge: Cambridge University Press.
4. Davies, M. 1994 (in press). *Aurochs and Red Deer Remains from Whiteford National Nature Reserve, Gower*.
5. Davis, Simon J M. 1987, *The Archaeology of Animals*, Batsford, London.
6. Peat, B and Peat J. 1989, *Ogof Foel Fawr*, *South Wales Caving Club Newsletter* 105, 2-14.

Pine Marten Remains from Ogof Garn-y-Bica

by Mel Davies

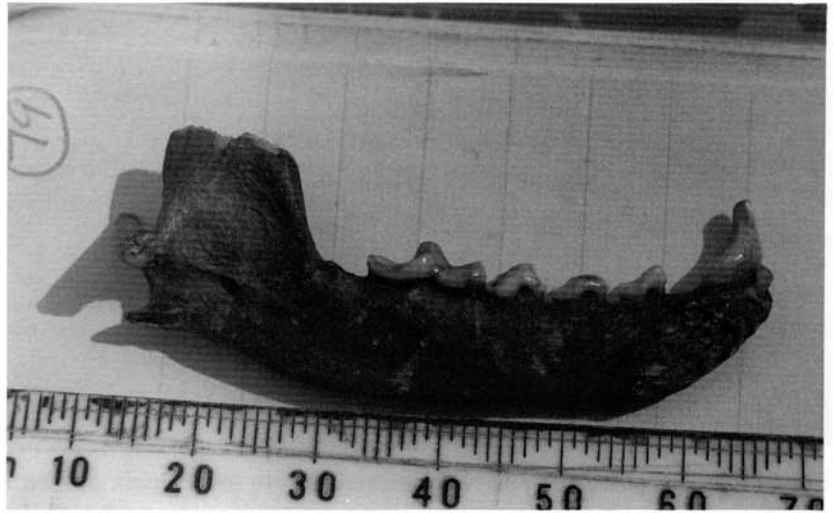
An earlier report on this cave (ref.1, and reproduced above) described the finding of bones in two separate passages comprising two adults and a juvenile of the species *Bos primigenius*, the extinct aurochs, also deer and pig. All were in the upper cave not 10m below the surface which was the only section explored in May 1994. It was realised that many bones had slipped into the depths through spaces between slabs and via a deep shaft. This shaft was descended by members of Cwmbran Caving Club on 31st July 1994 who found that it was some 30m deep as reported by another club in 1970 (ref.2). Only small bones had in fact penetrated to that depth and one of them proved to be a left mandible fragment of pine marten, *Martes martes*. The bone was in good condition so a full description can be given:

M2 missing but alveolus present; M1 present, well-worn exposing brown coloured dentine and main cusp 3.5mm high above the bone;

Pm2, Pm3 and Pm4 present, all flat-topped due to wear;

Canine with tip worn obliquely; Incisors - two remain.

The tooth row is nearly straight which is typical of *Martes*, and has a length of 34mm. The



Pine marten (*Martes martes*): lingual view of left mandible
Photo: Mel Davies

mandible is 55mm long and the only damage is to the top of the coronoidal process. A specimen drawn by Reynolds (1911) is 61 mm long. The only comparable animal to *Martes* is the polecat and a modern specimen has a tooth row only 24mm long with a whole length of 44mm, also the canine is offset, so confusion between the two species is not possible in this case.

The pine marten is now rare in Wales and may well be extinct for research over several years by the Countryside Council for Wales has turned up few reliable sightings, a small number of identified scats (droppings), and no corpses. (Brown, 1994). It is also rarely reported in cave deposits, indeed not one has been found to date despite extensive searching, yet the animal is claimed to have been

present in Britain throughout post-glacial times and possibly earlier. Considerable interest therefore attaches to this discovery.

REFERENCES

1. Davies, M. (1994). Two High-altitude Bone Caves near Trefil, South Wales. *Wm. Pengelly Cave Studies Trust N/L 69, 9-12.*
2. Oldham, A D H. (1986). *Caves of the Central Northern Outcrop.* Crymych, Dyfed.
3. Brown, D. (1994). *Pers. Comm.*
4. Reynolds, S H. (1911). The British Pleistocene Mammalia: Mustelidae. *Palaeontographical Society.*

Rock Breaking with Deflagrating Powder

by Bob Hall

Background

What follows constitutes an outline report on a course on the use of the rock-breaking material popularly known as "SLB" recently held at Penwyllt.

Introduction

The recent changes in the law relating to the storage of explosives have caused cavers to consider alternative methods of rock-breaking. The introduction of portable and effective drilling equipment has made the use of materials other than shock-wave inducing high explosives a viable option. "Soundless Breaker" or "SLB" is one such material. It is a powder that it is not an "explosive" within the legal meaning of the word although its effects are as dramatic as one could wish! SLB is not subject to explosives regulation and it can therefore be stored and transported freely. SLB burns very rapidly (i.e. deflagrates) evolving large quantities of hot gas. If this occurs in a well-stemmed shot-hole then tremendous pressure is produced and rock is broken. (In effect

SLB behaves much as blackpowder does.)

The paragraphs below are not intended to be advice on the use of SLB, rather it is intended to make members aware of the potential of SLB as an alternative to traditional "banger" and also to highlight its more obvious disadvantages!

How SLB is Initiated or Fired

SLB does not "detonate": it burns, albeit rapidly. It must be initiated by an ignitor: conventional detonators cannot be used to fire it. Purpose made ignitors are available but are expensive.

Other alternatives include stage maroons from theatrical suppliers and "plastic ignitor cord" ignitors from explosives manufacturers. Home-made ignitors should not be difficult to produce.

Summary of the Properties of SLB

SLB is flame and spark sensitive. SLB burns at about 40m/s compared to the many thousands of m/s typical of high explosives. SLB supplies much less energy

per gram mass than does high explosive but is nevertheless a potentially dangerous material. Properly used, SLB is effective at breaking quite large rocks with minimal noise, fume and fly-rock. SLB is rapidly rendered inert by water and cannot be used in wet conditions. SLB requires the skilful use of a suitable shothole together with carefully place stemming or tamping. Consequently SLB cannot simply be used for "stirring" a loose choke from a distance. In the right conditions SLB can be used to flake rock off a solid wall to enlarge a rift etc.

How to Obtain SLB

SLB is available to anyone who has reached the necessary level of competence. The only restrictions are those necessary to safeguard the suppliers from civil action. SLB is distributed to cavers by Nick Williams (address below) through various outlets in caving areas. Nick provides training courses in the use of SLB at regular intervals at popular venues.



Fig.1: The effect of fly-rock on a member's leg

Alternatives to SLB

SLB itself is an imported product and is not cheap. Recently a British-made alternative known as "PBC" has become available. The "smokeless powder" materials used by firearms enthusiasts for reloading cartridges has similar properties to SLB and can be used for the same purpose. Both alternatives can be initiated in the same way as SLB.

Safety with SLB

If anything, SLB is less safe than the high explosive compounds we are used to. In particular it is more flame sensitive and great care must be taken to avoid possible causes of sparks. Otherwise SLB and related compounds should be treated with the same care and respect accorded to conventional explosives. In particular the risks of fly-rock and blasting fumes should not be under-

estimated and the same meticulous care taken with charge preparation and the integrity of short-firing circuits. Fig 1. shows the effect of fly-rock on a member's leg. The rock shown being drilled in Fig 2. was charged with about a teaspoonful of SLB and the hole stemmed with resin. The injury was sustained at a range of some 12m through heavy trousers and required 11 stitches to repair it. The moral of this is

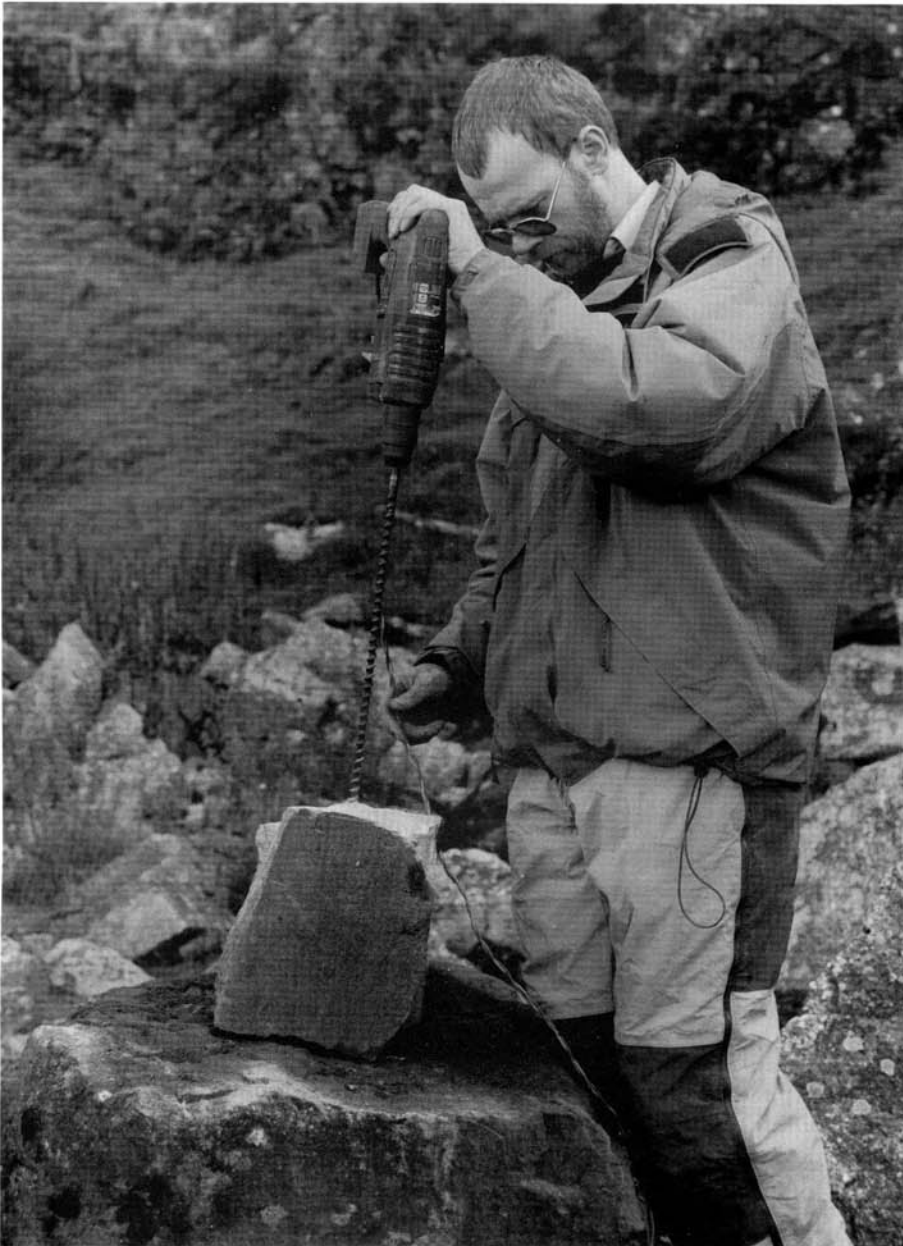


Fig 2: Rock being drilled in preparation for SLB

Photos: Bob Hall

clear - SLB is not a toy. It is a lethal substance that must be treated with all due respect.

Conclusion

Members interested in using deflagrating powders, and indeed high explosives, are urged to join the BCRA Explosives User Group. Nick Williams, the Group's secretary, produces excellent information booklets on various aspects of rock-breaking and acts as a

distributor of SLB and related products. Members might also wish to gain experience with this technology by accompanying others who are already using it. Contact me if you want to be put in touch with experienced users. It would be very helpful if members who do develop expertise in this technology report their observations and experiences in future Newsletters.

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101 Great Caving Trips

by Dave Edwards

No.5 Lancaster / Easegill

This trip took place many years ago - before wetsuits and electric lights. I was then a member of the Harrow Moles Caving Club who had previously taken a group of Yorkshire cavers on some tight, wet trips in Somerset (Stoke Lane, etc.). In return, the Yorkshire cavers (known then as the Brigantes, later as the Old Men of Gragareth) offered a Lancaster/Easegill through-trip which was duly arranged.

In those days, I drove a Triumph Courier (Triumph Herald Van) and the Yorkshire moors were a long way away. Arrangements were made for the Moles to camp at Bull Pot Farm, using their usual 14' x 14' Army tent - a heavy, cumbersome beast - transported on my roofrack. We duly arrived at Bull Pot Farm in the early hours of Saturday morning after a long and tiring drive. The tent was pitched in a lane adjacent to the farm (don't ask me why!) and some sleep attempted. On waking, water was needed for a brew. As delegated gopher, I grabbed a large billy and opened the tent flap. To my surprise I discovered that about 9" of snow had fallen during the night. I promptly

filled the billy with some and set about breakfast.

Eventually, a guide arrived and led our team on the long walk to Lancaster entrance. I was somewhat intrigued at the huge rolls of, as yet, unidentified material visible on our approach. These turned out to be ladders - made of wooden rungs and 2" hemp sides. These were eventually unrolled and I turned a little pale when I saw what 120 ft looked like when laid out flat. The ladder was threaded down a small hole in the surface and secured. The inevitable question was asked, "Who's going first?", and I declined. Our Club Leader, Derek, (a tough, determined type) duly descended and the lifeline was recovered. This seemed to take about ten minutes. A quick calculation of this time and the number of people involved (about 16 from the combined Moles and Brigantes teams), coupled to the freezing conditions above ground, convinced me that this was a situation where valour beat discretion any day (for which read "I was more cold than scared"). At the cry "Next?", I grabbed the 2" hemp lifeline and tied on. The pitch

was negotiated without incident and I opened my eyes about 10 ft from the bottom. I observed the pile of rusting steel ladder on the floor where it had fallen from the wall and thanked God for the comfort of big, wooden rungs. I moved away from the pitch area and sat and waited, and waited.

It soon became obvious that this was going to be a ridiculously slow exercise. Gradually our group increased but I was getting cold. Boiler suit and woollen long-johns are OK when moving but not much protection when stationary. Eventually there was some activity, but not what was expected. A Mole, halfway down the ladder, was attempting two-way communication. Direct communication with the surface was virtually impossible due to booming and echoes so Ron, on the ladder, was climbing 20 ft up - listening to the surface, climbing 20 ft down and relaying the message; then climbing 20 ft up again to relay the reply. The gist of the message was that the Brigantes had decided to go and do Lost John's instead!! It took some time for the sex and travel reply to get through: it was already mid afternoon and

all we had achieved was getting the Moles down the ladder. Derek, (a tough, determined type) reckoned that, as he had done the trip once before, he could find the way through. It was therefore agreed that the Brigantes would go and do Lost John's, and would come and meet us at Easegill at about 7.30 pm. A brief pause whilst poor Ron, exhausted from his 20 ft yo-yo session, left the cave and then we were on our own.

The ensuing trip was a revelation of scale, by far the largest system I had been in up to then. Lasting memories of Fall Pot, where the stream from Cow Pot falls 100 ft from the roof and a fixed iron ladder is used to climb a single boulder; of Scylla and Charybdis, two greasy, conical, heart-stopping climbs around the edge of severe drops; of the strange change of scale in the Minarets followed by the vastness of Corne's Cavern; of the (club electron) ladder climb down Stop Pot followed by an awkward duck until, at last, Easegill Streamway. Fantastic! "Well done Derek, where now?"

"I think we just follow the stream." Mistake one! But we

tried. The water was high, noisy, and freezing cold. Unbeknown to us, the sun had shone all afternoon and melted all the snow which was now pouring into the system. We followed the stream until the roof descended and disappeared into the water. "Maybe it's just a duck", said Derek. I tried following the stream by lying in it - it wasn't a duck! Derek admitted he couldn't remember the way out. We all split up and investigated obvious leads but to no avail. We were cold, tired and apprehensive. Regrouping, we sat around on ledges in the Easegill streamway wondering what to do next. We were grouped around a cairn built in the middle of the stream, but were not really aware of it (Eureka Junction). I suddenly wondered why it was there and looked around. In one wall was a very low arch, half filled with water. I immersed myself in the freezing stream yet again, ducked through, and came up in a larger passage. On the wall was smoked the word "OUT" and an arrow pointing up this new passage. I ducked back to the rest of the group and reported the find. They were not happy.

One of the group was only 16 and it was another's first caving trip! They didn't relish another possibly unnecessary ducking so Derek and I left them and set off to check out the new passage. This new passage (Pierce's Passage) was high but narrow, sloping uphill, and waist deep in freezing, rushing water. We followed the passage for some way until we came to a double chamber, roughly the shape of a figure 8. The further chamber was filled with a crashing waterfall dropping 25 ft from above. The nearer chamber had polished smooth walls. Against one wall leant a large, flat slab of rock: on it was smoked an arrow and the word "OUT" - the arrow pointed straight up! The climb was 20 to 25 ft but totally out of the question. We tried, with finger and toenails, but to no avail: we just could not believe it.

We retraced our steps to the first "OUT" at the start of the passage and then back to the double chamber again to make sure that we hadn't missed anything. We hadn't. By now we knew we were in trouble. The team was cold, wet, and demoralised. It was 8.00 pm,

"The water was high, noisy and cold. Unbeknown to us, the sun had shone all afternoon and melted all the snow which was now pouring into the system..."

we were lost, and there was no sign of the Brigantes. Derek was all for sitting it out and awaiting rescue. I strongly disagreed, feeling it was better to keep moving and to head back toward the Lancaster entrance. In the end we agreed and headed back to join the rest of the team. They seemed fairly happy with the prospect of going back so we set off. Spirits rose as soon as we were under way, only to fall again when we reached Stop Pot. We had laddered in, and pulled the ladder down behind us. It took a bit of hairy free-climbing by Derek (a tough, determined type) to rehang the ladder to enable the rest of the team to climb up and continue on their way. Shortly after, at a rest stop, we realised that we were in more trouble. Some of the younger, more inexperienced members were suffering from exhaustion, or hypothermia: they just wanted to lie down and go to sleep. We were out of food and, more importantly to some, cigarettes as well. We forced everybody to keep moving, albeit slowly, until suddenly we heard some noise: voices and a musical clanking. It was the early hours

of the morning and we were about halfway back to the entrance. The noise turned out to be the Brigantes on a rescue mission. They had brought food, scaffold poles and ladders. One poor Brigante had a pack of Gauloises - for about twenty seconds! As we smoked, rested and ate, we pieced together the story.

The Brigantes had arrived at Easegill at 7.30 pm only to find the whole place in flood. In spite of this, they attempted to ladder in (those who know the trip will have been wondering how we were going to get out anyway - with two or three pitches and the complexities of Poetic Justice. Don't ask me, I was being led!) and gave up when one of their members was washed off the ladder and broke his leg. So they took him to hospital and then went to the pub until closing time! Knowing that we would either sit it out, or return, they elected to give us time to return - or the flood to abate - and to maypole up the pitches if they found us sitting it out.

Now that support was available, three of us elected to go on ahead whilst the Brigantes

followed with the slower group. Derek and I reached the pitch first, John having slowed on the way. The lifeline was still there, but no amount of yelling could elicit any response from the surface. Eventually, Derek (a tough, determined type) elected to climb the ladder without a lifeline. This he managed without mishap (but with some considerable effect on my nerves) and exited to discover the remaining Brigante in a small tent, huddled over a roaring Gaz stove, brewing cocoa.

Alone, I awaited the return of the lifeline with considerable trepidation; cold, wet, tired, and not liking big pitches, I was not looking forward to the ascent. Eventually the lifeline arrived and I tied on: the rope was cold, wet, and stiff. I looked up and yelled "take up slack". At this point, a large drip splatted fair and square in the middle of my carbide light, extinguished the flame, and left me in total darkness. Too tired to be bothered to relight, I switched on the large, rubber torch which dangled from a length of line around my waist, and started to climb. After 20 ft, the lifeline still hung in a large loop with

"By now we knew we were in trouble. The team was cold, wet and demoralised. It was eight p.m. and we were lost..."

more on the floor. Repeated yells eventually elicited a response. A buzzing noise with increasing pitch culminated in a violent jerk which pulled me several rungs up the ladder. The surface party had decided to run across the moor pulling the lifeline with them! The ensuing free flight up the ladder ripped the torch from my waist and I watched it fall and smash on the floor - and go out. In total darkness, I just climbed until I was exhausted. I reckoned I was near the top so I yelled "for God's sake, shine a light". Every last ounce of resolve drained away when, what seemed like miles above, a pinprick of light appeared. "Pull", I yelled despondently. As I emerged from the small exit onto the moor, I discovered that it was dark, cold, and raining horizontally. Derek had gone so, after a mug of cocoa, I assisted John to the surface. He emerged totally drained, his lamp (an old, two-cell bicycle headlamp) a dim glimmer. After more cocoa, John and I set off for the farm using some very vague directions from the remaining Brigante. It was 5.00 am, pitch dark and still raining.

In no time at all, John's lamp died and we stumbled blindly across the moor. Just at the point where we had decided that we were hopelessly lost, someone in Bull Pot Farm briefly switched a light on and off. It was enough to give us our bearings and soon we were back at the tent. Here we were met by the two ladies in our team who had been cooking the same stew for 17 hours - the same duration as our trip! They even had to undress us as our hands were too numb to undo ropes and buttons. Warm at last in our sleeping bags, we ate stew and chatted. Sleep was impossible as, every so often, another team member would arrive back and need feeding and disrobing. It rained incessantly and, at last, with every team member safely back and fed, it seemed that sleep would finally overcome the adrenalin high.

It was not to be. The lane in which we were camped then flooded and water poured, river-like, through the tent, soaking everything in sight. Almost without a word we got up, dressed, packed, dropped the tent, folded it, tied it to the roofrack, and drove off. After

an exhausting day and night covering two miles underground, and a sleepless morning, I hallucinated all the way down the M6 whilst being blown all over the motorway by the wind.

To me, this trip was exactly what the title says - 101 Great Caving Trips - but all in one. I will never, ever, forget it.

As a postscript, the Moles repeated the trip shortly after this epic, after first having read the book and studied the survey. Easegill (County Pot) through to Poetic Justice was pre-laddered and the through-trip from Lancaster completed in four and a half hours. It wasn't snowing or flooded, or anywhere near as memorable. Moral - beware of strangers offering trips into the unknown...!

Diving News

by Steve Thomas

You can always tell who has promised to write an article for the club magazine by simple observation. Some three to four months after the publication of the previous edition, various people have boldly promised to write an article on their latest "it's nearly there" dig or how they thought they were going to get eaten alive by a lion whilst on expedition. As time goes by, thoughts change to who they would like to be having sex with this weekend or which dog at the club has eaten their weekend's supply of food, and the article fails to materialise. Our Honourable Editor then begins his labour of love, gently coaxing individuals and suggesting impossible deadlines of one month's time! Promises are made and everything relaxes into the normal blurred nights and hangover caving. It is shortly after this point that Saturday nights in the pub become "dodge Tony Baker" nights. The guilty parties develop new skills for T.B. evasion, including hiding behind the person they are pretending to talk to or climbing out of the window. Occasionally, individuals fail to escape and

have two options. Firstly, they can lie, stating that the article is in the car and they are just nipping out to get it. They promptly disappear up the M4 to do some caving in England. Secondly, they can surrender and agree to do what they promised to do in the first place. That's me. A round-up of the current cave diving in Wales seemed like a great idea after some beers so here it is...

The biggest news this year has been the success of opening Pwll-y-Cwm, the Aggy resurgence in the Clydach Gorge. Various concerted efforts have gone on here since the mid-eighties. The first thing that was done was to dam the river so that it ran around the resurgence pool instead of over it. This allowed the hole to stop filling in so that digging could make some real progress. Earlier this year, Duncan Price succeeded in passing the choke at the bottom of the flooded pot and has since ensured that it remains open. This now offers divers access to the far reaches of Daren Cilau after a 600 metre dive from the gorge. Duncan

and Rick Stanton are now busy at work in Daren and have already discovered hundreds of metres of dry cave beyond the Gloom Room, and are now pushing a sump that seems to be heading for Aggy.

Over in the Hepste valley, SWCC member Roger Smith has been down every hole for miles in his search for the missing mainstream Hepste river. (The local badger and rabbit population have been having a hard time of it lately.) Roger has now become probably the leading authority on everything from caves to hairline cracks in the riverbed for this area. The largest amount of work has gone into Tucks Rift, a short rift cave that has a downstream sump system connecting with nearby Ogof Glan Hepste. Upstream Tucks Rift was pushed through three clear, stunning sumps to a very flood prone area of crawls and chambers. The upstream extensions have been named Raining Rabbit extension due to the dead bunnies that were decomposing in an airbell. These rained down on Roger as he swam by. So far, the new



Steve Thomas in the extensions beyond the sump in Tunnel Cave

Photo: Clive Westlake

extension is 276 metres long including sumps. Work continues...

Ogof Capel is a short cave near the Heads of the Valleys road in the Clydach Gorge. It has a short crawl leading to two short sumps beyond which is a large chamber with a boulder choke. Steve Ainley passed this in 1986 to discover a superbly decorated cave that was very difficult not to damage whilst passing by. It has now been deemed necessary to gate the cave to control access and hopefully reduce damage. The gate is situated in the boulder choke beyond the sumps.

In Ogof Ffynnon Ddu, I have spent a lot of time working with Clive Westlake (what a guy!) exploring the sumps between

OFD I and OFD II. We have found over 200 metres of new sumped passages at the end of the known sump system but have not found any dry cave as yet. In OFD II we have also found more of the sump complex near the Diver's Pitch but have been unable to join anything up yet, other than making a diving connection from the Diver's Pitch to the East Sumps near The Pit.

A new cave has recently been found near to the sink in the river bed for Bridge Cave. It is situated about 20 metres upstream of the LNRC car park and is mainly a rift cave. At the bottom of the largest and furthest rift passage is a sump pool. This was dived to reveal the water for Bridge Cave on its way from the

riverbed to the boulder choke in Bridge. A tight bedding passage downstream is the limit of exploration after a few metres of diving.

Finally, despite the protestations of the "caring members of the club", Louise Maurice proved that she is more of a man than most of us by diving from Bridge Cave to LNRC having never before seen a breathing regulator or diving bottle. After the instructions "Put this in your mouth and hold my hand" she passed the sump without any problem and was so ecstatic by the achievement that she did it again (and again!).

Castlemartin Caves, Autumn 1994

by Mel Davies

With the springtime discoveries now out of the way it is time to take advantage of autumn tides and plan new cave hunts. Also we now have the benefit of cliff photographs taken from the Army Range Vessel by me in 1993 and by Bob Savidge in June 1994. The first visit by me on 7th October intended to identify sites for which a team would be required at the next low tide due on 5th November. It was a brilliant, warm sunny day, the sort you dream about, when every cave is impenetrably black as you enter it from bright sunshine. By the day's end I had found two new caves and a pair of unexplored potholes.

A low tide of 0.35m was due at 2.20pm so I spent the morning scouring the cliffs eastwards from St Govans Chapel. Our 1993 find Ogof Morloi was still full of water but I was able to descend to various ledges in that vicinity and can state that there are no caves of any value between there and little Newquay Bay which is at SR 974931. Further north along the coast I know there are some holes which Bob Savidge found in 1993 not yet fully explored by cavers.

As the tide dropped I went back to the Chapel and traversed the

cliff foot westwards. Within 200m at SR 9663 9287 I found a rectangular hole just reachable by climbing 10m up from high water mark. It measured only some 1.2m high by 0.8m wide, but the east wall was covered with thick stalagmite, chunks of which had broken off and lay on the floor. The cave ended within 3m in a clay deposit which could be archaeological. More about plans to examine this later.

Further west again I almost stumbled into two shafts at SR 9622 9298 on the east side of the famous Huntsman's Leap inlet. These are not marked on my 1:10 000 map and I don't recall spotting them before. One was making an occasional growling sound so obviously connects with a sea cave.

Plotting my route down the cliff on ledges shown in those helpful photos, I spotted a cave at SR 9629 9282 some 10m above HWM. With a walk-in entrance requiring an exposed climb I just managed to reach it but no more. As usual I had left my light on the cliff top. There is no clay in the entrance region and a large slab partly blocks the way on. Oddly an old, yellow inscription on the cliff below the cave read: "DON'T CLIMB". For the life of me I

can't imagine why unless this is a bird nesting site in springtime. Anyway the cave name is, as it were, writ there - OGOF DIM DRINGO! No need to think of an esoteric name - the Welsh translation has a nice ring to it. This site can be reached at almost all states of the tide so a November trip to the area is now being planned and access permission sought. The cliffs nearby also have several intriguing sea caves, some appearing quite large in the photos. See later in this publication for fuller reports! The shafts will require some SRT experts but the more I explore at low tide the more I realise that almost all of the cliff-foot caves are actually accessible for a reasonable time and can safely be explored. All you need is careful planning, a tide table with an accurate wrist-watch, and, preferably calm weather to diminish wave action. Probably the greatest danger is slipping on the sea-weed. With the aid of the photos we can knock off the caves in regular fashion; without them it would be almost impossible and much more dangerous.



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