



FOREWORD

This issue is being published a little early so that members will still have time to send in motions for inclusion in the agenda of the A.G.M. In addition, the Hon. Sec. would be pleased to receive the name of anyone willing to serve on the Committee for 1953/54.

We do hope that members will make a special effort to attend both the A.G.M. and Dinner. Names of those attending the latter should be sent to the Hon. Sec. not later than Oct. 3rd.

Headquarters. The outside of both the main and tackle huts have been re-creosoted and doors, windows, etc., will be given a fresh coat of paint in the near future. The stove pipe is being renewed. We had hoped to increase the number of calor gas burners, but are now wondering if this is advisable as the last cylinder lasted only four weeks (23/-). It has been suggested that it may have been used in overnight drying of caving clothes, etc., and if this is the case we can only say we are surprised that any members should so abuse the facilities of the Hillgrove Hut.

Members will be very pleased to learn that Willie Stanton has recently been awarded his Ph.D. Willie has been (and we hope will continue to be) a steady and most welcome contributor to the Journal.

Two of our honorary members have recently made gifts to the club fund. Thank you very much, Graham Balcombe and Jack Duck.

HON. SEC: F.W. Frost, 22 Wolseley Road, Bishopston, Bristol 7.

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HON. ASST. SEC: D. Thomson, 4 St. Joseph Rd. Weston-Super-Mare, Somerset.

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HON. SEC. LONDON GROUP: Mrs. J.H.D. Hooper, 92 Station Crescent, Ashford,  
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HON. LIBRARIAN & GEAR CURATOR: P.I.W. Harvey, Fairleigh, 7 Woodstock Rd.,  
Redland, Bristol 6.

WE WELCOME THE FOLLOWING NEW MEMBER:

J. SWITHENBAK, Corner House, The Common, Patchway, Glos.

CHANGE OF ADDRESS:

LT. ( E) T.R. SHAW, H.M.S. Bermuda, c/o G. P. O. London.

FORTH COMING EVENTS

SATURDAY, OCTOBER 3RD G.B. GUEST DAY.

Meet at cave 3 p.m. sharp. Names to Hon. Sec.

SUNDAY OCTOBER 11TH STOKE LANE.

Leader: J.G. Broadley.

SATURDAY, OCTOBER 10TH ANNUAL GENERAL MEETING AND DINNER.

The A.G.M. will be held at the Caveman Restaurant, Cheddar, commencing at 4.0 p.m. sharp. Any further notices of motions for discussion should be sent to the Hon. Sec. without delay.

The following amendments to the Club rules will be proposed by the Committee:-

Rule 6 (Club Year). Delete July 31st and insert September 30th.

Rule 8 (Subscriptions). For individual membership delete

"£7/6 per annum on 31st July" and insert "10/- per annum on 30th September". For family membership delete "10/- per annum on 31st July" and insert "12/6 per annum on 30th September".

Discussions will also take place on Cave Digs and the Club Badge.

The DINNER will also be held at the Caveman Restaurant and the price is 8/6d. The Restaurant is fully licensed and drinks will be available at "Bar Prices". Applications for tickets MUST be sent to the Hon. Sec. by October 3rd.

## BOOK REVIEW:- "BRITAIN UNDERGROUND"

Dalesman & Blandford Press 7/6d.

Norman Thornber's "Pennine Underground" of 1947 has been enlarged to include not only the Yorkshire area (Northern Pennines by Thornber) but also sections on Derbyshire (Southern Pennines by Thornber), Mendips, North and South Wales and Devon (Stride Brothers); and Scotland (Jack Myers.)

The new book appears in the original format, a handy pocket-size, but with a stiff cover, poorer binding and thinner paper. The addition of grid references is welcomed but the deletion of the original Introduction and chapters on "Dos and Don'ts" and "What to do if an accident occurs" is rather a pity. However, some economy was inevitable if the price was to be kept within reason. The grid references are generally accurate but in the Stride Bros. sections are inconsistent. In at least one Yorkshire example also the readings are reversed, rendering the reference useless. The map section is particularly useful.

Details of tackle required and classification of difficulty are reasonably accurate but should be checked (i.e. Lamb Leer pitch is given as 80 ft. when it should be 65 ft.). The descriptions of caves are, however, often hopelessly inadequate, complex systems being dismissed in a few short sentences. "Local" examples of this treatment are August Hole, G.B. and Stoke Lane, also Peak Cavern in Derbyshire.

In the Mendips section the inclusion of three caves (Cow Hole, Cuckoo Cleeves and Waldegrave Swallet) which have been closed for a number of years, is somewhat puzzling, especially as no mention is made of the necessity and method of digging one's way in: The Yorkshire section is the most reliable as it has benefited from revision since P.U. appeared. The South Wales section suffers considerably from omissions.

The old P. U. was popular among walkers who were interested in knowing a little more about the "holes" they encountered in their walks across the moors, without wishing to descend them. For them "Britain Underground", like its more limited predecessor, gives more information than they need, whilst, for the serious caver, the details are often insufficient and so the book falls between the two. Those of us who had hoped for a higher standard will be disappointed at the lost opportunity and there seems little possibility of a reprint, so specialised is the demand. The authors are not so much to blame here as the regrettable and inevitable necessity to keep the price within reason.

As a handy source of reference to the caves and potholes of Britain when the bare essentials within a reasonable degree of accuracy are sought for, "Britain Underground" serves a very useful purpose.

Note: Above is a personal review.

D.A.W.

## THE, KUH-I-SHUH CAVES\*

The Karun river, rising amongst the rugged Zagros mountains of southern Persia, careers through many spectacular gorges before it leaves the hills behind and flows across 150 miles of desert to the Persian Gulf. One such gorge lies 10 miles to the northeast of Masjid-i-Sulaiman, the once busy town that formed the centre of the extensive oil fields recently operated by the Anglo-Iranian Oil Company. In this gorge, the Karun, perhaps 200 feet wide in summer, flows between two great conglomerate massifs, each roughly 3000 feet high, known as the Kuh-i-Jariak and the Kuh-i-Shuh, the latter forming the northern wall. Their cliffs, which rise in precipitous steps on either side to a height of 1500 feet above the river are completely unscalable for many miles, although access can be occasionally gained to rocky terraces where narrow beds of sandstone have been exposed. Along these terraces there are small caves and often springs of fresh water, trapped by the impervious sandstone. Probably the most interesting - and certainly the most sensational - are the Kuh-i-Shuh Caves, which lie along a precarious ledge, 1200 feet above the river. These caves are too far from civilisation to be reached in the summer when the sun temperature attains 160 degrees Fahrenheit and the rocks are too hot to be touched with the bare hand, but in the cooler weather of the late autumn, the trip although arduous becomes possible. The caves bear clear traces of human habitation, but even now it is doubtful if they have been visited by more than a score of Europeans. During 1949, I was temporarily stationed in Masjid-i-Sulaiman and in November of that year I was able to make two trips to these caves: both expeditions were in the company of Mr. T. St. John Eve, of Masjid-i-Sulaiman and on the second occasion we were joined by Mr. R.L. Cowley, also of that town.

Our starting point was Godar Landar, a small village by the Karun, where the motor road ends at a pumping station which supplies water to the oil fields. We crossed the river at a nearby ferry, this being a raft, some 6 feet square, made from thin poles and supported on inflated goatskins - at first sight a very flimsy craft on which to entrust oneself to the fast-moving waters. The two or three passengers crouch as best they can on the wet poles and the ferryman, kneeling at the 'front', scoops the water towards himself with a spade-like paddle, making skilful use of back eddies to prevent the raft from being swept too far downstream.

The Kuh-i-Shuh Caves lie some four miles upstream from Godar Landar and can, in fact, be reached by skirting along the base of the cliffs of Kuh-i-Shuh and then climbing

\*This article has appeared in "The American Caver".

for nearly 1000 feet through a sensational gully which leads directly to the cave ledge. We however preferred to approach by a longer but rather less precipitous route which took us over the top of the mountain and into the gully from above. In order to bypass the cliffs which form such an impenetrable southern facade to Kuh-i-Shuh, we had to ascend a side valley, following a small river - the Ab-i-Andakah - until we reached a pass giving access to the more gentle northern slopes of the mountain. To enter this valley however we were forced to climb for nearly 1200 feet up a steep scarp of conglomerate forming the southern end of an intervening mountain ridge known as the Kuh-i-Landar.

This climb began, about a mile beyond the ferry crossing, as a well-defined zigzag track and ended with a succession of hard scrambles up long rock faces where hands were as important as feet. The crest of Kuh-i-Landar was broken by a deep cleft, nearly 100 feet high and barely 15 feet wide at its mouth. This was known as "The Funnel" and inside, a dark cave and a narrow chimney brought us out on a terrace at the top of the cliff. Beyond lay a broad, winding track which continued up the Andakah valley. The rocks composing this stony path were polished and shiny from the passage of countless pairs of sandals, as it was one of the ancient Bakhtiari highways to the mountains where the tribesman had their summer quarters. As we followed its sinuous, ever-climbing course we often had the friendly company of small groups of these tribesmen, or had to step aside to give way to a caravan of heavily laden mules or a flock of obstreperous goats.

Giant boulders of yellow conglomerate clung to the mountainside and wild almond bushes and an occasional "Kal-Kang" tree lent a welcome touch of greenery to the otherwise arid scene. The latter tree (*Pistacia khinjuk*) had shiny resinous leaves and big clusters of orange-yellow berries. One hundred feet below on our right, the Andakah river tumbled through a succession of crystal-green pools and beyond, the sheer crags of Kuh-i-Shuh towered high overhead, their jagged skyline clear-cut against a dazzling blue sky. The river looked very inviting, but its waters were laden with gypsun and undrinkable. However, thirty minutes walk from the top of "The Funnel" there was a spring beside the path, a curtain of clear but tepid water flowing over the sun-baked rock from some hidden outlet in a tangle of ferns and vines above. We filled our water bottles here as this was the last source of drinking water until the caves were reached.

After plodding uphill for a further half an hour, we reached the head of the valley: here the path flattened and the ravine billowed out into the Andakah Plateau - a bleak

expanse, many miles across, where thinly covered hummocks of gypsum were broken only by the dense groves of tamarisk that bordered the river. We now left the path and after crossing the river by a line of unstable stepping stones, we made a two mile ascent of the grassy northern slopes of Kuh-i-Shuh - slopes far less forbidding than the cliffs that overhung the Karun and even partially covered with oak trees. Some of these trees were as high as 30 feet - an unusual sight in such a barren district where trees of any size were a rarity. This species (*Quercus aegilops*) produces bullet-shaped acorns, 2 to 3 inches long, from-which the Bakhtiari tribesmen prepare a flour and a rather unpalatable bread in times of crop failure.

The summit of Kuh-i-Shuh was a broad and stony plateau, gashed by numerous characteristic stream defiles which began in gentle fashion but soon deepened and gained sheer and unbroken walls, several hundred feet high. These ravines all looked very much alike on that featureless landscape and our problem was to select the one which would take us down to the Kuh-i-Shuh cave ledge. Fortunately, we chose well and after a mile or two of tedious scrambling along a rudimentary track we came in sight of the Karun gorge. The high crags which hemmed us in merged into the walls of the gorge and the dry stream bed on our left dropped into an ever-deepening gully that disappeared behind frightening cliffs falling away to the river, far below. Our track, skirting the very edge of these cliffs, ended at a shelving terrace of smooth rock, 50 feet wide, that was partly roofed over by an enormous archway, 100 feet high and 200 feet long - presumably the result of some cataclysmic rock fall. A tiny spring seeped out from the greenery at the base of this arch and trickled down to an artificial trough, roughly 3 feet square. As we rested here, great eagles soared effortlessly backwards and forwards only a score of feet away from us, but with nearly 1200 feet of empty space beneath their outstretched wings.

The terrace finally dwindled to a shelf about 6 feet wide, with the rock above overhanging to form a low half-tunnel and this led to the main cave ledge. On my first visit, I explored it alone, for my companion preferred to save his breath for the three and a half hour return journey: instead, he stayed talking to some Bakhtiari nomads who had assured us that there was no possible route along the cliff face and who were duly impressed when I walked along the ledge without difficulty and still more impressed when my reappearance, forty minutes later, put an end to their gloomy forebodings as to my probable fate.

For the first few hundred feet the ledge consisted of a series of broken, irregular terraces which, although narrow, could be traversed with confidence as the immediate drop was only a matter of 10 feet or so and hence the feeling of exposure was slight. Amongst the great wedged boulders on my right there were a few small chambers and I found that their dark archways provided effective frames through which to view the gorge. Particularly fine was the vista upstream with the pale blue waters of the river, broken at intervals by the white flecks of rapids and cascades, tapering away into the distance until a bend in the towering cliffs hid it from my sight. In the afternoon light, the great precipices of Kuh-i-Shuh were tawny and golden but the river itself and the cliffs of the Kuh-i-Juriak on the far side of the gorge were dimmed by misty, blue-grey shadows.

Presently the terraces and boulder piles merged to form a single rocky platform, smooth and level. Near this point a low arch in the vertical crags on my right led into a large, dark chamber, roughly 40 feet in diameter. The flat roof, 8 feet high, was blackened by smoke and the floor was littered with goat dung, for this cave is still used by present day tribesmen. It appears, however, that they do not venture farther along the ledge which, beyond this cave, narrowed to six feet and less. Overhead, the rock overhung as an almost continuous roof, so low that I often had to stoop. Walking shirtless because of the hot sun, I suddenly felt a vicious stab in my shoulder and found that I had been stung by a hornet - an unprovoked assault which almost discouraged me from penetrating any farther. The continuing section moreover was a place where - especially when alone - every possible encouragement was needed. Here, beneath a jutting fig tree, the reassuring levelness of the terrace gave place to a hold-less slope, perhaps 15 feet across and barely 4 feet wide, where the rock funnelled invitingly downwards and outwards. Feeling my way cautiously across this depression I was only too conscious of the fact that 450 feet of sheer face lay immediately below and although I could not see the base of the cliff but only the river 750 feet lower down, I felt that the difference in drop was a matter of academic rather than practical interest!

Beyond this obstacle, the ledge became level again and remained a comforting width for the next 40 feet, apart from a corner which it was necessary to step around on a tongue of rock only 18 inches wide. This however was merely a rehearsal for the next traverse - little more than a mantleshelf and fully 12 feet long. Being less than 12 inches wide, it really did give me an opportunity to appreciate the precipitous nature of the cliffs beneath!

Fortunately there was an excellent line of handholds and I soon stepped off onto a wide and grassy terrace which served a succession of small caves. The most striking was the first - a rectangular chamber, 8 feet deep and 16 feet long, with a low wall along its open front. Three broad pillars, carved from the living rock, joined the floor to the flat roof, while a fourth, which did not extend quite to the roof, was truncated at the level of a bedding plane visible in the surrounding walls. These pillars, roughly 18 inches in diameter and rising from double-tiered plinths, had been carved with amazing precision: their surfaces and also those of the walls were clearly patterned with diagonal adze marks.

A few yards beyond this chamber there was a semi-circular recess in which was mounted a raised, rectangular trough, although the spring which fed it was almost dry and in the floor nearby there was a shallow, cylindrical hole which had presumably been used for the grinding of corn. Another recess opened at the back into an artificial chamber, 10 feet square and 6 feet high and beyond this the terrace passed two further alcoves, one leading through a neatly carved opening into a circular cell, barely 6 feet in diameter.

Passing this line of caves, I negotiated another narrow ledge and then rounded a corner where I was able to walk with ease, first across a wide terrace of bare rock and then on to what can best be described as a hanging meadow. Bounded by sheer cliff on the right and open space on the left, this was a spacious terrace, 20 to 30 feet wide and thickly overgrown with long grass and even small bushes throughout its length, which amounted to over 100 yards - certainly it was roomy enough to provide grazing for a few animals. This terrace ended in a slippery grass-covered shelf which petered away into nothing after a few yards. At one time it had evidently been possible to continue beyond this point, but an immense slab had peeled away from the rock face below, not only interrupting the ledge, but also reducing considerably the width of the 'meadow' itself.

On my first visit, time was pressing if we were not to be caught by darkness while still on the mountains and I had to hurry back along the quarter mile of ledges and narrow traverses to rejoin my companion, but on our second trip, a fortnight later, we were able to examine the numerous caves more thoroughly. It is interesting to speculate on the people who inhabited them, but I have been unable to obtain any information on this point. It is possible however that the ledge provided an inaccessible and easily defended stronghold for one of the Bakhtiari tribes, as the tribesmen who dwelt amongst these mountains were notoriously warlike and banditry and inter-tribal strife were commonplace even as recently as 100 years ago.

J.H.D. HOOPER

## FURTHER NOTES ON SWILDONS SUMP

I first heard of the silting up of Swildons Hole Sump I a week before I was due to take a party of hitherto unbaptised cavers through to Sump II. However, in my case, the rumour was substantiated by the knowledge that a week or so before a considerable quantity of fine silt had been thrown into the main streamway from a M.N.R.C. dig in the P.G. passage just before the Sump. It was with some hesitancy, accompanied by mental visions of spending the rest of my short life grounded in the sump, that I pulled myself into the water. The feeling of relief was enormous when I felt myself rising to the surface on the far side. The rest of the party followed without difficulty. Since then I have been through three times with various parties, and on each occasion my impression has been that the sump is the same as it always has been. I have always kept to the left of the wire going through and the right coming back, but on one occasion I reversed this method and definitely found it more difficult. One precaution which makes it easier is to empty air bubbles from one's clothing before diving. The roof of the sump is very rugged and if one is too buoyant every projection tends to impede one's passage. The distance from air surface to air surface is only 7 feet, and the distance travelled under water is never more than 12 feet, taking about 5 seconds.

It may well be that the difficulty experienced by Oliver Wells and party was caused by an alteration in the wire position, which is now quite normal again.

I have always maintained that Swildons Sump I is the most glorious on Mendip, the difficulty being almost entirely psychological. I recently took a girl of 14 through and she enjoyed it. I cannot believe that anyone could prefer Stoke Lane sump, an active sewer, and a real danger of missing the way on the return passage.

To all would-be "sumpers", I recommend Swildons for there is now a choice of seven sumps, six of which are still virgin. To those who contemplate the removal of Sump I I say, take this warning; St. Swithin made it quite clear in 971 that he prefers to be in the wet!

C.H. KENNEY

## DEVON CAVES

The caves of Devon are justly famous for their red formations and bats, and in spite of their limited extent we recently spent a few enjoyable days exploring them. The passages themselves are in general comparable with those on Mendip and do not deserve the reputation of being only just large enough for the bats to walk along. Their galleries too are often surprisingly large.

We liked best Radford Cave, near Hooe across the estuary from Plymouth. It lies in Hexton Wood, its entrance is twenty yards on the left of the path up from Hooe. It consists of three galleries along the sides of a square, the walls being covered with particularly fine red formations. These are reached through a low, debris-strewn entrance passage. The only "subtlety" is at the end of the first gallery (the "Canyon") where the continuation (the "Trumpet") lies over a lip of rock a few feet above the floor. No tackle is needed. Key and permission from DSS.

Chudleigh Cavern (permission from Rock Hotel, Chudleigh), was originally a show cave and consists of two galleries, one below the other, with formations reminiscent of Upper Swildons. These seem to have survived centuries of easy access remarkably well. The lower gallery is reached through a hole in the floor of the upper and here again no tackle is needed. A short distance away is the more difficult "Pixies Hole". Three entrances connect easily, with an abominable upward climb over wedged boulders (Toad's Penance). At the top is the "Belfry" with a twenty foot pitch leading to a vertical squeeze called the "Plughole" (no tackle needed here). From the bottom there is an easy traverse to the final grotto. Tackle needed is twenty foot of ladder and twenty feet of belay. No permission is necessary.

Pridhamsleigh Cave (near Buckfastleigh) is well worth a visit. Permission is obtained at the nearby farm. A low passage inside an imposing entrance leads (right hand fork) through Bishops Chamber with the curtain to the Main Chamber. Here is the bottom of the "Mud Staircase" leading impressively upwards into a bedding plane chamber. Bearing right (on stomachs) a series of crawls leads to the brink of a profound hole, six feet or so across, straight down through the floor. This in fact opens in the roof of the Main Chamber. The way on is to the left at the top of the Mud Staircase, through a small hole, bearing right (this time on your back), after which the "Lake" is reached, the water being ninety-four feet deep in places. The

Bear Pit and Deep Well can also be reached through a maze of passages. Once again, no tackle is needed.

Baker's Pit (Buckfastleigh) was the only cave to disappoint us. We could summon up no enthusiasm for its dismal galleries and muddy passages. The entrance to this cave is in a pit near the church. There is a large entrance passage and chamber, with some four thousand odd feet of passages. (Key to pit from DSS).

We visited Kent's Cavern, the show cave at Torquay. We were told that in winter months parties of potholers are permitted to explore the farther reaches, but those are in fact not very extensive.

Our stay in Devon lasted five days and would have lasted another if we had been able to visit Reed's Cave\* said to be Devon's best. The brilliant sunshine during our stay had to be made use of somehow and this we did in the sea at Maidencombe, limiting our caving activities somewhat. In fact we were never underground long enough for a change of carbide. These caves, although not very extensive, seemed more pleasant and less spoilt than many on Mendip. The helictites at Pridhamsleigh are particularly fine. In our opinion Devon's caves should not be dismissed as not worth a visit.

PHIL DAVIES  
OLIVER C. WELLS

\*REED'S CAVE (Buckfastleigh)

Situated in quarry below church, key from Devon Speleo. Society. A muddy and complex system on several levels - entrance crawl (locked grille allows access for bats) opens into large, decorated Easter Chamber. A 12 feet climb in the right-hand wall (near entrance) leads to crawls and rift passages with fine helictites in places. Near the end is the really tight "Micron Squeeze" (an oxbow to the left, "Suicide's alley", is more roomy.) which gives access to a short series known as the "Wessex Section" containing some excellent stalactites.

Opposite the climb, in the boulder strewn floor of Easter Chamber, a low crawl admits to a well-decorated chamber where an intriguing crystal floor - the "Hedgehog Grotto" - and the "little man", a helictite formation remarkably resembling a man in a top hat with arms outstretched, are most interesting. The latter formation is at the end of the chamber and at this point oral contact has been established with the Baker's Pit system. Below the floor a further small chamber with formations is entered by means of a chimney.

D.A.W.

## EXPLORING GOUGHS CAVES

### Part II

It was just after our party had ascended the Fonts, to establish audible contact with Long Hole, that I first read "Subterranean Climbers", Pierre Chevalier's magnificent story of high adventure in the Trou de Glaz. Stimulated by his account of the daring ascent of the Balcony Shaft, using a maypole 60 feet long, I felt that in our insignificant Mendip caves anything was possible. Especially, I remembered that in the roof of Goughs Cave there were several wide avens which might yield to a similar attack, although I had hitherto thought them inaccessible.

So far as I knew, there was no maypole in Mendip at that time (December 1951). One morning, however, as I looked up an aven beyond the show cave, I realised that I only needed a stone and some string, plus rope and ladder, to make the ascent. Accordingly, during lunch I purchased a ball of twine in Cheddar, and then returned to the Black Cat Chamber, (just beyond King Solomons Temple), where I already had wire ladders and Luke Devenish's hundred-foot nylon rope.

Attaching one end of the twine to a stone, I coiled the remainder cowboy fashion and threw the stone up the aven. After several attempts I succeeded in projecting the missile through a small loophole in one wall of the aven, whence it fell down a parallel chimney to the ground, pulling the string with it. It was then an easy matter to pull the rope after the string, and haul up 25 feet of ladder. When I had anchored the other end of the rope, I climbed the ladder and stopped off into a wide horizontal passage, previously un-entered. In the triumphal glow at the success of the manoeuvre it was small disappointment to find that the passage re-entered the main cave through a hole high in the roof. This was almost directly above the daylight lamp that throws the shadow of the "Black Cat".

I managed to enter several other avens using this method. Perhaps the most intriguing was a narrow chimney at the back of the "Flat Roof" offshoot, which is on the north side of the show cave at the top of Heartbreak Hill. The chimney is the furthest west of four, and is the only one in the cave containing well-developed scalloping (indicating that water flowed down it). This monster managed to climb to a height of 68 feet above the floor, and could see at least 20 feet further up into an extension that was denied to him, but which would be readily accessible to any of the Primrose Pot midgets. The chimney is vertically beneath the entrance of Great Oones Hole.

Apart from the shafts in the roof of the show cave, which could not be entered without risking damage, only one aven withstood the new onslaught. This was an impressive funnel, 10 feet wide and 50 feet high, in the S.E. corner of the Black Cat Chamber. In many ways it was the most interesting in the cave, since - according to the survey - it was close to the end of Great Oones Hole and reached to nearly the same level. I had hopes that it might prove to be the missing connection.

By using the twine technique I reached a ledge 25 feet above the floor, but the next 20 feet of shaft was a smooth cylinder at which, to borrow a phrase, I boggled. There appeared to be a horizontal passage at the top, with a number of large boulders precariously balanced on the lip of the shaft. After some cogitation I drove in a piton at the "half-way house" and left the ladder hanging there while I visited a builders yard in Cheddar.

At lunch time on the following day a lorry delivered a 20 foot length of scaffold tubing to the Caveman Restaurant, causing some speculation among the sportsmen at the skittle alley. When I arrived I dragged the tubing into the Black Cat Chamber and set it up beside the ladder. Climbing to a point 8 feet above the half-way house I drove in another piton and attached a short loop of rope to it. Then I tied one end of the 100 foot nylon to the lower end of the one-piece maypole, and, steadying its upper end, gradually hoisted the ponderous pole until the top end passed through the loop on the upper piton. It was now necessary to undo the rope-ladder and attach it to the maypole above the loop and, after belaying the pole to the lower piton, this was accomplished. (During all these manoeuvres I was belayed to the lower piton with a good strong rope).

I could now pull up the maypole until it rested on the ledge, supported by the loop 8 feet higher. By gently undoing the loop the pole was tilted until it reached the opposite wall of the shaft, about 15 feet above the half-way house. I extracted the lower piton and abseiled down the doubled nylon rope to the ground in order to reach the foot of the ladder. Due to the slope of the cave floor this had to be 45 foot long.

When I had climbed the ladder I was still about 6 feet below the passage at the top of the shaft. There was nowhere to place the maypole for a third stage, so it was clear that the last part of the shaft had to be scaled by climbing. Driving in a piton, I carabinered the nylon rope to it and tied one end to my waist. By passing the other end through the waist loop I was able to lifeline myself, albeit

somewhat precariously, in the final ascent, This was not too difficult, the most unpleasant part being the scramble over the muddy lip of the shaft.

Henceforward the laugh was on me. There was a small chamber at the head of the shaft, with plenty of signs (candle-grease, footmarks) that others had been there before. Looking round, I could see only one exit, a low tunnel leading downhill to the south (away from Great Oones Hole). As I slid down, past some fine helictites, the roof heightened and I soon entered a large cavern. In front of me loomed a great stalagmite, and glimmering lights from several parts of the chamber came, I discovered, from the reflectors of electric lamps. I had entered King Solomons Temple by a passage in the roof.

Presently I heard voices as a party of visitors approached and soon I was privileged to view the magnificent chamber, fully illuminated, from a new angle. A feature missed by the tourist, who sees it from below, is the wonderful wealth of stalactites in the ceiling.

When I had descended and de-tackled the 50 foot shaft, I found I had left a piton and carabiner at the top. For this reason, and because pitons had played such an important part in the ascent, I christened the aven "Piton Shaft".

There are in Goughs Cave 4 vertical shafts that descend to the level of the water table, and it was necessary to plumb the depth of water in them in order to complete the survey. When Bob Sellers, our noted biologist, heard of this plan, he determined to join me and take advantage of the opportunity to lower his nets into the vasty deeps. So, together with Colin Painter, we set off one afternoon for a little sport. The first shaft, which opens off the Oxbow, is constricted, and Bob decided that to prevent damage someone must guide the net down to water level, 15 feet below. It appeared that I was ideal for this job. The shaft was smooth and mud-lined, the water at least 14 feet deep, and I found my position just above the surface hard to maintain. The net was lowered and raised several times, what time our conversation served to illustrate the different viewpoints of a biologist and his stooge. There was no significant catch, except for pieces of mud that dropped off my boots.

The deepest pool was Skeleton Pit, which we plumbed to a depth of 29 feet. The water in every pool was, so far as we could ascertain, quite still. Approaching night put an end to our fishing, and we left without so much as a tadpole to our names.

Goughs Cave, with a total passage length of 3,470 feet, is about the fifth largest cave in Mendip. When Great Oones Hole, Long Hole, and Goughs Old Cave (which are only separated from Goughs by choked passages) are added to the system it reaches a length of 4,850 feet, which is only surpassed by Swildons Hole and G.B. Cave.

The work of survey could not have been completed without the generous co-operation of Mr. Robertson, the manager of Cheddar Caves, and the ready assistance of the cave guides, to all of whom I tender my best thanks.

The survey, which includes Goughs Cave, Goughs Old Cave, Great Oones Hole, Long Hole, Sayes Hole, Soldiers Hole and Coopers Hole, will appear, accompanied by a discussion, in the forthcoming report of the Mendip Nature Research Committee.

W.I. STANTON