

EXTREMERO EXPEDITION 1991



Oxford University Cave Club

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1991 Expedition: "Extremero "

Picos de Europa, Spain

Final report

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Expedition Members

Expedition Committee

Leader:	Gavin Lowe
Treasurer:	David Monaghan
Secretary:	Jenny Vernon
Equipment Officer:	Dave Lacey
Supplies Officer:	Joan Arthur
Medical Officer:	Tom Houghton (Did not travel to Spain)

Members

Bernhard Bauer (1)	Paul Mann
Dave Bell	Ursula Mead
Ewald Biersack (1)	Michelle Nickerson
Mark Crossley	Gerhard Nicklash (1)
Andy Cubie	Pauline Rigby
Chris Densham	Steve Roberts
Richard Gregson	Tony Seddon
Tim Guilford	William Stead
Dave Horsley	Dirk Vertigan
Sean Houlihane	Fred Wickham

(1) Verein für Hölenkunde in München e.V., Germany

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Juan José Gonzalez Suarez	Graham Naylor
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Summary

Gavin Lowe

On the 27th of June, the Oxford University Cave Club arrived in the Picos de Europa in northern Spain at the start of our annual expedition. The main aim was to continue exploration of the cave Ojo de la Bruja or 2/7. This is a superb system which the club has been exploring for past four years. The entrance shafts lead into a series of tight rifts with occasional short pitches. These eventually open out at the top of a four hundred metre deep vertical shaft, at the bottom of which a large streamway is met. The stream can be followed for nearly two kilometres, but the normal route is to climb up into the London Underground, a passage up to 80 metres wide and a kilometre long. At the end of this, a series of pitches leads back down to the streamway at the underground campsite, Primula point. From here, the stream runs through an unstable bolder choke, choke Drusilla, which is bypassed by a climb up into a series of large high - level passages, postman Pat, Bod and Soup Dragon. At the end of the high levels, the stream is rejoined, which Stanley's two-day present end of the cave, the extremely unstable and dangerous choke Egbert.

Rigging into the cave began within three days of arriving in the Picos and was completed within 10 days. A camp was set up at Primula Point, and exploration began. Most trips lasted four days with the first day spent reaching camp, the next two days exploring and last day coming out

The main lead from last year was a small tube heading directly into choke Egbert; unfortunately, this was discovered to have become choked with rocks over winter and so was completely impassable. Another promising route was discovered leading of the main passage just before Egbert; this passage splits and eventually all the routes choke, although some of them may be diggable.

Just before Egbert, the cave cuts sharply right into a low section; the main rifts continues straight ahead to a choke. Tony Seddon bolted up this choke; at the top it was possible to look through a small hole into a black space beyond. He also found a route into the choke part way up, with various ways on needing further investigation.

Jenny Vernon and Chris Densham rigged a 27 metre deep pit in Bod; this dropped into a descending rift which eventually choked; the end is thought be very close to choke Drusilla. Dave Bell, Tony and David Monaghan rigged another pit, Tantalus, in Soup Dragon; a short pitch led to the top of a much larger shaft, about 50 metres deep; this was not fully descended due to lack of rope.

Tony and David also explored a large passage leading off from the start of the London Underground. They followed this for 60 metres to an impassable boulder choke.

On his "days off", Tony explored a rift leading off the entrance shafts in hope of finding an easier bypass to the first of the rifts; no definite end was reached, but this is unlikely to provide an easier route.

As the expedition progressed, it became more and more evident that a entrance in to the system was needed; it is very hard for a small expedition to maintain a concerted pushing effort at such a remote front. Much more time and energy was being exerted on reaching the end of the cave than was spent in actual exploration. Therefore, a lot of effort was put in to explore smaller caves which may drop in to the system.

The first of these to yield was 53/5, situated in the valley Extremero. This was discovered in 1989 and had been the site of many digging trips because of the strong wind issuing from the entrance. Many large boulders were hauled out until the passage became impassable. About 400 metres of cave was explored, with a vertical range of about one hundred metres. The main route down the cave is a tight, steeply descending rift, punctuated by a series of pitches, and ending where the rift becomes too tight. This route is obviously a very immature piece of cave. The way on may prove to be a pendule over the

pitch part way down the cave; this route has been only partially explored. The trend of the cave is northwards, away from 2/7, and so it seems likely that it will join the nearby Xitu system.

A better prospect is Skull Cave, named after the bones littering the floor of the entrance shafts. This was discovered in 1990, when it was pushed through an awkward squeeze at the bottom of the entrance shaft; this led to a very narrow slot at the top of another drop. This year, the slot was hammered out to reveal a pitch of 14 metres. A further pitch landed in a tight rift which required hammering. Beyond the terminal squeeze, the passage seems to bell out. The bottom of the cave is about five hundred metres above the London Underground and so appeared very promising. Towards the end of the expedition another cave, 66/5, was discovered on the flank of Jultayu. This is a typical Picos cave with narrow rifts punctuated by pitches. One rift, the Corner Shop, is particularly awkward consisting of a series of right angled bends. The end of the cave lies three hundred metres above the top of Postman Pat in 2/7 and 250 metres off - line.

Finally, a halt was called to exploration and de-rigging began. The small caves were all de-rigged efficiently, and then 2/7 was de-rigged in just two trips. This left just enough time for a well - earned beach party before returning to Britain.

Expedition Diary

Jenny Vernon

26th June		First expedition members and expedition vehicle leave Britain.	
27th June		Expedition arrives at Los Lagos. Base camp established at Lago Ercina.	
28th-30th June		Gear carried up the hill; camp established at Ario.	
30th June	2/7	Cave rigged to Flying Rebélés.	ADS TSH DEL
1st July	2/7	Rigged to the bottom of GTP.	DJM DRB PAR
2nd July	2/7	Camping gear and ropes portered to the end of the rifts.	ADS DEL MC
3rd July	2/7	Portering trip to the end of the rifts.	DJM DRB TSH
4th July	53/5	Boulder blocking the entrance passage hammered.	DEL PAR
5th July	2/7	Rigged to the bottom of Armageddon.	ADS DEL PAR
6th July	2/7	Somnambulist Series investigated.	ADS AC
8th July	Skull Cave	Rigged to limit and the Eft hammered.	DH PAR
8th July	2/7	Rigged down to the Crash Pad.	ADS DRB DEL
8th July	53/5	Boulder removed using pulley system.	GL SGR
9th July	2/7	Portering trip to the end of the rifts.	DJM AC TSH PAR CJD
9th July	53/5	Boulders loosened with crow bar.	GL MC
10th July	53/5	Removed several boulders.	SGR MN DH
11th-13th July	2/7	First camping trip. Day 1 - cave rigged to the Big Ledge and camp established. Day 2 - cave rigged to Primula Point and camp moved; route in London Underground marked with string; Tony's Back Passage found. Day 3 - returned to surface.	DJM ADS DEL MC
11th July	Skull Cave	Eft hammered.	GL
11th July	64/5	Cave dug and then abandoned as too dangerous.	GL DRB DH
12th July	53/5	More hammering.	TCG DH DRB
12th July	Skull Cave	The Eft and pitch head above The Hollow Men hammered.	PMM CJD
12th July	65/5	Cave found.	TCG DH DRB

13th July	53/5	Another boulder removed.	DH JA AC TCG CJD SGR
13th July	Skull Cave	The Eft and pitch head above Hollow Men hammered.	PAR TSH
13th July	65/5	Cave investigated and bottomed.	CJD TCG
14th-17th July	2/7	Second camping trip. Day 1 - down to camp at Primula point. Day 2 - route through Bod marked with string; Clanger and Pimpernel pitches rigged. Day 3 - streamway traverse lines from camp to Bod and at the base of Colostomy Climb rerigged; rope rigged for swing across the streamway. Day 4 - returned to surface.	PMM PAR CJD DRB
14th July	53/5	More hammering.	TCG GL MN
14th July	Skull Cave	Hollow Men pitch head hammered.	TSH ADS
15th July	53/5	Final boulder removed; Coffin Lid squeeze passed and Pterodactyl Pitch descended.	MN SGR GL TCG
15th July	Skull Cave	The Hollow Men pitch head hammered.	ADS TSH
16th July	2/7	Somnambulist Series investigated.	DEL
16th July	53/5	Pointless Pirhana Pitch and a dead end found; Big Biscuit rift hammered and pushed to head of Witch Doctor; most of new finds surveyed.	TCG GL SGR MN
16th July	Skull Cave	The Hollow Men pitch head hammered.	ADS
17th July	53/5	Witch Doctor rigged and Shagging the Hedgehog rift pushed.	MC DH TCG
18th-22nd July	2/7	Third camping trip. Day 1 - down to camp. Day 2 - discovery of Tim's New Bit. Day 3- Pushing in Tim's New Bit; 50m of new phreatic passageway and a climb up to a small chamber found. Days 4 and 5 - returned to surface.	SGR MN TSH TCG
18th July	Skull Cave	The Hollow Men pitch descended and inlets at the bottom investigated.	ADS DJM
18th July	53/5	End of Shagging the Hedgehog hammered and pushed to the head of another pitch.	GL MC DV
18th July	Area 5	Surface survey from 12/5 to 53/5.	DH AC
19th July	53/5	Pitch beyond Shagging the Hedgehog descended; rift found to become too tight. Survey through Big Biscuit rift and down Witch Doctor completed.	MC GL
19th July	53/5	Silence of the Sheep surveyed.	DH AC

19th July	Skull Cave	Pitches beyond The Hollow Men descended; rift at bottom hammered.	ADS JGV
20th July	53/5	Rift at end of cave hammered; squeeze passed to another squeeze.	JGV GL
21st July	Skull Cave	Exploration of cave complex below Hollow Men; way on found down a 40m rift.	ADS CJD
21st July	La Jayada	Unsuccessful attempt to put dye into melt water - ice plug found to be frozen solid.	DJM JA JGV
22nd-25th July	2/7	Fourth camping trip. Day 1 - down to camp. Day 2 - Choke Egbert investigated; stream swing rerigged to a pulley-line; Tim's New Bit dug. Day 3 - Tim's New Bit dug; Colostomy Climb rerigged. Day 4 - returned to surface.	ADS DEL PAR DJM
22nd July	53/5	Shagging the Hedgehog surveyed.	WJS CJD
23rd July	53/5	Shagging the Hedgehog enlarged; terminal squeeze hammered and passed into tight rift; start of Wol's Passage discovered.	GL
23rd July	53/5	Inlets at bottom of Witch Doctor investigated; bottom rift hammered.	JGV TCG
23rd July	Area 4	Shaft bashing.	DRB
24th July	Area 11	Unsuccessful search for Pozu Optimisto. 2/11 discovered.	PMM WJS
25th-28th July	2/7	Fifth camping trip. Day 1 - down to camp. Day 2 - digging in Tim's New Bit; Egbert investigated; pulley-line over the streamway rerigged back to a swing. Day 3 - explored previously undescended shaft in Bod. Day 4 - returned to surface.	CJD DV JGV PMM
25th July	53/5	Inlets at junction downstream from Pterodactyl examined; Wol's House and Passage explored; pendule over Pointless Pirhana Pitch rigged and passages on far side explored.	TCG WJS
25th July	Area 4	Shaft bashing.	GL
25th July	Trea Valley	Cave marked on the map investigated; found to be only a scoop in the rock.	GL RCG
26th July	Area 11	Shaft bashing. Unsuccessful search for Optimisto; caves 3/11 - 8/11 discovered.	WJS
26th July	Area 4	Shaft bashing.	RCG SGR
26th July	Area 10	Shaft bashing. Caves 7/10 - 12/10 discovered. Great excitement over 10/10.	WJS SGR RCG

26th July	Area 4	Shaft bashing. Caves 13-26/4 discovered and explored.	TCG
27th July	10/10	Cave explored to a choke and surveyed.	SGR WJS RCG MN TCG
28th July	10/10	Cave identified as 2/10 - previously explored.	GL
28th July	53/5	Decorated chamber above Pointless Pirhana Pitch discovered.	WJS TCG
28th July	Jultayu	Jultayu climbed to get a view across to Iestyn's A Cave - an unexplored hole half way up the far wall of the Valle Extremero. Valley of Dry Bones discovered - a large strongly draughting surface boulder ruckle.	RCG
28th July	Valley of Dry Bones	Digs started in two places.	RCG GL
29th July	53/5	Terminal rift hammered.	GL
29th July	Skull Cave	Potential leads at bottom investigated.	ADS
29th July	Valley of Dry Bones	Discovery of 66/5. Cave pushed down first pitch, through Corner Shop to head of the second pitch - Los Miserables.	TCG RCG WJS
29th July	Area 11	Shaft bashing. Caves 9-12/11 discovered and explored; 2/11 and 8/11 examined.	PMM
30th July	53/5	Photography trip. Rerigged Piranha Pendule and rigged climb beyond.	DJM WJS DRB
30th July	66/5	Los Miserables descended and following rift pushed to head of Chock-Stone Pitch.	JGV TCG
31st July	66/5	Chock-Stone Pitch and Route 66 descended.	WJS ADS
1st-4th August	2/7	Sixth camping trip. Day 1 - down to camp; Tony's Back Passage surveyed. Day 2 - pit in Bod bottomed, surveyed and de-rigged; Reach for the Sky Hook climbed. Day 3 - Tim's New Bit surveyed and derigged. Tantalus pitch investigated - not fully descended due to lack of rope. Day 4 - returned to surface.	DRB ADS DJM AC
2nd August	53/5	Started down cave to help with derigging, but gave up due to illness.	DV
2nd August	53/5	Tape measure retrieved from head of Piranha pitch.	PMM
2nd August	53/5	Cave derigged; Pirhana Pendule rerigged.	GL
2nd August	66/5	Cave surveyed and de-rigged from the end to the top of Los Miserables.	PMM DEL PAR

3rd August	66/5	Cave surveyed and de-rigged to the surface from the top of Los Miserables.	JGV GL
3rd August	Area 5	Surface survey tying 66/5 and the Matterhorn in with 2/7.	JGV GL
4th-6th August	2/7	Seventh camping trip. Day 1 - down to camp at Primula Point. Day 2 - camp packed up and moved to The Big Ledge. Day 3 - camp packed up and cave derigged up to start of rifts.	GL DEL PAR JGV
5th August	Valle Extremero	Climb up to investigate Iestyn's A Cave.	CFW WJS
6th August	2/7	Meet campers from the seventh camp at Cemetery Gates. Help de-rig out as far as Ascension Pot.	PMM CFW WJS
6th August	Valley of Dry Bones	Digging in Negative Entropy Choke	GN BB
7th August	Skull Cave	Photography trip.	BB ADS DJM UM
7th August	Area 11	Shaft bashing. Optimisto found. 4/11 explored.	GN WJS
8th August	Skull Cave	Bottom rift surveyed; cave derigged.	DEL JGV ADS UM WJS
9th August	2/7	Final de-rigging trip. Ropes pulled out to the surface.	ADS DRB DV JGV AC EB DJM DEL
10th-12th August	-	All the gear from 2/7 entrance and Ario camp carried down to Los Lagos.	-
13th August		Beach party.	
14th August		Camp packed up. Expedition leaves Lagos. Van clutch pedal breaks. Expedition drives to Santander without clutch.	
15th August		Expedition vehicle boards ferry back to Plymouth.	

Pozu del Ojo de la Bruja or Pozu Jultayu (2/7)

David Monaghan

We are well used to rigging 2/7 now, so we did it very efficiently, taking four trips to reach just awesome. Short trips were also made into the cave, while it was being rigged, to explore the Somnambulist Series which leads off from a point halfway down the third pitch, Seventh Heaven. There was a slight hitch on the final rigging trip when a tackle bag was dropped from the top of the first pitch in Just Awesome. It fell 120 metres. It contained all the rigging gear needed for the rest of the cave. It also contained a cordless hammer drill worth nearly four hundred pounds.

The first camp went underground with strict instructions to find the drill. They stumbled around at the bottom of Just Awesome looking for a grey tackle bag against the background of grey rock by the light of flickering carbide flames first that were continually being extinguished by the spray and wind from the waterfall. They did not find the drill. The first camp spent its first night on the big ledge to try to reduce the otherwise peculiar task of setting up camp at Primula Point straight away. The next day all the gear that had been brought in from the surface was carried along London Underground to Primula Point. On the way the pitch up from Just Awesome was rerigged. Tony got so cold waiting for this to happen that he found a new passage, Tony's back passage, leading off the side of London Underground. The campers got to Primula Point to find that it had been swept clean of all the footprints from the previous year, which was a bit disconcerting because the camp is about 3 metres above the level of the stream. Even more disconcerting was the discovery that all the camping equipment that had been stashed on a ledge 10 metres above the stream had also disappeared. Alarmed by this prospect, and missing the food that they expected to find there, the campers came out a day early.

The second camp went down with strict instructions to look for the drill. They didn't find it. However, on the first day, taking a wrong turning, they reached choke Drusilla to find most of the missing camping gear floating in the stream. The second camp devoted its time to rigging the cave beyond Primula Point. The river level was about 30 centimetres higher in 1991 than in previous years, so a lot of rerigging was needed to enable cavers to reach the end of the cave without getting water in their boots. The most contentious result of the de-rigging was a river crossing that was successively known as Densham's Dunking Deviation, David's Devious Deathslide and Dickhead's Deathtrap. Argument raged back and forth over the relative merits of swings and Tyrolean traverses, and in the end a compromise was reached where both were rigged side by side.

The third camp went down with strict instructions to look for the drill. They didn't find it. The third camp were so busy admiring the view on the surface that they forgot to go down the cave until the middle of the afternoon. They arrived at Primula Point very late and spent the rest of their time out of sync with the surface, despite strenuous efforts to get up an hour earlier every day. They reached the end of the cave to find that the ankle - deep wade across the stream of the 1990 expedition had become a waist-deep pool the size and colour (but unfortunately not the temperature) of a municipal swimming bath. While rigging a traverse line around the edge they came to a hole that no-one else had seen before. Investigation revealed a low wide passage, Tim's New Bit, that seemed to run parallel to the streamway. Lots of loose climbs led over choke Egbert, and these were all pushed with enthusiasm, but without success. The third camp surfaced jubilant, and still 12 hours out of sync, to meet the rescue party sent down to find them.

The fourth camp went down with strict instructions to look for the drill. They didn't find it, although they did find a jammer that had been dropped in 1990 from the same place as the drill. The passage found by the previous camp was re-examined, and the remaining climbs were all investigated and

found to be choked. Some climbs in the streamway just before choke Egbert were also examined. Dave Lacey re-rigged Colostomy Climb, a dreadful, muddy, example of bad rigging that had not been looked at since 1989 precisely because it was a dreadful, muddy, example of bad rigging. He was at the top, 30 metres vertically above the stream, when he dropped the bolt driver. He had time to say "B****R, F**K, S**T, D****" before it hit the water...

The fifth camp went down with strict instructions to look for the drill. They were in such a hurry that they didn't take any fuel with them, and when they passed the previous campers halfway down the cave and learned that there was no fuel at the underground campsite they were obliged to send a special messenger back out of the cave to collect some. To add to their woes they were also struck down with a mysterious disease while they were underground. Despite this they managed to find a 30 metre shaft, Big Sloppy Job (well, would you rig a shaft that deep, off one bolt and a wobbly rock). It seems that the end of the rift leading off the shaft is very close to choke Drusilla, and so is unlikely to yield much more passage. This is a pity. They also looked at the end of the cave, and found that the loose and dangerous passage into choke Egbert that was discovered in 1990, and for which high hopes were held for 1991, had been finally, irretrievably and permanently filled with rocks by the river. Lucky really.

The sixth camp went down with strict instructions to look for the drill. They didn't find it. The sixth camp was very busy. They pushed and surveyed Tony's Back Passage to a temporary conclusion, finding beautiful crystal pools and flowstone cascades. Big Sloppy Job and Tim's Bit were also surveyed to less auspicious conclusions before being de-rigged. An aid climb above choke Egbert was also attempted; Tony was pleased to hear singing from below him while he was climbing, although he was less pleased later when he found out that the singing was his lifeliner who had found himself falling asleep and was desperately trying to keep awake. The campers also made two attempts to reach the bottom of a pitch off the side of Soup Dragon. Thirty metres of rope did not reach the bottom; neither did fifty metres. The pitch was called Tantalus.

The second camp went down with strict instructions to look for the drill. They didn't bother. They moved the camp back to the Big Ledge. From here they had a brief look upstream and found that it continued easily for some distance. The next day they headed out, taking the camping equipment with them. On their way out they were met by a party from the surface, and between them the two parties de-rigged the cave to just beyond the top of Pessimist's Pot. The cave was de-rigged in its entirety on the following trip.

Description

David Monaghan (except Somnambulist series by Tony Seddon)

The full description of 2/7 is included in OUCC Proceedings 13. We give here the descriptions of the new cave passages discovered this year.

Somnambulist Series

This small section of passage is to be found roughly 15m above the floor of Seventh Heaven. A cobbly ledge, first reached by Dave Heatherington at the end of the 1989 expedition, runs along to an alcove where two routes lead off. A rift drops to the left and connects with Seventh Heaven; straight ahead an opening at head level develops into another rift. After a few feet it is possible to climb down and head "downstream" back towards the pitch in a larger passage. This ends at the base of the small blind pot where water sinks in gravel

Returning to the top of the rift, a squeeze is passed into the continuation. Another small blind pot is to be found on the right, but straight ahead a hammer modified passage was not pushed far beyond a corner.

Tony's Back Passage

A wide, high passage leads off from the top of a climb on the southern side of Heathrow. This passes a drippy inlet and an undescended shaft on the right. A steep climb up a mud slope leads to a boulder choke with no way on.

Big Sloppy Job

In the left hand wall of Bod, before the climb into Soup Dragon, is a 10m wide, 27m deep circular pot, dropping on to a flat, mud floor. A small cascade passage leads off at floor level. A 5m, overhanging climb leads down to a short pitch into a chamber with a suspended boulder roof. A tiny stream flows down a tight, muddy rift reminiscent of the top of Drusilla. The rift eventually closes down at a draughting hole from which comes the sound of roaring water.

Tantalus

In the wall of Soup Dragon, just after the traverses is a large hole. A short pitch leads to a muddy, loose slope. Round the corner is a second, larger pitch of about 50m. Initially the descent is in a narrow rift, but soon opens out to give an exposed hang in a large chamber, with an inlet entering from one side. The pitch was not fully descended due to lack of rope.

Tim's Bit

Just before Egbert, a low, wide crawl leads off from the right and sight of the stream. After several grovels in gravel, the passage splits. To the left is a series of very loose climbs up into a chamber in a boulder choke; several routes lead off but none go. Ahead, the passage continues as a low, wide, flat roofed phreas with boulders on the left. The passage ends at a boulder blockage which may be diggable.

Cueva de la Rana (53/5)

Gavin Lowe

This cave was originally discovered in 1989 by Dave Horsley. It immediately attracted great interest because of the strong draught issuing from the entrance. Unfortunately, 10 metres in, it became too tight. Over the next two years, a number of trips attacked the terminal squeeze with hammers and chisels, but with limited success; the chilling wind meant that few people were willing to work at the squeeze for more than about half an hour before returning to the surface to warm up. Halfway through the 1998 expedition, tactics changed as we started digging down in the floor, hoping to get under the constriction. An intensive effort saw nearly a ton of rock removed from the cave, had but one large boulder blocked the dig.

In 1991 this boulder was soon removed using a pulley system. Ahead were more boulders, but the passage seemed to be opening out beyond. Over the next few days, these boulders were loosened with crowbars and pulled out, until on the 15th of July, the final one, bigger than all the rest, was levered away from the wall and hauled out by Steve Roberts, Tim Guilford and Gavin Lowe. Tim and Gavin pushed through the hole into a small chamber where progress was blocked by more boulders while Steve and Michelle Nickerson shivered above. Tim and Gavin frantically pulled boulders away, working on two leads until one of them became passable. Tim squeezed up onto a coffin lid shaped boulder, and then turned round in the constricted space to follow a narrow passage to another small chamber. The others followed, finding an easier method. A short climb up led to a window overlooking a large chamber. The pitch was quickly rigged, and Tim sent down, being the only one optimistic enough to have brought his SRT kit. Part way down, a Pterodactyl-shaped flank of rock gave its name to the pitch. At the bottom, Tim explored the start of a large rift, before returning to the others.

The next day, the four returned and followed the rift. A route through was found which led to the top of a pitch overlooking a large chamber. Gavin rigged the pitch, Piranas, and then waited patiently for the others to join him. Together they set off along the passage to find... a complete choke after 10 feet. Undaunted, they returned to the top of the pitch and followed a miserably small descending rift. In many places the way was blocked by big, biscuit - like flakes of rock, but these were soon removed with a hammer. A series of vertical squeezes were passed, until the passage lowered to a crawl under two stalactites. A squeeze down over stal flow dropped into a continuing passage, which soon led to a feet first crawl to a tightening boulder pile. Five metres further, progress was halted by a vertical drop.

The next trip rigged a series of three pitches, Witch Doctor, dropping about 30 metres into a chamber. From here, a tight rift was explored to a too - tight section. Subsequent trips passed the squeeze, and continued along the rift to a short pitch. At the bottom, the continuing rift soon closed down to a serious constriction which will require a lot of hammering. An alternative route was forced in the top of the rift; this also becomes too tight.

With the bottom of the cave temporarily impassable, some holes on the far side of Piranas were investigated. A rope was rigged and Tim and William penduled across to find a series of rifts and climbs, most of which eventually become too tight, but may be passable with some work. Its is interesting to note that the strong wind encountered in the entrance passage is lost at the head October Acton pitch, and so it is possible that there is a lot of passage still waiting to be found.

The end of the cave is only 60 metres away from The Mendip Bit in 12/5, on a bearing of 320° and so is expected to join the system at about this point; however, 53/5 is still 190 metres above 12/5 at so it is just possible that the two caves may cross.

Biological find

Jenny Vernon

Two small arthropods, probably members of the same species, were found in the rift before Pointless Pirhana. One was placed in alcohol and brought back to Britain for investigation. So far we have identified the creature to the family level, and we will send it to the British Museum of Natural History for a more detailed identification.

The animal is in the same class, arachnida, as spiders and mites. It is from the order opiliones, commonly called harvestmen, and the family is ischryopsalidae. It has a body about 10 millimetres long and 8 legs about 20 millimetres long. Unlike spiders, which the opiliones bear considerable resemblance and which have a constriction forming a "waist", the front and back body sections are fused. The first pair of legs are extra long and probably have a sensory function. The chelicerae (the first set of appendages at the front of the head section) are extremely well developed, being nearly as long as the body, and have pincers on their distal end; spiders usually have short, stout chelicerae.

Ischryopsalidae are reported to prey on other small arthropods and molluscs, and to supplement their diet by scavenging. They are found throughout the mountainous regions of central and southern Europe. It is especially noteworthy that they are commonly found in caves in the Pyrenees, although they are not cave adapted and are found in surface environments as well as underground.

Description

Gavin Lowe

The cave is located in the Valle Extremero. A large valley comes down from Jultayu to meet the Valley Extremero, just above a small pond. The cave is an obvious large entrance directly above the pond, in the right hand side of the valley.

The entrance soon closes down to a narrow slot from which a very strong wind blows. Ten metres of stooping passage leads to a drop down into a small chamber. An awkward manoeuvre over a flat inclined slab of rock, the Coffin Lid, follows; climbing up and sticking your head into a slot in the ceiling, it is possible to walk your feet over the slab, and then crawl backwards out, keeping high where the passage is largest. A hole underneath the Coffin Lid is useful for passing gear through. It is soon possible to stand up in a small chamber, where a two metre climb leads to a window overlooking the 10 metre Pterodactyl pitch, named after the rock formation part way down.

The pitch drops into a sizeable rift chamber. To the left, after 10 metres, a hand lined climb leads into a well decorated rift, Silence of the Sheep, leading to a three-way junction; one route doubles back under the rift, and probably reconnects with the passage further on; the other two routes are tight draughting inlets. From the bottom of adaptable pitch, the main route leads to be right along the reasonably sized rift. Part way along, it is possible to climb down to a three way junction. The left hand inlet soon closes down. The right-hand inlet leads to a small chamber with a rift over the top; this probably connects with Silence of the Sheep, but wasn't fully pushed. The other route is a too tight output, which undoubtedly connects further on. Following the obvious traverse level leads to a climb down to a chamber overlooking a pitch. From here there are two ways on.

The 15th metre pitch, Pointless Piranas, drops into a large chamber, where the only passage chokes after 10 feet. It is possible to pendule across the top of the pitch into an obvious hole in the far wall; at present the two sides are connected by a single rope - abseil part way down and then prussik up the other side. This leads to a broken chamber with three possible routes on.

A squeeze through stal leads to a second squeeze into a well decorated rift which closes down and was not fully pushed.

Climbing down through the loose bolder choke leads into a tight rift which was pushed little further than the tight right-hand bend. A fairly exposed, lined climb leads to a ledge overlooking Pirhanas chamber, the Cement Garden. The only way on is a steep muddy ramp leading to a small chamber and a climb up to a possible, but unexplored, route on.

Alternatively, from the top of Pirhanas, doubling back under the approach route and descending the rift leads to the start of Big Biscuits rift. Following the water, a damp three metre descent is made into a chamber. The rift descends steeply to an awkward squeeze, best tackled on your left-hand side about 20 centimetres above the floor, which opens out above a climb of three metres. Another squeeze follows almost immediately; this should be approached feet first, staying high until it is possible to descend. The rift now becomes slightly easier. On the left, a circular hole leads into a blind chamber, Wol's House. Opposite this, a narrow passage leads through to squeezes to an exposed climb; a further crawl leads back into Pterodactyl chamber. Continuing along Big Biscuits rift, the route remains sporting with short climbs and constrictions, to where it allows to a crawl under two stalactites. Beyond, an awkward two metre descent over calcite drops into a meandering rift. At a corner, a mini boulder choke is encountered; this is passed feet first, taking care to avoid dislodging the boulders in the roof above. A few metres further on is the head of the series of pitches, the Witch Doctors.

The first pitch (P15) is best reached by traversing out to a Y - hang off a bolt and spike; two deviations achieve a free hang. This pitch lands on a ledge from where a flake provides the delay for the next pitch (P12); this also lands on a ledge, from where the rope is deviated out over the shaft. Penduling right over the pitch leads to a parallel shaft with a final drop of five metres, into a large rift chamber. Low down to the right, a squeeze and short crawl leads into a chamber at the base of the original shaft. To the left on the bottom of the pitches, an inlet can be followed up an easy climb into a rift, with a route leading back to the base of the pitches; a less obvious route leads straight up, but is very exposed.

The main route from the base of the pitches is to follow the passage to the right into Shagging the Hedgehog rift. This is narrow and awkward, with many sharp, oversuit - ripping spikes. It is possible to descend to stream level at one point. Beyond the worst squeeze, a climb up following the draught leads into a small chamber. The rift continues to a squeeze which opens out above a three metre drop onto a crawl at the top of a 10 metre pitch. At the bottom of the pitch, the rift continues, but soon closes down; it appears to open out ahead, but a lot of work will be needed to pass this squeeze. Alternatively, descending the pitch only two metres, it is possible to squeeze into the top of the rift while lined. A tight vertical squeeze follows; this drops into a narrow rift, which soon closes down at a right-hand corner.

Rigging guide

The rigging described here is as at the end of the 1991 expedition. Where the rigging should be improved, this is noted. " means that the rope used for the previous pitch is continued for this section. Pitches left rigged are marked *.

Pitch	Rope	Rigging
Pterodactyl (P10)	15m	Thread backup; 2 bolts (bolts need moving higher): deviation at -4m (tape round Pterodactyl's back)
Witch Doctors (P15)	40m	Thread backup; spike and bolt Y-hang; spike deviation at -1m; spike deviation at -1m.
" (P12)	"	Bolt backup; spike belay; spike deviation at -2m; spike deviation at level of ledge (needs another deviation to avoid rub); pendule right to ledge
" (P5)	"	Bolt and spike Y-hang.
Final Pitch (P10)	15m	Two spikes
Lined Squeeze*	10m	Two spikes; spike belay on far side of squeeze.
Pointless Pirhana (P15)	20m	Boss backup; two bolt Y-hang; bolt rebelay at -2m.
Pirhana Pendule*	15m	Boss backup; two bolt Y-hang (may need bolt rebelay at -2m and/or more slack in rope); on far side, natural back-up and two bolts.
Climbs above Pirhana*	30m	Natural Belays

Skull Cave (47/7)

Tony Seddon

At the end of 1990, a small draughting hole (the Eft) had been rendered passable, and what seemed to be a large pitch discovered beyond. Unfortunately, before the pitch it was roughly four inches wide and situated in an otherwise constricted rift; the cave would have to wait for another year.

In the second week of this year's expedition, Dave Horsley and Pauline Rigby rigged the cave as far as the Eft. A few days later, Pauline returned with Chris Densham and Sean Houlihan to further enlarge the Eft and start to produce a passable takeoff for the pitch. Chris decided upon most suitable place to start work and placed a bolt where there was enough room to swing a hammer. It was clear that more work was needed, but Sean and Tony Seddon thought that perseverance would be rewarded, and decided to bash on.

After six trips, the pitch head was pronounced narrow but passable. Having done most of the hard graft, Sean had to return to England just as the fun was about to begin, leaving the first descent of the pitch to David Monaghan and Tony Seddon.

This proved to be less straightforward than expected. For the latter, frequent practise rendered the Eft and subsequent rift to be no more than mildly traumatic, but David is psychologically large and found the squeeze awkward. Rather than slow the trip down, he volunteered to wait at the pitch head in case it needed enlarging for the return. Feeling more secure for this, Tony abseiled down the rest of the pitch, the Hollow Men. Landing in a heavily calcited chamber, two pitches were noted, along with a possible continuation of the chamber from a ledge a few metres above the floor. While heading out, another pitch was spotted a little below the tight pitch head, which, despite some foreboding, proved quite unproblematical.

On the following trip Jenny Vernon and Tony rigged the most promising lead, a pitch of nearly 30m. A few minutes excavation revealed a squeeze into a tight rift continuation; unfortunately this closed down after perhaps 10m. An aven above the rift was climbed until it closed down at 30m. Despite a noticeable draught, this part of the cave was left while there were easier pickings to be found.

After this, Chris and Tony descended another pitch which was found to connect with the one explored on the previous trip. They then climbed a few metres to inspect the higher level of the chamber. This proved to be at least as large as that portion already known. A complex and time - consuming place to explore, it became known as "the Waste Land".

A trickle of water dropped some 4 metres over a series of small ledges to where it drained through a small hole. To the right of this a larger hole was a window into the top of an echoey shaft down which stones rattled for three seconds. This turned out to be a large rift which was an easy although sustained climb, named "Church Going" because of its echo which makes singing a rewarding experience. This passage is thought to be in line with the rift explored on the previous trip, although there seems to be no connection; all water enters this part of the cave from the roof, not at floor level.

Half an hour's excavation and hammering produced a tight squeeze leading downstream from the base of the rift. A small passage was followed at floor level for 10 metres to an enlargement, beyond which was another squeeze. As Tony was the only person beyond the initial tight section, and not sure of how difficult the return would be, he deemed it sensible to withdraw at this point. The two cavers headed for the surface. On the way, Chris climbed to a window three metres above the floor of The Waste Land, and rigged down the 7m pitch which he discovered on the other side. Sadly this was blind apart from an impenetrable fissure, through which water could be heard dripping. Back at the top of the pitch, an easy but exposed climb led to perhaps 50m of muddy passage which enlarged steadily until its choked termination.

Although this was not the last trip down Skull Cave in 1991, it was the last to produce any significant discoveries. On a subsequent solo trip, Tony hammered roughly six metres along the small passage at the bottom of the cave, to within three metres after a large sounding space in which water could be heard trickling. Feeling over committed, he backed out of the passage, Pilgrims Progress, despite an inviting draught. While leaving the cave he rigged the pitch just below the top of the Hollow Men. The rope hung free for 23m, dropping into a third pot and passing the window from which Chris had explored this part of the cave on the previous trip. This fine but somewhat frustrating pitch was called High Windows.

At the end of the expedition, the cave was photographed, partially surveyed and de-rigged in two trips. At the moment Skull Cave is in the region of 140m deep and provides some excellent sporting caving. Its draught, size and location suggest that there will be plenty of cave to find in 1992.

Description

The cave is located 3m to the right of the main path up Jultayu, slightly below the level of 2/7. It is a very inconspicuous entrance in a gravelly slope.

A 10 m pitch drops on to an unstable debris slope, at the top of a fine 31m free hanging pitch, spinal tap. This drops into a fine chamber with a large number of rebecca and wolf skulls littering the floor. A short drop in one corner leads into a bouldery area, where an easy squeeze between blocks enters a small chamber. Here a tight and awkward hammered hole, the Eft, drops into a tight rift, where a howling gale blows out of a long, narrow, hammered slot, which is the head of the next pitch.

The pitch, the Hollow Men, is 40m long and runs down a stal wall for the lower section; it is possible to climb over the wall to the top of another pitch where a 23m free hang, high windows, drops into a chamber, blind apart from an impenetrable fissure, through which water can be heard dripping.

The Hollow Men lands in a heavily calcited chamber, where several routes lead off. The most obvious route is a pitch of nearly 30 m. At the bottom it is possible to squeeze into a rift continuation. Following the trickle of water in the floor seems impossible, while the higher level closes down after perhaps 10m.

From the bottom of the hollow men, a short climb leads into a higher level of the chamber, the Waste Land. This is an unusually complex area, with trickles of water disappearing into several "shake holes", some interconnected.

A three metre climb from the floor of the waste land leads to the top of a 7m pitch which connects with the bottom of High Windows. Alternatively from the top of the pitch, an easy but exposed climb leads to about 50 m of muddy passage which enlarges steadily until its choked termination. Another pitch from the Waste Land connects with the bottom of the 30m pitch described above.

The way on from the Waste Land is near where the main trickle of water drops some 4 metres over a series of small ledges to where it drains through a small hole. To the right of this, a larger hole is a window into the top of an echoing shaft; this is a large, easily passable rift, Church Going, which is thought to be in line with the rift described above, although there seems to be no connection; and water enters this part of the cave from the roof, not at floor level. A tight squeeze leads downstream from the base of the rift. A small passage, Pilgrim's Progress, can be followed at floor level for about 15 metres through several squeezes, to within three metres of a large sounding space in which water can be heard trickling.

Rigging guide

Pitch	Rope	Rigging
Entrance pitch (P 10)	15 m	Bolt; rebelay off longer wire round boulder.
Spinal Tap (P 31)	35 m	Bolt at base of previous pitch for traverses; spike; spike deviation at -10 m.
The Hollow Men (P 40)	45 m	Short traverse line on tape and wire; bolt (main hang); bolt deviation; spike rebelay.
Church Going (C 35)	40 m	Natural back up; wire round choss (needs re-rigging).
High Windows (P 23)	25 m	Y - hang from two naturals.
P 30	35 m	Natural back up; Y - hang from 2 naturals.

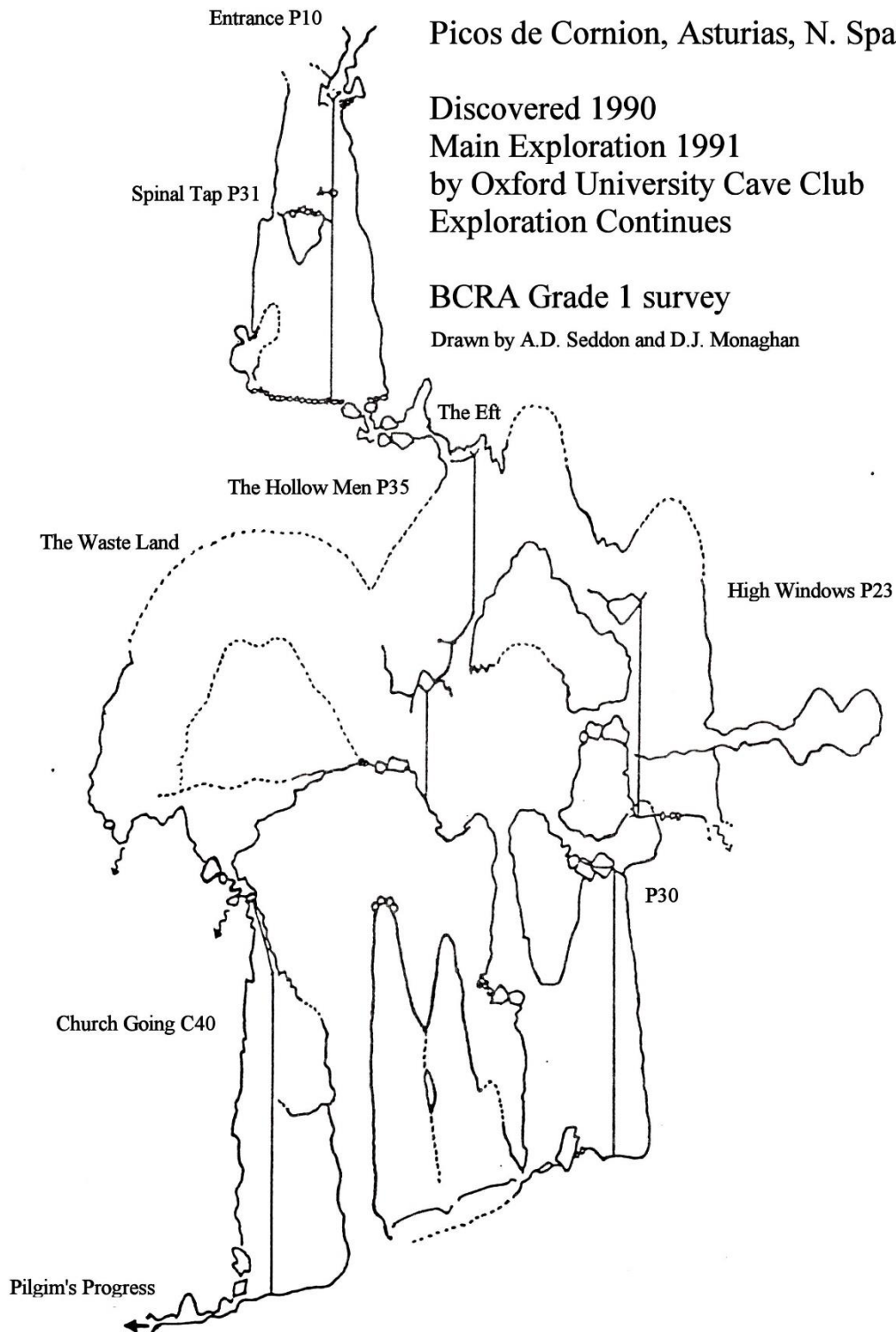
47/7: Skull Cave

Picos de Cornion, Asturias, N. Spain

Discovered 1990
Main Exploration 1991
by Oxford University Cave Club
Exploration Continues

BCRA Grade 1 survey

Drawn by A.D. Seddon and D.J. Monaghan



66/5 (Route 66)

Gavin Lowe

This cave was discovered towards the end of expedition, on the 29th of July. Richard and William had gone to dig in the Valley of Dry Bones, a valley containing many draughting boulder ruckles on the side of Jultayu and well-placed for a potential lower entrance to 2/7, when they stumbled across this entrance. They returned to Ario "to get the essential ingredients of a 1991 Picos push - SRT gear, hammer, crowbars, Tim."

The trio rigged down the first pitch into a fine, airy chamber, from which a narrow rift continued. Tim was inserted, armed with a hammer, and pushed around a series of vicious right-angled bends, the corner shop. He was rewarded with a 10 metre pitch.

The next day, Tim and Jenny returned and rigged the pitch, Los Miserables, and followed the rift beyond to another pitch. William and Tony rigged this the following day, jamming chock stones into the top of the rift and using them as belays. This dropped into a hading rift which they free-climbed down for 30 m; and the bottom of the passage seemed to continue as a flat-out crawl.

Further exploration was not possible because of lack of time. The end of the cave lies 300 m above Postman Pat and 250 m off line (bearing 150 degrees) and so this cave looks a very promising candidate for the much sought-after lower entrance to 2/7.

Description

William Stead

The entrance is situated halfway up a pile of boulders in an area of shakeholes about 40 m to the right of the Trea path and about 150 m before the path starts descending steeply. The entrance is marked by a poorly visible cairn.

An unstable 3 m climb leads to a draughting squeeze followed by a further 2 m climb round unstable boulders on to a perched boulder floor. A traverse over a 10 m pit (traverse line useful) leads to the first pitch - a small loose hole leading immediately into a fine 20 m shaft, with an inlet rift part way down. This drops into a large boulder floored chamber. The chamber has a unstable boulder-climb at the far end; the way on is a descending rift to the left. This quickly leads to a small chamber from which Corner Shop Rift leads off. This is the archetypal "not tight, just awkward" rift, and is followed round a series of sharp bends at ceiling level. The first bend is by far the sharpest most awkward; it is somewhat easier on the way up. Enter feet first and drop down low into the rift to pop up round the corner head first at the widest point; continue up into the roofed beyond, gradually becoming more horizontal. Each subsequent corner must be negotiated with the stomach on the inside of the bend, with the legs down in the narrow part of the rift where appropriate. After a few bends, the rift becomes bigger and leads to an unstable, two metre wide, boulder-floored passage with a number of side passages leading off. Down a couple of short steps, the head of the second pitch, Los Miserables, is reached. At this point, a one metre wide passage leads off to the right to a boulder-filled chamber with a climb and a narrow, unpushed lead. This is probably the old route followed by the stream and is worth pushing. Just before the pitch, a roof level passage leads through a smooth rift (the Worm Hole) to a loose climb down to a cleft overlooking the pitch from the far side.

The main way on follows the water down the pitch to a small, cold, drippy, boulder-chamber. From here, a straight, smooth rift, Yorkshire Rift, leads to the next pitch. This is belayed to 2 dodgy chock stones and has a very constricted pitch-head. A fine abseil past sharp, marbled rock leads to a ledge, from where two rifty climbs lead off. The upper one leads down sharply at an angle of about 60° and soon rejoins the water. A series of fine climbs down a tube 1-1.5 m in diameter leads to a reversal of

direction and more climbs through a suit-ripping squeeze. A final 10 m climb leads to a small chamber with a horizontal grovel leading off, where the stream sinks into a 1 cm wide crack. A flat-out crawl with silt on the floor appears to continue beyond this point.

Rigging guide

Pitch	Rope	Rigging
P25	35m	Traverse climb across pit; bolt and spike Y-hang with rope protection.
Los Miserables (P10)	15m	Natural backup; bolt belay.
Chockstone Pitch (P20)	30m	Bolt backup; Y-hang off two chockstones (replace with stemple); natural deviations (replace with bolt).
Route 66 (C30)		Currently unrigged, but handline would be useful.

Small Caves Explored

Joan Arthur

During the expedition, a number of small caves in the area were looked at.

Area 4

This is the area beyond the Cabeza Covu - Julagua ridge. Caves 5/4 - 11/4 were discovered on a previous expedition but their locations were not correctly recorded. Some of them were refound this year, and so are included here. They can be found by crossing the ridge and following the valley down to a large bowl with a prominent tree in a cliff (bearing of 297° to Cabeza Julagua). This area is of interest because dowsing experiments have suggested that it lies above 2/7, beyond choke Egbert.

5/4

Location: 40m south-east of 7/4, bearing 294° to Cabeza Julagua in a 10m diameter shakehole. A 16m pitch to the snow plug.

Description: a climb over a boulder leads to a short pitch which remains undecided.

7/4

Location: to 95° to Cabeza Julagua, 100m south-east (down valley) from 9/4 and 40m south-west of the tree.

Description: boulder slope with 2m free climb leads to a chamber with no way on.

Unnumbered shaft

By 7/4, marked OUCC 88.

8/4

Location: 75m from tree on bearing of 012° .

Description: a squeeze through a low rock arch leads to two 10m pitches which end in a choke.

9/4

Location: 30m from tree on bearing of 335° , in cleft. Marked SIE Ø.

Description: a horizontal passage leads to an 18m pitch with a second, undescended pitch beyond.

13/4

Location: 30m below the lowest ridge above the depression of 5/4. Insignificant partially choked cleft in cliff facing gorge (roughly north-east).

Description: small pit contains animal remains, with rattling drop under boulders. No draught.

14/4

Location: crawl-in entrance above 13/4, going up-valley, at top of small cleft in cliff.

Description: chokes.

15/4

Location: next to 7/4.

Description: two second rattle. Undescended.

16/4

Location: large cleft in right-hand wall 30m from tree on bearing of 288° in upslope continuation of 9/4 cleft. Marked SIE 86 .

Description: 15m shaft, worth looking at.

17/4

Location: 15m north-east and up-slope of 5/4.

Description: 5m sloping rift leads to impenetrable choke.

18/4

Location: open entrance down valley from the first green depression over ridge east of 5/4, with picturesque Pozu arch.

Description: chokes. Possible dig, but no draught.

19/4

Location: hole in north-west face of depression just before the valley becomes steep.

Description: chokes.

20/4

Location: rock shelter in the left wall of shattered valley north of 19/4 just below tree.

Description: chokes.

21/4

Location: entrance in small rock buttress at end of valley depression before valley becomes very steep. Altitude approximately 1465m.

Description: short passage chokes.

22/4

Location: rift entrance in shattered depression as valley becomes very steep. Altitude about 1435m.

Description: passage leads for 10-15m past a snow plug to a choke. Passage leads up to the right for 10m to a choked inlet.

23/4

Location: in valley notch overlooking steep section down to Culiembro, south-west from 22/4. 139° to top spire of right hand group of Central Massif. Altitude about 1435m.

Description: dual pitches of 6 and 8m. Choked.

24/4

Location: in wide rock cleft, running down valley overlooking Culiembro, just before depression containing 22/4 and 23/4.

Description: 8m choked shaft.

25/4

Location: big walk-in entrance in right of valley over lip from 5/4.

Description: chokes.

26/4

Location: 150m south-east of 5/4 high up on a bank. A goat shelter with water resurging from the entrance.

Description: chokes.

Area 5

This is the area around Ario and includes the lower slopes of Jultayu and the Valle Extremero down as far as the 53/5 bowl.

64/5

Location: about half way between 29/5 and where the Trea and Jultayu paths meet.

Description: a strongly draughting shakehole which was dug to a depth of about 3m before being abandoned as too unstable.

65/5

Location: 80° to Cabeza Llabria, 196° to Jultayu. Altitude about 1515m. Best route is to contour west from a point in the Valle Extremero at an altitude of about 1525m. A large well-vegetated rift entrance.

Description: 40m shaft leads to several routes, all choking. One site could be dug, but would be a long term project.

Area 7

No new caves were discovered in this area, although one known one was revisited.

20/7

Location: close to the grassy shakeholes forming the very bottom of the Jou, some 25m uphill on the northern rim in an area of parallel southwest - northeast joints.

Description: entrance is a rectangular manhole, climbable for 2.5m to a steep loose soil ramp with fragile roof and walls. This is followed 6m later by a fine elliptical shaft of 35m which lands in a 3m x 6m chamber. 3m above the floor a strongly draughting diagonal crack in the north-west wall opens to 5cm and offers a view through the wall into an adjacent chamber. Attempts were made to get through to the parallel shaft, but without success.

Area 10

This is the area on and beyond the green ridge of Jultayu, and includes the Valle Extremero below the 53/5 bowl.

3/10

Location: climb the green ridge towards Jultayu to a height just below the top of Cabeza el Verde. To the left is a large bowl, with a very steep and insecure rebecca path. The cave is obvious and located on the far side of an exposed traverse.

Description: this cave was originally found in 1989, but never descended or even found again until this year when it was found to be an impenetrable crack.

7/10

Location: 53° to Cabeza Llabria, 214° to Jultayu. Just before the Trea path starts to descend steeply, it splits in two, passing either side of a grassy patch, containing a small cave.

Description: a short drop into a tight rift.

8/10

Location: 56° to Cabeza Llambria, 357 trees to Cabeza Verde, in the middle of the ridge leading to Cueto la Requexada, in a most unlikely position.

Description: a 3m deep pit, with a 50 cm diameter entrance. Described as very silly.

9/10

Location: 45° to Cabeza Llambria, 344° to Cabeza Verde. On the left hand side of the ridge leading to Cueto la Requexada. Invisible from the path.

Description: entrance squeeze leads immediately to a 6m drop to a bouldery ledge. A further pitch of 10m in 3m wide pot, with slimy walls of mud and moonmilk, to floor with a 1m high body size rift, partially blocked by stal and mud.

10/10, Cave of the Old Men's Dream

Location: 44° to Cabeza Llambria, 347° to Cabeza Verde, altitude about 1510m. Directly below 9/10.

Description: this cave was discovered amid much excitement, and described as being as large as the 2/7 stream passage. It was explored and surveyed. The next day it was identified as 2/10, explored the previous year. It is much smaller than described, being a fairly typical phreatic passage.

11/10

Location: 58° to Cabeza Llambria, 003° to Cabeza Verde, altitude about 1555m, in shattered ridge running towards the Valle Extremero.

Description: a shaft with a wedged boulder at the top. A ledge 2m below surface leads to an 8m pitch, and further 4m boulder slope down to choke. Climb up to right leads to choked inlet.

12/10

Location: 47° to Cabeza Llambria, 357° to Cabeza Verde. 15m from 8/10.

Description: "S" shaped rift chokes after 2m.

Area 11

This is a new area situated behind the ridge behind the Ario Refugio; it is marked as Jous de Ario on the map.

1/11, Pozu Optimisto

Location: halfway up (60m below the ridge) a fracture-controlled valley, about 80m long, with strike 20°, in a fairly even northwards-facing slope, southwest of the Jou de Ario. The bottom of the gully is a shakehole 20m long by 5m wide with a path running through it. Above this is an open 20m deep shaft, 6m long by 3m wide, with an inscription on the top of a boulder on the western brink. A rock bridge separates this from another shaft. Bearings from entrance: Julagua 92°, Llorosos 51°, small hills northwest of Jou de Ario, 37° and 359°; from top of ridge above entrance: entrance 47°, Jultayu 159°, Pico Jorcada 223°, Julagua 90°, first small hill 39°. Entrance grid reference: E43330, N89940, A1590.

Description: see Proc. 11 for details. This cave was originally explored in the early 1980s when it was numbered 30/5. It ends in a constriction which may be passable to the new generation of OUCC thin cavers. It is supposedly very hard to find; three attempts were necessary to locate it this year, hence the detailed location above. [Further exploration 1993]

2/11

Location: 225° to Cabeza Forma, 276° to Cabeza Los Campanas, 146° to Cabeza Julagua, 180° to Ario saddle. From the valley (approx 400m north of Ario) a cairn is visible above the cave. Marked "OUCC 2/11" badly.

Description: climb down 3m in entrance cleft to head of 10m ladder pitch, rigged off natural plus long wire through thread above. Lands in gently sloping, bouldery rift chamber. At lower southwestern end is an easy squeeze through to continuation of rifts which become too tight. To the right an outlet has cut down into another chamber but way on requires hammering. To be left an undescended 8m pot is found. Cave trends 290° - 60° . Back at the bottom of the pitch, a crawl leads off either side; upwards to the left, downwards to the right. These rifts leads down to the top of a parallel rift that can be free climbed down for 15m to boulders.

Both caves 3/11 to 6/11 are close to the path running north west from Ario parallel to the Los Lagos path below sod 4. 3/11 is the furthest of these from Ario. The compass bearings may be unreliable as the pencil used to make notes was found to contain metal!

3/11

156° to Cabeza Forma, 112° to Cabeza Julagua. Small bedding crawl at base of cliff above col on left hand side, 15 feet above green col. Undescended.

4/11

Location: 164° to Cabeza Forma, 106° to Cabeza Julagua. Unlikely entrance at foot of 6m deep and 10m across green basin at foot of valley on path. 100m closer to Ario than 3/11.

Description: a wide crawl leads to a 5m pitch into a choked rift.

5/11

183° to Cabeza Forma, 103° to Cabeza Julagua. Obvious shaft with snow plug, on right hand side of path towards Ario, and foot of valley. Marked as unfinished by SIE. No OUCC mark. Undescended.

6/11

Sheep shelter at base of 2m high cliff 10m above 5/11. Unentered.

7/11

Location: 196° to Cabeza Forma, 131° to Cabeza Julagua, 337° to Porrón de Mohandi. Forms a large feature near a cairn on the col overlooking the steep drop to Pozo los Texas. Walk down boulder slope to foot of 12m cliff.

Description: cave floor is covered in animal droppings. Crawls lead off. Not investigated further.

8/11

Location: 125° to Cabeza Julagua, 227° to Cabeza Forma, 330° to Cabeza de Los Campanas. Almost on top of the cairned ridge running at a bearing of 340° north-west from Cabeza Llambria, just on the right hand side (away from Ario) near a cairn. Large obvious entrance with perched boulder over top, tarpaulin in the entrance and bushes growing. Faded SIE mark Ø84.

Description: go down 5m to another boulder then back under first and climb another 5m to floor. Crawls leads off into the boulder pile. Carrying on down the slope takes you under a perched boulder, to a platform on top of the pitches. The area here seems to consist of two or three parallel shafts, one to the right, the other to the left. A ladder can be rigged down one, from one of the perched boulders, to reach a bouldery floor. To be right there is no way on, but climbing down to the left the base of the other shaft can be reached. A rift leads off; this seems to be a partially boulder filled inlet, with few signs to encourage. In the far side of the base of the shaft, a large rift leads off, similar to Flying

Rebellés in 2/7. Several routes are passable here. The most obvious is following the widest section of the rift up and this ascending slope in cream coloured rock, to where it meets the ceiling. Here is an undescended climb of about 10m.

9/11

Location: about 200m from Ario Refugio (bearing 20°) 1 second green ridge. Altitude about 1630m. 95° to Cabeza Julagua, 140° to Cabeza las Campanas. Faint SIE mark, not marked by OUCC.

Description: entrance is 1.5m by 5m trending 30° . Opens out to 3m by 10m. 12m shaft with short climb at foot of ladder which leads to a boulder floor with no way on.

10/11, Leg of Mutton Cave

Location: on northwest side of Cabeza Julagua, 352° to Cabeza las Campanas, altitude about 1605m. Entrance at lower end of large obvious cleft running down across the hillside. Marked OUCC 10/11.

Description: entrance squeeze through boulders is followed by a 5m climb to a bouldery, bone scattered floor sloping towards an alcove. From this point there is no way on, but a 2.5m climb up reveals a small alcove to the left with a too-tight inlet beyond, which may be hammerable. These seem to be continuations of the surface fracture. Seems limited in potential.

11/11

Location; 275° to Cabeza las Campanas, 220° to Cabeza Forma, altitude about 1575m. Unmarked. On green grassy grike, 15m north of the green path running east from Cabeza las Campanas.

Description: 6m pit with very mossy sides and possible dig at the bottom. Distinctly unpleasant.

12/11

Location: 298° to Cabeza las Campanas, 210° to Cabeza Forma. On the south side of the same valley as 2/11 and 11/11, at the same height as 2/11. 10m south of the green path from Cabeza las Campanas.

Description: hopeful looking rift leading southwards and soon gets to a point where minor gardening may allow further progress. Worth another look.

Area 12

This is a new area situated on the slopes above Culiembro. All the caves were spotted by Richard and Fred while en route to or during a climbing trip in the Central Massif. None have yet been entered; they are of interest because they may be possible resurgences for 2/7.

1/12

Visible from Oston, at an altitude of about 1150m. A round transected phreatic passage in a cliff. This will require a tricky climb to reach.

2/12

To the left of 1/12 at an altitude of about 1050m. A huge hole (about 15m by 10m) lurking at the head of its own little gorge, with a small wood in it. Looks like a fossil resurgence for 2/7.

3/12

Below the Oston - Carmameña path and not on the map. A massive hole leading in the direction of Carmameña. This might have nothing to with 2/7.

4/12

About 150m above and slightly to the left of Cueva Culiembro, looking like a transected phreatic passage. Access would require being guided from the other side of the gorge, using radio or semaphore.

5/12

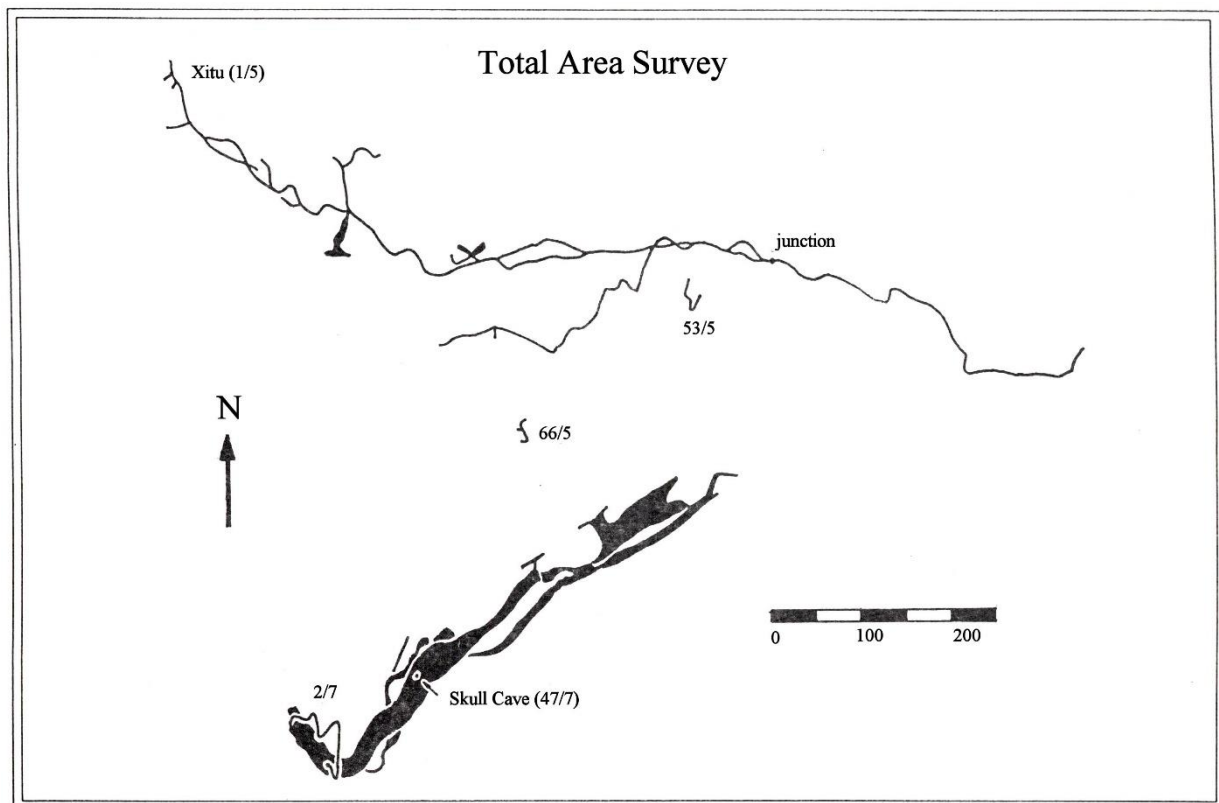
Between the Valle Extremero and Valle de Trea, about 2/3 of the way towards the Trea path, and about half way up to Huerta del Rey. Looks like a scoop but difficult to assess.

Total Area Survey

Gavin Lowe

During the expedition, a number of surface surveys were carried out in order to calculate the precise locations of the caves explored. These were added to previous years' surface surveys and cave surveys to give an overall area survey, as shown on the next page. Various things can be learnt from this:

- 53/5 seems to be heading to the Xitu system. The bottom of the cave is only 600 m away from The Mendip Bit in 12/5 and 190 m higher. However, it is just possible that if the source of the draught in the entrance series is found, then this may lead elsewhere.
- Skull cave is located directly above the London Underground and so, if it does, is likely to provide a quicker, although harder, entrance to the Jultayu master cave.
- 66/5 is located roughly halfway between 12/5 and 2/7. However, 2/7 is the much larger system, and so 66/5 is most likely to join this system; it is currently 250 m away from Postman Pat and Paddington choke, and 300 m higher. Alternatively, the cave may join another, as yet unknown, system between the Jultayu and Xitu systems.



An Epic Day's Caving

Paul Mann

In order to better give some of the flavour of the expedition, we include here an extract from the Ario log book. De-rigging had started; Gavin had started down 53/5 early to start de-rigging and was to be joined by Dirk, while Paul, Dave Lacey and Pauline were planning to start surveying and de-rigging 66/5. Unfortunately, the tape measure was in 53/5, so Paul agreed to go and fetch it, with Dirk to guide him. Paul takes up the story.

I changed more rapidly than Dirk, so headed into 53/5 first. No problem until the Coffin Lid. I had a look, thought ummmmm, shoved my head into the slot and gave it a go. Swing feet round, then where? - no not there - S * * t stuck! Okay keep calm, wriggle back up and then try again. Head up, wellies round, gently does it, that's better. Left arm in slot, slide down, force it a little, that's it, past the slab. F * * *! I think this is wrong, my legs well jammed, and half my body weight supported by my neck. Helmet jammed, can't push head forwards, tubo de plastico caught. Generator wedged in narrow rift below. Let's move my weight a little - damn! - now I've waged my prussik bag in there too.

Wriggle like buggery - well that's one leg un- jammed, a start. I don't like this, I'm feeling very restricted, maybe, well stuck. Panic! Claustrophobia! Wriggle more frantically - drop another inch. Now I can't even breathe. B * * * * * s! I want to Jack right now.

But that's not possible yet.

Calm down. Right, it's not that tight in here, gently push up - yes that's better, I can breathe now. OK - take a few deep breaths, cool off, move slowly. OK so I can't, what's stopping me? Best remove it, get me out of here, gently, then worries about wrestling gear.

Brilliant plan of action. Two minutes later I dropped out of the slot, into cave one would describe as merely tight. Now to rescue my helmet, tubo de plastico, generator, belay belt, prussik bag, rack, and my other welly, which were scattered in various parts of the squeeze.

I dressed to the thought of jacking, but then I heard Dirk behind me - "yes I had an epic, that's why I'm still here". Well, give it another go, gently, I've nothing to lose other than several hundred pounds worth of caving gear, and me. And I won't fit past Dirk in the entrance passage anyway. Have a good look, take a deep breath, here goes, and remember, stay high. The odd useful piece of advice from Dirk and I was through to the pitch head.

Descending, I was glad of my helmet, protecting me somewhat from the torrent of Tasmanian curses that was pouring from the rift above me. My "rope free" did nothing to interrupt this flow, so I had a quick potter around Pterodactyl. Then all of a sudden it went quiet. Being familiar with the ways of the Vertigan school of speleo-martial arts, where every move is accompanied by its own great vocal outburst in the run of normal caving, I immediately knew that there was something amiss - silence being reserved for those most important and sacred of moments when great energies must be channelled. Indeed, I used the same method myself but a week earlier, in Paradise squeeze. Becoming jammed, I fell silent, channelling my energies into one momentous outburst. When it came, four letters rolled into one, the explosive outburst shocking many people, but the desired effect was had, the squeeze was forced open a whole extra inch and a half.

And so I waited, fingers in ears, anticipating. A shock wave resounded, and as the dust settled, I ventured to ask about the state of play. "I'm still stuck". A cyclic battle ensued, but the Coffin Lid section was clearly made of sterner stuff than Paradise, and after many attempts, the eighth of an inch proved not to be enough. Dirk, who'd helped me so well, admitted defeat this time, and honourably went outside that I might have a chance to complete my quest. "I may be some time".

In the event, Paul managed to retrieve the tape measure without any serious difficulties. He continued to 66/5.

I was kitted up first - probably because I had a head start, only wearing underpants at the time - so I headed in. 66/5 sounded like a nice cave, except maybe this Conershop rift double bend. Maybe I was misled. Three double bends, tight and frightening. I detackled at the start of the rift - no bastard sit harness was going to snag on me! It was an unpleasant rift without prior knowledge, you never knew how severe the next bit might be - but having been through it you realise there is a fair deal of space, and the intimidation factor decreases markedly.

Paul continued down to the bottom, and started surveying and de-rigging out with Dave, Pauline having turned back in Cornershop rift.

I took off my gear between each pitch; even so Yorkshire pudding became Toad-in-the-Hole for a few minutes as I jammed myself again. I did better here than in the Coffin Lid squeeze earlier - this time I managed to retain both wellies on my person. Going out, not in, proved to be a big incentive to not get caught and have to reverse here, but the biggest drive I had was from the rigging. I'd arrived at the top of the pitch, and looked up to see the Y-hang belay from a chockstone - so this was Chockstone pot - "Dave, did you notice how this pitch was rigged" - "yes, they're good aren't they".

"They?" - I looked at the other side of the Y-hang, "they!" - and then the bolt, below the knot - I decided to look no further, nor think about it.

In the end, we derigged Los Miserables, having surveyed to its head, and being soft, hauled the rope through Cornershop in stages.

PS: I had a really good satisfying day's caving.