

Ario 2024 Report



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Summary

Ario 24 was a two week long, 24 person expedition to the Western Massif of the Picos de Europa. Based at the Vega Ario, the expedition aimed to continue exploration of Pozu Jultayu via the newly connected Cave of the Singing Pasteur, as well as to investigate other ways into the same system potentially via Tras La Jayada, and search for ways into the gap between downstream Pozu Jultayu and the resurgence at Culiembro. Underground camp was set up in Tapeworm Passage in Pozu Jultayu, and fixed aids from 24 years ago replaced or reinstalled to allow easy progress. A number of important leads were investigated and prioritised for the 2025 expedition. In addition, a new way on in the Cave of the Singing Pasteur was identified and exploration commenced, potentially offering a dry way to Sistema Verduellenga. In Tras La Jayada, the 300m shaft was rebolted and resurveyed. At the bottom, a rift that had been missed by the explorers of the 1980s was pushed to new pitches that were descended and later found to be within 15m of the Holier than Thou inlet in Pozu Jultayu. Enlargement of tight and draughting rifts was carried out in Cueva de la Rana and TR2 (Cave of the Old Men's Dreams) in the hope of breaking into cave beyond downstream Pozu Jultayu. However, these rifts remained too tight and for too long despite significant effort.

Acknowledgements

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Objectives

53/5 (Cueva de la Rana)

A resurvey of the cave in 2023 led to new “upstream” cave in the high levels. These are significant as they are on the same level as other horizontal development e.g. in Xitu. A new tight rift in this area takes the lost draught and will need to be enlarged. It is hoped this upstream direction will allow a connection to be forged to downstream 2/7 perhaps beyond the terminal choke in that cave.

Downstream in 53/5 is the original pitch series. Further re-survey here is additionally required along with fresh eyes with the intention of forging a connection to Xitu.

27/9 (Cave of the Singing Pasteur/Bill’s Cave)

Easier (but not easy) access to upstream 2/7 (Cave of the Witches Eye) last year, offers up opportunities for examination of numerous formerly remote leads. There are three main upstream branches:

a) Tapeworm Passage – 27/9 enters here and a camp will be used to aid exploration. A number of inlets are mentioned in the 2000 description but not described and need to be located, explored and surveyed as required.

b) Canals on Mars – downstream Tapeworm leads to a large chamber called Buy the Ticket Take the Ride (BTTTTR). An up pitch (going downstream) will need to be climbed to enter here. From BTTTTR, another inlet called Canals on Mars can be accessed. The canals will need to be inspected and either bolted or boats brought in. Upstream in the canal are a number of leads: (i) “a waterway on the left at a right-hand bend in this passage has not been investigated”; (ii) “an inlet on the left-hand wall is passed and has been explored to an immediate aven” which can be checked for climbing; and (iii) a final choke that is to be revisited. The upstream end of Canals on Mars is tantalisingly heading into blank space.

c) A Savage Journey Into The Heart Of The American Dream - A narrow inlet passage to the main 2/7 streamway, not pushed to a conclusion in 2000.

d) Holier than Thou. Downstream from Savage Journey the main stream passes a torturous small inlet with a climb up to black space at the end, before arriving at the third major inlet. Holier than Thou, despite sumping at the end, draughts strongly and the 2000 expedition identified climbs back from the sump which require further investigation. There are also unclimbed avens in this area. In addition downstream from Holier than Thou, is the chamber Fear and Loathing in Las Brujas, which the 2000 descriptions says has not been thoroughly explored.

Back in 27/9 itself, the final shaft series is very spacious and only one route was descended in 2023. Un-pushed leads part way down the 27/9 shaft series may also offer a dry connection to C4 (Sistema Verdelluenga), the downstream limit of which always draughted, despite the terminal sump.

6/8 (Pluma Negra/Black Feather)

Thirty years ago this cave was described as ending at a snow plug 10m down. Revisited in 2023, it has yielded extensions down several pitches, and while still shallow and requiring some enlargement, it sits in an interesting location between Tras La Jayada and Canalizos and in line with (but beyond) the upstream limit of Holier Than Thou in 2/7. It also sits close to the elevation of horizontal development in Xitu and Canalizos and therefore could conceivably be a link cave. A draughting rift will be enlarged and these possibilities investigated.

Tras La Jayada

A 300 m pitch from the surface needs a survey. It has not been visited since 1980, well before the upstream 2/7 passages were explored just beneath it. If a connection could be found, it would certainly be an easier route to the main 2/7 stream than via 27/9 which remains tight and awkward!

Surface work

Three key priorities for prospecting are:

- a) Obtaining further leads in the area that could access downstream of the terminal choke in 2/7
- b) Revisiting known shafts previously blocked with snow
- c) Relocating entrances in the shaft bashing guide entered before the advent of GPS. Especially those in the higher peaks that might be above or upstream of Canals on Mars.

Exploration

27/9

“C4 route”

Andrew Wright

There is only one point between Coffee Pot and the campsite where there is sufficient solid ground to safely get off the rope and wander around. At this point, approximately 100m vertically above the 2/7 streamway, the wide, complicated and rifty nature of the pitches above is simplified to a double chamber, really a large ledge, the two halves of which are separated by a rib of rock with a comfortable door-sized hole that can be walked through. The pitch above lands on the true left-hand side of this ledge and the continuation down to the camp in Tapeworm passage, just downstream of the rising sump known to connect with the C3/C4 lake, is on the same side of the ledge. The small stream falling from above here, however, enters mainly on the true right hand side of the division and disappears off further towards that direction, this water is not seen again below the ledge on the way to the camp, or in the short section of Tapeworm passage up to the sump.

On a glorified acclimatisation trip on 25th June, Becka and I started to explore the right-hand side route from this ledge. This began with a short (~3m) climb up the right hand wall to gain a narrow ledge that got wider around the corner to the right. Becka rigged a traverse along here which gave access to a wider part of the shaft where a better hang could be rigged than was possible direct from the main ledge. A ~15m pitch was descended to a lower ledge where we reached the end of the rope we had brought. The cave continued downwards, still trending away from the main route with stones falling for several seconds. There certainly seems potential that this route could connect to the main system, or perhaps lead somewhere else.



Phil Baker next to Return of the Sump Thing, the upstream 2/7 sump that leads to C4 (photo Bartek Biela)

Camp set-up

Mark Sims

Chris was the only person on the 2024 trip who had previously seen the prospective campsite, so the pressure was on to make it habitable. When we arrived I was pleased to see it was definitely flood-proof and there was plenty of sand. The gradient was less pleasing. Over the course of a couple of hours we gradually dug back the top of the slope, shifting material down to raise the lower part of the slope. Eventually we managed to get it to a size that was just large enough for 4 people, and got the tent set up. Amazingly there were no major issues or headaches!



The view from the final section of the 27/9 inlet passage into Tapeworm Passage with the final ledge occupied by the tent (photo: Bartek Biela)

Tapeworm resurvey

Fleur Loveridge

On the first camping trip of the expedition, while Sandy bolted Aardvark's Bathtime, I started the task of re-sketching the main 2/7 streamway back towards camp (Tapeworm Passage). For some reason, despite much searching, we only had centre line data from the 2000 expedition and no drawings. The first task was to identify where we were on the centre line data, which had been brought into the cave on topodroid. This was harder than anticipated, as the carbide station number next to the cairn at the base of Aardvark's Bathtime was hard to read. However, by playing "if I was surveying from here, where would my next station be", I manage to locate the next two or three stations forward, all marked by carbide. This gave me the shape of the centre line and a matching job between this and the label at the cairn allowed me to identify where we were. Then, I set off upstream, guessing where I could the station locations, and trying to capture the main feature of the passage. What was notable was that while on initial inspection Tapeworm was a winding streamway as per its name, actually at higher level it was a large much straighter passage with the stream meanders superimposed. At many bends in the stream, ramps would allow access to higher level and these would require checking for higher level leads. But that day I was on a cold and lonely mission, and did not want to go scrambling around solo. I completed about

a third of the sketch, which Chris and Jess completed later, before returning to see Sandy almost at the top of Aardvark's Bathtime.



Phil Baker in Tapeworm Passage (photo: Bartek Biela)

Climbing the Aardvark

Andrew Wright

In order to access Buy the Ticket-Take the Ride and the rest of 2/7 from our new entrance at the upstream end of Tapeworm passage, we knew that we'd have to negotiate a 15m up-pitch. Called Aardvarks Bathtime, this had originally been descended in 2000 by explorers who had come from the 2/7 entrance. This was the one and only time that this area had been visited, and we knew from talking to people who had been there that at the end of that expedition the rope on Aardvarks Bathtime had been taken out. The objective for the first camping trip of 2024 was therefore going to be to get into Take the Ride, and to re-rig the pitch so that the following teams could look at leads further on.

Mark and Chris had been to the bottom of the 27/9 pitches the previous day and set-up the brand new camp just downstream of the C4 rising sump, they'd also had a look at Tapeworm and the pitch up and confirmed that there was no easy way, it would have to be climbed. Fleur, Julia and myself had all had shallower trips in 27/9 over the past couple of days to acclimatise ourselves so we were ready to go camping. With only very limited experience however, whether I was ready for bolt climbing was another matter.

We reached the camp in good time having set off just after breakfast. After collecting our sleeping bag/air bed kits from where they had been stashed near the end of the Ario Reality, the only hold up had been needing to re-pack one of the bags that wouldn't fit down the squeeze above The Sound of Silence. Suitably impressed with the set-up when we got to the camp, Fleur and I in particular were excited to finally be in 2/7 proper after reading, thinking and planning for it for so long. We had a quick lunch and a look around and then started off down the Tapeworm streamway, taking just the bolt climbing and survey stuff with us. As you might expect from the name, Tapeworm is a sinuous, winding passage which is quite narrow in places at stream level where the meanders have often cut down and moved away from the larger passage slightly higher up. The stream gradient here is very shallow and in places the water is deep and it becomes difficult to keep your feet dry.

We didn't see the way up straight away and followed the stream until we met boulders in every direction. Backtracking a bit, Fleur spotted a black carbide arrow pointing up. I thought I could just about make out the high level going off into the blackness, but there were several large jammed boulders below where I thought the pitch-head was, and they were obscuring the view. The passage really bells out near stream level here and a direct climb would be very overhanging for the first 5 or 6 metres which was something I really wanted to avoid. I still had hopes that I might find a way to free climb the pitch, or at least use as few bolts as possible, but the boulder fill behind the pitch-head looked absolutely solid and the walls higher up towards the head of the pitch looked smooth and vertical. There was, however, what looked like a decent ledge about half way up that could be reached with a few bolts from the top of the tallest boulder in the streamway. This was about 10m or so back upstream from where the pitch would probably land, so we would

have to do a traverse, but it would avoid the overhanging lower section and would require the shortest amount of vertical climbing.

Julia had volunteered to belay and Fleur was going to re-sketch the Tapeworm streamway while I climbed. We got out the stuff and I kitted-up, Julia put on two primaloft jackets and a pac-a-mac and we started putting through-bolts in hangers, at this point we realised I'd left the spare drill battery at camp. Estimating that we might need ~20 bolts to get to the top, we decided to make a start. I'd try to be efficient with the drill and see how far we could get.

Five or six bolts was enough to get a good look at the ledge, which began just wide enough to get a foot on sideways but widened to be comfortable to stand on closer to where we wanted to go. I was finding that a spare krab clipped directly to my central maillon could be used with my short cowstail krab to get me as high as possible on the last bolt. Climbing was then best done in two steps, first stand up in the etriers and move my short cowstail up to the new bolt, then stand up again and clip the two krabs together.

Once I was standing on the ledge I could just about touch the opposite wall with my fingertips and this helped psychologically, if nothing else. Traversing along to the wider section of ledge felt much more familiar, the problem we were starting to have now was with the increasing rope drag. We were using a semi-static rope that was at least 13mm diameter and Julia, belaying with the Stop on her SRT kit, was also having trouble getting it to run through when letting out slack. Rather than being able to run out the rope smoothly, I was having to estimate how much I would need for the next move, then Julia would pull the rope through by the metre, one bobbin at a time while I waited. The ledge got wide enough to feel more secure just underneath where I needed to start heading up again. Another couple of bolts here and I realised I was not going to have enough through-bolts with me to reach the top. Also, I had gone a significant distance sideways and was going to struggle to retrieve the krabs and hanger-plates on the way down. Julia and I had a discussion about what to do next. I didn't fancy climbing back bolt-to-bolt the way I had come, however so I put two bolts in the wall above me, clipped my cowstails into them both and pulled the rope through to rig a y-hang to abseil off. On the way down I could de-rig the hangers from the traverse, which should give me enough to finish the climb.

Fleur had just got back from surveying to see how we were getting on when I looked upwards and saw a hanger in the wall about 3m above me. I let out a shout of relief, we were in the right place, and I was nearly there. As sometimes happens, this gave me a surge of determination, the job was nearly done and, if at all possible, we were going to see it through. Down to the last LED on the drill battery power display though, it was going to be touch-and-go. I thought I could get onto the boulder underneath the old hangers with four more bolts. Taking steps as large as I could manage, in the end it only took three. I put in one more bolt to protect me while rigging the pitch head and re-used the hangers that had been there since the year 2000, but still looked and felt very solid. I threw the rope down and shouted that it was free if they wanted to come up. By now huddled in a bivvy bag against the creeping cold, Fleur and Julia were unenthusiastic. Warm from the exertion and the adrenaline, I wanted to see the big chamber that we'd come for so I decided to go for a wander.



Looking down towards Aardvark's Bathtime from Take The Ride. The very bottom of a possible passage is visible at the top of the picture (photo Bartek Biela)

Climbing up over boulders the walls quickly widened and the roof lifted, a small inlet entered as a waterfall right in the middle somewhere way out of sight very high up. I had been expecting a large chamber but it was more like a giant passage, the length and height much greater than the width, and the whole thing much bigger than anywhere I'd seen before in the Picos, more like one of the large galleries you get at valley level in the Ason gorge in Cantabria. Following the right hand wall the boulder floor sloped downwards and I could hear a stream running in the distance. Climbing down carefully a deep pool appeared on the left hand side with a downstream passage on the far side that I took to be the way on to the main passages of 2/7. This pool was at the confluence of a stream emerging from under the boulder floor on the left that I thought was the Tapeworm water we had been following and a considerably bigger stream flowing across the surface from right to left and along the passage. Briefly confused, I realised this must be the water from Canals on Mars, but it was bigger than I'd expected. Following this upstream I came to a point where the floor began to rise and the stream emerged from the boulders. I knew that I wouldn't be able to go further than the start of Canals on Mars as there was a pitch down into deep water not far ahead. The passage was still wide and high, but I'd decided that I'd been gone long enough and had better get back to the others.

Stopping for a drink I had the thought that most of our effort in recent years had been directed at caves upstream of the Tapeworm branch of 2/7. At this major junction, it really looked like we had come in by the smaller of the two branches. There are no caves confirmed to be upstream from Canals on Mars, but the C3/C4 streamway is the upstream extension of Tapeworm. This seems to drain a significant proportion of our area, but if it is the junior branch of 2/7, then where does the Canals on Mars water come from? Perhaps the catchment extends further beyond the surface watershed towards the upper Cares gorge, or maybe more snow plugs melting at higher altitude has increased the flow of Canals on Mars, perhaps this could even have changed since the original explorations? Either way there's surely more to find upstream here and plenty to keep us busy in the future.



The huge passage of Buy The Ticket Take The Ride (photo: Bartek Biela)

Resurveying Buy The Ticket Take The Ride (BTTTTR) and going downstream in 2/7

Becka Lawson

Four of us spent two nights underground (29 and 30 June) on the second 27/9 - 2/7 underground camping trip of the expedition. Mark and I headed in ahead of Chris and Jess in order to get some resurveying done on the first day. It took us 2.5 hours to get down to camp, conveniently passing the first trip (Sandy, Fleur and Julia) just below Ario Reality as they headed out - and shortly after they had cored the rope on the previous pitch (the sharp flake there is prone to snagging the rope).

From camp, Mark and I headed down Tapeworm to the pitch that Sandy had just climbed up to re-rig it. This popped out into the massive, bouldery passage of BTTTTR. We went up the in situ handline that leads to the head of the pitch down to Canals on Mars and we began our resurvey there. We ended it at Sandy's pitch at the end of Tapeworm. We then had a quick recce downstream from BTTTTR to check the traverses as far as Savage Journey. Chris and Jess arrived shortly after we returned to camp.



Looking upstream towards Buy The Ticket Take The Ride from the main 2/7 streamway (photo: Bartek Biela)

The next day (30th), Mark and I headed downstream with a drill and new rope. First we replaced the handline up to Canals on Mars with new rope then we used the old rope that we'd taken off to rig a short handline from BTTTTTR to the start of the downstream passage. Mark then rigged a bolted traverse past Alien Changes and another, short bolted traverse at Catheter Canal which is just before the junction to Savage Journey. Another short handline was placed to protect the climb around Bendicks of Mayfair, and possibly another at Wriggly Spearmint with a final one at a small cascade which, laughably in retrospect, we thought might be Viagra Falls. I believe all of these handlines are now rigged on old (>20 year) OUCC rope.



Phil Baker negotiating Alien Changes with the newly installed handline (photo: Bartek Biela)



One of the wider sections of the magnificent 2/7 main streamway (photo: Bartek Biela)



The main 2/7 streamway (photo: Bartek Biela)



The main 2/7 streamway (photo: Bartek Biela)

Continuing downstream we were soon at the real Viagra Falls - an impressively large, thundering waterfall disgorging into a deep pool in a large chamber. By this stage we had used up all of our old rope and we had just one, short, new rope. Mark rigged the pitch, replacing the rope and ancient slings but re-using the hangers. This dropped to a ledge where the original explorers seemed to have descended directly into the spray. Mark instead put in a Y-hang around the corner for a dry descent. This final drop had to be rigged using the old Viagra Falls rope so this needs switching out for new rope on the next trip.

Continuing downstream, we soon reached the obvious junction where the Holier than Thou inlet comes in. Going up this inlet a few metres got us to a short pitch which still had the OUCC rope rigged off what looked like a large natural with around 15m rope. We decided not to push our luck using ancient rope given that we had no new rope to replace it with. We also briefly looked further along the main downstream passage. We then wanted to check leads in the Fear and Loathing in Las Brujas chamber. However, we soon got to a point where we would have got wet feet and, having - improbably - got this far with dry wellies, we were unwilling to go further.

The trip from BTTTTTR downstream is excellent - spectacular, exciting streamway and fun, physical caving. Above Viagra Falls, along the streamway, we noted various possible leads in the tall rift sections. In several places it was possible to easily free climb high above the stream and it looked like a few bolts would allow you to continue exploring with the possibility of further passage to be found here.

On our final day (1st July) we tried to rig the pitch down to Canals on Mars in order to use the rest of the drill battery and the remaining rope. From the top of the handline up you reach a complex area with holes left, right and straight ahead. We had assumed that the pitch had been rigged directly ahead, as this was the only direction that we could see down to the canal, but we saw no evidence of bolts. We began rigging here but it wasn't straightforward and we didn't have enough rope to get down to the canal - we had hoped to be able to check out its water levels since we were heading out that day so we no longer needed to be so prissy about getting wet. The current rig has a Y-hang and a deviation and a ???30m rope should be sufficient to get down to the water. Subsequent reading of OUCC documentation (a sketch on a postcard I believe!) suggested that the hole on the right was the route that had previously been descended, and it is possible that this would make a better route down to Canals on Mars.

After lunch at camp we took 4.5 hours to get out, passing the third camping trip at the large ledge below Coffee Pot where the routes diverge (Steve and Bartek, with 2 bags apiece) and, implausibly, passing Owen and Becks halfway along Ario Reality.

Savage Journey

Chris Curry

From the junction above the triple cascade, a small inlet leads off southwards in a tall narrow rift development. Two routes are initially passable, at water level, and by climbing up and traversing. These routes converge at the higher level into a single passable route on - an extremely tight thrutching rift, just wide enough for a slender caver to enter at one elevation. The narrowing rift below constitutes a significant entrapment risk. This was not pushed as far as was achieved during the 2000 explorations, but was, with difficulty, surveyed for 40m from the junction. Glimpses of black space above led to speculation about a passable higher level, but this was not accessible from this approach.

Tras La Jayada (TLJ)

Rebolting

Andrew Wright

Will and Toby had started the rebolting on the previous day by approaching the shaft from the south down a loose rocky slope putting bolts in the rock wall to the right. A short drop at the end of the traverse then lands on an even looser pile of choss where Will began today by putting in a second bolt to make a y-hang in an exposed position directly above the top of the main shaft. Having been on a long trip in 27/9 the day before, I thought today would be an excellent opportunity to provide moral support whilst lying around in the sun as Will continued with his project. After an hour or so I did start feeling guilty that 'moral support' from a position completely out of earshot might not be considered quite satisfactory so I got kitted up and went to see how he was getting on. Will had put in a rebelay not far below and a deviation that landed on steeply sloping rock that was still within the frost shattered zone, such that everything you touched was liable to fall off. He spent quite a bit of time 'gardening' this area before being able to put a bolt in so that I could come down to join him.

On the old Spanish survey there is an unexplored passage at this level on the opposite side of the shaft that we had planned to have a look at. The long traverse that would be needed to reach it, together with the fact that it looked to be either heading straight back up towards the surface or more likely was just a large alcove made it an uninspiring prospect and so we decided to head straight down. Having sat around in the twilight zone, on the edge of daylight but fully in the cold drafty air of the cave for a while now I didn't give it long before offering to take over the rigging. We swapped over and I set off down eager to warm up. The wall we were descending here was less than vertical and I had to put in a couple of re-belays close together in order to reach the lip to get a decent free-hang. Despite all the loose rock around there was no trouble in finding solid spots to put in bolts. Fully out of daylight now and about 20m below my last re-belay the shaft was starting to bell-out. I had a good look down with my light on full beam, it looked like the next drop would have to be a long free-hang. Using the skyhook to get some pressure on the drill I put in a y-hang and abseiled down about another 20m. From here I could just about make out what looked like a small ledge covered in snow directly below. The bag was getting pretty light by now so I

pulled out the rest of the rope and threw it down. It looked like it might just reach the ledge, but as that was all we had I decided that we might as well call it a day.



Julia Saez in the vastness of Tras La Jayada (photo: Bartek Biela)

Becka Lawson - continuing rebolting

On 28 June, Becka and Toby plus 200m more rope made their way down to the then limit in TLJ that had been reached by Will and Sandy. This was a small, drippy, sloping ledge with a snow plug. After kicking some of the loose choss down Toby started bolting around to the left, to try to avoid the water and rocks kicked down from the pitches above. Toby struggled to find decent rock or a sensible line and, after 3 or 4 rebelays, decided to back off. I felt that, given we had only dropped a handful of metres further, I should try to rig a bit lower. Hubris comes before a fall. I got to Toby's limit where I thought he was suggesting a short traverse could get to a nose that would allow a drop down to a ledge below. I rigged down to bolt a Y-hang via what could either have been an extremely tight, angled pitch or an alarmingly steeply descending traverse, take your pick. I then slowly descended into the black, aiming for the ledge that Toby had spotted, 20m or 30m below. Unfortunately, as I descended it became apparent that the "ledge" was merely less vertical wall rather than anything that could be stood on. Worse, there was no way I was getting anywhere close to it as I was dangling in space and couldn't even start a swing. I decided to call it a day, but not before making the final poor decision of the trip and leaving the 200m tacklesack clipped at the lowest point that I had descended to. I had somehow persuaded myself it would be easier to collect it there than if it was clipped to the Y-hang above. Apparently Will appreciated the opportunity for an upper body workout as he was hauling it up on the subsequent trip.



The final section of the main Tras La Jayada shaft (photo: Bartek Biela)

Try a Little Harder

Mark Sims

Sandy's reluctance to use up any additional expedition days rebolting TLJ was welcome, and it was apparent fairly early on that not reaching the bottom was not on the agenda. Rachel and I surveyed down behind Sandy and Will, amazingly having relatively few technical issues with the phone. Before long we heard a big "rope free" from below, so we put away the survey kit and joined them at the bottom. The shaft is spectacular.

At the bottom I wandered over the rubble floor towards where Sandy was waiting. "The way on is over there", he quipped, pointing to the little entrance to the alcove that appeared on the SIE survey. Feigning enthusiasm I ran over to see, climbing through the opening and down the couple of metres to the rubble-choked floor. So far, so predictable.

Looking above, it was evident that this wasn't just an alcove, and that there was scope to climb a bit too. I did so, and could immediately see back out over the main shaft. This was not as advertised on the old survey, but was of very limited interest. Turning the other way, a narrowing appeared to lead on through a continuation of the rift. A bit more interesting.

A bit of clambering up and down, and a bit of rift-widening later and things were getting really interesting. I now had a cool breeze blowing past me, and after one last removal of blocks from the rift ahead, I squeezed through to the head of a pitch! Unbelievably, the SIE and OUCC (twice) had missed the obvious way on at the bottom of the main shaft.

I rushed back through to tell the others the good news (which they absolutely did not believe initially) before we all went back for a look at the pitch. All suitably convinced of its existence, we headed off out, Rachel and I finishing the survey as we went.

Like & Subscribe

Rachel Findlay

With only two caving days remaining of the expedition a plan was made for one final day of pushing before derigging. Myself, Chris, Toby and Will headed back down the 300 m shaft armed with more rope, bolts and hangers. The plan was for Toby and Will to bolt and rig the new uncharted pitch and Chris and I to follow up, surveying. The team added an additional 90 m depth in the new shaft. Chris managed to clamber down past the extent of our rope (which had run out) to an open canyon type passage with a promising looking way on. The survey data reveals the last station is approximately 8 m above Holier Than Thou - a significant drafting streamway inlet to 2/7. Should this connect it would provide a considerably more straightforward route into the system when compared with the Ario Reality in the neighbouring entrance of 27/9. Owing to the fact this new route 'might' prove popular and an earlier amusing comment during the expedition, the new shaft was named 'Like & Subscribe'.



Cavers ascending from the base of the main Tras La Jayada shaft (photo: Bartek Biela)

Cueva de la Rana (53/5)

Laura Bennett

Several trips returned to push “Laura’s rift”, which was identified in 2023 as being the major source in the 2022-2023 extensions of the significant draft for which this cave is known. The initial constriction, located ~ 12 m into the rift was enlarged to enable the caver to climb down into a small chamber containing a pool of water and a too tight S-bend rift off to the left that does not draught. The original rift continues on the far side of the chamber and can be entered via a ~2 m climb up and a small squeeze. This emerges into the base of a hading rift with water at the bottom and no way on at the lower or mid level. Initial progress was made enlarging the higher level passage in the rift for ~5 m before it was blocked by a flake. Despite the draft still being present, the flake would be impractical to remove due to the very tight nature of the passage.

Draft testing using cool burn smoke matches was employed this year and found to be very effective. Children’s bubbles were also tested but were less useful.

TR2

Andrew Wright

This impressive walk-in entrance overlooking the Valle Extremero was first recorded by OUCG in 1990 and numbered 2/10. The very next year it was re-discovered by a team of ‘old-lags’ who reportedly announced that they had found the mythical lower entrance to 2/7. Once their mistake had been realised the cave was given the name ‘Cave of the Old Mens’ Dream’. It appears never to have been marked by OUCG and no-one seems to have previously noticed the (possibly GEM?) marking of TR2 that was found this year when it was yet-again rediscovered.

The fine walking passage descends only a short distance until it ends abruptly in a choice of a scramble up or a climb down. Chris and Jess surveyed the cave this year while Pete initiated a dig at the end of the lower passage. From the 2-3m drop down this continues for around 15m of stooping until a calcite blockage is reached. A light to moderate outward draft is felt here and a continuation can be seen beyond what was originally a very small hole in calcite rich mud fill. Hammering the crowbar into what began as densely compacted dry mud quickly encountered pockets of water trapped within the sediment which, when released rapidly turned the dig site into a quagmire in which everything became coated in a thick layer of mud with the consistency of cottage-cheese.

Two or three fairly unpleasant digging trips enlarged a fist sized hole to an almost passable constriction before solid rock was encountered and further progress could no longer be made with hammer and crowbar. The passage beyond appears to be restricted, but the draft remains noticeable and the visible continuation could likely be accessed in a single capping session. There is a good prospect that this cave could be related to 53/5 and perhaps the possibility of a connection.

Pozu del Refugio

Stephen Macnamara

The Pozu del Refugio is so named because of its proximity to the Refugio - literally within 100 metres of the front door. This makes it an attractive option as an acclimatisation/training trip. On 30 June, Phil and Bartek went for an evening trip and reported a tight lead which had a visible down-pitch beyond.

Peter Ward and I visited the following day. Peter took the opportunity for some rigging practice, and after a while had reached the sloping floor, 23 metres below. This consists of a large mound of household rubbish. In previous years, it had been used as a refuse tip by the Refugio (fortunately this is no longer the case).

Walking through an arch at the bottom of the slope connects to an adjacent daylight shaft. There was a large snow plug located here when we visited. We climbed over the top and down the other side to a chamber full of frost-shattered rock.

There are multiple ways on from the chamber - and after a quick scout, we went straight for the promised lead. Our instructions were to stay left, and to go through a phreatic tube. We found the lead, which indeed did look exciting - a squeeze to a black hole with a drop. The approach was over loose boulders in the floor, and we could see that we would have to move another boulder in order to make progress through the squeeze. Therefore we placed a bolt or two and rigged a traverse for safety.

Despite our best efforts with the bolting hammer and other kit, it was clear we would need a larger hammer - so Peter headed back to camp to get one, while I remained to salivate over the beckoning blackness. On his return, he mentioned that from the main chamber, he had spotted a red rope rigged up high. Funny, we were using red rope for our traverse... and of course it turned out to be the same rope. We had just looped back to the main chamber. We didn't bother continuing with our bashing, but decided to survey on the way out.

On the western side, the cave slopes up quite steeply and ends in boulder blockages and fractured passage. Towards the end of one of these passages, we found another promising looking drop. It would need a bit of widening, so we decided to return another day with capping gear.

On 04 July, Rocky Yu, Becks Kelly, Peter Ward and I returned and capped the obstruction, to squeeze down to... the main chamber again! We finished the survey, inclusive of loops.

We also crossed off another couple of question marks. Becks and Rocky explored a tight meander leading off from the main pitch, but this showed no potential and was far too tight to enter. Similarly, in the southeast corner at the bottom of the rubbish slope, a tube was pushed until it closed to nothing.

There is one lead left, of questionable promise. In the main chamber (after the snow plug), walk up to the right (northern) corner. Look back at the wall behind you, and about 2 metres above the floor there is a window leading to an alcove with an aven. It probably goes nowhere exciting, but could be worth a push on a lazy evening. To get into the alcove, bring a step ladder, or some bolting gear, or a friend to give you a foot up!

Shaft bashing/surface

Area 9

28/6

Laura Bennett

LB & AW went to area 9 to locate entrances with missing gps coordinates or naming confusion. We located 44/9, which is actually 38/9. We tried but were unable to locate 17/9 based on the location description. We located and descended a cave at the gps coordinates for 35/9 that is labelled 10/9 but does not match the shaft bashing guide description for 10/9. Due to changes in snow levels it could possibly be the undescended 35/9. See summary below for a new description.

26/6

Becka Lawson

We walked to 2/9, La Jayada, to ascertain that we couldn't get down without rope and that there was still snow down there. We also checked 13/9, the Wiggly One, see photos, plenty of snow still in it. We found little of note until we were close to Tras La Jayada where we found 46/9, 47/9, 48/9 and 49/9, as described fully below, under Area 9 in the Caves found or revisited in 2024 section. 46/9 was fully explored whilst the remaining three were strongly draughting digs which received some attention later in the expedition.

Area 7

30/6

Laura Bennett

We went to area 7 with the aim of locating 23/7 and the other entrances with locations linked via 23/7 (22/7, 43-46/7). We were successful in locating, photographing and obtaining gps coordinates for these. All were entered, however there was either no obvious way on at all, or not in the current snow conditions, which appeared to be lower than when previously visited. Three new entrances (51-53/7) were recorded.

Area D

01/07 and 02/07

Fleur Loveridge

I wanted to take a walk up towards the old snow pole top camp area, partly for old time's sake, but also because area D was relatively un-visited, had many shaftbashing guide entries not properly located, and lacked many significant caves. In summary, I felt it would be a scenic day, while usefully probing a blank area. With Julia and Paulina, we walked to Vega Aliseda. On the way we stopped when we realised that Paulina had left her phone behind at the cattle trough on route. While she went back, Julia and I prospected, finding the horrible animal shelter 20/8. Later we reached Vega Aliseda and stopped for lunch, before walking back noting and investigating holes. This included new entries D26 to D30, all of which were completed.

We also located D2 and D3 getting new coordinates for these. D2 was interesting, reported as a large shaft separated by a bridge in the shaft bashing guide, it was as far as we could see two adjacent shafts that were not connected. Paulina and I decided to return the next day. I started to rig the north end of the northern shaft where it was narrower and where we believe that the previous descent was (due to the identification of a single spit). I put in a Y-hang after a natural backup and then went down again and rebelayed to get a free hang for 10 - 15m. After some difficulty, I found sufficiently decent rock to rebelay again. But there was more rub and the rock was terrible - fractured, loose mud holding blocks together. In the end, I gave up after not seeing how to make a safe descent. The snow plug was still there, about 60m down, but there was clearly a gap between this and the wall and the site (both shafts) should be reinvestigated.

So we turned our attention to D3. Here the tricky 4m entrance climb benefits from a rope. At the base there is a hole onto the pitch. Contrary to the shaft bashing guide there were no naturals and Paulina put in two bolts. I think I went through the hole and placed a single bolt rebelay to avoid the rub. An easy swing off not far down led into the rift passages described in the guide.

We went left (facing into the cave) and soon encountered the free climbable pot mentioned in the guide. This needed a handline. At the base there was no continuation with constriction leading to a pitch - just an impenetrable rift. In retrospect, it may be that you were supposed to climb over the free climbable pot to find the continuation, but this was not clear from description and instead we spent some time confirming the cave to the right from the entrance pitch. We did not have time to explore this side of the cave to a conclusion, just confirmed it matched the description. However, it was noted that the entrance to the cave did draught, although this was harder to find further underground. It would be worth checking out the rift above the free climbable pot on the left side of the cave and trying to find the draught again.

Area 8 and Area D

02/07 and 03/07

Becka Lawson

On the 2nd July, Julia and I helped to carry gear for the D2 and D3 descent by Fleur and Paulina then we walked a big loop in area D which I tracklogged on my phone. Our 6 finds are documented below (in section D under Caves found or revisited in 2024). In brief, we refound and GPSed D13, we found and fully explored D31, D34 and D35 and we located, but could not descend, D32 and D33.

We felt that several of the caves were worth returning to with descending gear so Julia, myself plus Laura and Peter returned to the same area the next day (3rd July). Again, our 6 finds are documented below (under D in Caves found or revisited in 2024). In brief, we fully explored D32 and D33 from the previous day. In addition we found and fully explored D36 and D38. We found D37 and left it ongoing at a draughting pitch head. Finally, we found D39 but it was too tight to enter and not promising.

We then returned to the Refugio via area 8. Our 7 finds here are documented below (under Area 8 in Caves found or revisited in 2024). In brief, we re-found and GPSed 3/8, 4/8 and what is probably 2/8. We also found and fully explored 21/8. We found 17/8 which is too small to enter. Finally, we found 18/8 and 19/8, both of which look promising and already had through bolts to descend. However, neither appear in the current shaft-bashing guide. We did not have time to explore them so if nobody remembers who descended these originally then they should be re-explored and described.

Area 10

02/07

Laura Bennett

LB/PT and GN/PW walked as 2 pairs around area 10. LB/PT walked down to ~1166 m elevation, mostly in the central area, looking for potential entrances in the rock faces on both sides. Only 2 minor entrances (34/10 & 35/10) were found and logged for completion but neither went. We found what initially appeared to match the description for A-hole cave, however the gps coordinates were off by ~40 m and based on the access difficulties described by the original explorers it may have been a case of mistaken identity.

The terrain was very hard going, with the central area being rocky and covered in dense vegetation and the outer slopes/rock faces being steep, and so it was difficult to comprehensively cover the area. Due to the lack of mobile phone signal, radios may be useful for future trips to area 10 to enable separate teams to sight and investigate potential entrances. Binoculars may also be useful.

03/07

Mark Sims

MS,PT & GN did some remote entrance spotting from the “prow” (see below) as well as having a wander in area 10 on our return. The tentative 9/10 location in the shaft bashing guide seems to be correct. Iron bar pot was briefly visited, and the situation doesn’t seem quite as bleak as in the 2016 report - at least 1 wall and a section of roof appear solid, and it does of course have a mega draught! The location of 5/10 was determined(43.234229, -4.91367), along with a very small rift (43.234301, -4.915263, subsequently assigned as 36/10) nearby from which a very cold draught emanated. This rift is perhaps at odds with the original description of 5/10, which states that the source of the draught in the cave is just the bottom of the shakehole. Another narrow rift was found nearby (37/10; 43.234316, -4.915639), down which rocks tumble for a bit. It could potentially be dug below slightly to enable access to where it appears to widen. What is presumably 6/10 was located very approximately as (43.233407, -4.912112). This is the obvious rift in the side of Huerta del Rey visible from the 21/10 ridge, from where the approximate location was determined.

Remote entrance spotting

Mark Sims

Advances in technology mean it is now feasible to get much better images of distant sites of interest. One area that has been the subject of scrutiny and speculation for a while is the south cliffs of Cabeza la Verde and Cabeza Llambria. “A Hole” cave is a site in the shaft bashing guide that is theoretically situated on this cliff. As per the image below, it is unclear exactly which feature it is, although this may be academic, as there are no records of A Hole cave actually being reached. Images were obtained of the distinctively shaped higher “isosceles” feature, which bears some similarity to a log book entry when it was first recorded.



View facing north from Valle Estremeru (photo: Laura Bennett)



Distant and close-up views of the “isosceles” feature that may or may not be A Hole cave (photos: Graham Naylor)



View showing the general layout of the ridge between the Trea path and Valle Estremeru (the end of the 'Prow' is just out of shot above). The upward clefts on the upper right show potentially easier access from above and continuation of the fault/weakness diagonally down to the left (photo: Graham Naylor)

Summary of caves found or revisited in 2024

Key to cave status

X - Fully explored

/ - Partly explored, leads still remaining

O - As yet unexplored

Dig - Cannot currently be entered

Area 5

O 89/5 344324 4788749 Climb up ~8m to crack in rock, unentered.

Area 7

X 22/7 343563 4788077 Small open rift/shaft. Rigged from naturals and descended to snow plug approx. 15m down, no way on.

X 41/7 343662 4788155

X 42/7 343541 4788085 Marked by OUCC in red paint.

X 43/7 343564 4788108 Faded OUCC paint marking. 5m free climbable drop to a totally choked base. No draught.

/ 44/7 343550 4788132 No obvious way on, may connect with chamber in 46/7.

X 45/7 343530 4788162 Climb down requires a handline. Rift with snow plug in the bottom, no way on.

/ 46/7 343556 4788150 Drop of ~15m rigged from natural belays lands on snow plug that slopes down out of daylight. Passage possibly exists going off to the right but currently blocked with snow. On the left a small hole up leads to a 4m x 4m chamber with multiple small ways on that all either lead to too tight ascending rifts or are choked.

X 51/7 343700 4788136 22m pitch rigged from a spit with natural back-up. A blind pit with no way on. Two fire salamanders were found at the bottom.

X 52/7 343926 4788215 Slip rift that closes down immediately, no draught.

O 53/7 343735 4788151 Not entered. Rift near 24/7, probably connects.

Area 8

X 2/8 342890 4788998 Probably rediscovered on 2 July 2024 but not descended. A large rift about 15m long and 10m deep.

X 3/8 342916 4789011 Small amount of snow at the bottom, no draught. Relocated on 3 July 2024 and faded green paint "OUCC 1981 3/8".

X 4/8 342900 4788923 1372m Relocated on 3 July 2024 and faded paint "4/8 0 OUCC 1981". An obvious 2m high x 1m wide slot at the base of a large shakehole.

O 17/8 343013 4788909 Hole too small to enter at side of path. draughts out cold.

/ 18/8 343010 4788911 Squeeze down through boulders. The entrance is just above 17/8 and draughts out strongly. A through bolt was found in wall but this cave does not seem to be in the shaft-bashing guide.

/ 19/8 343010 4788915 1392m Holes at the base of a small, steep shakehole with a clear draught out. There was a through bolt above these holes and it would be possible to descend using these but this cave does not seem to have been recorded in the shaft-bashing guide.

/ 20/8 342940 4788698 Animal shelter near junction of areas 8,9 and D. Walk/stoop for ~6m, gets very muddy, no draught, unpromising and horrible.

X 21/8 342888 4788977 Small rift that closes down with no way on or draught.

Area 9

X 46/9 Cross Drop Cave 343088 4788122 1689m Squeeze between boulders leads to a free-climbable 3m drop choked at the bottom with no way on and no draught.

A series of small but strongly draughting holes along the same fault line:

Dig 47/9 343081 4788178 1656m Hole under boulder.

Dig 48/9 Pozu del Gentian 343109 4788189 1636m Down gully from 47/9.

Dig 49/9 343124 4788196 1626m Down gully from 48/9.

X 6/9 343229 4788368 7m pitch lands in narrow rift. Floor dug to allow access to slightly wider section, immediately closed down with no prospects.

X 35/9 Found at coordinates but marked as "1987 OUCC 10/9 O" Steeply descending boulder slope with snowplug on top but not reaching the edges. Enters a narrow rift where boulder slope becomes slightly less steep. Two short passages to the left both close down. Completely choked with no draught.

X 44/9 342852 4787967 was confirmed to be the same cave as 38/9 when a metal tag marked "OUCC 1999 38/9" was located. As described in SBG as 38/9.

Area 10

X 5/10 344612 4788604 Location determined in 2024.

X 6/10 344736 4788510 Approximate location determined in 2024.

/ 2/10 344737 4788691 Marked TR2. Short cave with 3m wide, 4m high entrance. draughting dig in moonmilk has visible space beyond but will now need enlarging to proceed further.

X 34/10 345040 4788866 Hole in the rock face. Goes back ~3m before closing down with no way on. Second entrance provides v.short through trip. Used by animals.

X 35/10 344862 4788878 Very small alcove in rock face. Does not continue.

O 36/10 344483 4788615 Extremely narrow rift just down from 5/10 from which a cold draught emanates. Far to small for entry, but the draught makes it worthy of a number, particularly as the draught in 5/10 was thought to come from the surface.

O 37/10 344452 4788617 A narrow rift down which rocks tumble for a bit. It could potentially be dug below slightly to enable access to where it appears to widen.

Area D

X D2 342426 4788636 Relocated in 2024

X D13 Renamed Bump Top Hole 342196 4788725 1814m when it was rediscovered on 02 July before the D13 tag was found on revisiting it on 03 July 2024. Small entrance leads to 2m long crawl to head of 5m pitch which the original explorers descended.

X D26 341866 4788608 Small chamber 3m x 5m and 2m high with no way on. Near Torca del Vasco.

X D27 342031 4788624 8m shaft in the base of a broad and complex shakehole. 2m x 5m at foot of shaft with a patch of snow. Aven to the left and bowl where water goes to the right. Climb up was not attempted, no draught and no echo.

X D28 342100 4788595 A 20m long cave. Enter descending hole, goes left then right. Rift on the right-hand side is too tight, other way also too-tight. No draught.

X D29 Fly Cave 342337 4788510 A couple of meters long and full of flies.

X D30 Paulina's Wolf Hole 342568 4788680 12m long horizontal cave. 4m in there are 2 bends followed by a 4m section to a chamber and an exit (not passable). Contains lots of bones and animal droppings.

X D31 Sardine Tin Cave 342333 4788670 1519m 2mx2m entrance at the base of a 3m outcrop. 4m slope leads to a chamber then ~15m horizontal passage which ends in a dig. At the base of the slope there is a tight crawl not entered, no strong draught. 3 rebecca skulls and a sardine tin.

X D32 Small Shaft 342471 4788877 A rift which is ~1.5m at its widest can be rigged from naturals and descended for ~8m to land on a rubble floor. The rift is too tight at one end and closes down completely at the other. No draught. A small side passage approx. half-way down was not entered but looked to close down.

X D33 Little + Large Pot 342449 4788885 Twin shafts, the main one is 4m x 6m and ~12m deep, the smaller one is 1m x 1.5m and ~8m deep. The Large shaft can be rigged from naturals and has a solid rubble floor with no way on and no draught. There is a tiny window 1m up that is too tight and a further hole at ~7m that probably connects to the adjacent Little shaft.

X D34 Bowl Cave 341717 4788754 1638m Entrance ~3m high x 1m wide in a small shakehole. 3m climb down a rift then 5m along to a choked chamber.

X D35 Choked Cave 342400 4788704 1500m Easy 5m free climb down to total choke. No draught.

X D36 2 Eyes 342569 4788817 1442m 3m diameter entrance widens to a 6m diameter shaft which is ~13m deep. The pitch can be rigged from natural belays. All ways on at the bottom are choked. A small amount of water enters via a separate hole. There is an alcove about 5m down the pitch that goes about 4m back

/ D37 Eyrie Cave 342495 4788912 1482m Hole in rock face with small alcove on right. Draughting entrance leads immediately to a 3m climb down followed by a further 5m climb down requiring a handline that drops into a ~4m long small chamber. On the right wall a 30cm diameter hole may continue but is currently too tight. The way on from the chamber is 1.3m above floor level, through a 0.4m x 0.4m hole that draughts distinctly. This pops into a parallel rift that can be followed as a narrow thrutch for ~3m to a short, undescended pitch. *If returning take a lump hammer, bolting and rigging gear, a 15m handline rope and a 15m pitch rope.*

X D38 342455 4788798 Smallish animal shelter with a boulder floor and a tiny hole on the right. No way on, no draught.

O D39 342703 4789000 Slot ~1m x 0.25m, visibly continues at least ~1.5m, inaccessible, no draught.

Incidents/near misses

Deviation in 53/5

Will Scott

Exiting 53/5 natural for deviation came away while abseiling on pitch. The natural struck the top of my helmet and split into parts landing at the base of the pitch. Although alarming, no injuries were sustained and I was able to exit the cave without issue. The deviation was not absolutely necessary and so was not re-rigged.

Sickness at camp

Phil Baker

At our second night in camp in 2/7 (on 2/7/24) myself and Bartek were joined later by Aileen and Stephen, who had just entered and been down to look at Savage Journey. We ate about 8pm - I had dehydrated cous-cous mix which was left from last year's exped, and had been stored in Xitu. It was a few months out of date, but didn't seem an issue as it just contained veg/nuts. I started to get stomach ache about 10pm and these developed into severe stomach pain by 11.30pm, after we had all settled in to bed. It was doubling me up but I was trying not to disturb the others. Fortunately they were wearing ear plugs, apart from Stephen, who can sleep for England (sorry Ireland..). At this point I was concerned it was appendicitis, as I couldn't touch my lower abdomen. Funny how the mind plays tricks the wrong side of Ario Reality. When the nausea started I got down the 5m handline to the streamway but soon realised that it wasn't a great place to be in my state with the others unaware, so decided to return to camp and be discreet. The first part went OK (return to camp) but as the vomiting started in earnest I had to wake the others up as I alternated between stomach cramps/sickness and vaguely passing out in between. The 3 of them were amazing in sorting me out, and I was acutely aware of the potential predicament we'd be in if I couldn't recover enough to exit. Eventually I slept from 6.30am (according to Aileen's cas sheet!) and woke at 10.30am, as did the others. After I'd kept down a bit of porridge/liquid, the decision was made to all exit, with enough kit for me to stop overnight on the way if necessary. No one else was scheduled for camp so it was packed into 9 bags. We set off at 2.30/3pm, and exited at 10.30pm. I was pretty weak, with continuing cramps and am eternally grateful for the others doing the majority of the work carrying and derigging. The cramps came and went for a few days although less severe, so I suspect some type of food poisoning...all very memorable (and inconvenient for all concerned).

TLJ rocks

Julia Arce

While the party was making their way up the pitch series three stones were dislodged by a caver who was passing a rebelay just below the snow ledge. Another caver, approximately 20 m below, was hit on her back and shoulder. She sustained scratches, bruising and emotional distress along with damage to her chest harness, but this did not prevent her from exiting without assistance.

Accounts

	Income			Expenditure	
	Fees	570		Camping equipment	£95.77
	Ghar Parau Foundation	£600.00		Throughbolts/hardware	£123.95
	FSE	~£340.00		Rope	£300.00
				Food	£120.14
				Emergency/medical kit	£137.56
	Totals	£1,510.00			£777.42
	Notes:				
FSE grant payment (euros) pending					
Only eligible for FSE grant every 3 years, so not all spent in 2024					
Anticipated spend of ca. £300 on pontonnieres for 2025					
2024 expedition relied on underground food bought in 2023. 2024 funds will contribute significantly to underground food purchase in 2025					