CAVES AUSTRALIA

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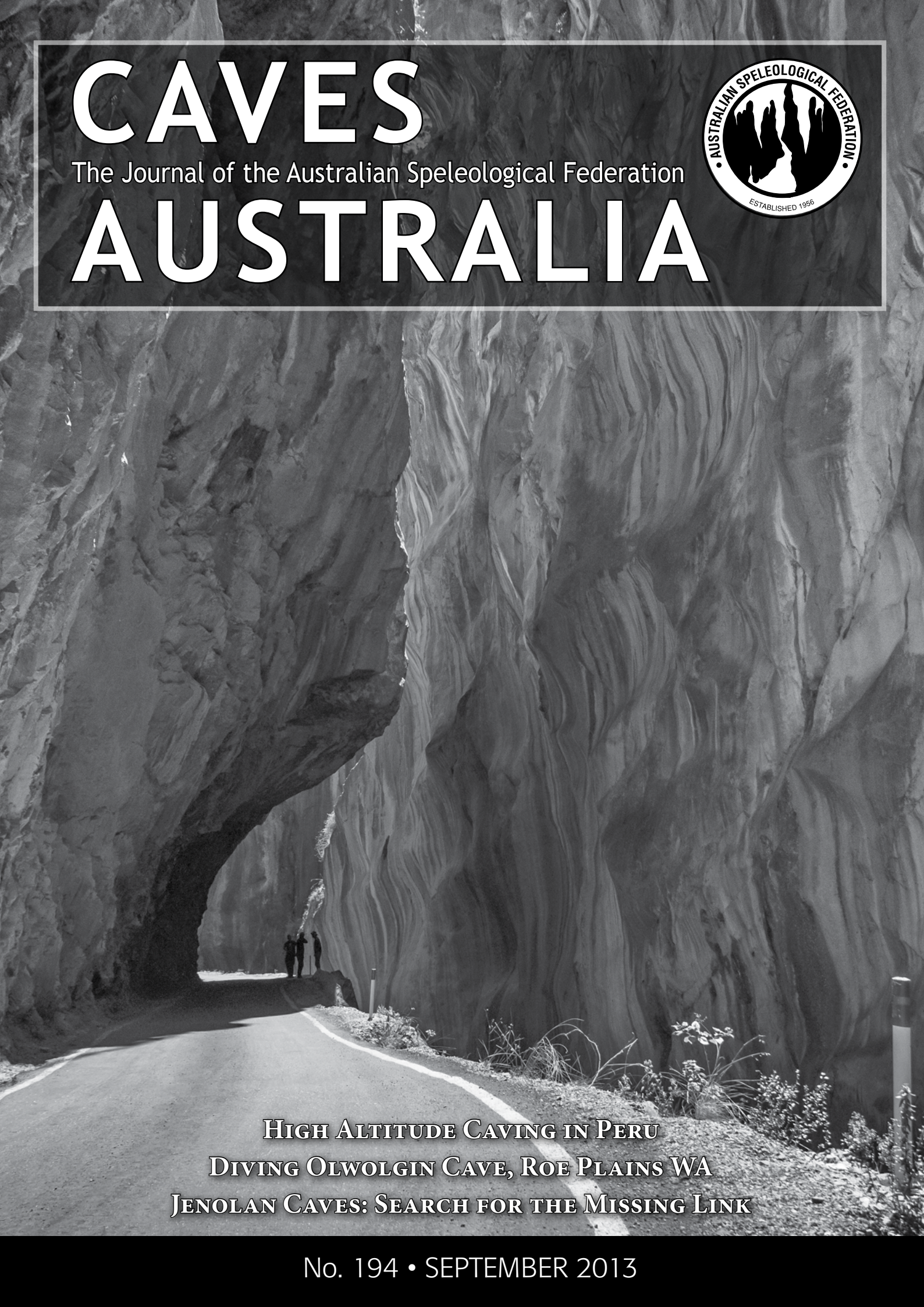

High Altitude Caving in Peru
Diving Olwolgin Cave, Roe Plains WA
Jenolan Caves: Search for the Missing Link

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Peru Caving 2012

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BACKGROUND

In early 2000, Les Oldham, a British geologist and caver living and working in Peru, noted a series of large open shafts in the Yauyos district of southern Peru that were taking the waters flowing out of Lago Pumacocha at the grand old height of 4400 m above sea level (asl). Nick Hawkes, another Peruvian-based geologist and caver, subsequently descended the first part of the entrance shafts and discovered that the cave continued beyond the daylight zone. This inspired three years of expeditioning to the region.

Speculation had arisen over the years as to whether major cave development at high altitude is possible, with early French, American and Brazilian-led Peruvian trips not being as successful as hoped. The common theory was that the rain water falling at high altitude had not absorbed sufficient CO_2, which in turn makes it acidic and speeds the process of cave development. Although the theory may still be correct, the 2001-2004 Yauyos expeditions proved major cave development at height was possible by recording the deepest cave known in South America to be Sima Pumacocha at -638 m and Qaqa Mach'ay at 4930 m asl to be the highest surveyed cave in the world.

The Andes is the longest and second highest mountain chain on Earth, extending over 9000 km through South America. It has formed above an active subduction zone which continues to push the oceanic crust of the Pacific beneath the continental crust of South America. This huge geological activity accounts for the line of volcanoes that intermittently extends along the length of the Andes and has caused older rock formations to be dramatically uplifted into their present positions. At Yauyos, our second target district, this uplift has been extreme and has caused Mesozoic aged limestone units to be largely pushed up into a vertical position and in some areas completely overturned from their original flat lying depositional position. The typically vertical nature of the limestone beds has had a massive influence on cave development in this area and the implication for explorers is that most of the caving is vertical in nature. However, with such extreme uplift, there remains potential for cave development at all angles. Another slightly concerning geological fact for cave exploration in the Andes is that this is a seismically active area; the mountains are still rising and earthquakes, not uncommon, have been known to be quite large.

GUILLAUME PELLETIER

Back row: Andy McKenzie (UK/Aus) and Adam Haar (NZ) Middle row: RobertMiddleton (UK), Andrew Perry (Aus), Alan Warild (Aus), Jesse Martin(Canada), David Tabernackle (Dick) Front Row: Nicholaus Vieira (Canada),Hannah Moulton (UK), Guillaume Pelletier (Quebec).

Due to the high altitudes coupled with the extreme and remote conditions of the district, the alpinism alone involved in accessing the caves is hard enough, and with Nick's expatriation from Peru back to the UK in 2005, no further expeditions took place. The original expedition left going leads in a valley named Puyo and in the area that surrounds it. The reports and expedition members confirmed that there was lots of further caving to be done.

OUR EXPEDITION

In 2004, the year of Nick et al's last Pumacocha expedition, I was a young climbing bum living in Thailand, and couldn't afford the airfare over to Peru to join the expedition, though I followed the project with keen interest. A few years later, some of the expedition members whom I was caving with in Vietnam, New Zealand and Australia suggested that the project still held lots of potential but just needed somebody to put the wheels in motion. It wasn't hard for me to find the drive and the basis of an international team and September 2012 was set for the expedition date.

Lima-based caver John Human was contacted and he put me on to another block of limestone with impressive-looking entrances in the Cajamarca district in northern Peru. He photographed a huge river sink on the edge of the limestone contact which appeared to have 1 vertical kilometre of limestone below the entrance, and he promised us that more speleogenic limestone surrounded the 'Tragedero Conga' entrance. With Google Earth images, and good topographical and geological maps available due to the mining boom, we were convinced that the area was worthy of investigation.

We split the expedition in half—three

weeks to look at the Cajamarca area, and a further three weeks to follow up the Yauyos district. There would be a six-man team sent to the north, and we would add another four people, making it a ten-man team to visit Yauyos. The objective for us in Yauyos was to clear up all remaining leads in the Puyo valley and push out away from the Sima Pumacocha block. The team consisted of: two Brits, Hannah Moulton and Rob Middleton: two Canadians, Nicholaus Vieira and Jesse Martin: one Quebecois, Guillaume Pelletier: one token Kiwi, Adam Haar; one Brit/pseudo Aussie, Andy McKenzie (yours truly); and three full-blooded Australians—the legendary Alan Warild, a young David Taberner and the random tight-wearing, hip-thrusting, Sydney party animal Andrew Perry. We hired two utes for the duration of the trip and camped in both districts, focusing our efforts on excellent acclimatisation to adjust to the altitude.

Nic, Kiwi and I arrived in Lima a week early to shop for the team, suss out transport, get access to maps and gather as much intel as possible for the coming six weeks. We also managed to drink copious amounts of the local beer and reek havoc on Lima's otherwise quiet nightlife. Eventually, Guillaume, Al and Dave arrived and we set off north in search of caving fame and glory. On arrival at the town of Cajamarca we met with a local geologist to gather as much information as possible about the Conga region. The most obvious and indeed serious fact was that six kilometres to the south of our main lead was the strongly contested site of the Conga mine. The locals were arguing that the mine would take all of their local farming water for the mine processing and they would be left with nothing. After recent protests, angry clashes, some serious assaults and a few deaths—and all mining personnel staying well off the radar—up turn six white, badly-dressed cavers driving mining trucks, drinking the local supply of beer and stealing all of the local women (at least the French-speaking part of the team was trying their best to). We were immediately branded miners wherever we went; we would have to change this up a little if we were to have any hope of getting underground .

When we arrived at the Tragedero (Spanish for 'swallower' or 'swallet') we quickly realised that there was a resurgence about 1 km away and 30 m below the entrance. The cave system seemed to just graze the contact. However, our interest was held by its many entrances and the fact that there were dolines everywhere heading up the hillside. The local family who farmed the land seemed to understand that we were indeed speleologists and not miners and they graced us with a camp spot and spoke of entrances higher up the mountain.

The Tragedero was wet—very wet. We pretty much smashed all leads in the immediate cave between six of us in a day whilst trying to adapt to the altitude (3640 m). It was a good introduction to Peruvian caving, but given the present company, it was a little disappointing that it was a linear cave and had little vertical development. We spent a week or so acclimatising and slowly plotting entrances, subsequently knocking off the caves below. I had been interested in checking out a line of dolines 5 km to the east, so one morning Dave, Guillaume and I took a truck and went to investigate. As we mounted a col and started to descend into the neighbouring valley, people began to give us and our hired mining truck sideways glances. After some enthusiastic investigations of a long line of great-looking holes filled with vertical potential, our excitement mounting, we came across a roadblock in the form of the local padre and three extremely angry women. They immediately took us to be miners and started a torrent of abuse, accusing us of stealing their water, polluting their land and taking away their families' future. We spent an hour or two, with Guillaume's good Spanish, trying to explain that we were speleo enthusiasts and definitely not mining personnel. In fact, Guillaume and I are pretty staunch left-wing lads with anarchist ideals. If anything, our investigations might help their cause. They didn't buy it. The last thing one lady said translated to something like 'God will judge who you are. I'm going to get the boys. I'm going to get La Rhonderos.' La Rhonderos loosely translates as a lynch mob, so with our tails between our legs, we turned the Hilux around and sprinted for camp. That night it was decided that with concern for the safety of the team, if we couldn't push our investigation east maybe it was best to leave the area. We decided to head back to the safety of Cajamarca town, have a wash and top up our supplies. We also needed to rethink our approach as tensions in the state seemed to be on the rise against the mine site. In Cajamarca we met the local head of tourism, Victoria Vilca Alfaro, who told us that the next state south, Cajabamba, had caves. It was en route to Yauyos, so the decision was made to at least check it out.

In Cajabamba we stayed a night with Vicky's family while Dave and Nic took a local guide and went to check a lead on horseback. The area was immediately branded Brokeback Mountain, as Dave and Nic had to spend a night, cold and alone, high up on the hill, with little but each other for warmth. The lead was a dud, but set in stunning mountain scenery.

We had a great time with the locals and Vicky pointed us in the direction of another limestone block a little further south. Here we explored an interesting system—El Chorro—which translates to 'The Squirter.' Nic, Adam and I started right away with the rock climb up the wall to reach the hole, while the rest of the team started to look at the surrounding area and set up camp. We boys returned early evening and reported the cave was still going. Trending upwards from the entrance, the cave was left at a small climb.

On the following day we broke into multiple teams. Exploration of the cave continued for some, while others scoured the nearby hills seeking further entrances. Adam and Dave pushed the cave, which continued in an upwards direction for a while before starting to trend downwards. As they continued surveying they started to encounter puddles of water for the first time. It went from puddles to walls covered with wet mud. There was a feeling a sump would be seen soon. Sure enough, it wasn't long before they reached a 4 m pool of water, probably a hanging sump, but without dive gear we had no way of knowing. The following day a few guys returned to push a climb and see what was at the top. Although a lot of fun was had, no significant further passage was found. El Chorro was 700 m long.

The sump and dead climb marked the end of El Chorro's exploration. Our continued investigation of the hills nearby yielded little of interest apart from a 30 m long high cave full of ancient pottery. We were also told of Inca caves further down the valley.

Behind the mountain Adam and I found an incredible valley which held more potential than the El Chorro side. Eight caves/potholes were discovered—two with 7-9 second stone drops but enthusiasm for the area was dissipating for some expedition members. People were keen to get to Yauyos and set up a base camp. It is certainly possible that a larger system does exist here and is likely that El Chorro is a pressure release passage when more water enters into the system than is able to escape via another method. However, without finding another way into that system we had to conclude our exploration of the area for this trip.

After a tourist drive past La Cordillera Blanca, we arrived in Yauyos five days ahead of the second wave of expedition members and marvelled at what we saw—perfect limestone cliffs from the valley floor, visible almost all the way to the plateaux high above. This was cave country for sure, and we all knew it. We decided to head towards our leads in the Puyo valley that the 2004

expedition had left—two going caves right on the contact 1600 m above the likely resurgences in the valley below. The GPS took us four-wheel driving into no man's land where there were not even any tracks. We found a stunning valley at 4600 m with a 350 m climb over a col to cross to get into the Puyo. The valley became home sweet home as we set up our base camp at an old homestead. The local family had seen us cruise by their farm and sent their son out on foot to investigate who we were. Unlike the north, we found the southern locals to be extremely helpful—the farm boy, Abel, even showed us ten shafts—most with 6-10 second drops for rocks and he gave a promise of hundreds more in the area. Caving time.

The team started to bash lots of pits and shafts. I drove a full day back to Lima to pick up the new recruits, soon discovering that even if Aussies are not renowned for much more than wrestling animals, Andrew Perry sure could represent with his drinking ability. Jesse, Hannah, Rob, Andrew and I filled up with beer and started the journey back to the 4600 m base camp.

For good acclimatisation it is advised to spend a night at around 3000-3500 m, then slowly advance sleeping altitude a maximum of 500 m per day from then on. Getting more altitude in the day is good, as long as you drop again to sleep no more than 500 m above the previous night's stop. This ensures that the body starts to increase production of red blood cells to raise the oxygen carrying capacity of the blood to compensate for the lower levels of oxygen in the air.

My main aim for the Yauyos part of the expedition was to get everyone acclimatised to a high camp so that when they caved they wouldn't be feeling the altitude as much as if they did day trips up from a lower height. This paid off for nine out of ten of the expeditioners. As I was already happy sleeping at 4600 m, even after a night of madness at sea level, I wasn't concerned for myself, so I headed straight back to camp. The rest of the crew had done their reading and their time climbing above 4000 m in the past so we outlined a plan to get them to join us as soon as possible—and all agreed, apart from one caver who decided that 4600 m, with caves as high as 4900 m in the day wasn't too big a deal. He jumped from sea level to 4600m with only one night in between, insisting there was no problem. After 24 hours we evacuated him down to 3000 m with serious symptoms of acute mountain sickness and high altitude pulmonary edema. He spent the next fortnight recovering, re-acclimatising and missing out on all the good caving. This pretty much ended his trip and taught us all a lesson. It should be noted that the guilty party was not Aussie altitude veteran Andrew Perry, who was in high camp with us three days later happily drinking the team's supply of ale and whisky and bashing caves and mountains all day long wearing tights and doing strange dances.

When I arrived back at camp, part of the team had spent a few days bashing 100 m deep pits to the north. With 27 on their immediate hit list, they were slowly working through the pits, hoping to find the one that gave them access to part of the bigger picture. The plateau sits to the north of the Puyo valley and it isn't certain which way the water sheds. The geological maps are pretty good, but as per the background section above, the vertical bedding planes and crazy twisted limestone make the Andes hard to read from a caver's point of view!

The main problems that the team were encountering was frost shatter, which is good at filling up holes and ways on, as well as being hard to rig past safely, and jugging 100 m plus back up the shafts, carrying gear, at altitude. Another part of the team had started to rig one of the going leads, Tragedero Puyo, whose beautiful entrance shaft was one to behold—and this was where I was headed immediately after my soiree in Lima.

This cave has a river sinking into its wide, 50 m entrance shaft and had been left at -107 m by some British mates of mine in 2004. Guillaume started to survey and I started to rig and push our way lower. At the bottom of the entrance shaft, the main way on seems to fill with frost shatter and an overflow system is followed—imagine JF-10 Splash Pot in the Junee (Tasmania), or a vertical Stockholm Syndrome in JF-382 Dissidence (Tasmania) or the nature of vertical caving in the Dachstein (Austria) at its worst and I still think the pitch heads in Tragedero Puyo are worse. Trying to negotiate vertical squeezes, and horizontal squeezes in the roof on to pitch heads with a bolting kit, three bags of rope and no mates was not my idea of an amazing time—get me back to caving in Vietnam. Remarkably, I had to remind myself to stop and breathe with every step. At around -130 m Guillaume caught me up with his flash Palm/Disto X/Auriga survey tool and found me trying to negotiate the worst squeeze yet—vertical into freezing water. With some hammering from my trusty Petzl hammer and using a valuable drill battery we managed to get me down through the squeeze, but there was no way I was coming back. As I kicked around holding my breath trying to push the tight water duck I urged Guillaume to hammer the hell out of the squeeze and get ready to pull me out. After some time we decided this was ridiculous. We were at -130 m in a serious vertical cave which happened to be the fourth highest in the world that day and we were digging a wet squeeze—time to call it an end. If this cave were elsewhere in the world I'm sure it would be dug as it deserves to be.

One hundred and twenty metres away and 15 m higher is the unlikely entrance of Cueva Puyo, which had been pushed to -60 m and left at a drafting pitch head by the 2004 crew. Their description of the cave was not too impressive and it was sidelined as a secondary objective to the Tragedero. As soon as Rob and I started to put rope on the pitches we were amazed at the size of passage and the draught coming out of the cave; it was serious vertical development that could be argued to be the main system of the Tragedero.

Following the old team's single spits and marvelling at how sparing they had been with their rigging, we made our passage as safely as possible and got to their guessed 20 m pitch head—it was decent in size but there was a slope of scree directly above that made the approach and subsequent rigging more interesting. Below this we struck a 100 m pitch in a long winding rift but ran out of rope 40 m from the floor. We named it So Long And Thanks For All The Cave. We could see a possible way on but thought it best to leave the survey and all of the gear in situ and return to get more rope. On the following day, Al and Dave took enough rope to drop the next 40 m and check the bottom of the pitch. They arrived back at camp with a small climb lead in the early hours of the next morning. The following day a pushing team and a photography team went in to push the cave and photograph what we had already found. The pushing team quickly killed the cave and the photography team managed to send a shower of rocks down the 100 m to kill Nic's expensive Scurion light and break his little finger. This didn't go down too well with the Canadian Viking.

In the Puyo valley, four other caves were explored, the most notable being Breathlessness, which was a 60 m shaft just above the Tragedero. With four other large shafts explored by previous teams, we concluded that we could not find a way through the frost shatter and into the lower reaches of the limestone from this side of the hill.

To the north of camp the team was still knocking off shafts, caves and even a few mines each day. To the west and right near the road the team had noted some interesting karst with visible entrances dotted through. We also started to systematically knock through these leads in the hope that

one would drop through the top 200 m of bad rock and into the good stuff. Some shafts were rigged directly off the front bullbars of the ute, Nullarbor style. Others were rigged traditionally with a bolting gun and naturals. All were great fun for the rigger. We followed a hardcore punk naming theme, with a complex system being called Suicidal Tendencies, an 80 m hanging death shaft Minor Threat, an 85 m shaft Bad Brains and so forth. The sum total of caves and features explored in the high camp area was 106. Some of these were complex vertical systems, some were 15 m pits. Bashing through them all was great fun and kept us busy for a fortnight.

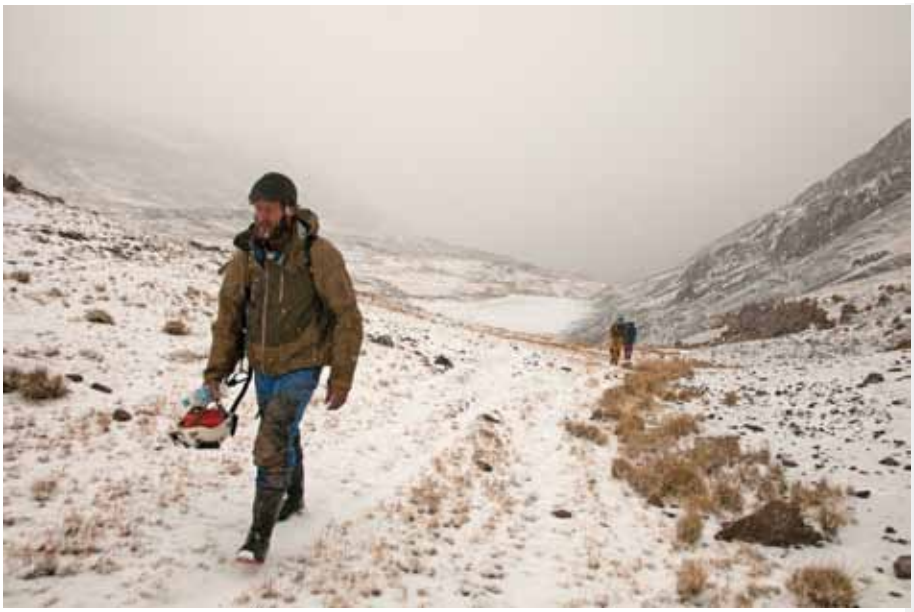
On the day that the team member had to be evacuated to a lower altitude I had taken an exciting four-wheel driving trip up a side valley from the road—the true continuation of the main river valley that the water from the plateaux rises in. In doing so I had noted some incredible limestone on the other side of the valley from where we had based our search and also got some information from local farmers that there were huge shafts 1500 m above their farm.

The rock was vertical and access from the east would be nearly impossible, especially with heavy packs and camp and caving equipment. Nic, Guillaume and I decided to drive around the block to see if there was access elsewhere. From Huancayo township to the west we climbed from 3550 m to 4900 m in a day, with light packs and a thirst for finding these large shafts. We split up at a convenient point and divided the block into three. With six hours on the clock we worked hard to cover our areas and note any entrances. Guillaume and I were furthest east and didn't find any cave or even decent limestone. Nic, however, found some fantastic speleogenic limestone, plenty of decent entrances and shafts and even a cave with worn limestone steps in a beautiful valley and Inca-aged skulls inside. The floor was worn throughout but unfortunately the cave had a collapse half way in which barred him from discovering why the cave had been so important to the ancient locals.

We reported back and it was decided that when it was convenient and when I had found two guys stupid enough to follow me up 1500 m of vertical ascent in a day with 25 kg packs, I would return to Nic's area and push the leads. A video can be found on our website from one of the high peaks on this block which points out the area of interest and gives the reader a good idea as to what the Peru caving project is about.

http://peru.commscentral.net

On the same recce trip we discovered a river sink, right by the road, which sucked



GUILLAUME PELLETIER

Standard afternoon weather in the mountains

air. It was branded El Chupadero—The Sucker—and left for a return team. We also discovered two other blocks of limestone that would need to be checked by return teams.

Back at base camp the team was finally getting restless. Bashing a hundred pits and not being able to push past the frost shatter was getting frustrating, so we decided to pack up our camp and head for the leads that we had found on our outing. The first area would be Cerro Shacoc Machay, where we could do daily ute runs over the 10 km to the Lago Pucacocha area. When these areas were ready to leave we would all head to El Chupadero and I would take a few guys to Nic's block.

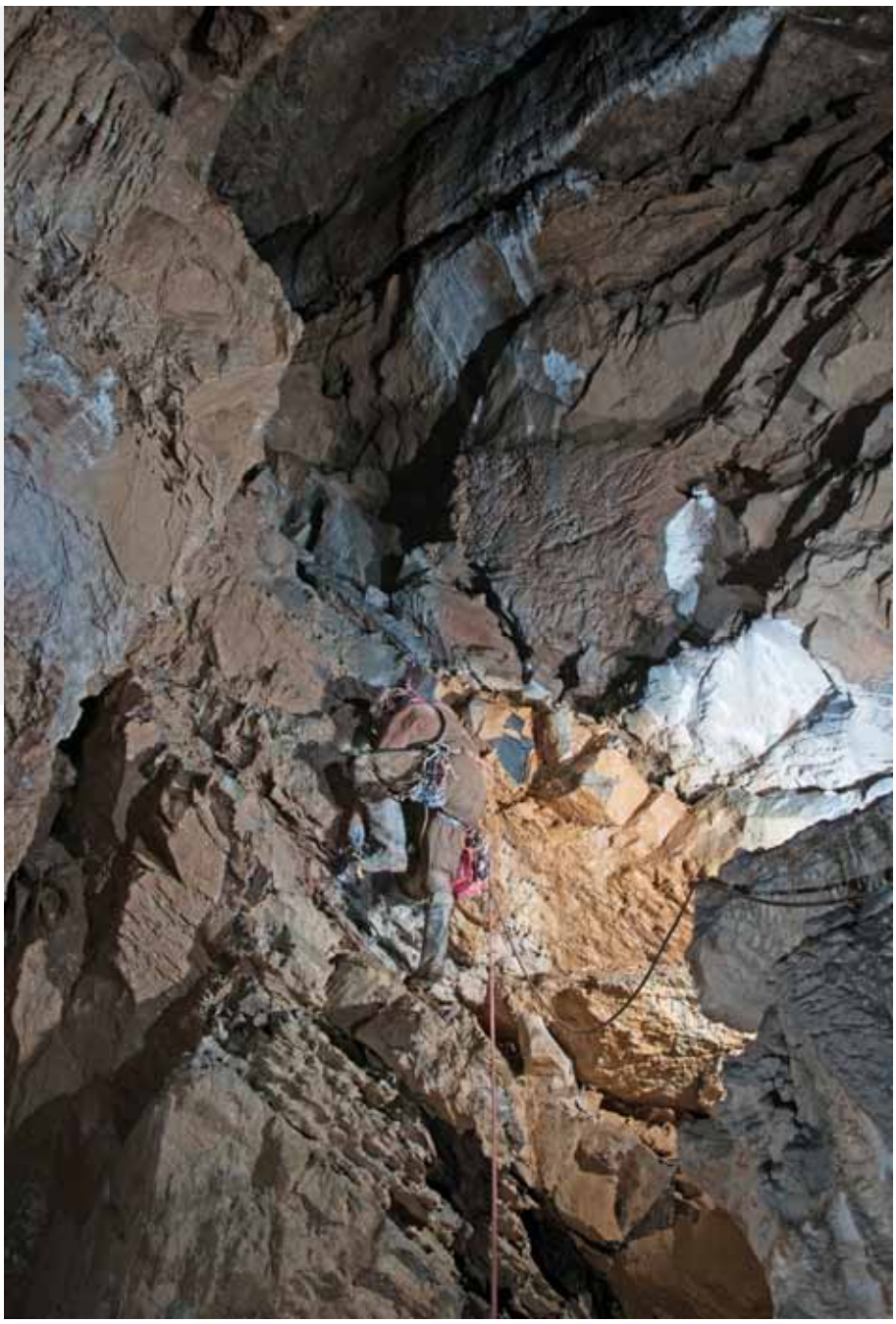
At Cerro Shacoc Machay we started to piece together a large cave system spread out over the hillside. Up on the Cerro itself, a number of collapse features were noted, and all the 'going' shafts ended in the typical sediment/breakdown chokes we had become accustomed to finding. It seems that if you find a shaft or series of shafts extending below -150m from the surface,you might have a chance of getting into something more extensive than the choked shafts we had been recording.

The most notable shaft explored was Megadeath at -76m. There are hints of a 'master' cave of sorts, but there will not be an easy way in, if there is one. Cerro Shacoc Machay would be a fantastic caving area anywhere in the world that would produce numerous discoveries and education, but with the limited time afforded to expeditions it is unlikely to yield the results hoped for without a lot of hard work. The area is perfect for teaching about cave and karst development as it displays many of the numerous 'textbook' lessons, such as migration of sinking stream. It was a joy having trekked over Cerro Shacoc Machay, and we felt lucky to learn from it.

The block to the west—the Lago Pucacocha area—kept four men busy for five days. The bedding of the limestone in this relatively small area had a general incline of 20-30 degrees. There are numerous sinkholes along the presumed contact zone in the bottom of the valley, extending for the entire length we walked. Given the amount of sediment in the area, it was not unexpected that most of the sinkholes were blocked, though some contained rounded boulders made of igneous rock of glacial origin. Along the ridge almost nothing was found; however, a line of entrances was found near the top of the mountain following a fracture line.

One significant cave was discovered in that line of entrances. It dropped almost completely vertically through the bedding planes to a depth of -100 m. The way on at the bottom was blocked by huge breakdown, but a large standing passage could be seen to continue at the angle of the bedding plane through the boulders. Any future trips to this cave would require microblasting gear and some tools to move boulders. A strong draught was detected higher up in the shaft but it is lost in the large room at the bottom. It is still possible that there is parallel passage along the shaft that bypasses the breakdown. Numerous nooks that bent out of sight lined the shaft all the way to the bottom; just another area that elsewhere in the world would be dug and probably reveal something more involved.

We headed for El Chupadero, which turned out to be a complex, fun system. It went for nearly a kilometre and kept seven people busy for the best part of a week. The system climbed, dropped, twisted and began to get quite complex with side pas-



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Bolt climbing in El Chupadero

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The bottom of So Long And T

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Rob su

sages, inlets, oxbows and avens. We had a good bolting project in there and some horrendous squeezing and hanging death boulders in the side stuff. The cave eventually ended in a choke, but the side leads kept us busy trying to tie off the survey.

Whilst this was being explored I had been hunting the team for two people to come on a three-day jaunt up to Nic's block above Huancayo. Kiwi Adam was easily persuaded as he didn't really understand what he was in for, so he was an easy choice. The third man would be Australian Andrew Perry, whose trekking and mountain climbing history, bravado as a tough bloke and lovely long legs would make him a great addition to the small team.

We set off from 3550 m up a steep climb, up a short rock climb and on to the plateau. At 4850 m we crossed a col and dropped into the beautiful valley where Nic had discovered the Inca cave. We made a bivouac, ate some food and promptly fell asleep. On the following morning we set out to start knocking off Nic's leads. That day we all got more than our fair share of caving, with five decent potholes rigged and killed—two were over 100 m deep but there was still no way into the lower reaches of the limestone. The area holds potential and would be worth a return trip. It is truly a beautiful part of the district. We ended the long day with a starlit walk back over a 5000 m peak and back to our lonely bivouac.

On the following day we woke early again, packed up our stuff and headed back towards the col, where we dumped our kit and set off once again for an epic vertical climb to a ridge where Nic had spotted a 15 m by 8 m entrance high up. As we approached the ridge we were uncertain of the location of the entrance so Andrew went one way, I went another and a shattered Adam sat and waited on the ridge. Andrew found three entrances that didn't go far and I was lucky enough to find and survey the second highest cave in the world, Puna Mach'ay or High Valley Cave, which didn't really hold much potential as it was high on the ridge, but the approach across vertical scree and the rock climb into the entrance made it an exciting outing. We decided that a quick scree run descent to our packs and a long, slow downclimb to Huancayo where cold beer awaited us was overdue.

After a night on the beer and playing soccer with the locals at a lowly 3500 m

hanks For All The Cave! pitch

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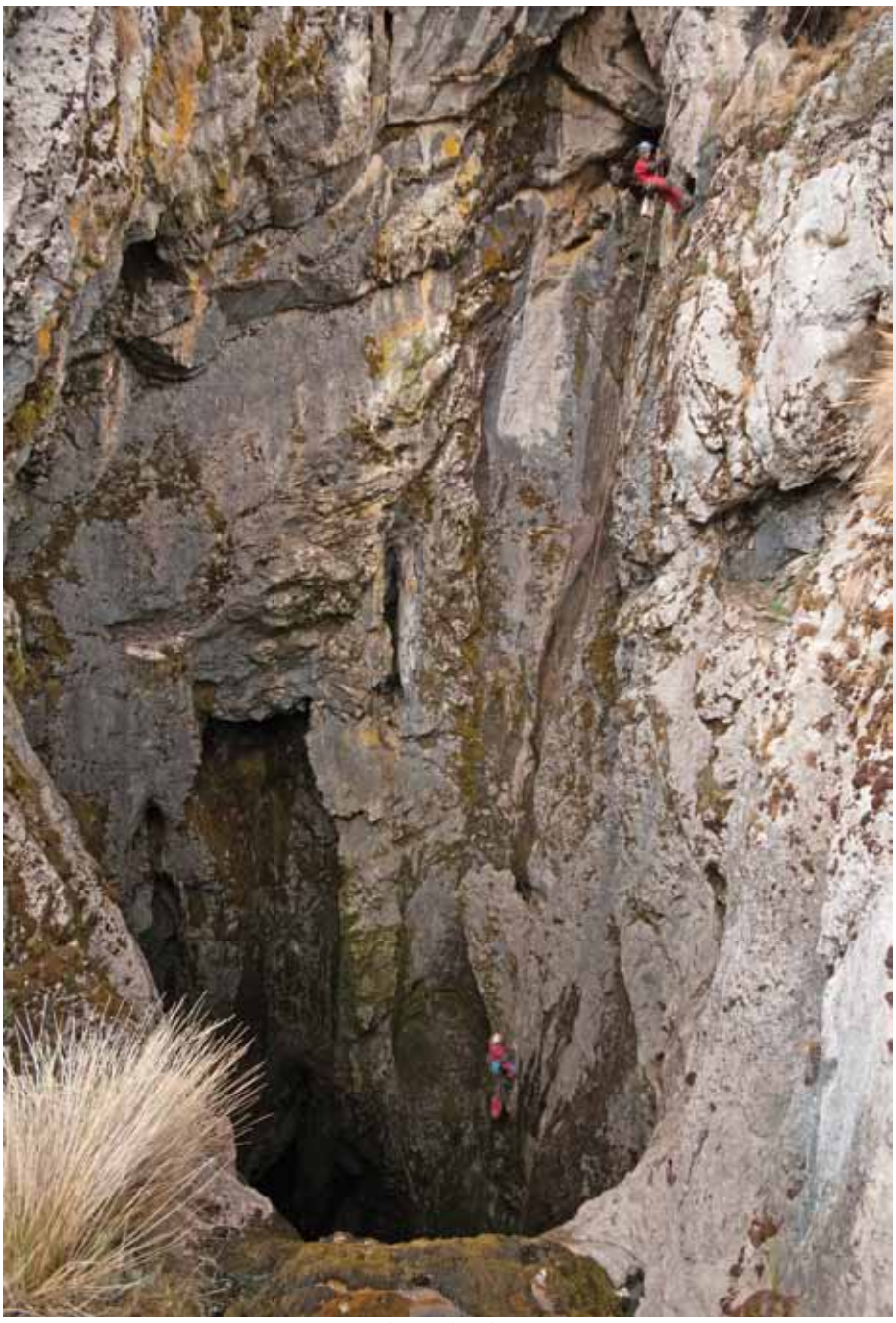

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Adam and Andrew

it was time for David and Alan to head back to Lima and start their journey back to Sydney. The rest of us had a few more days and a going cave called El Desnudador, which sat under the huge Canete river and followed a line through tufa and not limestone. This cave was a real surprise to everyone involved. It was found by chance in an unexpected location and does not have a limestone wall in the whole place. Despite, or rather because of this, and its exceptionally aqueous and sporting nature, the cave was a real treasure late in the trip. The first explorers also ended up doing it in the nude—they had no caving gear and didn't want to get their clothes wet, but they were just too excited to wait. Truly unique.

An entrance had been spotted on the far side of the tufa dams on the Rio Canete while driving past and it was decided to have a quick look. On the walk down, Guillaume, Nick, Hannah and Rob wandered down a gully and were really surprised to see an entrance at its base where it joined the base of one of the tufa dams. A healthy stream was flowing in the entrance, which was unusual in that it had granite bedrock and a tufa roof. Hannah watched while the three men/idiots stripped and headed into the cave. It consisted of numerous climbs and pools, and simply got wetter and wetter as more and more spouts appeared from the tufa dam above. They explored about 100 m of truly awesome sporting cave before returning to relative warmth above, soaked but well psyched.

On the following day Guillaume, Hannah and Rob returned to the cave to survey, this time equipped in caving gear. The caving was as awesome as ever, though keeping the Disto X dry was a constant battle and finding shots clear of the spouts proved difficult. When they reached the point explored to previously, a handline was added to a sporting climb. This led down to a fast-flowing canal which appeared to sump round the corner but they could not be sure. However, everyone was now baltic so a hasty retreat was called. We were pleased we turned around when we had as when we reached the surface the previously dry gully was flowing, and it was pissing buckets. This cave was about to sump right off.

The following day a team of five entered the cave to finish it off and take as many photos and videos as possible. At the end, a line was belayed and a couple of people

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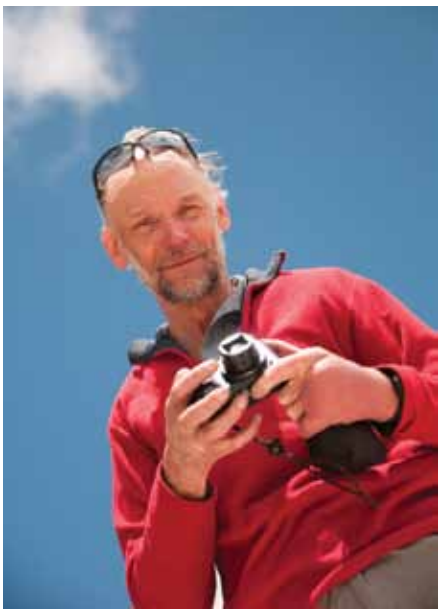
Rob in El Desnudador



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Moving through El Desnudador

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Rob doing what he does best

floated off down the canal in search of the continuation. This was definitely sumped and photography began. An excellent end to the expedition.

After a recce for Nic and me into the higher valley of the Canete River, and with one of the best leads of our caving lives left for another year, we were ready to head back to Lima, get a shower and get some beer and non-camp food inside us. With Andrew and me representing Australia, two Poms representing England and three Canuck womanisers, we hit Lima in true expedition last-night style.

I vaguely remember taking one of our high-powered executive contacts from one of Peru's top mining companies into a death metal club late in the night and stage diving off a high balcony, but nobody could confirm much about that night the following day.

In conclusion, Peru 2012 was a great success in that we went to recce two districts and ended up looking at three. The world's highest cave list was reinvented in the time that we spent there and all expedition members learnt a lot about caving, altitude and mountaineering. Australia was represented by five men from Sydney as part of a wider international community and although we didn't break through into the lower reaches of the Yauyos block, we did systematically check all leads and leave no questions for further teams. Putting a team together from different parts of the world and from different generations was fun and we all learnt new ways of doing what we do. Most expeditions I have been part of have been solely British, Kiwi or Australian and it was great to be part of the wider community and learn from it. We plan to return to La Canete valley to check our big lead there and perhaps look more at the lower valley's resurgences and low entrances in the future. The Conga area remains a disappointment but holds some great caving potential in a country overtaken and disrespected by large foreign mining companies. As Australians. we can relate to Peru well.

To read our final detailed report, check out surveys and view more photographs please visit http://peru.commscentral.net

[Written by Andy McKenzie. Credit, in part, should go to Jesse E. Martin, Nicholaus Vieira, David Taberner and, of course, the team.]