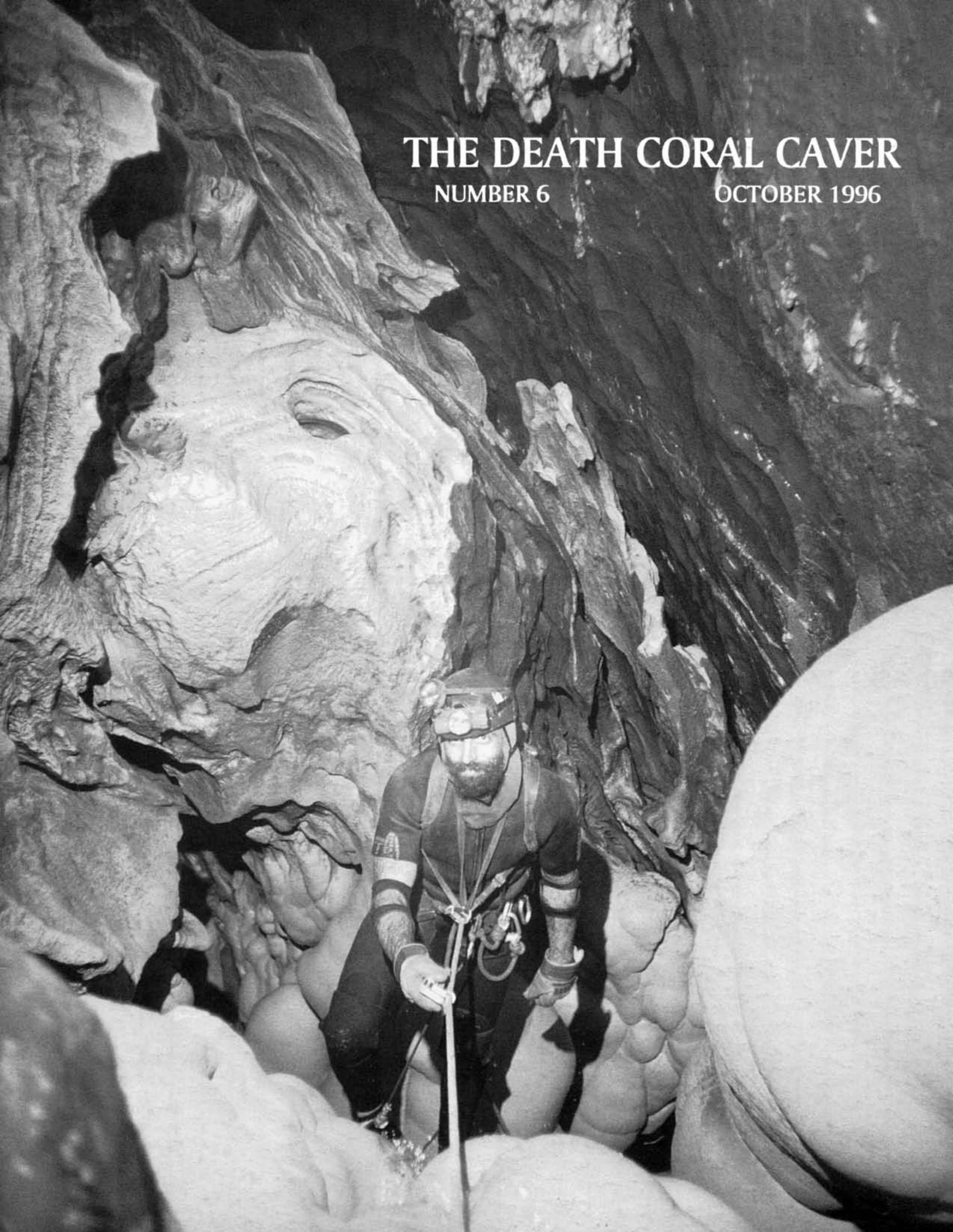


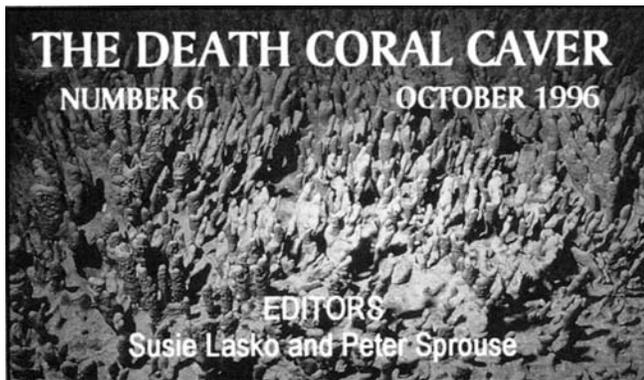
THE DEATH CORAL CAVER

NUMBER 6

OCTOBER 1996







EDITORIAL

With another publication finished I am again impressed with all of the contributions made by so many, in so many ways. Although the credit for the photographs we use goes to the person holding the camera, all of those pictures would not be possible without a great deal of time and patience from the entire photo team. Many thanks to these folks. Writing articles and drafting maps are also very time consuming activities and we are indebted to those who took time out from all of the other things that need doing to provide these services for this issue.

It takes hard currency to be able to publish our results, and like most small organizations, we run on a shoestring. The memberships and cash donations we receive make it all possible. Thanks to everyone. Now, let's head back to the mountains!
Susie

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The *Death Coral Caver* is published by the Proyecto Espeleológico Purificación, a non-profit organization incorporated in the State of Texas. The PEP is dedicated to the study and exploration of the caves and karst of the Purificación Karst Region in the states of Nuevo León and Tamaulipas, México. Articles from the *Death Coral Caver* may be reprinted in other not-for-profit publications with proper attribution. Any material relating to the Purificación karst is welcomed for publication. Membership in the PEP is available to interested individuals who share the project's goals of careful caving. Annual dues are \$15 per year for individuals. Corporate or institutional memberships are \$100 for a 5 year term. Members will receive newsletters as they are published and may vote in elections of the Board of Directors.



PHOTO CREDITS

FRONT COVER: Charley Savvas climbs a wet flowstone pitch in the Angel's Staircase, Sistema Purificación. 1995 photo by Peter Sprouse.

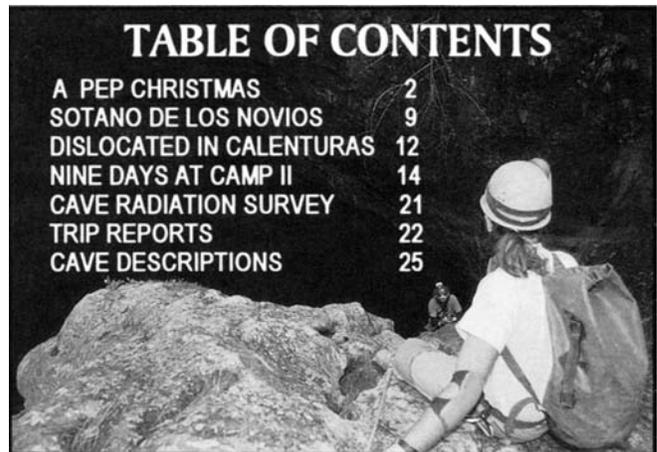
INSIDE FRONT: Champagne Pit drops into the lower streamways of Sótano de Las Calenturas. 1995 photo by Susie Lasko.

INSIDE BACK: Cyndie Walck "surfing the Cube" in the World Beyond, Brinco. 1995 photo by Peter Sprouse.

BACK COVER: Peter Keys fires at the Angel, World Beyond. 1995 photo by Peter Sprouse.

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A PEP Christmas



Connie Carroll in the Calenturas main passage leading to Roman Pit. 1995 photo by Susie Lasko

by Pete Hollings

With the snow once again falling in Saskatoon, and the temperatures dropping even faster, it was time to head south to warmer climes. So like any sensible caver I made my way to Austin to spend Christmas 1995 with the PEP. Anyone traveling with the Austin cavers soon becomes accustomed to their relaxed attitudes to schedules, and true to form we didn't leave Austin until late in the afternoon of the 9th. A convoy of four trucks, stuffed with twelve cavers (Susie Lasko, Peter Sprouse, Bill Mixon, Bill Stephens, Charley Savvas, Jean "Creature" Krejca, Pete Squires, Dewi Lloyd, Cyndie Walck, Jack "Solo" White, Connie Carroll and me), headed down to the border and into México, arriving at Ciudad Victoria in the early hours of the morning. We spent the night, or what was left of it, anyway, sleeping beside the Río Corona and then, after stopping in Victoria to stock up on beer and chilies, headed up into the mountains.

It took some five hours to reach our destination, by which time one truck had to be bump started, as the ignition had failed (bump starting involving an uphill push from the next truck in line). Another had required minor repairs after the ignition wires shorted out. Vehicle repair is another thing you get used to when traveling with Peter and Susie.

We camped in a field outside the village of La Yerbabuena, although calling it a field is something of

an exaggeration, as it only seemed to grow rocks. It was hoped that while in this area we would be able to connect Sótano de Las Calenturas to the resurgence, Cueva del Río Corona. Consequently, the first job was to rig the 40 meter entrance drop of Calenturas and familiarize everyone with the main features of the cave. After a brief guided tour, we headed deeper into the cave to map some passage in the 3-D tube maze near the Roman Pit. We spent a couple of hours of looping around and tying back in to the main survey at regular intervals, before most of us headed out of the cave. Peter, Bill S., Dewi and Solo stayed in the cave to map a small tube off Stoned Bat Junction.

Having settled down for some food and a couple of beers, we were shocked when Dewi returned to camp and told us that Bill Stephens had slipped in the cave and dislocated his shoulder. A rescue was quickly put together, with some people going into the cave with food and what painkillers we had, while others prepared to rig the entrance drop with a hauling system. In the end this wasn't necessary, as Bill was able to prussik out with Susie ascending next to him, supporting the dislocated arm. Back at camp a wilderness medicine book was produced which suggested that the safest way to try and reduce the shoulder was to lie Bill face down with 20-30 pounds of weight suspended from his arm. The idea was that the muscles eventu-

ally become so fatigued that the shoulder is able to slip back into place. Unfortunately, the lack of strong painkillers meant that after an hour or so the pain became too much, and the attempt was abandoned. The only option then was to load him in a truck and drive down the mountain. Peter, Susie and Bill M. eventually got Bill to the hospital in Brownsville, Texas, where it took four people to relocate the shoulder.

The only good news was that Bill's group had finished their survey at a small pitch overlooking a chamber with the sound of running water at the far end. This became our goal for the next day, so after sorting out the mess of rope at the entrance, the eight "survivors" headed into the cave. The drop was approached via a low crawl off the middle of Crunch Pit. Unfortunately, the pit dropped into the Río Champagne, so without Peter to point us at additional leads we settled for a tourist trip into the Thanksgiving Thruway.



Peter and Dewi leave the bottom of Roman Pit on a new loop to Crunch Pit. 1995 photo by Susie Lasko

Having spent a couple of days on the upper cave, we decided the next day to try making the connection from the Río Corona. At the end of the dry entrance passage it was time to change into wetsuits, (at least Cyndie, Pete S. and I changed into them, while Dewi and Charley chose polypro, and Creature decided to skinny dip). The logic behind all this was that it meant you didn't have to carry a wetsuit back up the hill, although, judging by the screams, I'm not sure it was worth it. The next stretch of passage, through three swims of 40, 50 and 60 meters, was spectacular with clear blue water and beautiful flowstone. After the last swim, and a quick scramble through some classic river passage, it was time to change out of wetsuits and tackle the Windy Velcro Crawl. This began as a steep, body-sized tube that led upwards to a constriction that had been blasted open. The passage then continued as a flat-out, popcorn-covered nightmare. Later I learnt that the crawl is only 60 meters long, but it felt one hell of a lot longer to me. The crawl pops out into the Yippee-Yi-Yo Highway and it was from there that the surveying began. We had been directed to a number of leads on the map so we split into two

groups; Pete S., Cyndie and I would take the first lead while Charley, Dewi and Creature would take the second, we would then leapfrog our way through the cave. After a couple of hours I was beat, and so headed out of the cave with Pete S. and Dewi. The other three decided to continue surveying for a while and meet us at the entrance. The crawl proved much easier this time, partly due to Pete Squire's effective use of a hammer. The three of us headed out pretty slowly, but the others never caught us up. As it was too cold to wait around, we headed back up to the truck, where we enjoyed a well-earned beer. This may not have been a good idea as Pete S. nearly rolled his truck on the drive back to camp, the day being saved by Dewi and myself climbing on to the hood of the truck to force the front wheel back onto the ground. The other three got back to camp around nine the following morning, having pushed an upstream lead to a squeeze in the roof that would need blasting. The presence of trash at the bottom of this was a good sign that the cave might connect to the surface.

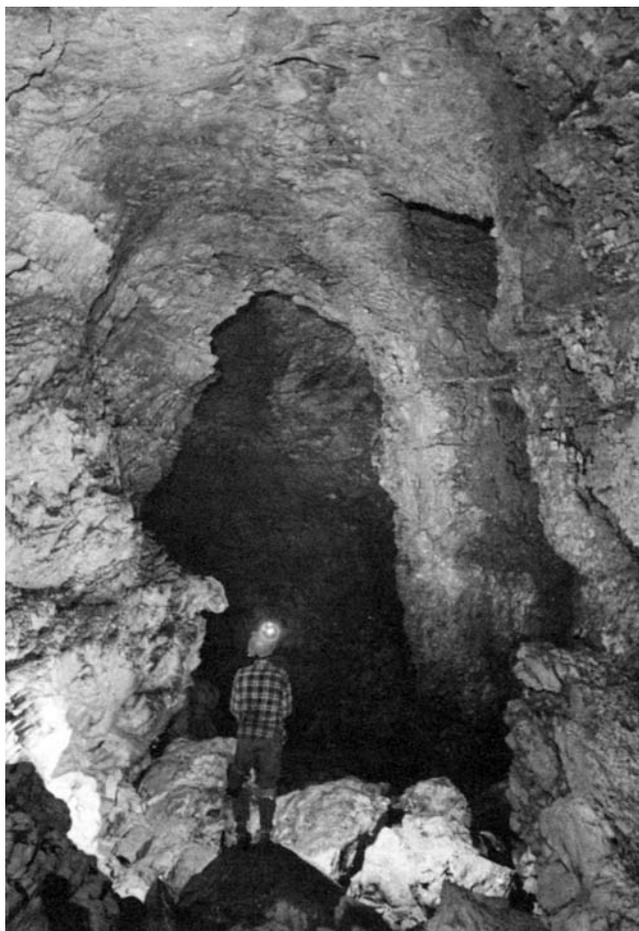
The following day Peter, Susie and Charley returned to the Corona and, in a marathon trip, climbed and blasted their way to within a few feet of the surface, only to be stopped by a trash choke, consisting largely of an oil drum. Unfortunately an inspection of the surface in that area revealed some twenty trash filled sinks, so the exact location of the new entrance will have to wait for the drafting of the survey.

While Peter, Susie and Charley were pushing the Corona, the rest of us tackled numerous smaller projects on the surface. One group planned to go and examine a hole in a distant cliff, while Dewi, Bill and myself were heading down to Cueva del Nacimiento de San Antonio, another resurgence cave. Peter had visited this site some ten years earlier and explored the cave, via a long swim, to a sump. He believed that it might be possible to notch a flowstone dam at the entrance and thus lower the water level at the sump. So, armed with the Hitachi power drill, the three of us set off. Once at the resurgence it soon became clear that there was no way of easily lowering the water level, so after swimming to the sump and taking a bath we headed back.



Main streamway in Cueva del Río Corona. 1991 photo Peter Sprouse

The other group had decided that their lead was in fact a known cave, so they abandoned their hike in favor of digging open a drafting sink we had been shown earlier that day. By the time the three of us returned to camp they had reached a pitch. Pete S. and I grabbed some rope and the power drill, planning to rig the cave with Creature, while Cyndie, Solo and Connie followed with the survey. The first drop took off from a small window and was some ten meters deep. There was no way on at the bottom, but half way up a small window opened onto another shaft. While penduluming across to this I managed to pull loose a large rock which hit me on the leg, putting an end to my plans for the day. Pete S. went on to find another drop, but by then we'd run out of rope, so we called it a day.



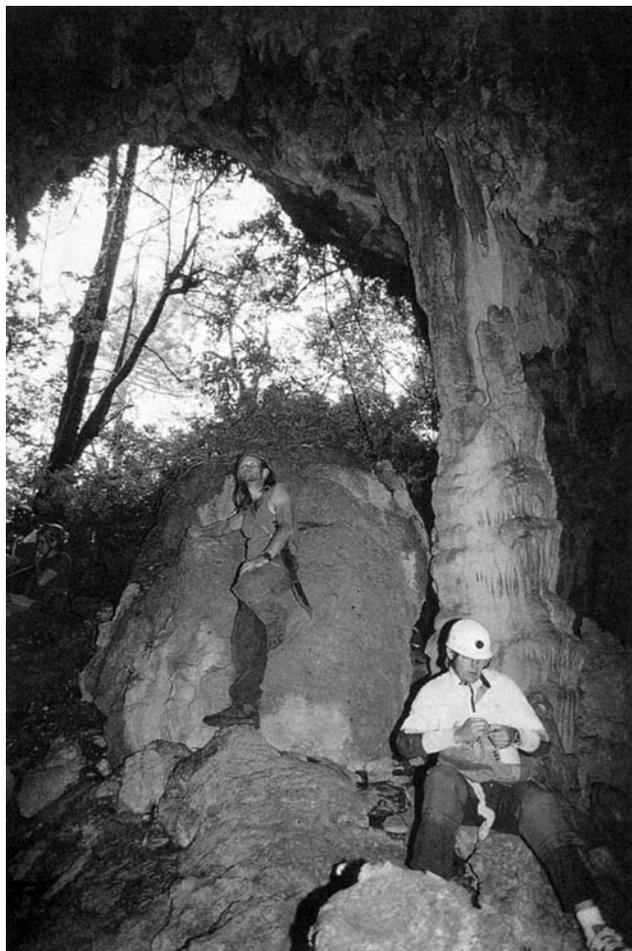
The Thanksgiving Thruway is the main trunk passage in Calenturas leading to the bottom sump. 1990 photo by Peter Sprouse

As we were planning to leave for Conrado Castillo the next day, an unusually early start was made. While one group continued to push Cueva de las Ventanas, Dewi and I derigged Calenturas, and Peter, Susie and Charley tied the new cave into the surface survey. We came back from that to find that Ventanas had been connected into Calenturas just above the sump at the end of the Thanksgiving Thruway. With the area temporarily tapped out we headed off to Conrado Castillo, leaving Calenturas and Corona 307 and 217 meters longer, respectively.

Getting to the field house was great, or more honestly to the stove, as the weather was soon to change. Instead of blue skies, the next couple of weeks were spent in fog, drizzle and miserably low temperatures (although it was still warmer than Saskatoon!). The following morning we were joined by some more cavers. Barbara Luke, Marcus Barksdale and Bev Shade arrived first, having spent the night in the foggy Frisbee Field. They were followed by Peter Keys and Margaret Hart. Margaret had brought a range of GPS gear with her in order to precisely locate as many of the entrances as possible.

As with our last campsite the first order of the day was a familiarization tour, so Peter led us on a trip around the entrances in the area. This included the French Entrance to Sistema Purificación, the highest entrance to the system. This gave Dewi and I an extra incentive to find a higher "British" entrance.

As we wandered down to find Borrego we were attacked by bees, causing a frantic dispersal across the hillside. When we all regrouped we found that Barbara was the winner with four stings! Despite Peter's promise to cut a new trail, we never did get back to Borrego. We left Charley, Creature, Barbara and Marcus surveying in Sierpes and headed back to camp.



Entrance chamber to Cueva de los Sierpes. 1995 photo by Susie Lasko

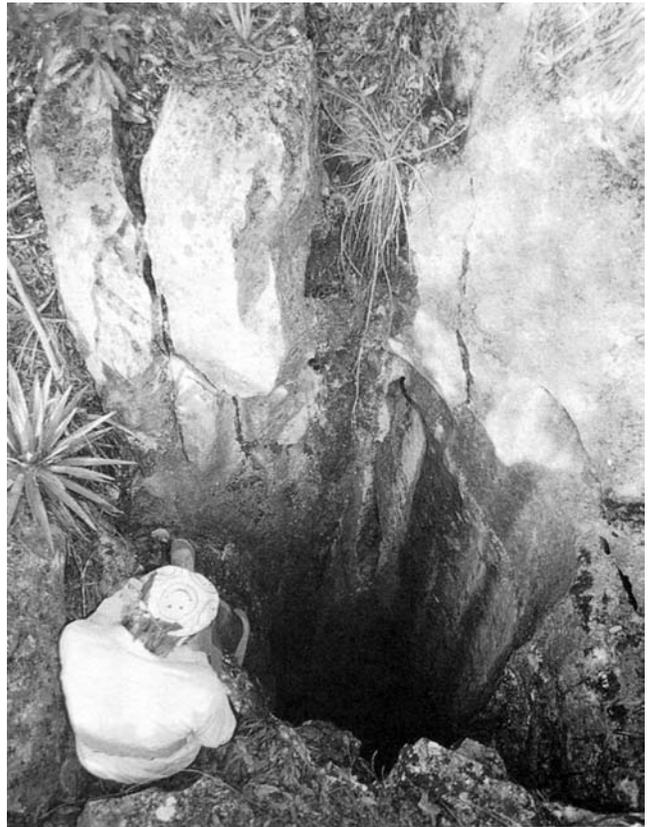
As he did in the Yerbabuena area, Peter had a number of projects in mind. One of these was to push Sótano de la Cuchilla, as the bottom of the cave was only a couple of hundred meters above the Dragon River section of Purificación. Cuchilla currently ends at a constriction in a low crawl that needs considerable digging. As well as a dig team (Charley, Susie and me), our first trip also had Pete S. and Dewi going to check a lead climb near the Moonmilk Traverse; Barbara, Bev and Creature surveying in the same area; and Marcus and Peter surveying in the northern section of the cave. The dig team rigged to the bottom, set a charge and came out of the cave. The climbing team scaled two pitches to connect with Barbara's crew, while Peter and Marcus mapped the Patsyncline Passage leaving one blowing lead. Cuchilla was now some 300 meters longer.

The next day we tackled one of the main goals of the trip: the Angel's Staircase towards the southern end of Sistema Purificación. This area was last visited some 15 years ago, when the original survey was made along the main route. A quick look at this survey revealed a vast number of question marks and a most intriguing 3-meter-high passage heading off at the bottom. The plan was to use this first trip as a chance to familiarize most of us with the cave while at the same time carry in a load of rope.

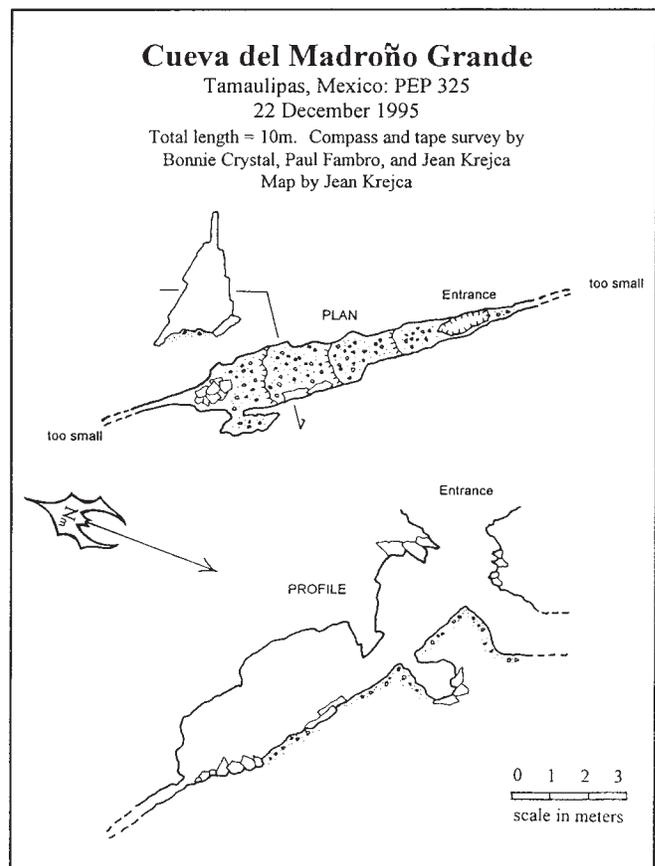
There were nine of us on the trip, so we weren't a particularly fast-moving group. Memorable moments of the trip included the Mudball Chant, accompanied by Cyndie's ecstatic moans, not to mention seeing how many people you can fit on the Cube. Having dropped off the ropes we headed out, taking photographs in the World Beyond along the way, the last caver (me!) getting out of the cave around 1:00 a.m. after a 12 hour trip.

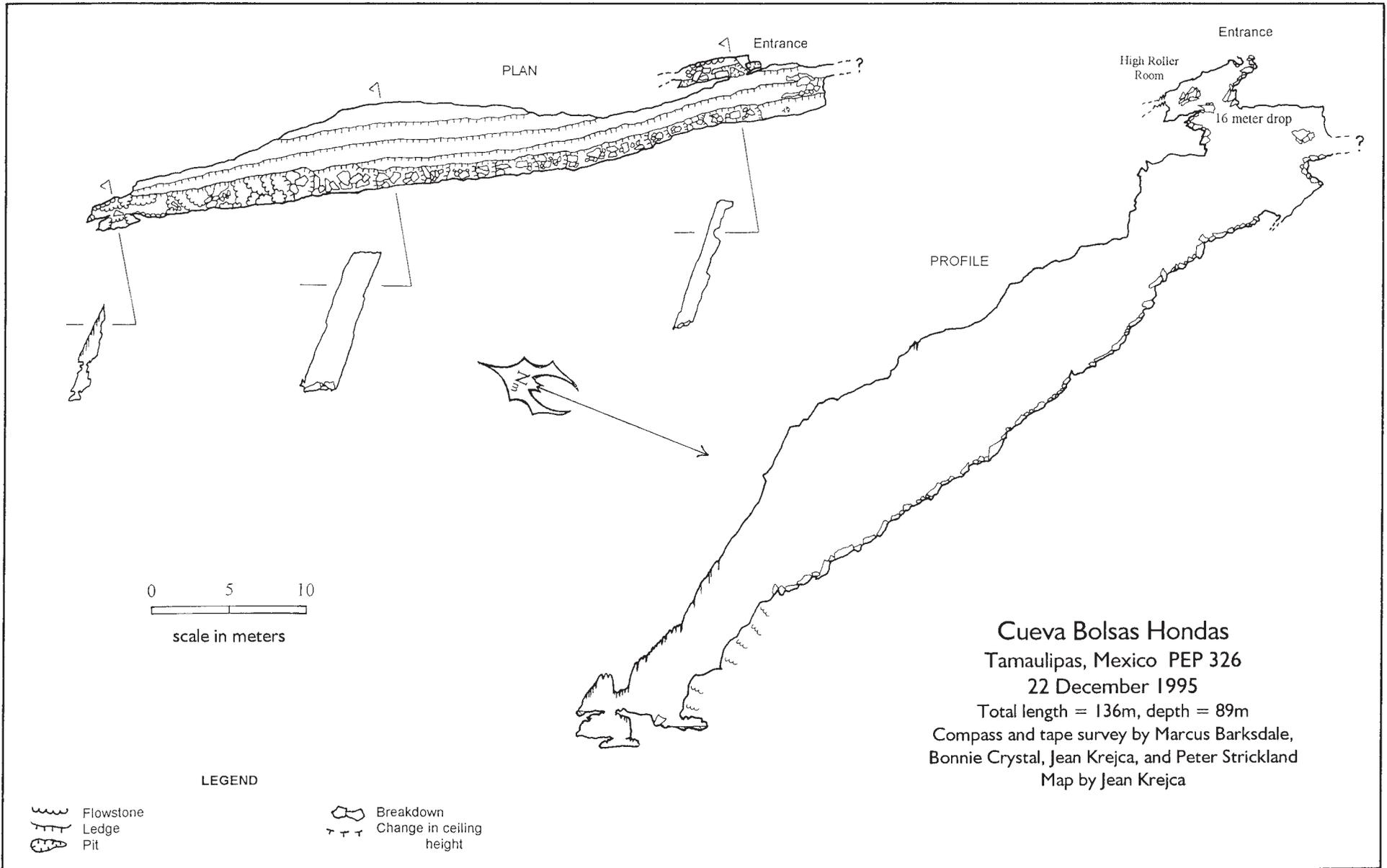
The next day no one was feeling particularly energetic, so we piled into/onto the trucks and headed off to check some pits higher up the hill beyond the village of Revilla. Numerous pits over 20 meters deep were located and noted for future examination. One 50-meter-deep blind pit, Pozo de La Calabasa was surveyed by Marcus, Susie and Barbara with "helpful" advice from the peanut gallery. The notable exceptions to this generally lethargic group were Marcus, Connie and Solo, who, having got up early to continue surveying Rifle Bore Pit, a new find near La Ventanita, joined the rest of us on the trip to Revilla and then returned to the cave to finish the survey late that night.

The next day Pete S., Connie and Solo headed back to the States. Charley, Bev and Marcus returned to the Cuchilla dig, while Cyndie, Barbara and Creature searched for caves up by La Ventanita, with little success. Peter and Susie located a few leads in the same area and mapped Cueva del Payaso a short distance to a pinch. Back at the huts Pete Strickland, Andy Grubbs, Bonnie Crystal, Paul Fambro and Terri Whitfield had arrived (for a brief time there were five Peters on the mountain, a new record!).



**Marcus Barksdale peers down Pozo de La Calabasa.
1995 photo Susie Lasko**





The following day Cyndie, Dewi and I checked out Peter's leads near La Ventanita. Cueva de la Hierba Puntigada and Pozo Nebuloso were both around 25 meters long. Bill, Barbara, Susie and Peter mapped two pits near La Canoa, Pozo Torta and Pozo Trampolín. Creature's crew mapped the 89-meter-deep Cueva Bolsas Hondas and Cueva del Madroño Grande.



*Barbara Luke climbing out of Pozo Trampolín.
1995 photo by Peter Sprouse*

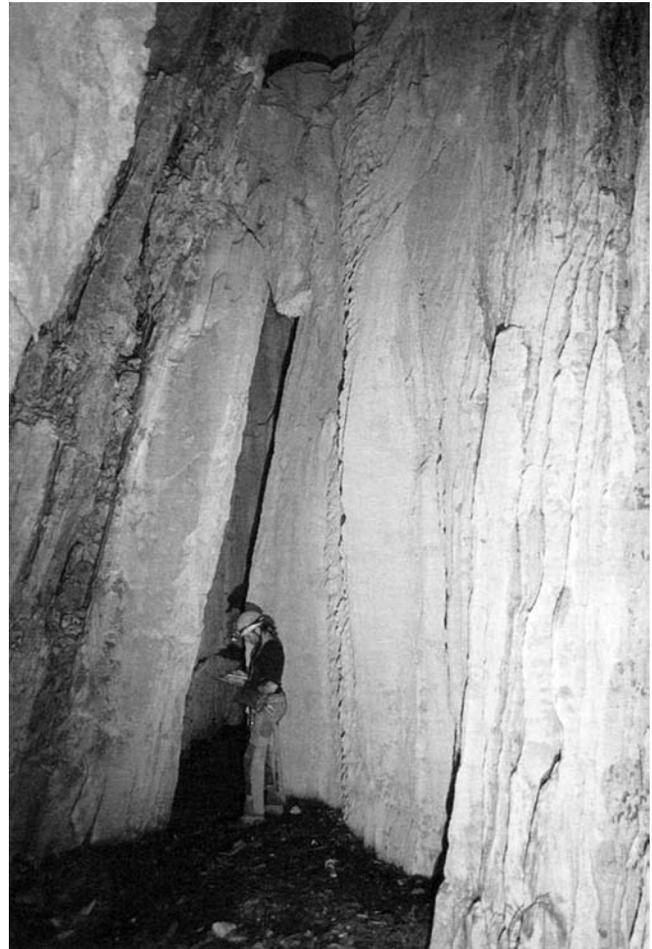
By December 23rd it was time to return to the Angel's Staircase. I wimped out and instead dropped a 40 meter pit that we were shown by the Martínez kids. In this I was joined by Dewi, who'd injured his leg falling into a small pit a couple of days earlier, as well as Bev and Bill for surface support (mainly to stop the kids from dropping rocks on us!). We named the pit Ogof dim Happus Potholer ("Not a happy potholer cave" in Welsh) due to the very loose nature of a chamber at the bottom.

The Angel's Staircase team returned some 20 hours later. They'd rigged down seven pitches before splitting into two teams. Peter, Susie and Cyndie mapped one uptrending lead until they could hear the stream again, while Charley, Barbara, Andy and Creature mapped down a series of pits until they ran out of rope in a going lead with good air. And all this without even getting to the bottom of the Angel's Staircase itself! On the trip out Andy attempted to drown himself while recovering his rack from a pool, but I'm sure you've all heard that story by now!

As it was Christmas Eve, the following day was spent filling time with a variety of brief and generally unproductive projects so as to ensure that not a moment of the party was missed. John Fogarty and Cathy Winfrey finally appeared, their late arrival on the mountain being forgiven when they produced a smoked turkey and enough alcohol to replace the stuff lost at Yerbabuena. All in all the party was a great success, as was the first PEP lottery, with Barbara the eventual winner. All we have to do is find something to bet on next year.

With a bunch of folks heading off to Mexpeleo, there were only seven cavers left on the mountain on

Christmas Day. While Peter, Susie and Dewi went to derig Cuchilla and set off a final charge, Marcus, Barbara, Bev and I went to map some of the pits above Revilla. Pozo de Tweedledum and Pozo de Tweedledee were only 32 and 27 meters deep, respectively, but it was a fun way to spend Christmas Day.

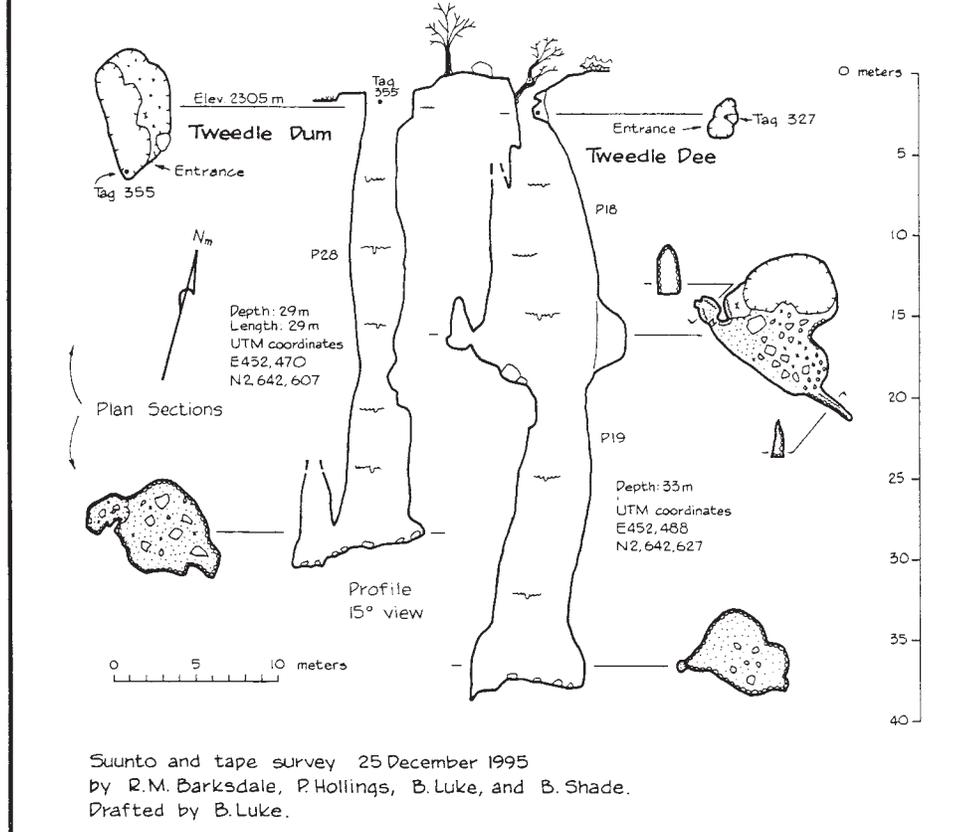


*Peter Sprouse sketches under the steep westerly dip in
Pozo Torta. 1995 photo by Susie Lasko*

Boxing Day found us all on the hill above Cuchilla. Peter, Marcus and Barbara tied some caves in to the surface survey, while Dewi, Bev and I attempted to dig open a howling cave Dewi had found the day before. Ten minutes of frenzied digging (Bev timed us!), with dirt being blown up into our faces by the draught, had the entrance passable. Unfortunately the way on was through a tight rift that needed blasting. However, while Bev was examining this, Dewi and I started hauling large rocks from a sinkhole a few meters upslope. This took a little longer but connected us to the other cave, as we could hear Bev and Susie poking around below us. Just before it started getting dark, Bev and Dewi dropped through a squeeze and reported that the cave went, with passage 2 meters wide and 5 meters high. The following day we returned and "Hollingsized" the entrance. We were able to survey Cueva Nadolig (Welsh for "Xmas") for 80 meters before reaching a pinch.

Pozos de Tweedle Dee y Tweedle Dum

Cuauhtemoc, Nuevo León, México



With time running out and the weather starting to get us down, we decided to move over to the western part of the area in order to check Sótano de los Novios, a pit that had been visited 20 years earlier but never fully explored or surveyed. Peter K. and Margaret decided to head back to the States, but not before serving up an incredible pumpkin cheesecake.

On the way over to Peñuelas, David Ledesma showed us a couple of pits near Cerro los Puerto; Susie and Marcus mapped Pozo Vencidos (Arm-wrestling Pit) to -48 meters. It was so named because, according to my American companions, Wrestling Day must follow Boxing Day, and Arm-wrestling day follow that (sigh.....!!).

After spending the night at Peñuelas we split into two groups: one to rig and one to survey (Dewi spent the day hiking around the area and in the process found a couple of good leads). While the rig team started in, dropping the 65-meter entrance pit, the survey team checked Pozo Schmozo nearby, running out of rope at the top of the third drop. We rigged our way down the cave, only to find a mud choke just beyond the previous limit of exploration (Ghar Parau'd again). While Marcus, Peter and I headed out the ladies mapped a side lead to another blind pit.

The following day we were faced by the seven hour drive to get back to the paved road, a shortage of vehicles leaving three of us on the outside of the trucks. Fortunately, the weather had improved, allowing for some spectacular views over the limestone hills. We made it back to Victoria around nightfall and headed for a hotel. Seven cavers who haven't washed for two weeks should not be allowed in the same elevator! After much needed showers, we hit the town, partying until the wee hours of the morning. A full account of our escapades would warrant a separate article, but as I'm not willing to put all the incriminating details down in writing, suffice it to say that the highlights included Bev's "birthday" in the men-only bar, Susie's rescue of Dewi from the same bar and the addition of Argentinians, Russians, Germans and French to our party without actually increasing the numbers. Peter was somewhat surprised to find us wandering into the hotel when he came looking for us at 4 a.m. I think he expected to have to bail us out of jail.

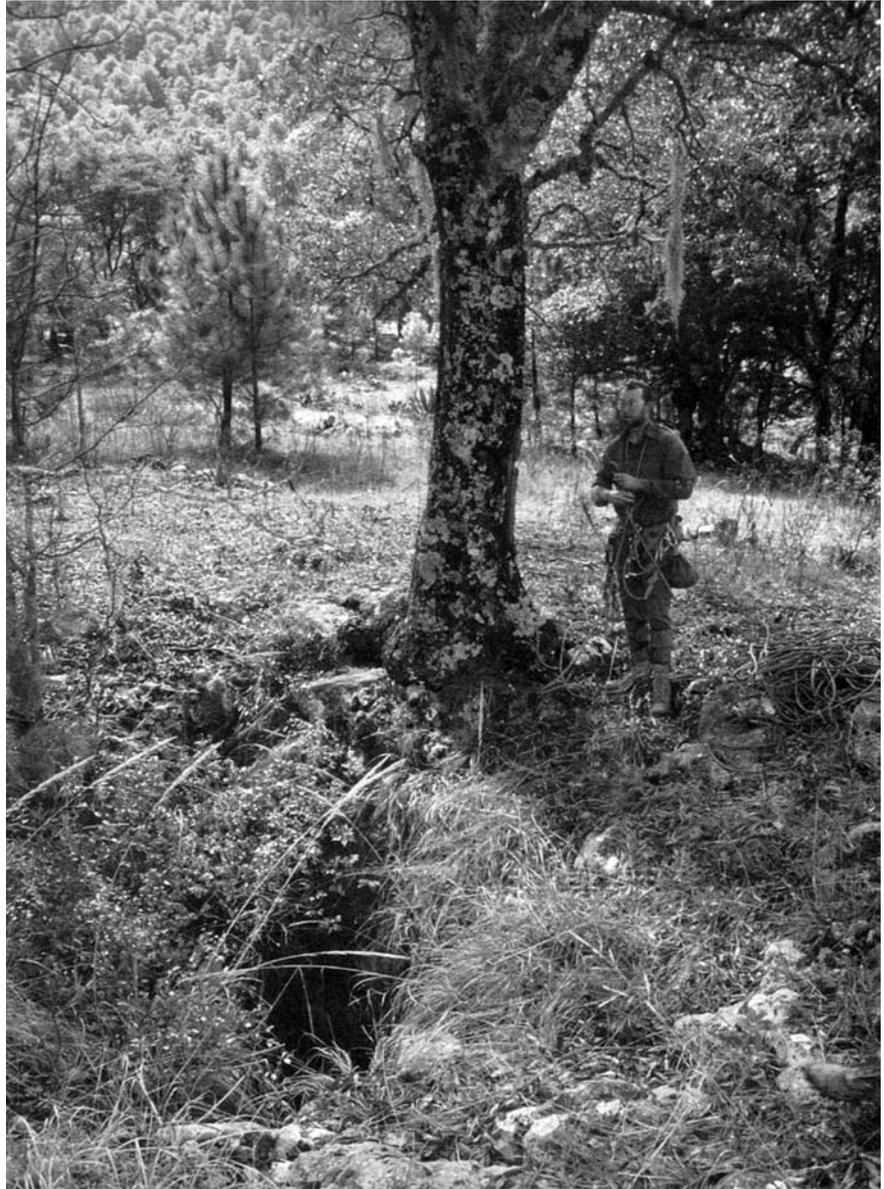
Finally it was time to head back to Austin at the end of what had been a fantastic trip. While numerous leads had been explored, we found more than we surveyed, drank a lot of beer and swapped a lot of tales, some of which might even have been true!

Sótano de los Novios

by *Peter Sprouse*

Sótano de los Novios is located in the western part of the Purificación karst, near the mining and logging village of Dulces Nombres, Nuevo León. It is about 600 meters east of a farm called Peñuelas, at an elevation of 2010 meters. It lies in the bottom of a karst valley that contains thick terra rosa soils. The circular pit entrance takes a small arroyo that cuts through the soil cover. The 66 meter pit is a free drop and lands in a spacious room over a short climbdown. This winds down to the second drop, a 7 meter pitch over a flowstone boss. The next drop of 13 meters breaks over another flowstone boss and is followed by a 17 meter pitch. This lands in a junction room where a side passage leads through a decorated, terra-rosa-stained chamber to the blind Head-first Pit. The main route proceeds on down the final pitch of 20 meters to a mud fill.

Novios has a colorful history. It is said that in 1965 two lovers were murdered and thrown down the pit. Matía García of Maravillas and María Reyna of Potrerito were killed by the girl's father, Selso Reyna, who desired Matía's money. The story goes that he killed them with an ax in Peñuelas, then tossed their bodies into Sótano de los Novios. He spent a short time in jail in Cd. Victoria before bribing his way out.



*Pete Hollings rigs the 66 meter entrance drop to Sótano de los Novios.
1995 photo by Susie Lasko*

Cavers made their way up to the Peñuelas area in April 1974. David McKenzie and Mike Warton located a number of pits on this trip, one of which was Novios. Mike explored several drops and made an enticing sketch map of the cave. This provided an impetus for the watershed trip of May 1976, the beginnings of the Proyecto Espeleológico Purificación.

Loaded into two trucks for this trip were Denis Breining, Neal Morris, Gill Ediger, Linda Elliott, Joan Fitzgerald, Bill Mayne, Dino Lowrey, Glenda "Gandalf" Dawson, Thomas Moore, Terry Sayther, Bill Steele, Steve Zeman, and I.

Soon after the trucks pulled under a large oak tree by the pit, Neal and Steve were rigged for descent. The entrance drop was not as deep as reported, and by the time I followed them down, they had checked the lead at the bottom. Apparently the next pitch was only a shallow, blind well, and a search down a parallel drop with a tight opening led to a dead-end formation room. With our main lead ending so soon, the search for going cave ranged widely over the rest of the trip, and Novios was not mapped at that time.

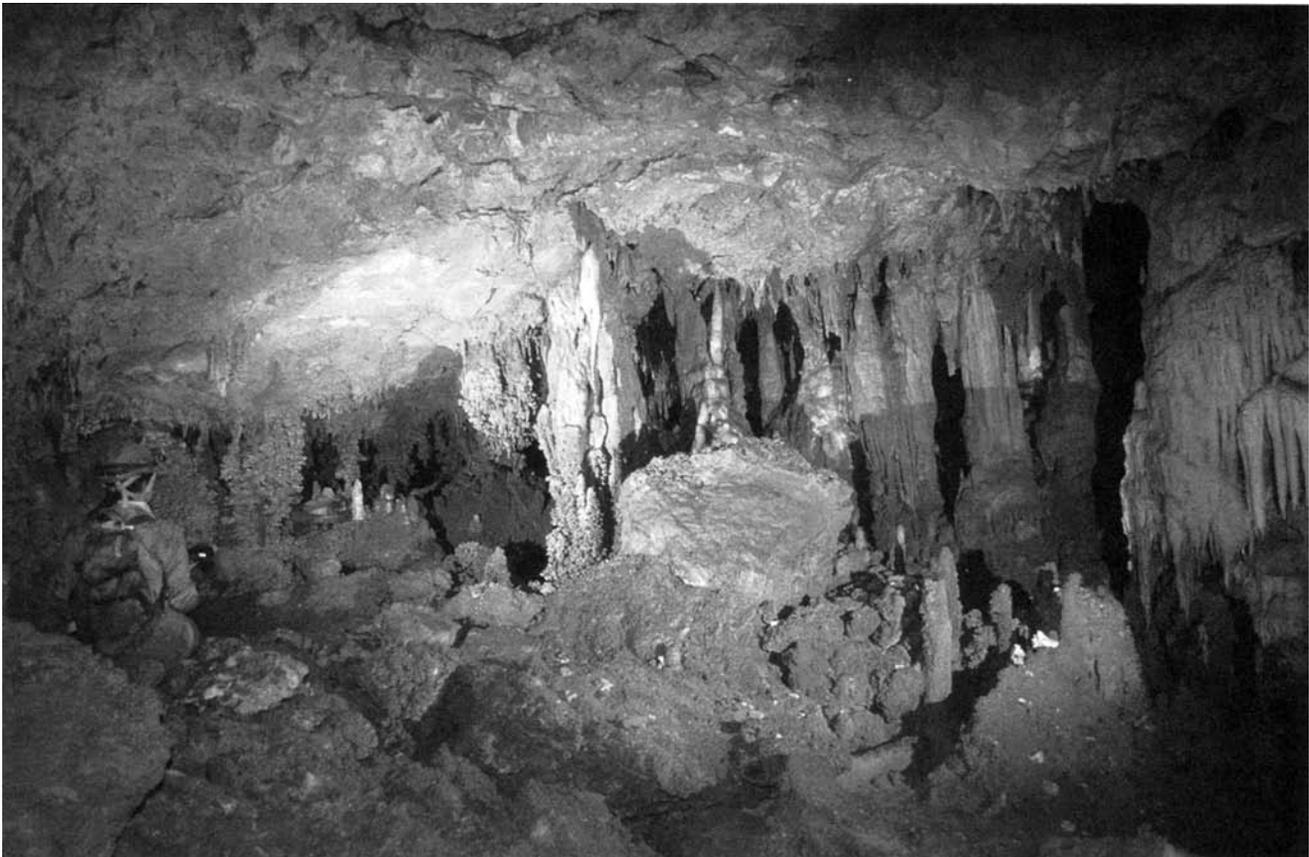
Five years passed before we were out that way again. On 2 April 1981 Don Coons and Duwain Whitis

descended Sótano de los Novios intent on mapping it. They taped the entrance drop at 66 meters, then decided to explore ahead and survey out. But they ran out of rope 2 meters from the bottom, and to them it appeared that the cave was going. The survey was postponed, but Don and Duwain solemnly swore to continue the survey one day.

More years passed, with no sign of Don or Duwain, so on 29 December 1995, six of us geared up to survey Novios at long last. Marcus Barksdale, Pete Hollings, and Bev Shade rigged the cave Susie Lasko, Barbara Luke, and I surveyed after them. We caught up with them at the junction above the last drop, which I rigged down to the deep mud floor. Then three of us headed out with gear while Bev, Susie, and Barbara mapped into the side room. That done, all that was left of Novios was the tenacious red clay permeating our gear. No trace of the murdered lovers was found.

Novios Cave Fauna

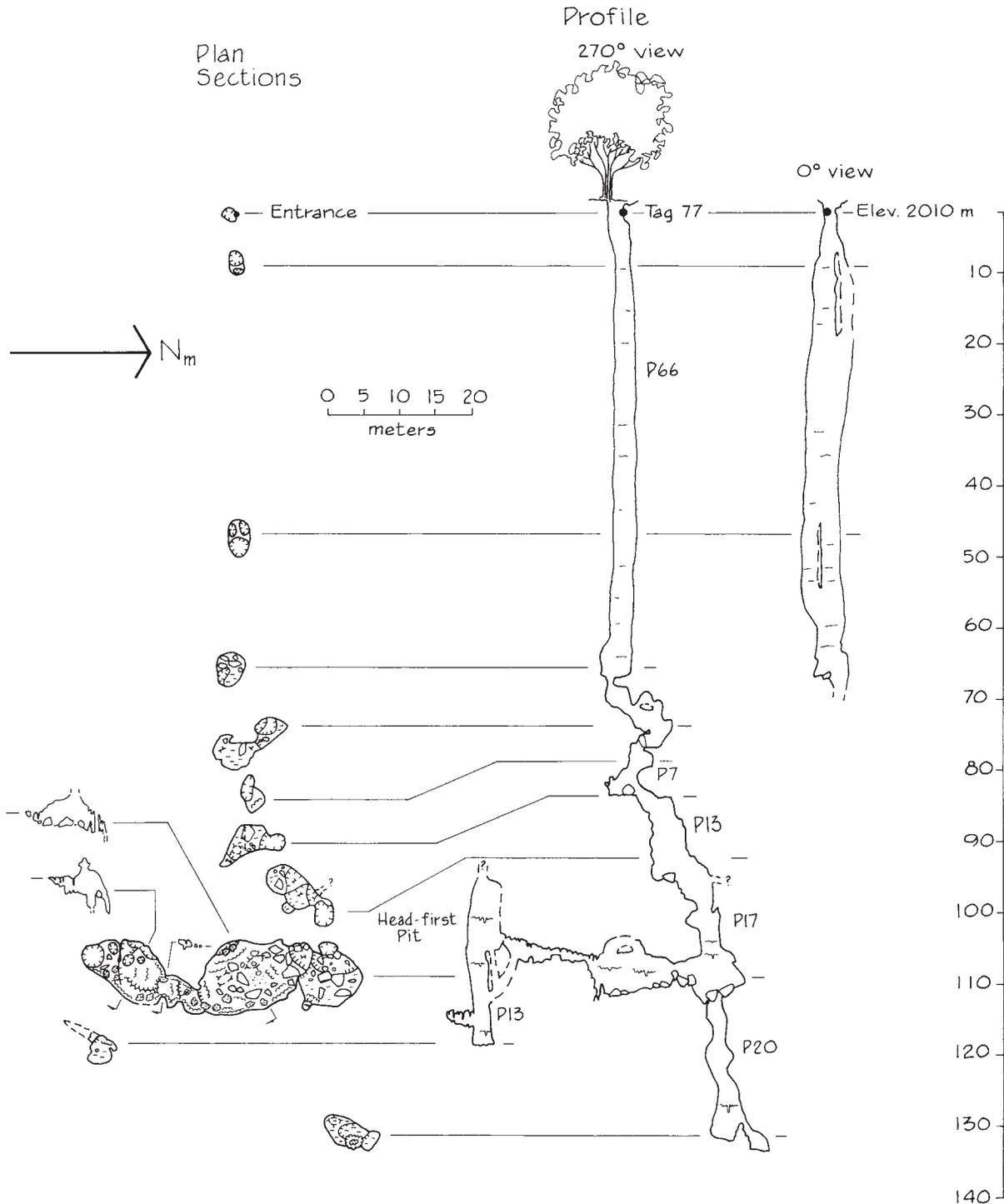
Isopods: Oniscoidea undetermined
Spiders: Araneae undetermined
Harvestmen: Laniatores undetermined
Millipedes: Diplopoda undetermined
Rhachodesmidae genus and species
Roaches: Blattaria undetermined
Cave crickets: Rhaphidophoridae genus and species
Ground beetles: Trechinae genus and species



*Barbara Luke lights up the Novios side chamber stained orange by surface clay.
1995 photo by Susie Lasko*

Sótano de los Novios

Dulces Nombres, Nuevo León, México



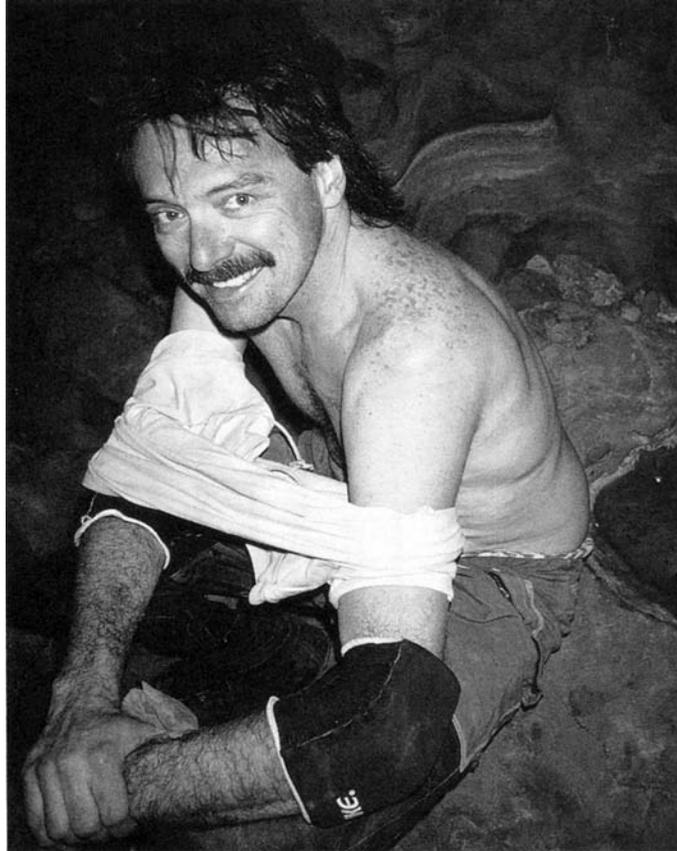
Length: 204 m · Depth: 134 m · UTM coordinates E440,280; N2,652,115

Suunto and tape survey 29 December 1995

by R.M. Barksdale, P. Hollings, S.Lasko, B.Luke, B. Shade, and P. Sprouse

Drafted by B.Luke

Dislocated in Calenturas



by **Bill Stephens**

It appeared to start out as such a good trip. We entered Sótano de Las Calenturas for the first in-cave day of the December 1995 PEP expedition, and it was good to be underground. This was the warm-up trip with all twelve of us. We toured the cave together then broke up to survey.

Our survey team consisted of Peter, Dewi, Solo, and me; we mapped in a network of tight ascending tubes. After a few hours we broke into the ceiling of a borehole. With it getting late and plenty of work days ahead, we turned around and exited the tubes via a convenient bypass that Dewi had located. Along the main route we found a note left by the other teams saying that they had left the cave at 8:00 p.m., by now it was 9:00. The entrance pit was just 30 minutes away, a 25 meter ascent leading to another 20 meter slope and a five minute walk to camp.

Calenturas is like a huge gymnasium with numerous small climbs and lots of boulders and giant logs to maneuver over and around. Our spirits were high and

I was bounding through the cave invisible and bullet-proof, enjoying the marvelous traction offered by my One Sport mountaineering boots. Knowing better, I tested them on an upward-sloping wet log and got adequate traction with the first step, but the next step sent me slipping backwards, reaching out to catch my balance between large boulders. I was okay, almost. Just like a thousand other little stumbles that you forget moments after they occur, but this time my left shoulder was in an awkward position and the left arm was pulled from the socket. Twisting to the side, I somehow managed to land on my feet, but the damage was done. My expedition was over and my zeal to cave would cost my fellow cavers a lot of concern as well as a couple of days to get me off the mountain.

The pain was tremendous, but I found that by elevating my left elbow with my right arm it was at least tolerable. When I revealed my damaged shoulder to the others, Peter sent Dewi to the surface to begin organizing a rescue. After a few pictures to document

the damage, Peter and Solo made several attempts to push and pull my arm back into its normal position. That failing, we tried to move me towards the main entrance, but it was slow going. Peter and Solo checked out a few alternate entrances to see if one might be more favorable than the main entrance shaft, but in the end those entrances seemed less accommodating. Reinforcements arrived and we found a flat area just 50 meters from the entrance where Susie and Charley could give me some Ibuprofen and make further attempts at relocating the shoulder. Peter left the cave to organize the rigging of a haul system.

Within another hour it was obvious we could not relocate the arm. Susie came up with a partial self-rescue plan that would save me the indignity of having to be hauled from the pit. A parallel line would be rigged next to the main climbing rope, and we could ascend side by side, with Susie maintaining the elevation of my left arm. The line was rigged, and we ascended with little difficulty. Once up the pit, Peter got on a parallel rope and ascended the slope with me until I was on level ground. It was now approximately 1:00 a.m., less than 4 hours after my fall.

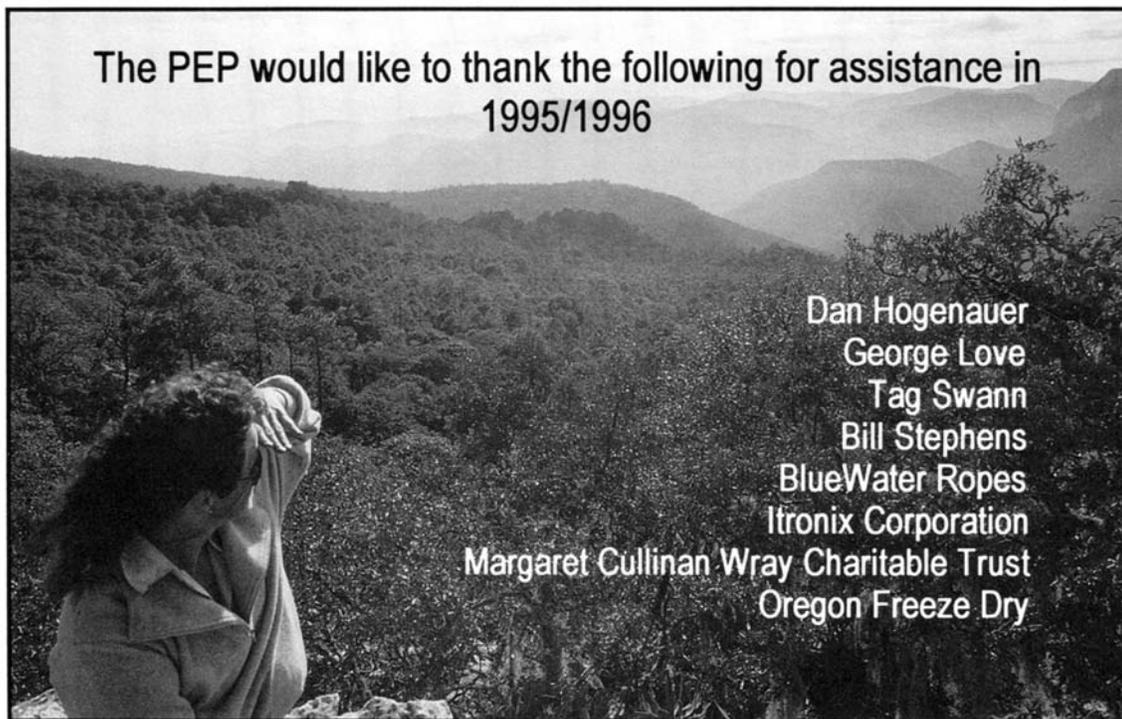
I was escorted through a shortcut forged through the woods to camp. There I was made warm and fed. A few attempts were made to relocate the arm, but it was obvious that I needed to get off the mountain and get medical attention. That night I attempted to sleep sitting up in the front seat of Bill Mixon's truck with my

arm elevated. Lying down was an unacceptably painful position.

Early the next morning we headed down the mountain with Mixon and in his truck, and Peter and Susie leading in my truck. Two hours from camp we stopped at the clinic in the little village of Los San Pedros to see what they could do for me. The nurse (?) and his assistant tried to bandage my arm and poked it for half an hour with a needle, trying to administer a pain killer. Many needle marks later and with a now very bruised right forearm we once again were on our way, stopping just outside town to dispense with the ridiculous bandage. It was a long and uncomfortable ride, some seven bumpy hours to the paved highway. Mexican highways have never seemed so smooth.

The decision was made to go on to Brownsville, now just four hours away. Once there, we went to the hospital, and found an overly crowded emergency room. Luckily an orderly noticed my contorted shoulder and asked how long it had been since I'd injured it. When I told him 23 hours, he moved me ahead of all the pregnant women. Within an hour I was like new and we left the hospital.

The next morning a friend of mine flew in from Wichita Falls to drive me back home. Meanwhile Peter and Susie loaded into Mixon's truck and headed back to México. I had certainly been fortunate to be with such a skilled group of cavers. Many thanks to everyone for helping me through this ordeal.



CAVER DUES

NINE DAYS AT CAMP II

BY TROY LANIER



*Troy waits at the bottom of the Infiernillo climb while John hauls his duffie.
1996 photo by Susie Lasko*

In early March of 1996, a team of Texan, New Mexican, Nevadan and British Columbian cavers completed a nine day trip to Camp II in Sistema Purificación. While mapping 3 kilometers of new passage and pushing the system to over 85 kilometers, the team focused its efforts on three areas within the system: The Arne Saknussemm Borehole, Hay Chihuahua Mamacita, and The Windsump Passage.

The team included the following members: Peter "10 gigabyte" Sprouse, Susie "We don't do anything in

a hurry" Lasko, "One handed Charley" Savvas, John "Padre" Fogarty, Jim "Yodelmeister" Goodbar, Scott "Cacahuete" Scheibner, Cyndie "Madonna" Walck, Dale "on the edge" Pate, Bill "ex-presidente" Nasby, Dale "I'm not cold, eh" Chase and Troy "If you rip all the leaves off, poison ivy doesn't have three leaves" Lanier.

Despite the fact that they had been riding in the back of my truck for the past six hours, I really didn't have a fix on the faces of the Canadians new to our

team, but I knew their voices and was getting to know their characters -- kind of like caving, eh? A kindergarten teacher would praise this and say that what really matters is located on the inside -- what is in a face anyway? Oh Mrs. Pinkerton, if you only knew what it is like to cross the Mexican border with a man who looks like the ex-president of México.

Leaving Austin in the usual p.m. (post mastication) fashion, our team drove all night and hit dirt roads early the next morning. Before driving up the mountain, Peter decided to look for an area called Gachupinas, and everyone marveled at his ability to locate that which he had only visited once fifteen years ago. The canyon and swim at Gachupinas turned out to be a swell respite from the dusty lowland roads. Our party explored the crack/resurgence responsible for the water, and Jim performed an extremely high dive.

Working our way up the mountain, the drive to our jump off included removing a large tree from the road. This took all eleven members of our group. The team also rebuilt a section of the road leading down to Infiernillo Canyon. The erosion at this locale has plagued cavers on more than one occasion, and will probably continue to do so until logging resumes in that canyon. All said and done, though, it is a better option than the hike from the main road that was used up until 1988. At the end of the road our crew set up camp among the prevalent poison ivy and rested. As we talked of preparing for the trip into Camp II, Dale C. let the group in on a little clothing secret: "If you are cold then you are stupid." Soon this became the mantra for the trip with "I'm feeling stupid" becoming synonymous for "I'm feeling cold." Our next morning was spent packing duffles and rigging the Infiernillo entrance. The group trickled up canyon, slowly acclimating themselves to the weight and feel of their packs. As evening fell, a few of us decided to go ahead with the 30 meter climb and duffle haul in preparation for the next day's trip to camp. The lone tall pine that dominates the view from the entrance almost feels like a sentient being -- never to be a caver but always looking into the cave. We made our way down the canyon and relished the dark, not using our lamps until necessary. Soon they would be truly necessary.

The weight of dependence for route finding was just as heavy as the weight of my pack as we worked our way through the Confusion Tubes, over the Lakeland Traverse and through the Monkey Walk. Talk of falling into the lakes with duffle attached was enough to warrant caution. The hike in was somewhat rigorous and caused many of us to feel "really smart." Our crew became increasingly excited with every meter deeper into the cave, and by the time we had reached Camp II, the crew was jumping right in to modify the beach so it would fit eleven people.

On our first day of non-duffle caving, Cyndie and Susie led teams to the Black Needle passage, surveying approximately 100 meters. Constantly the two teams played voice tag, but seldom crossed paths.

Small and sharp was the name of the game and a song was inspired:

Flesh is Cheap Blues

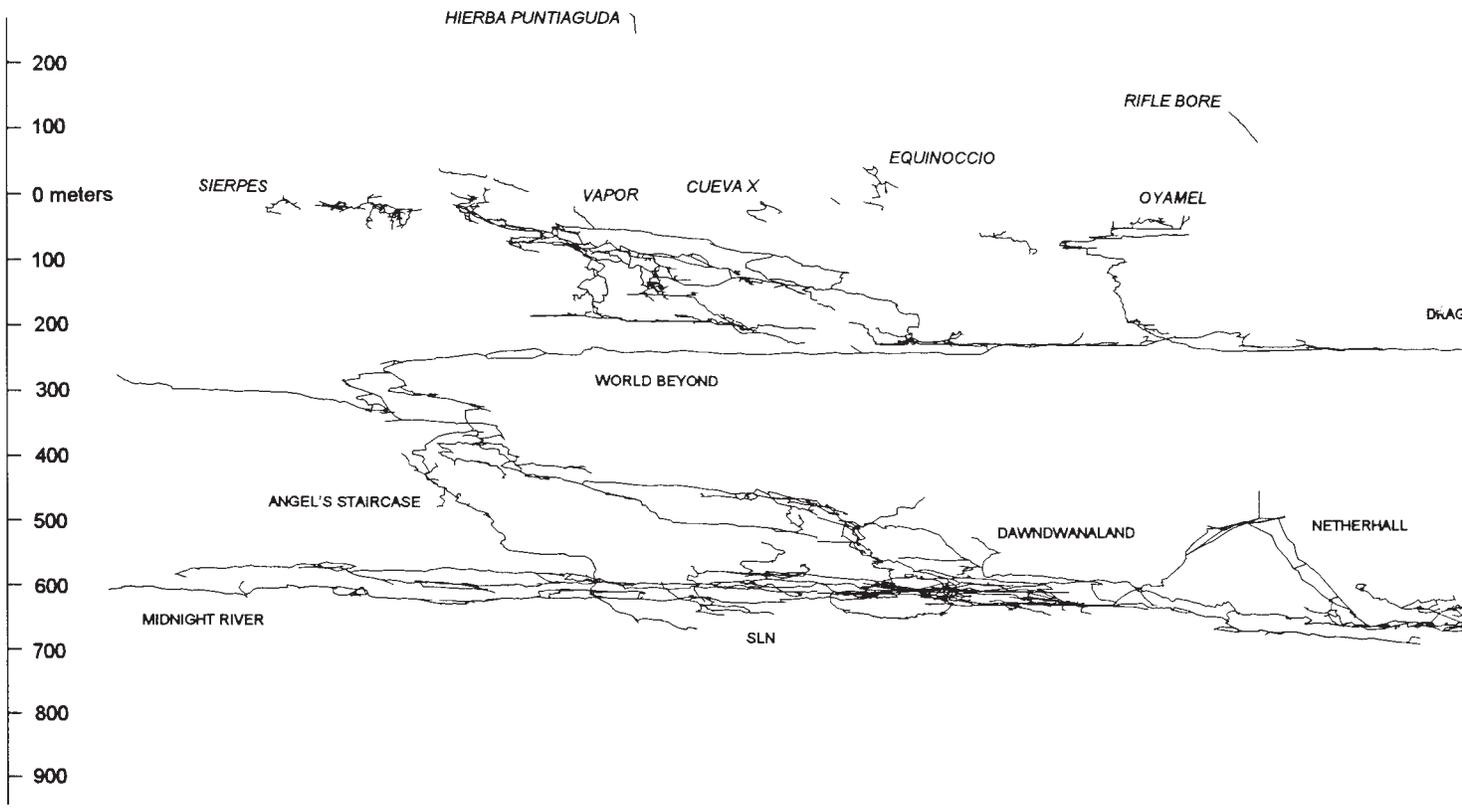
You can buy caver clothes (da da da da dum)
You can buy caver shoes (da da da da dum)
But you ain't a real caver (da da da da Till)
ya paid -your cave-'r dues



Charley Savvas watches John Fogarty rappel out of the Black Needle. 1996 photo by Susie Lasko

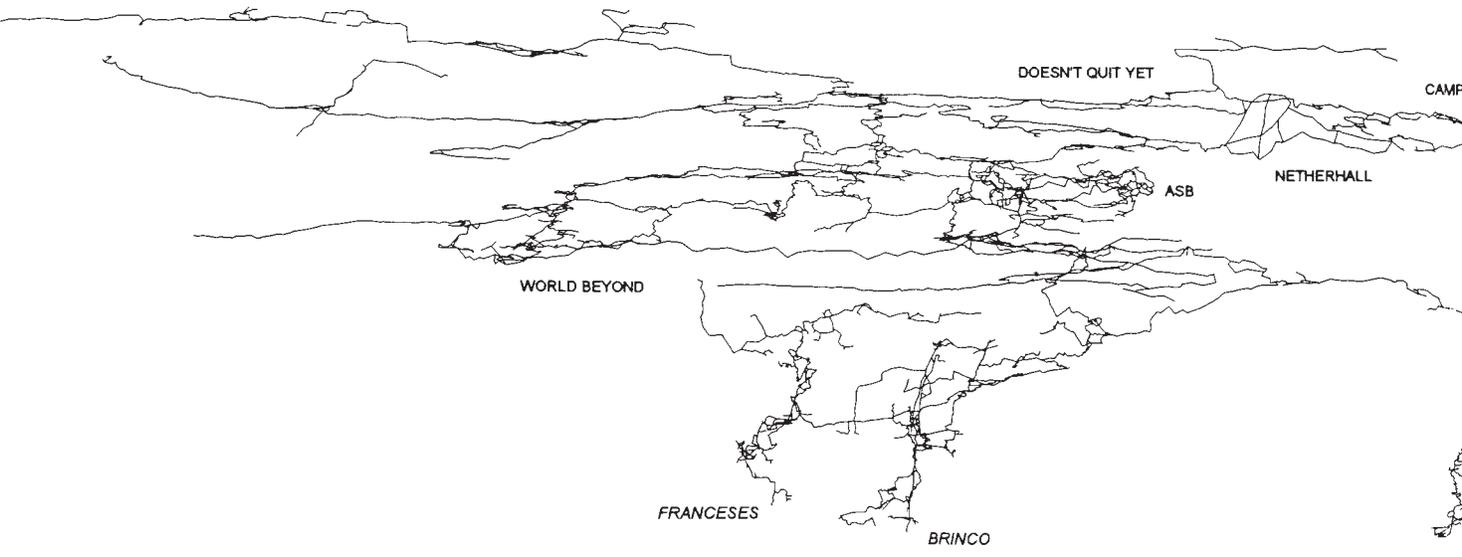
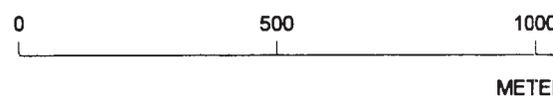
With a lead left unpushed, the two groups returned to camp separately. Cyndie's group managed to bypass the 3 meter climbdown from the Black Needle, while Susie's team explored new methods in rappelling. Actually, Charley explored new methods of rappelling as he attached his figure 8 to his hand with webbing. Jim, Bill, Dale C. and Peter began the team's forays into No Wasted Space. Checking a blowing lead near Boobcrusher, the team set up handlines into new passage with numerous leads. After the discovery of an aragonite gallery and 276 meters of survey, the group returned to camp.

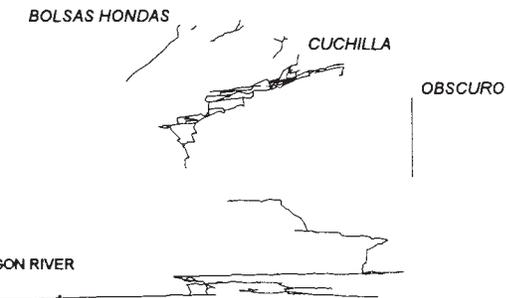
After a gentle first day we began our series of remote trips. Many of these took us over the Netherhall, an extremely large breakdown room. Our first morning commute over the Netherhall found us experimenting in mass transit as all eleven of us made the trip to



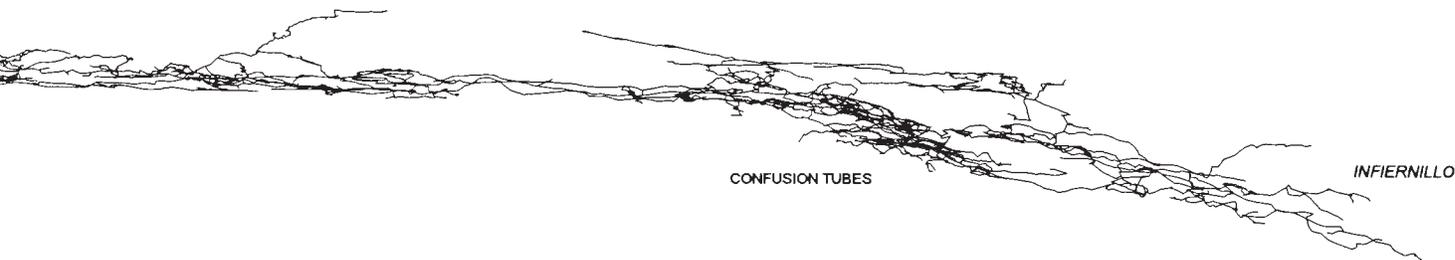
SISTEMA PUNTIAGORDA
TAMAULIPAS

LENGTH: 84,992 METERS
SURVEYS 1973-1974
PROYECTO ESPELEOLOGICO



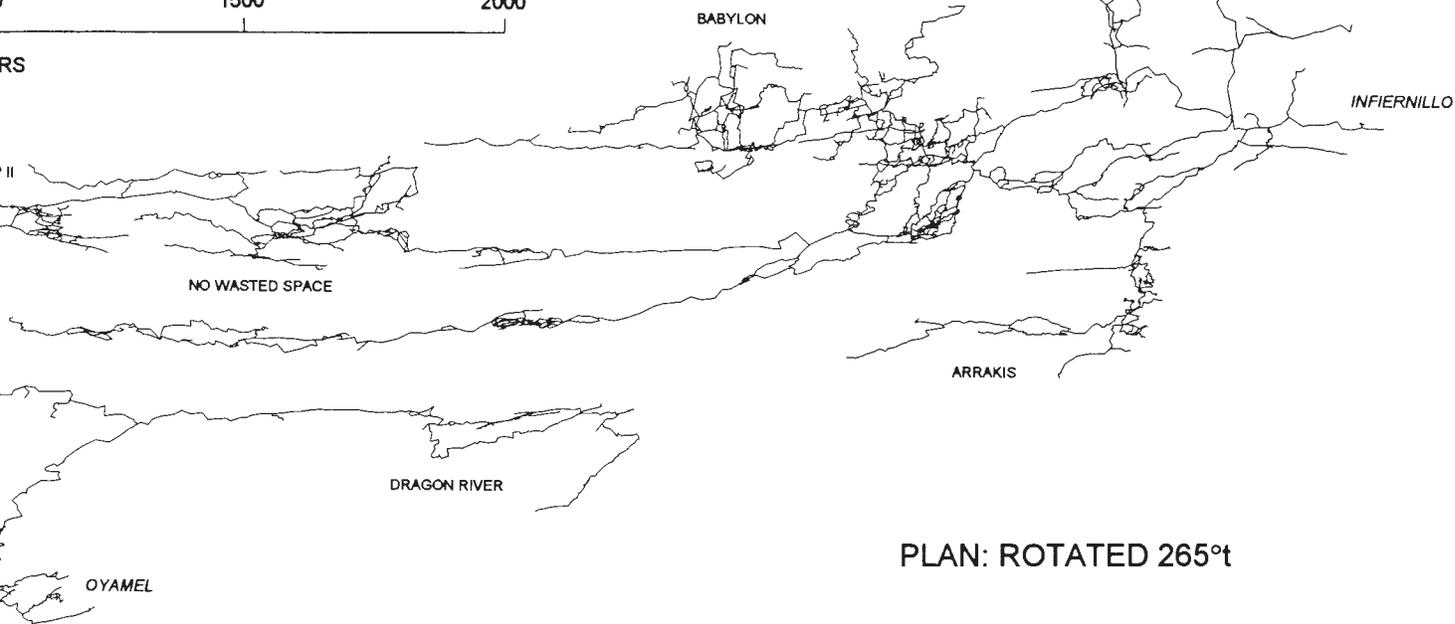
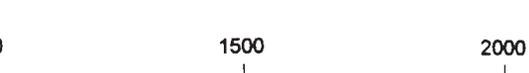


PROFILE: 225°t VIEW
WITH ADJACENT CAVES



**PURIFICACION
S, MEXICO**

DEPTH: 956 METERS
-1996 BY THE
LOGICO PURIFICACION



PLAN: ROTATED 265°t

gether. One crew went to Anderson's Climb to push Dawndwanaland while most made their way to the Arne Saknussemm Borehole (ASB), passing the historic Brinco/Infiernillo connection.

With numerous leads off the ASB, our crews had plenty to do. Dale P, Jim and Bill pushed in the Riverdale area, leaving their lead at a swimming passage. Another passage that they discovered was a stal-floored "boots off" passage that goes.

Susie, Peter, Scott and myself began surveying a small side lead that steadily teased us for 100+ meters. Highlights of the tease included a small lake room whose cousins have pinched off in numerous other caves. This one did not. With a low ceiling that required a major stoop, the middle of the floor in the body of water was grooved just deep enough for one to fall into and get significantly wet. Of course only the lead dog could see this and the rest of us remained dependent on other senses to navigate the muddy water. The passage became known as the Grace Kelly Passage and our day ended at an abyss with more passage leading in numerous directions. This abyss became known as the Grace Kelly Plunge.



*Scott Scheibner peers into the Grace Kelly Passage.
1996 photo by Peter Sprouse*

During our return, we used the mass transit method again when crossing the Netherhall. On the down-home slope, I dislodged a rock which sent me flying to the ground and sent a slide of rocks headed toward Peter who was much farther down the slope. Given the noise, the largeness of the area and the dust, it was hard to tell exactly what had happened. Susie asked if anyone had been part of the slide. Peter was fine, and the rest of the crew was far from danger. It is difficult and arguably moot to yell rock in an avalanche situation. Grace Kelly Plunge, take two.

After an easy day of checking leads in the Windsump passage, we returned to the Netherhall, staggering our groups as they made their way over the breakdown mountain. Again, two teams visited the ASB. Cyndie's team mapped loops in the Pitufo Maze and Susie's team continued mapping in the Grace Kelly Passage. John, Charley and Peter went to the end of Hay Chihuahua Mamacita, passing a good lead in the ceiling that had air. Exploring some domepit

leads, the group went down into a muddy pit which they named Redneck Love Child. After another drop Charley pushed a tough squeeze and returned with a report of a river. The group performed the difficult survey down the squeeze and searched the area for stations from a previous trip. Peter searched his internal 10 gigabyte drive and could come up with no matching area descriptions. The group had a grueling trip back. Not even the beaches of camp "Cozy - mel" could remove the pain from this sixteen plus hour trip.

The beach was a buzzin' the next day with news of Charley's discovery. Time for a break and a 50th birthday party for Dale C. Upholding the grand storytelling tradition of cavers Dale regaled us with amazing stories of his childhood. We celebrated with freeze dried sweets and presents from his family. The uniqueness of our lives began to set in. How many people spend their birthdays in an exploratory venture? How many people on the planet are not in the path of a human generated electromagnetic wave? The numbers must be statistically insignificant. How many people see Aliens on the ceiling of their room at night? While the numbers here may be statistically more significant, at least these folks aren't in caves. Two eyes and a mouth. We all saw it and continued to check on it for the rest of the trip. Others thought the ceiling of our room almost looked cloud like. Another song was inspired. Said more like a poem over a guitar playing minor chords:

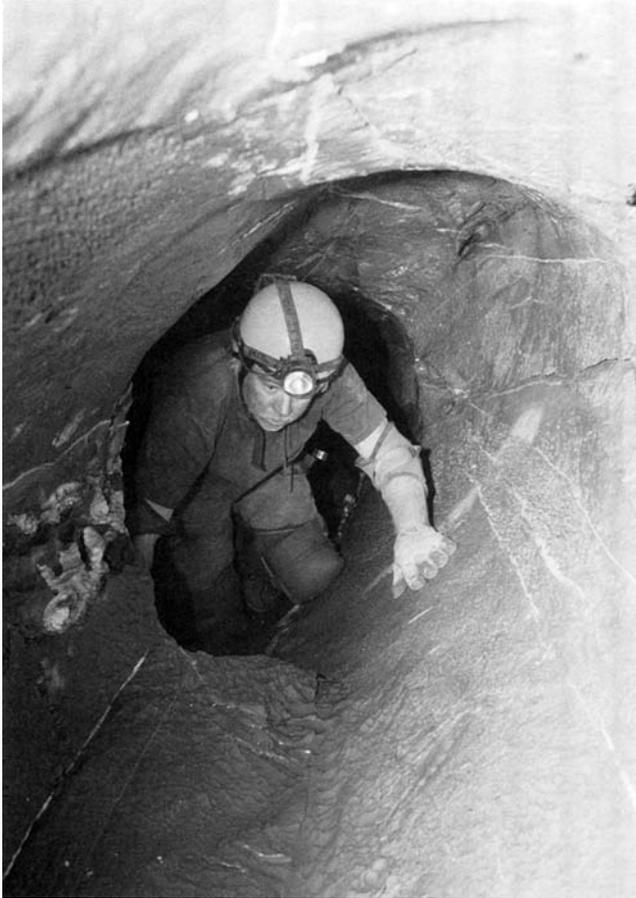
**And the rocks at Camp Two Mama
They look like the sky
But they won't let me through Mama
To see you before I die**

Actually, the water wasn't rising, but the hopes for Redneck Love Child were. Charley and John, experiencing a purposeful loss of memory, convinced Cyndie that Redneck Love Child was the place to be. Not too painful, not too long of a trip. So they returned to that area for twenty hours, and it was painful. They mapped most of what was seen two days before and pushed a dry death coral crawl up to the south called Satan's Love Nest. Charley left a walking rift going two ways.

Scott and Bill dug open a choke in No Wasted Space, found 100 meters passage which included nice gypsum displays and returned home with going passage. Peter and Double Dales went back to the Windsump Passage to Doesn't Quit Yet only to have 100 meters of breezy passage terminate in small tubes.

With the steadfastness and continuity that epitomizes Susie and with the genuine integrity and depth of Jim, we continued a blissful day of mapping the Grace Kelly Passage (GKP). The GKP began changing drastically during this sortie as it dove through some highly sculpted passage that got progressively muddier until we were crawling through what became a mud sump. Surely there is a way to use sonar waves to determine the depth of a mud sump.

**You can buy caver clothes
 You can buy a caver truck
 But you ain't a real caver
 Till you crawled through a mud suck**



Dale Pate pushes a scalloped tube in Doesn't Quit Yet. 1996 photo by Peter Sprouse

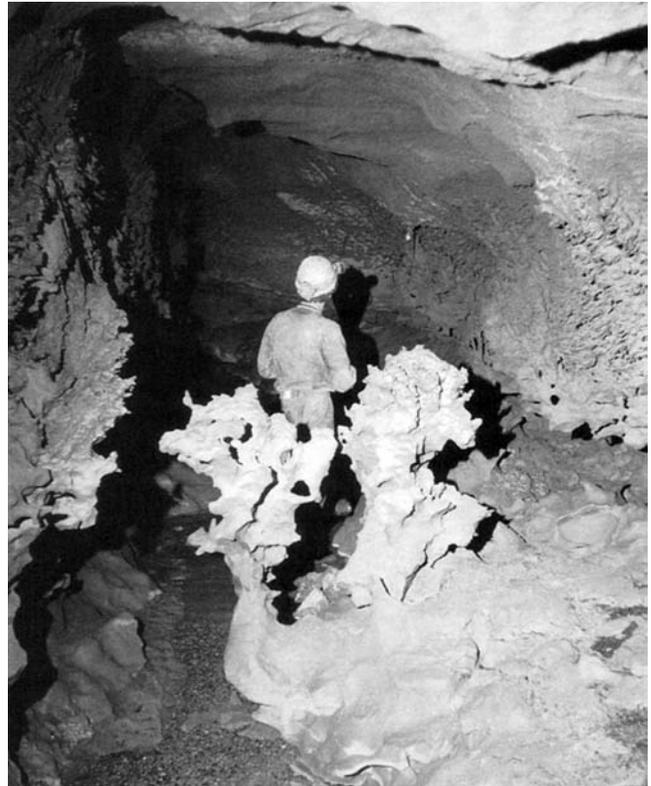
Thoughts of Grace Kelly brought out stories of Susie's childhood during our survey, and Brother Jim began preachin' the glory of the cave in a fashion that would make John Muir enthusiasts proud.

The tendency nowadays to wander in the wilderness is delightful to see. Thousands of tired, nerve-shaken, over civilized people are beginning to find out that going to the mountains is going home; that wildness is necessity...Awakening from the stupefying effects of vice and over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their own little ongoings with those of Nature, and to get rid of rust and disease.

**John Muir, 1901
 Our National Parks**

Having spoken Nature's gospel, Jim sang and yo-deled for the better part of our four hour journey home. Maybe he was inspired by the Foggy Mountain Breakdown which lies just down from the Netherhall. Maybe he was plain inspired.

The next day, some of the crew decided to stay in camp while two teams returned to No Wasted Space. Dale P. and team surveyed the area that Scott and Bill had dug open until they reached Lon Chaney's Barber Shop, which contained 30-centimeter-long gypsum needles. As Dale P.'s group began to head home, Peter, Dale C and Bill caught up with this crew having cleaned up some other leads. They surveyed for 50 more meters until they were stopped by breakdown.



"The sea horses" are unusual bedrock remnants in the Wind-sump Passage. 1996 photo by Peter Sprouse

Our final day was spent challenging John Fogarty to a sketching match with himself. As two teams explored nearby passage, John served as sketcher for both teams. No smoke and mirrors here. Soon John was overcome by the same spirit that Jim had been overcome by. With survey station numbers flying like Bible verses and people hollering "do you see the light", the time to head home had arrived.

Back in camp, we held the traditional boat races down the Isopod River. A blinking survey station light (stinger) was placed on the far shore as a lighthouse. The boat that won on its technical merit alone was created by John out of a rubber band and a piece of plastic as a propeller. While it covered little linear distance, it complete numerous small circle revolutions and amazed everyone.

The trip out was three hours shorter than our trip in, and the lone pine was still waiting for us at the entrance. The light from outside, while impressive, was nowhere near as much of a shock and a delight as the smell of the air. Our descent out of the cave found my pack slowly ripping due to rotting fabric, but it made it

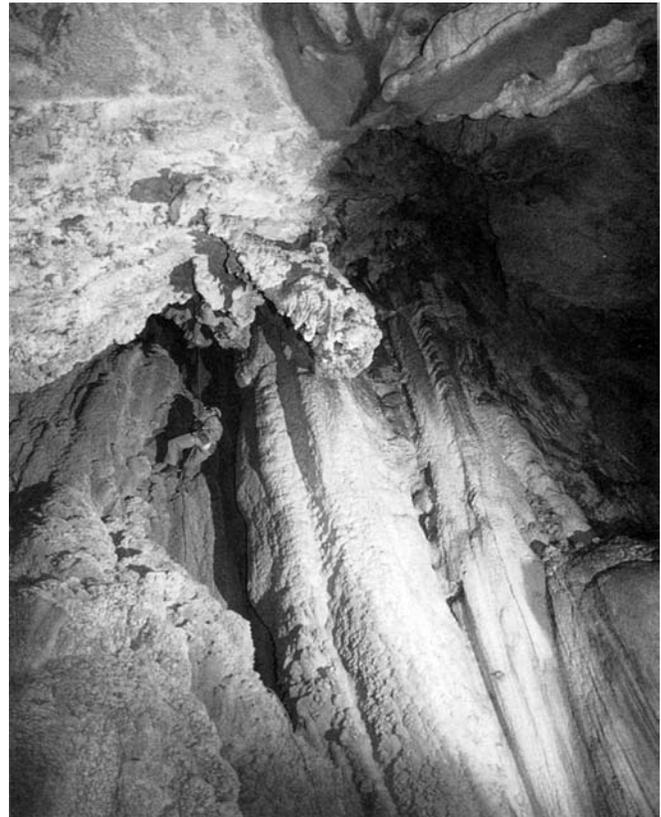
to the truck, the caver truck. I ripped off my caver clothes and my caver shoes, and we headed up the mountain to Conrado Castillo.

The next day Charley and Dale C. began successfully working on a dig in the promising Nadolig, which resides near the ever-so-promising Cuchilla. The remainder of our crew enjoyed the drive up to Revilla and beyond, where we surveyed a pit, Pozo de la Carretera de Carrillo, revealed to us by a local resident,. After three decent-sized drops the cave split. One side of the split continued to drop, and with each drop our rope supply dwindled until Susie and crew were surveying the last 8 meter drop and rappelling on 7 millimeter line. IF diameter(mm)=drop length(M) THEN GO TO Surface.

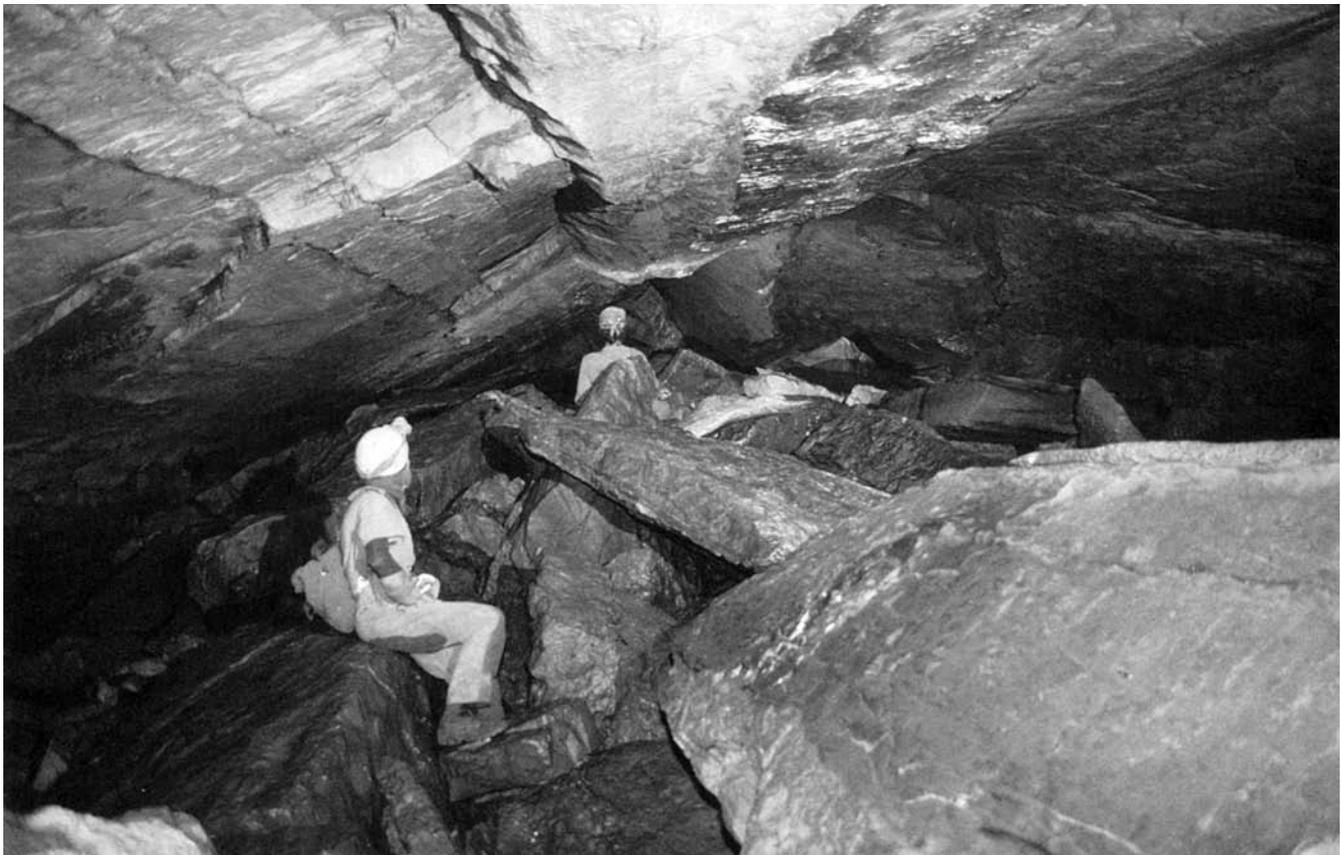
**You can drop the big pits
Till you've had your caver fill
But you ain't a real caver
Till you've caved on 7 mil**

Near the entrance to this cave and near the road, Dale and Scott found a promising entrance that had good air. The next day's inspection indicated previous visitation and unpassable routes.

The trip home was standard fare with the exception of a rambunctious meal near the railroad tracks in Santa Engracia. We tipped well, not forgetting to pay our caver dues.



Cyndie Walck frogging the third drop in Pozo de la Carretera de Carrillo. 1996 photo by Susie Lasko



Cavers light up breakdown over the Isopod River near Camp II. 1996 photo by Susie Lasko

CAVE RADIATION SURVEY

by BONNIE CRYSTAL

Radiation measurements were made using a radiation detector in three caves around Conrado Castillo. The instrument used was a Radalert, manufactured by I.M.C., and measures incident Alpha, Beta, and Gamma ionizing radiation. It uses a Geiger-Mueller tube approximately 1.25 inches long, with an alpha end window. All measurements made were air measurements at approximately knee height.

CAVE	LOCATION	CONDITIONS	DATE	TEMP F	DURATION	NUM. OF COUNTS	C.P.M. AVERAGE
Cueva Bolsas Hondas	12 meters below entrance	still, humid, not dripping	22 Dec. 1995	60°	5 minutes	76	15.12
Cueva del Brinco, S.P.	bottom of the Chute	high humidity, cold airflow	23 Dec. 1995	58°	5 minutes	37	7.4
Sótano de la Cuchilla	Moonmilk Traverse	breath visible	24 Dec. 1995	62°	5 minutes	94	18.88

CONCLUSIONS

All three caves have low radiation levels. Cuchilla has the highest and Brinco the lowest. As a comparison, the same instrument read 175 to 200 C.P.M. in Mammoth Cave, Kentucky.



PURIFICACION SPELEOMETRY
Version October 1996

	Length (meters)	Depth (meters)
1. Sistema Purificación	84,992	956
2. Cueva del Tecolote	32,031	424
3. Sótano de Las Calenturas	8254	121
4. Cueva de La Llorona	3540	412
5. Cueva del Río Corona	2136	98
6. Sótano de la Cuchilla	1895	175
7. Cueva Paraíso Dificíl	1799	178
8. Cueva del Borrego	1354	58
9. Sótano de Trejo	1160	80
10. Sótano de San Marcos	1019	126



Cueva Paraíso Revisited

DATE: March 29 - April 7, 1996

DESTINATION: Cueva Paraíso Difícil

PERSONNEL: Wayne Bockelman, Robin Cope, Paul Fambro, Jim Feely, Terry Gregston, Shari Lydy, Mary Theisse and Terri Whitfield

REPORTED BY: Paul Fambro

After a straightforward Friday-night crossing at the border we continued on toward Cd. Victoria with the only problem being a failed fuel gauge on my truck. All the vehicles were heavily loaded and we were concerned about slippery road conditions on the climb up to Los San Pedro. But the road turned out to be dry, and we made it to our regular camp area out on the peninsula overlooking the San Antonio, Corona and Olmo Canyons. As we drove into the camp area, our intrusion roused a troop of coatimundis. About ten or twelve ran across the path in front of the trucks and disappeared into the karst and forest.

On Sunday, we rigged a new 250 meter rope on the Corona cliff to lower the Paraíso rigging ropes. This drop of about 220 meters along the east wall of the peninsula lands slightly downstream of the Corona resurgence. Wayne, Robin and I rappelled the cliff, packed up the ropes, and headed down to the top of the Paraíso waterfall to begin the rigging. Others hiked down via the Corona trail and carried additional gear. Wayne, Jim and I rigged all the ropes down the waterfall and up into the entrance. We ascended the waterfall and everyone hiked out the Corona trail in the fog and mist.

The wet weather continued through the night and into Monday morning. The concern for safety delayed our departure, but we decided to give it a try. The trail was slippery, but with some additional hand-lines and extra assistance in bad areas, all made it down to the cave. The camp area had been flooded again, but not to the extent that we saw a few years ago. It is still amazing to visualize the amount of water it takes to back up and flood out the entrance of this cave. Camp

was set and some rigging done in the Big Room. The Big Room was dry and it appeared that the cave water levels were about normal to low, judging by the flow rate of the stream across the floor.

The next day additional rigging was done, and Mary, Shari and I began work on the downstream lead to the Paraíso Abajo resurgence level while the others looked around the Big Room area. I rigged the drop that stopped Terry, Wayne and me two years ago. Access to this drop is quite wet and I was the only one on the team that didn't wear a wetsuit. We followed the water to a sump just beyond and below this drop. With a hand-line, I was able to drop down and see the water line completely around the room. We weren't swimming out to the Abajo entrance this way. Shari, Mary and I began the survey of these new, heavily flow-stoned rooms. I was getting cold sitting and sketching in the cramped streamway leading to the drop and struggled to keep the book dry. Fortunately, Wayne showed up in his wetsuit to take over. In the room at the bottom of the drop, Wayne located a narrow horizontal slot in the wall. With some squeezing, it led to a short climb down into a lake. The survey team worked their way through and I departed to warm up. They dropped into large, lake passage similar to that of the Abajo entrance. New hopes of swimming out through the Abajo entrance ended with a full sumping of this route after a distance of swimming, wall-clinging and difficult surveying. As we later discovered, we will probably never make a non-scuba connection, for the water levels in the cave were the lowest we had seen, and the rimstone dam at the Abajo entrance will always maintain this pool level, even at minimum flow.

Our next goal was to push the lead at the back of the cave beyond the Terminal Sump and Spiral Staircase. Only Wayne and Mary had been in this area once before. In years prior, the Terminal Sump had stopped exploration, but on the last trip two years before, a tiny air space had opened with so much airflow that it created standing waves on the lake. This time, Wayne, Mary, Shari and I donned our wetsuits and carried gear for a long trip. The other team members visited various other parts of the cave. I don't care much for LOW airspaces and dreaded doing the sump which is best done by a full duck-under. As we made our way up the Río Sacajawea to the White Dam, we noticed that the passage was very dry. The lake below the White Dam was dry and no water flowed over the dam. There was water pooled behind the dam, but it was much lower than normal. We waded into the lake which was still over your head or shoulder deep, depending on your route. Usually you just swim across and pull yourself up and out, but the low level made the up-climb out of the lake a little difficult. All the passage beyond this lake was dry. The pools and water flowing over the flowstone were gone. The air flow was very strong in the low places where the flowstone almost fills the passage to the ceiling. It almost blew out my "ceiling burner" a few times.



Cavers climb the waterfall ropes from Paraíso. 1992 photo by Terry Gregston

We rigged a short line up the flowstone wall that divides the Terminal Sump room and acts as a dam for the lake. Fortunately, we had a rope long enough to rig the other side of the wall. The Terminal Sump was completely dry. Usually you rappelled to the water and swam over to the air space. This time the drop was several meters longer, and we had to rappel to the floor. Then, we just walked over to the low air space, ducked our head under the low ceiling, and stepped on through without even getting our feet wet. This was a surprise that no one expected. All the giant and sometimes quite thin rimstone dams that lead up to the Spiral Staircase room were all dry. We took great care in moving and climbing among these spectacular dams to prevent damage. Some of these dams were over our heads. We made our way around the large Spiral Staircase room which gets its name from the circuitous route needed to get to the higher balconies and passages.

We followed the only going passage up the bedding plane to the lead. We set up for surveying and dropped through the small hole in the floor at the end of this large passage. No air flow could be determined in this constriction. All air flow disappeared back in the voluminous Spiral Staircase room. The short climb-down placed us in walking passage coated with mud.

Shortly the passage became larger and had clean bedrock walls with scallops on the walls and floor. Bedrock and flowstone boulders were also scallop covered. The ceiling showed signs of about four previous climactic/erosional stages. This passage sloped up the bedding plane at about seventeen degrees and later turned up to twenty-five degrees. It carries or carried lots of fast moving water. In about 200 meters we reached a flowstone and bedding blade choke with only a small, upward corkscrew passage going on.

About that time, Robin and Terri showed up. After going up the corkscrew passage, Robin connected in a ceiling hole back down the main passage. Terri and I entered this ceiling hole and met up with the others as they surveyed out of the corkscrew. Even if there had been no other way out, I don't think anyone wanted to go through that nasty passage again. This overhead parallel passage was large above the corkscrew and continued up-dip a ways farther before pinching with flowstone. Robin checked a small side lead from this area and found a room with a boulder-blocked up-dip passage and tight down-dip meanders. No air flow was noted in any of these areas. We surveyed down-dip back to the ceiling hole and tied in a survey loop. No other leads and no air flow could be found in these passages so we headed back to the Spiral Staircase.

Since the Spiral Staircase had been well checked two years before and we weren't, at this time, up to tackling any wall climbs or lead finding, Mary, Shari and Robin headed for camp. Wayne, Terri and I trailed behind for carbide changes, then de-rigged the short ropes at the Terminal Sump room. Wayne, Terri and I got a little disoriented on our way down the Río Sacajawea and lost some time finding the way through which put us back in camp after a fifteen hour trip.

I rigged the drops from the ledge outside the Paraíso entrance down to the Abajo level and to the Emerald Pool for those who wanted to visit the beautiful area 100 meters on down the waterfall. Several people went down for a look and a swim in the pool. Other activities over the next two days involved photography in the entrance borehole and the Big Room. We never mustered a return trip to the Spiral Staircase for lead finding and photography. Besides, we needed a reason to return to this spectacular cave again. We spent the last part of Thursday de-rigging the cave and lower waterfall and packing for the long hump out the next day.

Friday brought foggy, rainy weather back to the mountains in time to make that nasty climb and hike out with camp duffles and rigging gear even nastier. After doing the "duffle shuffle", all but Wayne and I headed up the ropes on the waterfall early so we could ferry gear on up to the base of the Corona cliff and return to help with the final de-rig of the waterfall. Wayne and I finished up the entrance de-rig, set new pull lines and prepared all the ropes for the "string-out" type of de-rig we always use on these long drops. We ferried all the ropes up to the Corona cliff and prepared them for the 700 meters of rope pull-out on Saturday morning. We slogged on up the Corona trail with our duffles and reached the trucks waiting at the trail head as the light was fading.

Terry had gotten back to the camp area first and discovered that my truck had its passenger window broken out and it and all the tents had been burglarized. The thieves did not find the two other trucks at the trail head, over a kilometer away, so their contents remained safe. We were all very bummed out but went ahead with our planned party and feast despite the rain and bad news.

Saturday morning awoke us with continued drizzle for our final portion of the de-rig. We got all the ropes up and packed down to the trucks amid crashes of thunder and heavier rain. We placed a trash bag over my window and headed to La Yerbabuena and spoke with some of the locals about the burglary. Until we resolve this continuing problem of thefts in the area, groups should leave someone to guard camp at all times.

We do plan to return to Paraíso in the future to do some more photography, some serious lead hunting. There is a lot of airflow and tremendous water coming from somewhere.

La Pascuala

DATE: June 29 - July 5, 1995

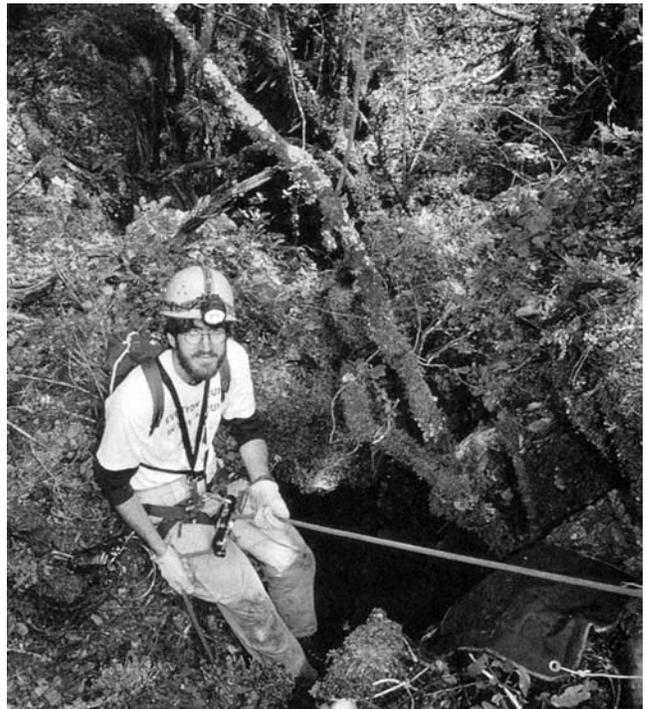
DESTINATION: The Purificación Project area

PERSONNEL: Travis Greig, Troy Lanier, Susie Lasko, Miriam Murtuza, Charley Savvas, Bev Shade, Jennifer Sigmun, Peter Sprouse, Tim Stich, Cathy Winfrey

REPORTED BY: Susie Lasko

With thoughts of "How rainy is the rainy season in Northern Mexico," ten of us in three vehicles set off for the upper area of the Purificación Project. A light rain started to fall as we reached Paso de la Muerte. When we arrived in Conrado Castillo we proceeded to fence off the underside of the gear house to keep the pigs from occupying it. After fumigating the house inside and out, we re-checked the bottom crawl in Cueva X but found it to be sumped.

The next day we drove up to Revilla and on to La Pascuala, where we set up camp near Cueva de Abril. This is an area where there are so many pits that one doesn't have to venture very far from camp to have plenty to do. On our first caving day, Charley and Tim found Cueva del Campamento in which they collected a spectacular new troglobitic darkling beetle. Troy, Jen and I found Cueva del Jugo, which is a beautiful horizontal entrance set among some tall karst pinnacles. Inside we found a crashing waterfall cascading down to a pool. After getting very cold and wet, Troy determined that the pool was sumped. In the 7 days we spent on the mountain, 15 new pits were located and mapped. We didn't find the big one that goes, but we had a wonderful time in a gorgeous place and will look forward to our return.



*Travis Greig prepares to descend into Siamese Pit.
1995 Photo by Susie Lasko*



PURIFICACION AREA CAVE DESCRIPTIONS

compiled by Pete Hollings, Jean Krejca, Susie Lasko, Peter Sprouse

Faunal lists compiled by James R. Reddell

POZO DEL SOYATE TORCIDO

PEP 24

Las Chinas, Tamaulipas

Length: 25 meters Depth: 13 meters

UTM coordinates: E 455,030 N 2,638,600

This pit is located 1200 meters east-southeast of Rancho Nuevo at an elevation of 2655 meters. It is on the west side of the Cueva del Vandalismo road. A bent soyate palm hangs over the 13 meter blind entrance drop. It was sketched on Halloween 1979, by Peter Sprouse. (PS)

Spiders: *Lauricius* sp.

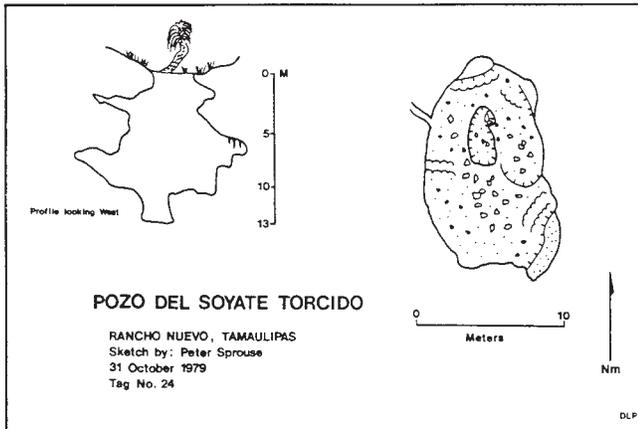
Modisimus reddelli Gertsch (troglophile)

Millipedes: Diplopoda undetermined

Slender springtails: *Pseudosinella reddelli* Christiansen (troglophile)

Pseudosinella vera Christiansen (troglomite)

Darkling beetles: Tenebrionidae genus and species



POZO DEL LAGARTIJO

PEP 27

Mesas Juárez, Tamaulipas

Length: 70 meters Depth: 53 meters

UTM coordinates: E 455,024 N 2,637,215

Pozo del Lagartijo is located 450 meters south-southwest of the Mesas Juárez fire tower at an elevation of 2740 meters. It is on the east edge of the Mesas Juárez road. The first drop is 10 meters to a ledge, followed by a 12 meter pitch to another ledge, where a dead lizard was found. The third drop of 27 meters leads to a terminal mud plug. Pozo del Lagartijo was found on 31 October 1979, and surveyed the next day by Mark Shumate and Peter Sprouse. (PS)

Isopods: Trichoniscidae genus and species (troglomite)

Spiders: *Nesticus rainesi* Gertsch (troglophile)

Coryssocnemis abernathyi Gertsch (troglophile)

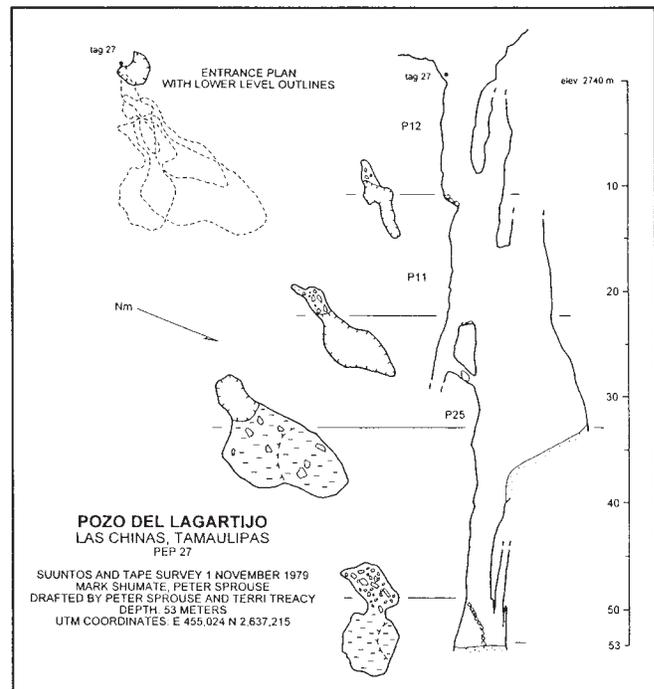
Modisimus reddelli Gertsch (troglophile)

Harvestmen: *Leiobunum* ?new species (troglaxene)

Millipedes: *Cleidogona yerbabuena* Shear

Ground beetles: *Mexaphaenops mackenziei mackenziei* Barr (troglomite)

Moths: Lepidoptera undetermined



POZO DEL JABALI

PEP 101

La Cueva, Tamaulipas

Length: 65 meters Depth: 47 meters

UTM coordinates: E 454,050 N 2,641,145

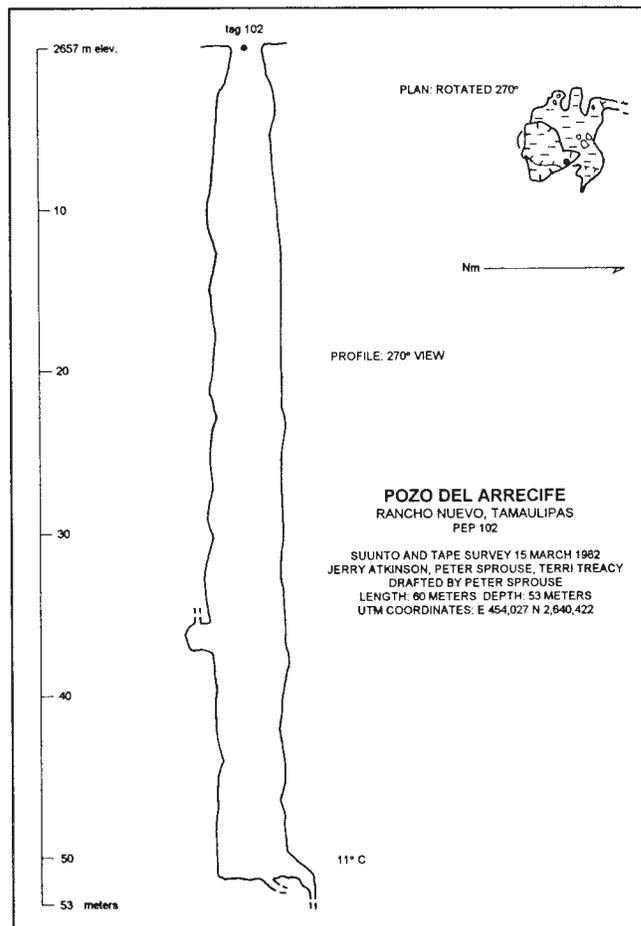
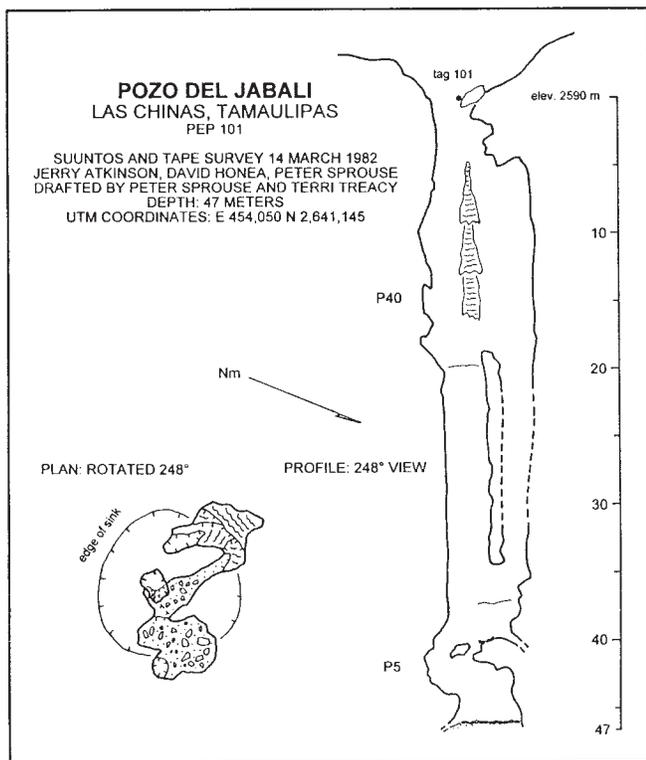
This shaft is located on the north side of the road that goes from La Cueva to the Rancho Nuevo-Revilla road, close to their intersection. It is in a sink at 2590 meters elevation. The entrance drop is 40 meters, followed by a 5 meter drop to a rubble floor and pinch. This pit was found by David Honea and explored by him on 14 March 1982 with the help of Jerry Atkinson and Peter Sprouse. (PS)

Nematodes: Nematoda undetermined

Isopods: Trichoniscidae genus and species (troglomite)

Spiders: *Nesticus rainesi* Gertsch (troglophile)

Harvestmen: *Hoplobunus* new species (troglomite)
 Insects: Insecta larvae undetermined
 Cave crickets: Rhabdophoridae genus and species (troglonexene)
 Ground beetles: Trechinae genus and species (troglomite)
 Long-legged flies: Dolichopodidae genus and species



POZO DEL ARRECIFE PEP 102
 Rancho Nuevo, Tamaulipas
 Length: 60 meters Depth: 53 meters
 UTM coordinates: E 454,027 N 2,640,422

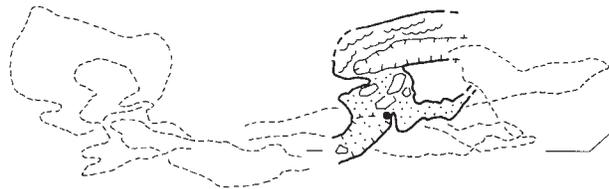
This pit is located 1200 meters north of Rancho Nuevo at 2657 meters elevation. It is on the north side of a spur road that goes east of the main Revilla-Rancho Nuevo road. It is a 50 meter shaft that pinches at the bottom. This pit was located by David Honea and Jeanne Williams and mapped by Jerry Atkinson, Peter Sprouse and Terri Treacy on 15 March 1982. (PS)

Earthworms: Haplotaxida undetermined
 Isopods: Trichoniscidae genus and species (troglomite)
 Spiders: *Phonotimpus* sp.
Nesticus rainesi Gertsch (troglophile)
Coryssocnemis abernathyi Gertsch (troglophile)
Modisimus reddelli Gertsch (troglophile)
 Mites: Acarida undetermined
 Millipedes: *Cleidogona coaticue* Shear (troglophile)
 Springtails: Collembola undetermined
 Slender entotrophs: Campodeidae genus and species
 Insects: Insecta larvae undetermined
 Cave crickets: Rhabdophoridae genus and species (troglonexene)
 Ground beetles: Trechinae genus and species (troglomite)
 Soldier beetles: Cantharidae genus and species
 Rove beetles: *Philonthus* sp. (troglophile)
 Darkling beetles: *Eleodes (Cavermeleodes) sprousei* Triplehorn and Reddell (troglophile)
 Flies: Diptera undetermined
 Wasps: Hymenoptera undetermined

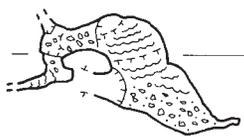
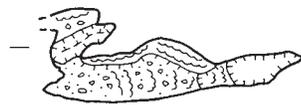
CUEVA DE ABRIL PEP 106
 Revilla, Tamaulipas
 Length: 190 meters Depth: 118 meters
 UTM coordinates: E 453,660 N 2,643,200

This cave is located 1500 meters east-southeast of Cuauhtemoc at an elevation of 2615 meters. Just inside the sloping entrance is a 21 meter drop, followed immediately by another of 11 meters. At this point there are two parallel shafts which reconnect farther down. The main shaft is 22 meters deep, below which is a 6 meter drop into a rift. A 14 meter drop follows, then a 4 meter drop. This cave was discovered and partially mapped on April Fool's Day 1982 by Jerry Atkinson, Jim Pisarowicz, and Peter Sprouse. Jerry and Peter completed the exploration and mapping the following day with David Honea. (PS)

Earthworms: Haplotaxida undetermined
 Isopods: Trichoniscidae genus and species (troglomite)
 Spiders: *Nesticus rainesi* Gertsch (troglophile)
Modisimus reddelli Gertsch (troglophile)
 Harvestmen: Leiobuninae genus near *Nelima* and *Paranelima*, new species (troglophile)
 Mites: Acarida undetermined
 Centipedes: Lithobiomorpha undetermined
 Millipedes: *Mexicambala russelli* Causey (troglomite)
 Xystodesmidae genus and species
 Cave crickets: Rhabdophoridae genus and species (troglonexene)
 Ground beetles: Trechinae genus and species (troglomite)
 Flies: Diptera undetermined



ENTRANCE PLAN AND LOWER LEVEL OUTLINES: ROTATED 248°

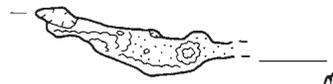
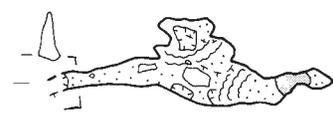


CUEVA DE ABRIL

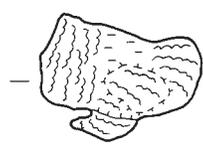
LA PASCUALA, REVILLA, TAMAULIPAS
PEP 106

SUUNTOS AND TAPE SURVEY 1-2 APRIL 1982
JERRY ATKINSON, DAVID HONEA, PETER SPROUSE
DRAFTED BY PETER SPROUSE AND TERRI TREACY
LENGTH: 190 METERS DEPTH: 118 METERS
UTM COORDINATES: E 453,660 N 2,643,200

Nm (all plan sections)

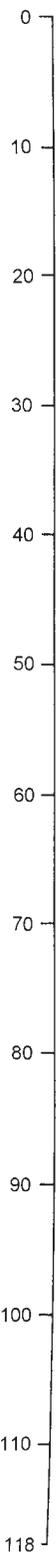


HOT PATOOTIE PITCH



tag 106

elev. 2615 meters



P21

P11

P22

P27

P6

P14

GERALDYTHRUTCH

P4

PROFILE: 248° VIEW

P20

METERS

POZO DEL GUANTE

PEP 267

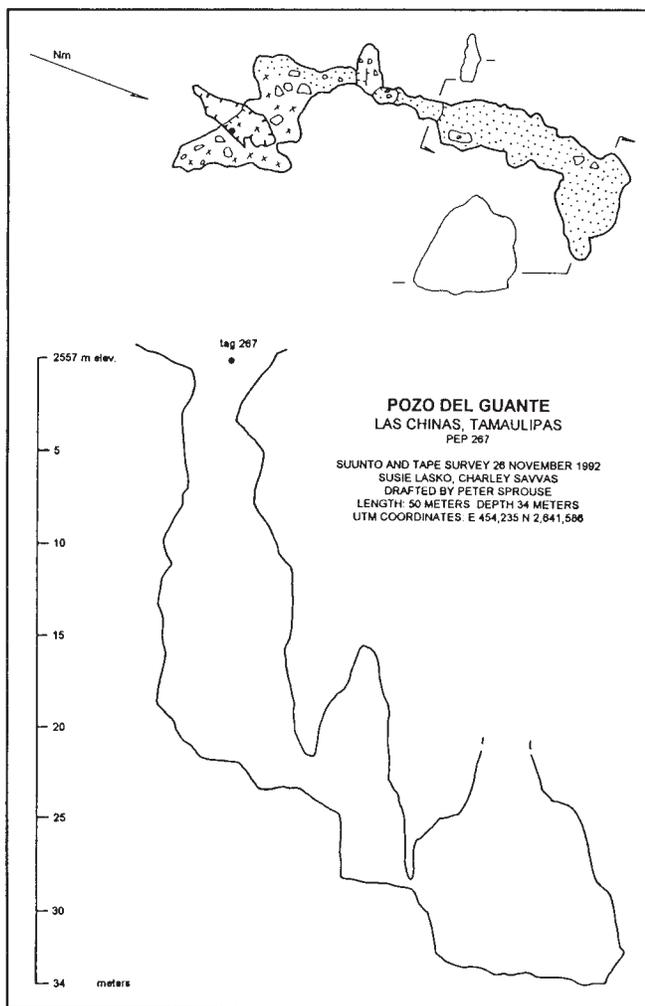
Las Chinas, Tamaulipas

Length: 50 meters Depth: 34 meters

UTM coordinates: E454,235 N2,641,586

Pozo del Guante is located 2500 meters north of Rancho Nuevo at 2557 meters elevation. It is a short distance north of Pozo Tetrico. The entrance drop is 22 meters, at the bottom of which is a drain that had to be enlarged to allow passage. This fissure drops 3 meters to another squeeze, which drops another 3 meters into a larger, terminal room. Pozo del Guante was explored on 26 November 1992 by Susie Lasko and Charley Savvas, who left his glove at the bottom. (PS)

A pseudoscorpion of the family Chernetidae was collected in the cave in November 1992 by Charley Savvas.



CAVERNAS DE ILLINOIS

PEP 313

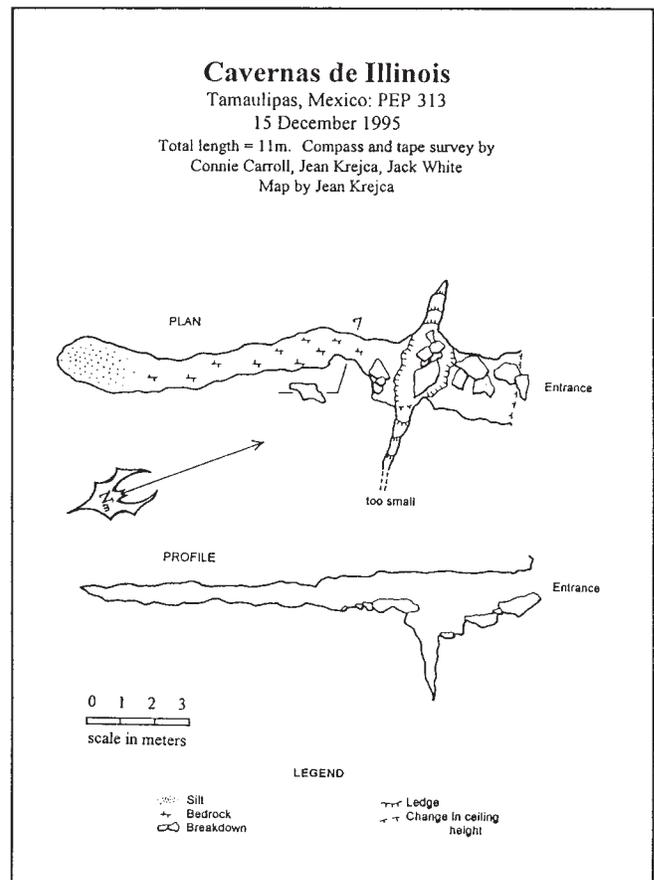
Yerbabuena, Tamaulipas

Length: 11 meters Depth: 4 meters

UTM coordinates: E455,820 N2,644,255

This cave is located about 1000 meters west of Yerbabuena on the south side of the road to El Violín at 1490 meters elevation. It is located just before a side road is reached, beyond which is a sharp turn to the northeast at an arroyo. The 2 by .6 meter entrance is at road level and opens into a room of not quite standing height. Narrow drains go off this room to both the southeast and northwest. A bedrock-floored crawl continues for another 7 meters to a silt plug. The cave is dry and contains a large population of opilionids. It was explored and surveyed on 15 December 1995 by Illinois cavers Connie Carroll, Jean Krejca, and Jack "Solo" White. (JK)

A collection from the cave on 15 December 1995 by Jean Krejca included millipedes of the family Rhachodesmidae.



POZO DE LA CALABASA

PEP 319

Cuahtemoc, Nuevo León

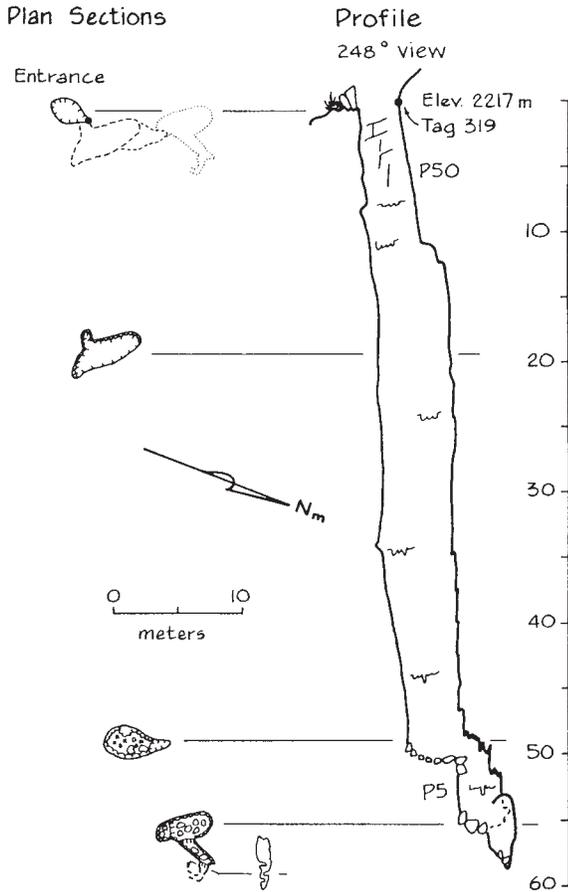
Length: 65 meters Depth: 58 meters

UTM coordinates: E451,993 N2,641,973

This pit is located 1800 meters south of Cuahtémoc at an elevation of 2217 meters. It is on a west-facing hillside in the valley known as La Calabasa. The entrance is several meters in diameter and has an initial drop of 50 meters. A second drop of 5 meters leads down to a pinch. This pit was shown to Peter Sprouse and others on 23 March 1988, and was surveyed on 20 December 1995 by Susie Lasko and Barbara Luke. (PS)

Pozo de la Calabasa

Cuahtemoc, Nuevo León, México



UTM coordinates E451,993 N2,641,973
Length ≈ Depth = 58 meters

Suunto and tape survey 20 December 1995
by S. Lasko and B. Luke.

Drafted by B. Luke

POZO SCHMOZO

Dulces Nombres, Nuevo León

Depth: 16 meters

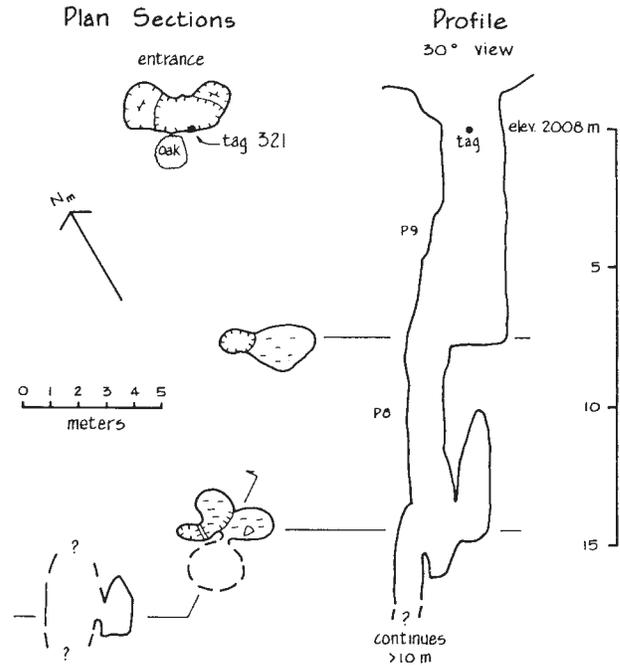
UTM coordinates: E440,218 N2,652,120

This pit is located 500 meters east of Peñuelas, and is just west of Sótano de los Novios at 2008 meters elevation. A large oak makes a fine rig for the 9 meter entrance drop, which is followed by an 8 meter drop. A very narrow third pitch is unexplored. The pit contains some trash, and the walls exhibit some unusual green resolidated flowstone. It was explored and surveyed on 29 December 1995 by Susie Lasko, Barbara Luke, and Peter Sprouse. (PS)

Spiders: Araneae undetermined
Harvestmen: Sclerosomatidae genus and species
Cave crickets: Rhabdophoridae genus and species

Pozo Schmozo

Dulces Nombres, Nuevo León, México



UTM coordinates E440,218 N2,652,120
Surveyed length: 16m

Suunto and tape survey 29 December 1995
by S. Lasko, B. Luke, and P. Sprouse.

Drafted by B. Luke

POZO DE TWEEDLEDEE

PEP 327

Cuahtemoc, Nuevo León

Depth: 33 meters

UTM coordinates: E452,488 N2,642,627

This pit is located 1200 meters south-southeast of Cuahtemoc just northwest of the road junction to La Calabasa, elevation 2305 meters. It has a small entrance to a 32 meter shaft, which is broken by a ledge halfway down. Soil subsidence in the plug at the bottom suggests that the way on is now blocked by mud. This pit was explored on 25 December 1995 by Marcus Barksdale, Pete Hollings, Barbara Luke, and Bev Shade. (PH)

POZO TRAMPOLIN

PEP 348

La Canoa, Tamaulipas

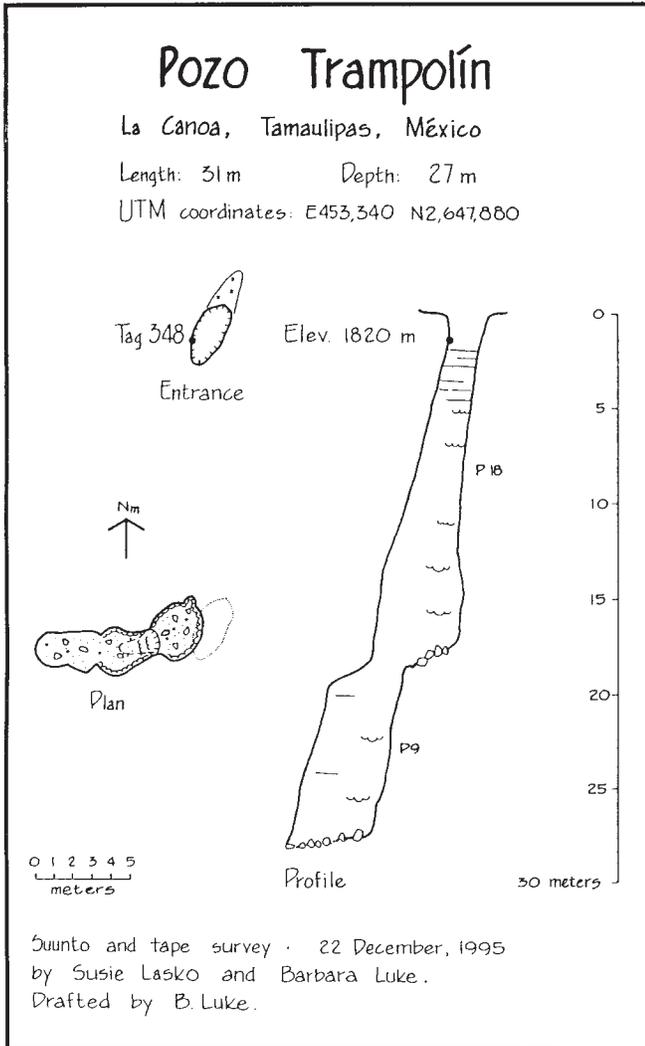
Length: 31 meters Depth: 27 meters

UTM coordinates: E453,340 N2,647,880

Pozo Trampolín is situated 1200 meters south-southwest of La Canoa at 1820 meters elevation. The entrance is several meters across and is on an east-facing slope. It consists of two drops of 18 and 9

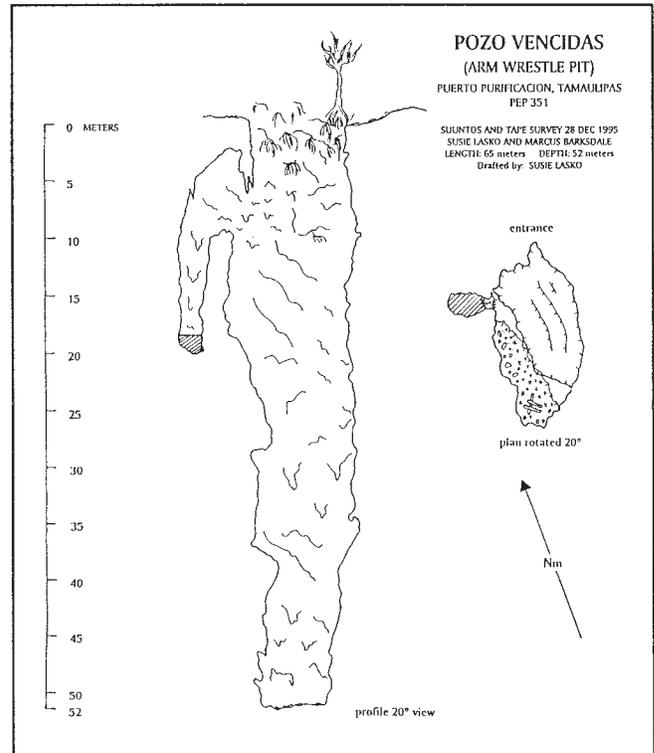
meters. This pit was mapped on 22 December 1995 by Susie Lasko and Barbara Luke and was shown to them by La Canoa resident Leonor Pérez. (PS)

- Isopods: Trichoniscidae genus and species (troglomite)
- Spiders: Araneae undetermined
- Mites: Acarida undetermined
- Millipedes: Diplopoda undetermined
- Rhachodesmidae genus and species
- Springtails: Collembola undetermined
- Cave crickets: Rhabdophoridae genus and species



POZO VENCIDAS PEP 351
 Los Caballos, Tamaulipas
 Length: 65 meter Depth: 52 meters
 UTM coordinates: E449,725 N2,652,280

This pit is situated 800 meters northwest of Los Caballos at an elevation of 1760 meters. The entrance is about 8 by 17 meters in smooth limestone and drops 52 meters straight down to a rock and organic debris floor. There was no obvious drainage route, so it was considered completely blind. This pit was shown to Marcus Barksdale and Susie Lasko by David Ledesma on 28 December 1995. While climbing out, Susie pendulumed into a blind side pit with a pool of water in the bottom. (SL)

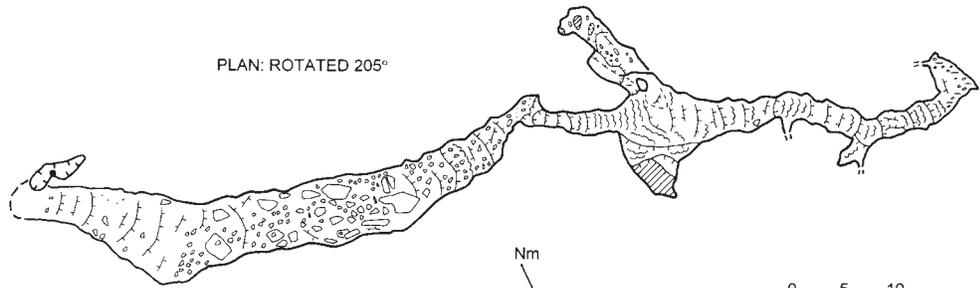


POZO DE LA CARRETERA DE CARRILLO PEP 400
 Cuahtemoc, Nuevo León
 Length: 200 meters Depth: 129 meters
 UTM coordinates: E 451,793 N 2,645,653

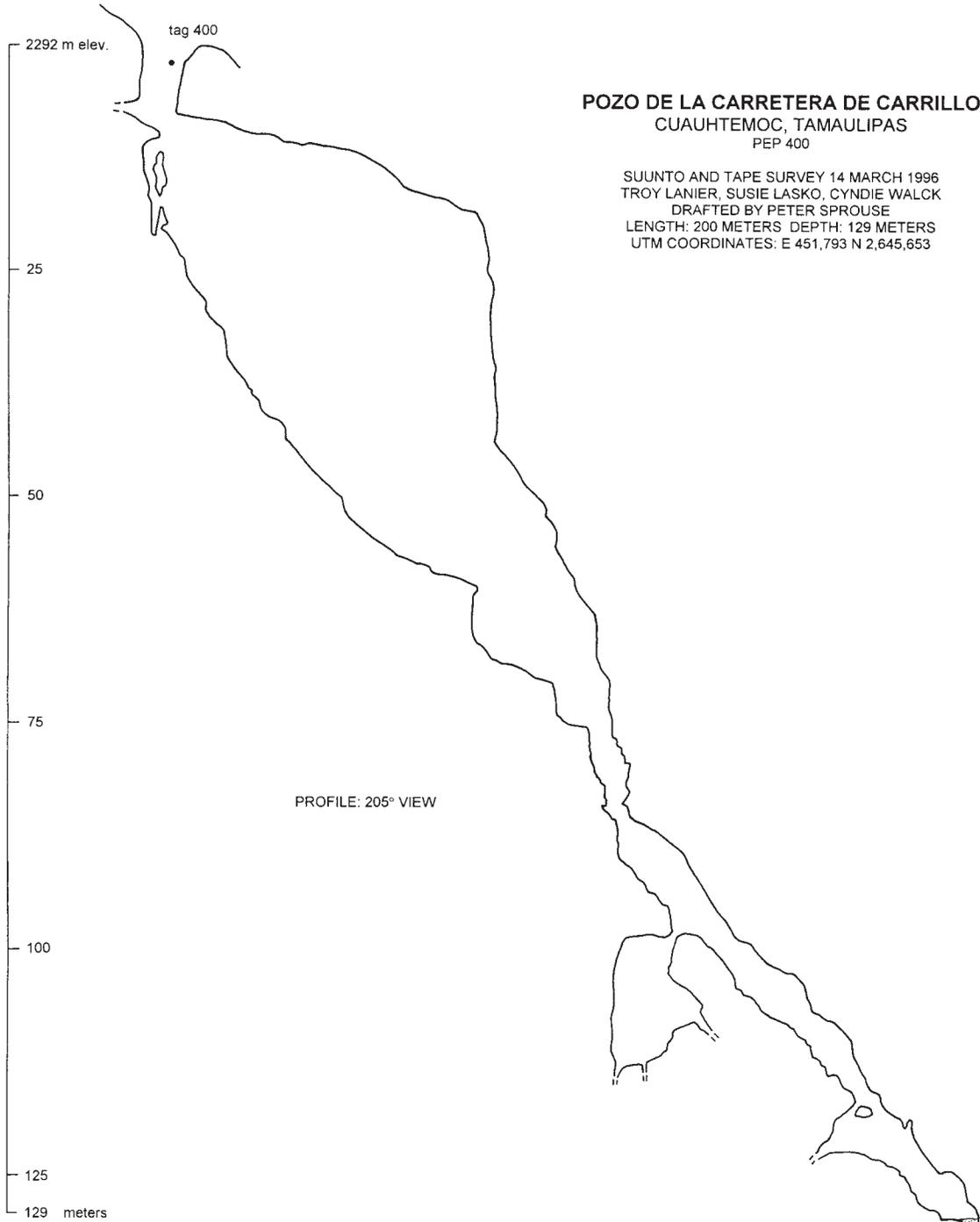
This pit is located 1700 meters south-southeast of Revilla at 2292 meters elevation. It is west of and downslope from the Cuahtemoc road. The entrance is on the steep south slope of a drainage. The initial 20 meter drop lands on a ledge in a large, steeply sloping passage. Rope is needed to get down the next 50 meters or so of slope to where it becomes less steep. Soon the third pit is reached, a narrower 20-meter flowstone drop. This lands in a spacious flowstone chamber with a lake off to the right. There is a side pit on the left, while the main route carries on straight ahead. This slopes down steeply to a 7 meter drop, below which the cave pinches. The side pit off the flowstone chamber drops 13 meters into a passage going two directions. Uphill back under the rigpoint, it goes up over nice flowstone to pinch at some holes going down. The downhill passage goes over clean bedrock and does the same.

Pozo de la Carretera de Carrillo was explored and surveyed on 14 March 1996 by John Fogarty, Troy Lanier, Susie Lasko, Peter Sprouse, and Cyndie Walck. It is named for a local place name provided by a local resident, who had shown cavers the entrance during a previous trip. (PS)

PLAN: ROTATED 205°



0 5 10
meters



POZO DE LA CARRETERA DE CARRILLO
CUAUHTEMOC, TAMAULIPAS
PEP 400

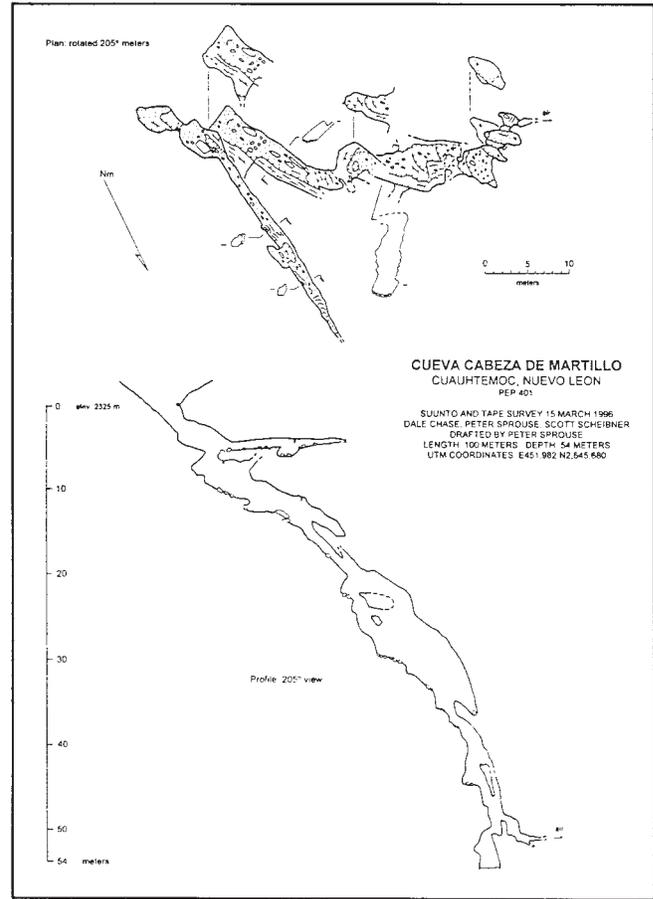
SUUNTO AND TAPE SURVEY 14 MARCH 1996
TROY LANIER, SUSIE LASKO, CYNDIE WALCK
DRAFTED BY PETER SPROUSE
LENGTH: 200 METERS DEPTH: 129 METERS
UTM COORDINATES: E 451,793 N 2,645,653

CUEVA CABEZA DE MARTILLO
 Cuauhtemoc, Nuevo León
 Length: 100 meters Depth: 54 meters
 UTM coordinates: E 451,892 N2,645,680

PEP 401

This cave is located 1700 meters south-southeast of Revilla at an elevation of 2325 meters. It is on the east side of the Cuauhtemoc road in a 7-meter-diameter sink that drains an arroyo. Just after the short entrance climbdown the cave splits. A level passage goes north along the strike for 30 meters to a flowstone pinch. The other passage continues to drop steeply, generally following the dip of the bedding. One squeeze is passed and a steep climbdown where a handline is useful. The cave ends at the bottom of a 5 meter drop, above which is a hopeless pinch where the airflow goes. This cave was located by Dale Pate and Scott Scheibner on 14 March 1996, and mapped the next day by Dale Chase, Charley Savvas, Scott Scheibner, Peter Sprouse, and Cyndie Walck. Signs of hammering at several squeezes indicated that it had been entered previously. (PS)

- Spiders: Araneae undetermined
- Harvestmen: Sclerosomatidae genus and species
- Mites: Acarida undetermined
- Centipedes: Lithobiomorpha undetermined
- Millipedes: Diplopoda undetermined
- Cave crickets: Rhaphidophoridae genus and species
- Darkling beetles: Tenebrionidae genus and species
- Flies: Diptera undetermined



PEP MEMBERSHIP LIST 1996

Tony Akers	Susie Lasko	Charley Savvas
Bob Anderson	George Love	Terry Sayther
Marcus Barksdale	Barbara Luke	Bev Shade
Wayne Bockelman	David McKenzie	Peter Sprouse
Don Broussard	Jim McLane	John Stembel
Connie Carroll	Greg McNamara	Bill Stephens
Charles Fromen	Bill Mixon	Tag Swann
John Fogarty	Dale Pate	Terri Treacy
Dan Hogenauer	Jim Pisarowicz	George Veni
Louise Hose	Mack Pitchford	Carol Vesely
Ray Keeler	Bru Randall	Solo White
Jack Kehoe	James Reddell	Terri Whitfield
Jean Krejca	Dawn Reed	Cathy Winfrey
Troy Lanier	Jim Rodemaker	Spencer Woods



