

Dedicated to the exploration, study, and conservation of the caves and karst of Purificación

EDITORS

Bev Shade and Peter Sprouse

ASSISTANT EDITORS

Andy Gluesenkamp, Terri Whitfield

GUEST EDITOR

Jonathan Wilson

OFFICERS

President: Bev Shade

Board of Directors: John Fogarty, David McKenzie, Bev Shade, Peter Sprouse, Jonathan Wilson

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. Members will receive newsletters as they are published and may vote in elections of the Board of Directors.

Proyecto Espeleológico Purificación P. O. Box 8424 Austin, Texas 78713

email: bev@purificacion.org on the web: www.purificacion.org

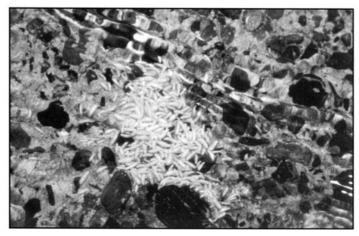
Editorial

My dear readers, as you read this Death Coral Caver please forgive some of the literary license we extent towards our contributors. Let's take for example, the distance from the field house to the Brinco Entrance described as 'a stone's throw away.' This statement is not all that accurate. An average-sized stone thrown by an average caver would never come close hitting the field house. The distance alone poses an awesome challenge; coupled with the elevation change and the sheer number of trees on the mountainside it makes this task all but an impossible dream. Keep this in mind as you read on.

Jonathan Wilson

TA BLE OF CONTENTS

Batwing Boulevard	2
Chupaderos Reprise	7
Cueva deTecolote	9
Bivouac at the Infiernillo Trailhead	15
Purificación Speleometry	16
25th Anniversary Through Trip	17
Sistema Purificación Update	24
2002 Membership	24
Acknowledgements	24
The Greening of Purificación Area	25
Purificación Cave Descriptions	26



Isopod cluster in the Isopod River of Infiernillo

Gustavo Vela photo

Front Cover: Chris Krejca at the Angel in Brinco. Photo by Gustavo Vela

Inside Front Cover: The Goddess of Liberty, Cueva Tecolote. Photo by Gustavo Vela

Back Cover: Bev Shade in the Sheep Dip of Batwing Boulevard. Photo by Vivian Loftin

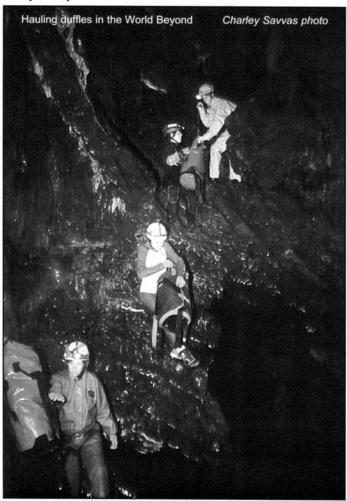
Inside Back Cover: Dale Chase on the Flowstone Drop of Cueva Tecolote. Photo by Gustavo Vela

Thanksgiving Trip Report on Batwing Boulevard 2002

by Faith Watkins

Friday, November 22

Our non-stop journey from Austin to Laredo began at 10:30 pm. Charley Savvas drove Bev Shade's truck while I rode shotgun and Bev snoozed in the back. James Lopez and Ed Goff followed in Ed's truck. We stocked up on supplies at the HEB in Laredo and headed for the border. Since Ed had to get papers for his truck, we anticipated being stuck in Laredo all night. Fortunately it only took an hour.



Saturday, November 23

Our first destination was Monterrey - to pick up Rodolfo "Fofo" Gonzalez. We drove all night, met Fofo near his house, then headed out of town. Mid-afternoon rolled around so we hit a small taco stand to quiet our nagging stomachs. James must have been *really* hungry because he ordered ocho tacos. (Cuatro is four, James!) Travel conditions were luxurious with paved roads all the way. The weather was gorgeou, presenting us with sunny skies. Around 1:30 pm we hit the turn-off outside of Barretal and began negotiating the famous long dirt road that leads to the Cueva del Brinco entrance to Sistema Purificación, the second longest cave system in México. The entrance is located in the



state of Tamaulipas outside of a small logging town named Conrado Castillo. The cavers had rebuilt a field house in town, located just a stone's throw uphill from the Brinco entrance.

Maximum speed on the dirt road up to Conrado Castillo is about 8 mph but average speed is about 5. Along the way, we stopped at Paso del Muerte for the tortilla toss. Paso del Muerte is a narrow, hand-built section of road flanked by a cliff and a precipitous drop. We noticed the Cueva de Infiernillo entrance as we passed it on the way up. After about six and a half hours we made it to the field house with only a few breaks and a couple of encounters with logging trucks. The total distance is about 34 miles. We opened the place up, had a drink or two, then settled in for the night.

Sunday, November 24

We decided to do a gear drop and scope out the cave. I had never done a cave camp and we all wanted our packs to be that much lighter the following day. Not to mention, Ed was feeling rather ill so we gave him the day to rest at the field house. Fofo, Charley, Bev, James, and I entered the cave at around 1:30 pm. We combed the entrance hoping to collect a few scorpions for a South African biologist who is conducting a scientific study to reclassify scorpions genetically. We took all of the drills, bolts and other group gear, along with some personal gear to the World Beyond. We got back to the field houseat about 10 pm.



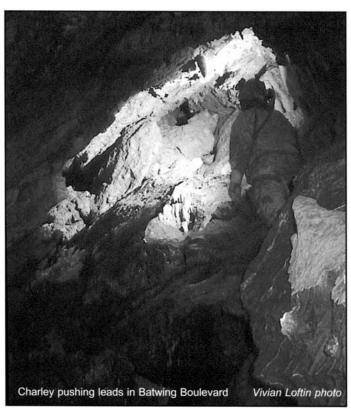
Vivian in the crawl above the Turkey Drop

Charley Savvas photo



Monday, November 25

El sol de México greeted us the following morning and, after a hearty breakfast, we carefully loaded our packs. The beginning of the cave is part of the Historic Section and starts out in dry passage. There were a couple of good climb-downs and some gnarly traverses that peer into darkness. An hour or so of caving brought us to the Dressing Room. The Dressing Room is where preparation begins for the Crack of Doom and where the wet portion of the cave really begins. We changed into wet suits and PVC suits and headed for the crack. We were carrying Gonzo Guano Gear packs that were specifically designed to fit through this constricted section of the cave. Although we passed packs and did our best to minimize energy expenditure, the Crack of Doom turned out to be too much for Ed Goff's sick body. Maneuvering through the Crack had zapped his strength and, since he was supposed to climb Orizaba the following week, he wisely decided it was time to turn back.

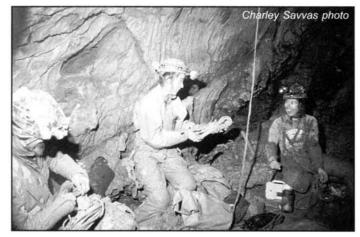


Since Ed was Fofo's ride, he was the logical person to accompany Ed out of the cave. It was only after Ed and Fofo were long gone when we realized that our only grasp of surface reality had vanished. Fofo was the only one wearing a watch. Ha, we all decided we needed more sleep anyway! We were expecting Chris Krejca and Vivian Loftin to join us at camp on Tuesday, but we weren't sure when they would show up. Then we tried to figure out how many sleep cycles we should go through in order to make it back to work the following week.



Faith climbing in Batwing Boulevard Charley Savvas photo

After the Crack of Doom, there is some amazing caving. There is a ~ 30-meter rope drop at Flowstone Falls, tons of climbing down sticky flowstone, carved out limestone sharp as knives, a toilet bowl that actually swooshes you down, and even some good mud in the Mud Ball Crawl. Group gear was redistributed once we hit the World Beyond and off we went in search of the swims that would eventually lead us to camp. We made it to an amazing waterfall dripping massive amounts of water from the ceiling. I commented that I must return to this spot to take photographs. Off we went until we approached the Angel's Staircase. Duh...we passed camp...where that photo op had been. Back we went, all in good spirits, and dropped our packs at camp around 8 pm (probably), having entered the cave around 1 pm.



Meanwhile, everyone is getting muddier....



and muddier...



and muddier....

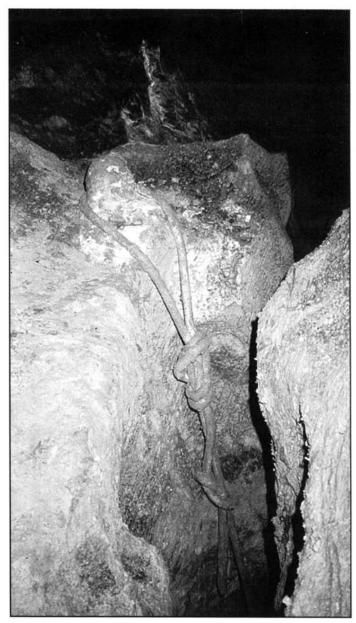
Vivian Loftin photos

Tuesday November 26

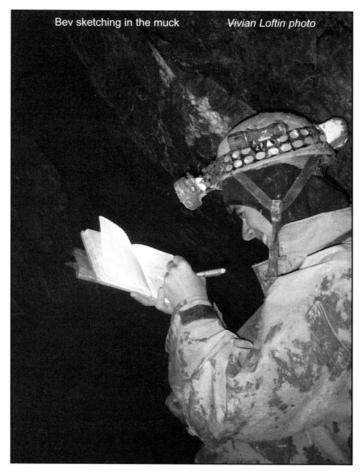
The long day of caving was conducive to a good night's sleep, so my first night sleeping shrouded in the darkness of a cave was rather pleasant. We followed Bev's lead: got up, ate breakfast, put on wet caving clothes from the previous day, and headed toward the leads at the end of Batwing Boulevard—the real destination of this trip. The first survey trip to Batwing Boulevard was in 1997 and the most recent had been in 2000. Batwing Boulevard was named for the formations at the entrance of the passage on the floor and ceiling that are growing sideways - a testament to

the steady wind that has been blowing through the passage over thousands of years. The wind has slowly formed horizontal "wings" that extend from stalagtites and stalagmites.

It probably took seven hours for the four of us to reach the un-surveyed portion of the cave. At this point, we judged time by how many times Charley had to change his carbide. There are about six pitches, all of which were previously rigged. As James weighted a cable ladder that led up one of the shorter drops, it snapped, so we rigged a hand line there on the way out. We derigged and the right parallel drop and re-rigged the left parallel drop (see map, p. 14-15). The bolts on another drop were looking a little sketchy, so that drop was re-rigged. The rope must have had a rebelay at one time, but it was now too short, so we did without the rebelay. After about seven or so hours of caving, we made it to virgin passage. Bev and James surveyed the lower portion of the Turkey Drop and added a whopping 16 meters to

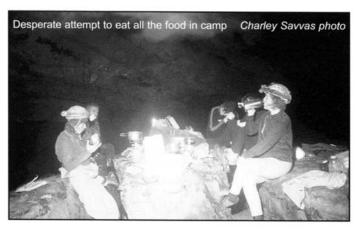


Natural rigging anchors are at a premium in Batwing Boulevard Vivian Loftin photo



the cave. All of the lower leads petered out. I belayed for Charley while he set bolts leading up a virgin pitch at the top of the Turkey Drop. Charley set a few bolts to finish the lead climb left from the trip in fall of 2000 and scooped some booty. We discovered a short sloping keyhole and another small pitch, but decided to save that for the following day.

The wind coming through Sheep Dip pass on the return trip was phenomenal! It was like being in a NASA wind tunnel (yeah, I go in NASA wind tunnels all the time). It was so strong that the water was being blown the opposite way from the direction it flowed. Interestingly enough, the wind had changed directions. On the way into Sheep Dip earlier in the day the wind was being blown out toward the main passage, but on our way out, the wind was blowing in from the main passage.



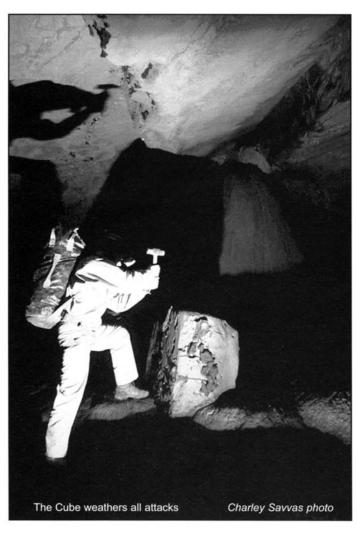
Wednesday, November 27, 3:00 am

We made it back to camp and, much to our delight, Chris and Viv were nestled in their sleeping bags. We figured we had caved for about 14 hours. Dinner and conversation ensued and sleep followed shortly thereafter. The sleep part continued and continued and continued....

Thursday, November 28, 8:00 am

Camp collectively woke up, groggy from too much sleep. I was not sure at this point whether it was a good thing or a bad thing to know the time. It turns out that James, Bev, Charley, and I had slept for 24 hours! Chris and Viv probably slept about 28 hours! Amazing how time passes in the under world. I woke up feeling dizzy and too zapped for the work that lay ahead. Chris also woke feeling pretty pekid. We decided to stay in camp to recover while Bev, Charley, Vivian, and James forged ahead to survey Charley's lead and continue up the next climb. The survey didn't continue all that far. The crew hit a huge breakdown choke wedged in the ceiling of the next climb that was deemed too dangerous to explore. They surveyed a stunning 23 meters to finish all the leads in that area. The breakdown choke coincides with a geologic contact; most of Batwing Boulevard is developed in the Tamaulipas Formation, while the top of the final pit appears to be developed in the Tamabra limestone. Chris and I ended up sleeping some more (if you can believe that). Then we took Bev's flash to fool





around taking some pictures. We took the high route to Angel's Staircase to avoid getting wet and picked up my vertical gear at the first pitch in Batwing Boulevard.

Friday, November 29, 9:00 am ish

I think we woke up around 9 am, so we were back to a "normal" (a.k.a. surface) schedule. We ate breakfast - if you consider ground up spaghetti and stroganoff breakfast! We then casually packed up. Charley, Chris, and I got out of the cave by 5:45-6:00 with just enough time to catch the last fleeting rays of sun. We weren't underground for all that long, but the colors of the sky and the smells of the surface were welcomed. Don Broussard greeted us at the field house with freshly baked combread. We grubbed,

cracked open La Virgen (Rompope for the uninitiated), cerveza, and who knows what else. Sleep finally settled in many hours later. Charley woke us up the next morning with his sweet melodies. Then we packed up the cars for the journey down the long dirt road.

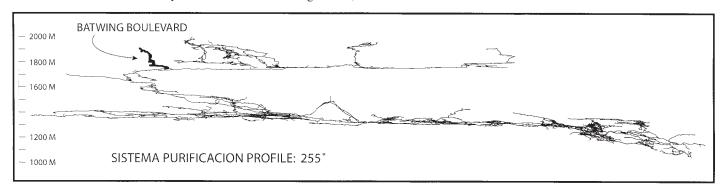


James chimneys up to the boulder choke

Charley Savvas photo

Reporte del viaje al Sistema Purificación en el Día de Gracias

Cinco espeleólogos viajaron desde Austin, Texas rumbo a Monterrey, Nuevo León para recoger a Fofo Gonzales. El destino final de este viaje fue la Cueva del Brinco, entrada al Sistema Purificación, el segundo sistema de cuevas más largo de México. Llegamos después de recorrer aproximadamente 34 millas en seis horas y media. Al día siguiente hicimos un viaje de reconocimiento a la cueva, buscando escorpiones en la entrada y llevando equipo grupal hasta el "World Beyond" (Mundo del Más Allá) para aligerar la carga en el próximo viaje. Llegamos al campamento después de aproximadamente 7 horas. Esperabamos al día siguiente a Chris Krejca y a Vivian Loftin. Nuestro objetivo final era el Batwing Boulevard, al que se le dió este nombre por sus formaciones modeladas por el viento. Bev y James topografiaron 16 m en las continuaciones inferiores mientras Charley punteó una ruta localizada en el año 2000 la cual termina en el techo con un derrumbe muy peligroso de seguir explorando. Éste coincide con el contacto geológico entre la Formación Tamabra (en el derrumbe) y la Formación Tamaulipas (la mayor parte del Batwing Boulevard). Se topografiaron 23 m más terminandose las posibles continuaciones en el área. Después de cinco días dento de la cueva nos preparamos para regresar a la superficie donde Don Broussard nos dió la bienvenida en la casa de campo. Descansamos y al siguiente día emprendimos el camino de regreso a casa.



Chupaderos Reprise by Cathy Winfrey

Personnel: Jerry Atkinson, Mark Minton, Mary Thiesse, Cathy Winfrey

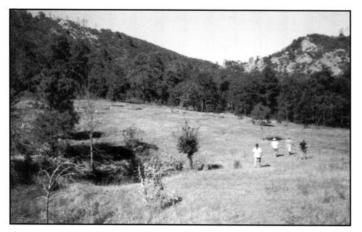
I have never made the through trip across the Sierra, so the invitation from Mark to cross it from Zaragoza over to Los Caballos in the Purification drainage was immediately appealing to me. Mark arrived in Austin on the 27th, and on the 28th, we then managed to rendezvous with Jerry and Mary at the south San Antonio Taco Cabana.

We arrived at the turn-off for the Columbia Bridge about 2pm, refueled at one of the new stations springing up there, and managed to exchange dollars for pesos at the new IBC branch bank neighboring to the gas station. At 3pm we started the last 16 miles to the bridge. We had a smooth, relatively expeditious crossing, and managed to camp comfortably in Bustamante Canyon that night.

One of the best times to go through Monterrey is on a Sunday morning, and we did, shooting out on four empty lanes to Linares. There we headed to Iturbide, where we saw, regrettably, that the famous mural on the canyon wall has indeed become nothing more than a pile of rubble.

We refueled in Dr. Arroyo, and then headed east. At San Antonio de Peña Nevada our dusty way was entirely blocked by a wedding party. The bride, in flowing white, rode her horse side-saddle through town to meet her groom, astride a mighty beast. After this delay, we headed out and up toward the Peña Nevada. At 2800 m we camped on a windswept saddle with a breathtaking view of the lowlands we had just crossed.

In the morning we checked an enormous sink marked on the topo



A meadow in the Chupaderos valley dotted with blind sinkholes Bev Shade photo

at Cerro La Poza. A logging spur took us directly to the base. It was an easy hike up to a blind sink. After tromping around this not-very-cavey area, we drove toward Hoya de San Diego and viewed Picacho El Venado across a valley. We could see roads on its brow and set that as our next goal.

Back out, and on down toward Siberia, then through and up again. After passing an interesting line of blind sinks, we took a positively horrific little road that led to a corral and horses. We hiked past them to a great view over the edge. Mark hiked on up the mountain until he found the road he'd seen from Hoya de San Diego. Jerry found a spur that connected to it. Mary and Cathy found a brush-filled pit near the up-hill side of the corral. We all



Looking northwest at Cerro El Viejo

Bev Shade photo

drove over toward a cavey little valley to camp. On the way, we noted an interesting star-shaped pattern on a far mountainside. Before camping, we found three shallow blind pits near camp, all of which had been tagged and flagged.

Upon rising the next morning, we checked the known pits, all nogos. Mark also checked one he had found, but it ended after one drop. Mary set off to hike to the pinnacles, Jerry followed the stream valley down, and Mark and I drove up an old road right over the top of Picacho El Venado (330m). Alas, the road ended, and there were no caves, but the views were spectacular. The entire road system on El Viejo was laid out before us.

Jerry had found a resurgence, the water source for Ejido La Encantada. Later, he was in camp to receive the Presidente of La Encantada, who was somewhat vexed we had not asked permission for camping on the Ejido property. Jerry pacified him somewhat, and assured him that we would stop in town the next day. Since Mary hadn't reappeared by the appointed hour, Jerry and I drove to higher ground to raise her on the hand-held radio. She was near La Encantada on the main road, way off her intended course to the north. While Jerry went to pick her up, Mark hiked down the valley from our camp and found a nice looking double pit.

Mark and Mary were up at dawn to check the double pit. It had a 8m drop, but didn't go. Happy New Year. We drove to La

Encantada and had a really nice visit with Presidente. He told us the road to Las Avispas and Guajalote was totally washed out and impassible. We refilled our water jugs and got a great tour of the sawmill. It's built of concrete blocks and electrified. We left him with a tarp, and on great terms. We then drove on down to Zaragoza and had a walking tour of the many small springs of El Salto. We refueled in town, and were told the road to Santa Marta de Abajo is still not done.

Purchases complete, we drove up to La Escondida at the base of El Viejo. We first heard and then saw red parrots flying around the face of El Viejo. We failed to make our right turn after La Escondida, and ended up at Cretaceous Park at dusk.

Showers in sunshine! What a treat! Then we drove back until we found the missed turn and headed down, then over, then up again toward the Leñadero and Arroyo Luna. We rounded a corner and on the mountainside before us, and saw, several kilometers distant, smoke rising. As we watched, it became more robust. Binoculars showed open flame at the base. We stunned to see the beginnings of a forest fire! There were no roads evident and no explanations.

Later, heading downward we rounded a corner to realize that the stream on our left had disappeared as we "crossed" it. We stopped and Jerry found a great entrance, right on the uphill side of the road. There were no tags or signs of exploration, so we camped to check it out. (Our campsite was surrounded by no less than seven sinks.) It was a fun cave, with lots of climbing and short drops. After surveying a side passage to a pinch, the survey turned to a main route. Just as the rope ran out, an old survey station was

found. Jerry later found that this was Cueva de la Forja No. 1, surveyed in 1987. Our survey and exploration revealed more passage than is shown on the published map (DCC No. 1), so it may merit another look.

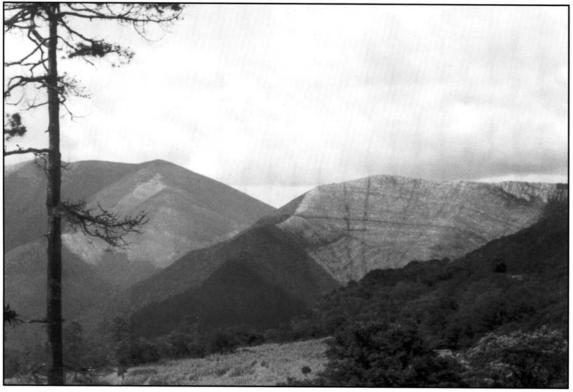
In the morning we hiked down canyon toward a huge sink on the topo, but the area was not cavey. Onward we drove, to the smelling of burning clutch, until Jerry's earlier concerns regarding his clutch were more pronounced. We camped in a field at 2100m and decided to walk-about. Mark and Mary went up the mountainside and found lots of sinks and shallow pits. Jerry waked on up the road toward Margaras, then back along the intermediate ridge Cuchilla La Travesia. He found some large sinks and an old logging road leading back to the main road.

The next morning, we drove up the road Jerry had found, clearing it of rocks and trees as we went. The big sinks didn't go, but the smaller one had an entrance blocked by a large slab of rock. The sink wasn't steep, so we cleared a path and Mark drove into the sink, where we winched the boulder. (Now THAT was exciting!) Mary checked it but it didn't go. We headed out, to give Jerry's clutch some mercy, camping on a road in a burned out area near Escondida. More parrots at sunset, and then the finest, thinnest crescent of new moon rose over El Viejo.

The next day we dropped into Zaragoza, and then headed north. Jerry's clutch was much happier on the highway, and out of low range. It was a pleasantly un-eventful drive back to Texas.

Un Viaje al Valle de Chupaderos

Cuatro espeleólogos viajaron desde Austin, Texas para atravesar



Extensive limestone outcrops near El Muerto

Bev Shade photo

la Sierra donde se encuentra el Sistema Purificación desde Los Caballos, Tamaulipas hasta Zaragoza, Nuevo León. Atravesando caminos con paisajes espectaculares revisaron algunas dolinas y entradas encontrando pozos ciegos algunos de los cuales estaban ya marcados topografiados. Se entrevistaron con el Presidente de La Encantada. Entraron a la Cueva de La Foria No. 1, topografiada en 1987, encontrando más de lo publicado en el mapa. Continuaron su camino hacia Zaragoza y de regreso a casa.

Cueva de Tecolote, March 2003

by Fofo Gonzalez and Chris Krejca

2003 saw another expedition to Cueva del Tecolote, a great way to commemorate the 30th anniversary of its discovery by Charles Fromén and cavers from the Greater Houston Grotto. At 1450 meters elevation, in a village called Los San Pedros, Tamaulipas, he found an impressive entrance at the end of an arroyo. Given the potential for the development of big caves in the area of the Sierra Madre Oriental spanning Tamaulipas and Nuevo Leon, there was no hesitation to explore it. Initially, only a few hundred meters of the cave were explored. The PEP undertook this project in 1980 and the surveyed length has been growing steadily through the years, up to the present figure of 40,475 meters, including the 3913 meters added with this year's expedition.

Prior to 1989 all of the trips were conducted from the surface;



Fofo descends one of the entrance drops on the way to Camp 1. Gustavo Vela photo



Andy climbs down the track in the entrance pit

Mark Strickland photo

with a cave well over 10 km long, "day" trips no longer accurately described these jaunts, so cavers began to establish underground camps. Three different camp areas have been established in Tecolote. We set up in Camp I, last used during the previous expedition in 1999, where numerous leads remained to be checked.

Eventually our caravan of 6 trucks hauling 23 cavers and their gear made its way out of Ciudad Victoria and after a few stops, up into the mountains. First stop was at the Río San Pedro for a refreshing and much needed swim. Not necessarily the last swim of the trip, of course, but the last with natural light and a sky above us.

Next day, March 7, Peter checked in with comisario Roberto Torres and saw the new composting toilets built for the town of Los San Pedros by SEDESOL and CAN. Meanwhile, Bill Stephens organized a rigging team, which rigged the twelve entrance drops and then exited for a good sleep on the surface. Bev had been delayed in Austin due to minor truck problems; however, her truckload met up with the rest of us in San Pedro only a few hours behind, having spent the night in Victoria after delivering some lab supplies to Dr. Fransisco García de León at Instituto Tecnologico de Ciudad Victoria and paying rent on the Conrado Castillo fieldhouse. At Juan Ledesma's they learned that a small group of French cavers had been through Victoria recently, looking for a ride up to Conrado Castillo ostensibly to do some canyoning in Infiernillo Canyon. When they arrived in Los San Pedros, Aaron was spearheading the entry of the first team to Camp I.



Andy Gluesenkamp, Dan Green, Chris Krejca, Paul Berger and Aaron Addison prepare to enter the cave on Friday

Peter Sprouse photo

The rest of us entered the cave March 8th, the following day. Before heading in, most people weighed their pigs, that is, their packs, which carried a week's worth of supplies in addition to group gear. Weighing packs can have two purposes – first, making sure that no one is unsafely overloaded and second, trying to convince ourselves to discard all excess wieght! Battery-efficient LEDs help to reduce some weight – they are slowly but steadily replacing incandescent bulbs, evident in the selection of lights for this expedition. However, carbide cavers still swear that carrying around rocks and water, dealing with clogged jets and spent mineral, is THE way to go.

Scrupulous selection of one's camping area is essential for a week's stay. The core of the camp was the closest to the water supply, where most people settled. This density is great for camaraderie; nevertheless, Snore Fest inspired others to look for more secluded

areas. The envy of everybody was Camp Canada, a muddy hill overlooking all of Camp I, where the Canadians set base, complete with a maple leaf fashioned out of freeze dried pouch strips. Pretty ingenious, eh? In between Camp Canada and the core area was El Barrio, where Gustavo and Fofo set camp, with Ed and Christie as invitados. Cave camping can be peaceful without the storms, cars, or mosquitoes of the surface. But there was certainly a snoring choir, conducted by Andy; and they occasionally ended up sawing logs in synch.

The 8th was the first day of survey for those who'd spent the evening underground and for some who had only just arrived. Aaron and Paul replaced the rope at the beginning of the Fantasia Borehole and checked the stream lead by the Extreme Borehole. They mapped

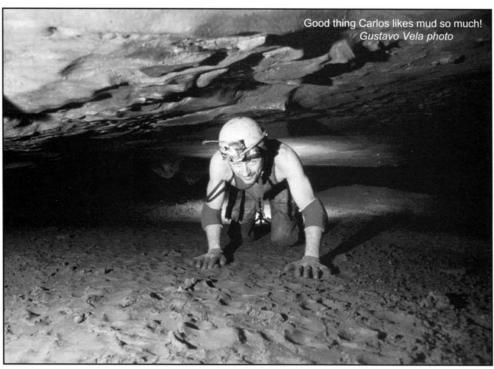


Gustavo Vela, Ed Goff, Fofo Gonzalez, Bill Stevens and Dale Chase ready to enter the cave on Saturday

Peter Sprouse photo

100 meters of wet passage, punctuated by gours that reached nearly to the ceiling; by the time they turned around there was still going passage. Those entering the cave made their way into camp most of the day; Marc, a photographer from California, made two trips, due to his 50+lbs of photo gear. After setting camp, Bev and Peter led two teams to check some leads off the Walking Maze. Peter's team (Aldo and Dan) located a lead that dropped to Worm Sump. Bev's team (Nick, Ed and Fofo) worked on a climbing lead off Tiny Spiny. Fofo lead the climb and then tied it into the Spine Line survey. Peter's team then checked a lead further along the Tiny Spiny that first did a loop, but then kept going until it lowered to a belly crawl and got too tight. The first day of survey yielded 299 meters of new passage.

The next day, March 9, everybody surveyed. Dan, Andy and Carlos surveyed 120 meters in Pirates of Penitence, the wet lead

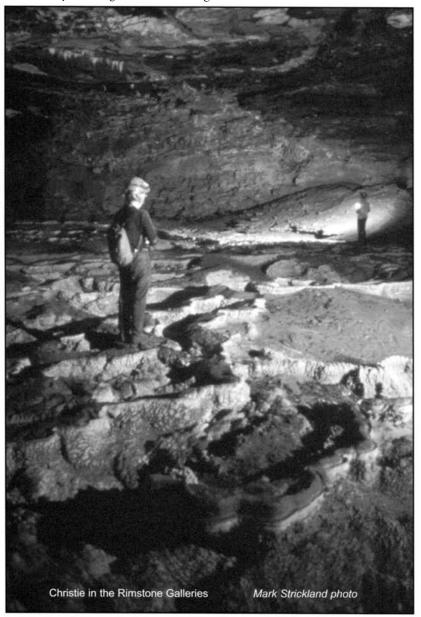


near the Extreme Borehole. Bev. Nick. Solo and Dale headed to the Irish Spring dig, which Solo had looked at 12 years before. They found a climb out of the sump pool there, which led to a (big surprise) mud filled chamber. They dug along the top of the mud bank for several hours. Their dig was fruitless, nor did it inspire a return trip, as there was no airflow. Not even their back up leads conceded, but they managed to map 49 meters. Kate, Aldo, Marc and Peter worked around north Bullwinkle's Borehole and the Yucky Puppy Subway, mapping various loops in ample passage. On their return trip they traced the Yucky Puppy Subway back to the Unreel Loop, which effectively created a shortcut to Chihue Freeway. Ed, Gustavo and Fofo mapped a loop off Chihue and started the Hiccups: large walking passage with a succession of knee deep pools which kept going after 200 meters. It would have been promising if there were significant air



Dale passes through the Helictite Galleries

Mark Strickland photo



flow. Bill, Paul, Shannon and Chris mapped 360 meters in loops in the Seven of Nine Borehole area and were gone for 16 hours. Aaron and his team mapped in the Golden Ring Pool area. The total for the day was 944 meters.

More survey ensued the following day, March 10. Bev, Nick, Chris and Kelly pushed a crawl at the end of Fantasia Borehole. They mapped 150 meters to loop in farther along the main passage to Kennedy's Canyon. They also mapped in a crawl off Fantasia Borehole, now known as the Blue Light Special. Solo, Pat, Aldo and Peter did more loops in the Yucky Puppy Subway area, getting another 137 meters. Dale, Christie and Marc spent the day photographing, shooting in Another Hall, Rimstone Gallery, Helictite Hall and Fantasia Borehole. Dan, Andy and Kate mapped loops along upper Bullwinkle's Borehole, named Chocolate City, adding to the day's total of 437 meters. This was also Dale's third birthday spent underground, and a great excuse for socializing and rolling off Camp Canada until late hours of the (ever present) night.

Nick's pants had been suffering on the trips; and he would have been caving in a thong and flip-flops had he and Bev not gone on a quick surface resupply trip on March 11. Solo decided to exit the cave with them, to finish the trip checking surface leads. Ed, Dale and Aldo went to do a climb in the Fantasia Borehole; a rock structure there had looked solid at first, but was actually filled with mud. So instead they surveyed a bit in Knives and Forks. Aaron, Christie, Andy and Fofo checked a crawl at the end of Serious Borehole, named Station Identification, and surveyed 56 meters until it got tight. Airflow inspired some industrious hammering but more would be required to convince the passage to let cavers through. Bill, Carlos and



Looking down on the rest of Camp 1 from Camp Canada

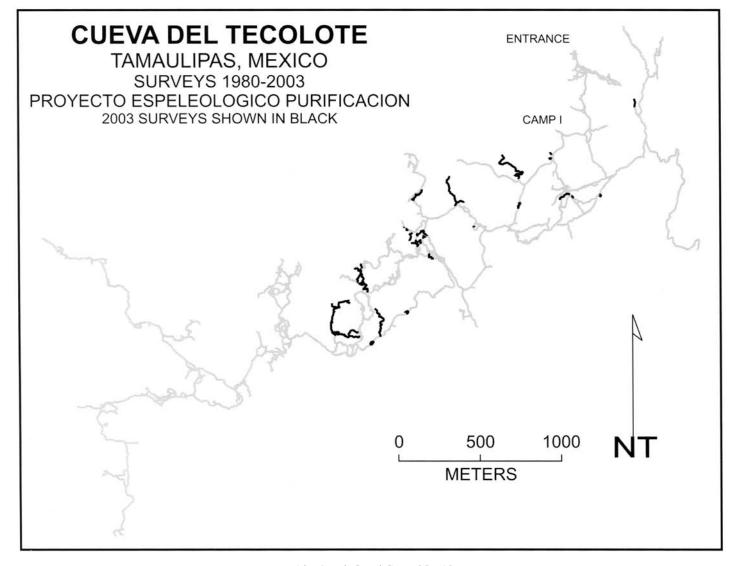
Gustavo Vela photo

Paul returned to the Seven of Nine Borehole, mapping loops that tied back to the Worchester Zombie Passage of Southpark. Two teams went farther down the Chihue and lassoed a stalagmite to get up into a passage partially explored on a previous expedition

by Ray Keeler and Jack Kehoe. A fork to the east, where Dan, Shannon, and Kelly surveyed in an insane amount of mud, looped into the Golden Ring Pool. Chris, Marc and Peter mapped a lead that looped around in boneyard maze and then found an upper level passage that took off due north for 200 meters, named Abs of Steel. Having to turn around to meet up with the other team, they left going passage to be surveyed later in the trip. The total for the day was 865 meters.

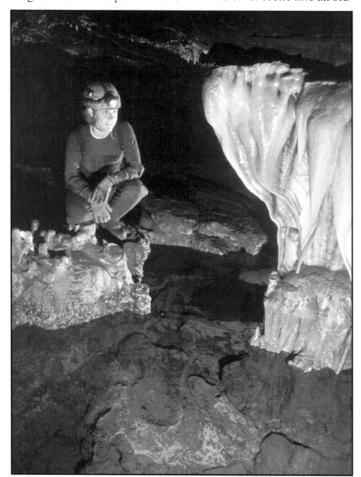
On March 12 Paul, Bill and Kelly went to the Pirates of Penitence Passage, which broke into large passage named the High Seas. They stopped at Yellowbeard Falls, having mapped 165 meters, but the passage kept going. Carlos, Dale and Dan went to climb into the high leads visible over the beginning of the Fantasia Borehole. The climb produced 101 meters of passage. After a discussion over who was most expendable (Dale won

the honor of climbing up first) they used a grappling hook as a means of ascension. Bev, Nick and Chris went back to the Blue Light Special and mapped 272 meters to a sump, leaving two small but going leads. Pat, Christie and Peter went back to the Mickey



Mouse Maze, mapping a lead off the Unreel Loop and then down to Bullwinkle's Borehole, and exploring a lead that dropped down just north of the Power Nap Passage, which led down into Chocolate Cake. They also mapped 007 Passage, which tied back to Yucky Puppy Subway. Ed. Aldo and Fofo went back to the Hiccups, off Chihue Freeway, mapping another 174 meters in a canyon passage that got tight and ended in an upstream sump. Up to this date, the cave's total surveyed length amounted to 39,942 meters.

We surpassed the 40 kilometer mark the following day with the ease of one watching an odometer roll over. After all, all we needed was another 58m, which in this cave is generally a walk in the muddy park. Some decided to head out of the cave that day: Kate and Cathy exited due to illness and injury. Carlos, Aaron and Paul packed up and headed for the surface and Marc started to shuttle his gear out. Ed, Dale, Pat and Aldo, on the other hand, checked some climbs and crawls off Anotherhall. Andy, Chris, Fofo and Peter went back to the maze, mapping side leads along the way to Just Say No. The first passage went down a slope to a fork, one side of which sumped in the Broken Water Bay. The left side opened up and they could hear the Río Wonka; but this passage eventually ended in the Birthday Sump. Two teams headed back out the Chihue Freeway: Bev, Gustavo and Kelly pushed two leads that Peter's group had found on March 10 near the Golden Ring Pool. One lead pinched out, while the other broke into an old



Christie is about to brave Nonad Lake

Gustavo Vela photo



Yucky Poodle Trunk

Gustavo Vela photo

lower level stream passage. Unfortunately, this nice stream passage ended quickly. Gustavo and Kelly led a climb out of the stream passage into a series of upward sloping muddy domes and some side passages. They found several small leads, and surveyed about 150 meters. The other Chihue group consisted of Dan, Christie and Shannon, who pushed several leads in the same area. Including the rest of the day's survey, their discoveries totaled to 3,913 meters of new passage for this expedition. This total pushed the cave to 40,475 meters long. Luckily for all involved, the 13th of March was also Andy and Fofo's birthday (the rumors are true, they're Siamese twins separated at birth). Seeing as birthday celebrations were in order, a cave rave ensued, complete with lightsticks swung in hypnotic patterns, techno music (courtesy of Andy's vocal beat-box), assorted beverages, and nice surprises.

The departure date for those who remained was March 14; we trickled out of the cave until well into the afternoon. Surfacing after six nights underground is a bit like the coming of spring after a dark and muddy winter. Even donkey dung was a welcome smell. Being able to see in every direction at the same time instead of staring at one mud-filled spot was almost as exciting as the prospect of a fire and dry clothes. A steady rain dampened that idea and instead most of us elected to head off the mountain. Thank Dios for derigging crews; I, for one, was not in the mood. Aaron led a team back in to finish the de-rigging. Bev, Nick and



Borehole in Cueva del Tecolote

Mark Strickland photo



Surveying in the Mickey Mouse Maze C

Gustavo Vela photo

Andy had derigged up to the base of the Isopod drop as they exited the cave. The rain persisted and when Aaron's team returned, all but two trucks took off and most of us were lazing in Victoria that same night. Bev and Kathy opted not to drive down in the rainy darkness, and got caught behind a road crew near the base of the mountain the following afternoon, but they only had to wait for two hours before the road crew went home.

Tecolote is now over 40 kilometers long. We didn't find new Borehole heading off the map on this expedition; however many leads remain and the potential for breakthroughs exists. I'm sure after the memory of the incredible mud subsides, some may even want to return; you know who you are.

Participants: Aaron Addison, Paul Burger, Dale Chase, Andy Gluesenkamp, Ed Goff, Fofo Gonzalez, Dan Green, Aldo Guevara, Nick Johnson, Chris Krejca, Kelly Mathis, Bill "Carlos" Nasby, Christie Rogers, Kathy Scanlon, Bev Shade, Pat Shaw, Bill Stephens, Peter Sprouse, Marc Strickland, Shannon Summers, Gustavo Vela, Kate Walker, Jack "Solo" White.

Viaje al Cueva del Tecolote

En 2003 se organizó otra expedición a la cueva del Tecolote, en el 30 aniversario de su descubrimiento. Su entrada se encuentra a 1450m de altura al finalizar un arroyo cerca de la comunidad de Los San Pedros, Tamaulipas. El PEP retomó este proyecto en 1980 contando hasta ahora con 40,475 m de longitud topografiados,



Fantasia Borehole

Gustavo Vela photo

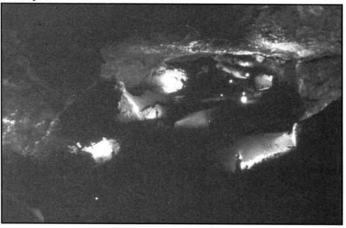
incluyendo 3913 m realizados en esta expedición. En este viaje los 23 espeleólogos participantes se establecieron en el Campamento Subterráneo I después de bajar seis tiros en un viaje de aproximadamente 6 horas. Se revisaron continuaciones en los pasajes: Pirates of Penitence, Tiny Spiny, Knives and Forks, Chihue Freeway, Hiccups, Golden Ring Pool y Yucky Puppy Subway; alrededor de grandes salones: Anotherhall; Fantasia, Extreme, Bulwinkle's, Seven of Nine y Serious Boreholes; y laberintos: Walking Maze, Mickey Mouse Maze. Se cavó sin éxito en Irish Spring Dig. Las continuaciones de Tecolote en las que se topografió



Camp Canada displays their duct-tape artwork

Gustavo Vela photo

incluían gateras, arrastraderas, escaladas, pasajes laterales caminables, niveles superiores, inferiores, terminando en sifones o asolvándose, la mayoría de ellos con mucho lodo nombrándolos: Worm Sump Kennedy's Canyon, Blue Light Special, Chocolate City, Chocolate City, Abs of Steel, High Seas, Yellowbeard Falls, Chocolate Cake, 007 Passage, Broken Water Bay, Birthday Sump, El sexto día dentro de la cueva se sobrepasó la medida de 40 km de pasajes topografiados después de lo cual algunos espeleólogos decidieron regresar a la superficie. Se tomaron fotos durante el viaje en Another Hall, Rimstone Gallery, Helictite Hall y Fantasia Borehole. Se celebraron tres cumpleaños de Dale, Andy y Fofo. La mayoría se preparó para salir de la cueva después de seis noches dentro de ella mientras otros espeleólogos se encargaron de desarmarla. Tecolote tiene todavía muchos pasajes que continúan existiendo la posibilidad de encontrar brechas hacia pasajes que se dirijan en nuevas direcciones.



Another View of Fantasia Borehole

Mark Strickland photo

Bivouac at the Infiernillo Trailhead

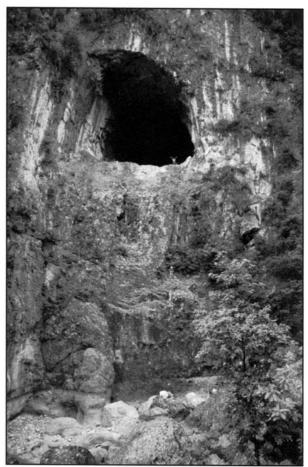
By Terri Whitfield

The scratchy slithering of rattlesnakes along the dry, forest floor jolted me awake. The thick, dry leaves rustled loudly as the snakes foraged in the brushy vegetation. "Shh...sheesh, shh...sheesh, shh...sheesh.". It was 3 A.M. and I was alone in the black-dark woods. My plan had been merely to lie down to rest, to wait out my bivouac until closer to dawn, when I would get up and begin the hike up to the PEP field house in Conrado Castillo. But I must have dozed off. Now, I listened intently to the night sounds. Absorbed in finding dinner, the snakes seemed to be staying in the brush at least ten meters away, stalking the small rodents as they emerged from their burrows. There could be no sneaking up on me - not in these crispy, crunchy leaves - not if I could stay awake. As long as I could hear where they were, I did not feel threatened. I vowed not to let myself fall asleep again. I decided to rest a few more hours before abandoning my bivouac and starting the long hike up the mountain. At some point during the night, I could vaguely hear a truck slowly grinding along a logging road far away and higher up the mountain.

Our group of nine had planned to spend only one night camped at the Infiernillo trailhead, just long enough to rig the 40-meter rappel from the Infiernillo entrance down to the canyon, which would be the exit from our Brinco -Infiernillo through trip. We also left Peter's truck there to shuttle us back up to the field house a few days later, after we had exited the cave. Early the next day I started the hike from the Infiernillo Canyon road up towards the field house and had taken a wrong turn. Wondering which way to go at the intersection in La Curva, I had asked a local woman, who had smiled and said "derecho" and motioned up the mountain. Derecho, I thought. Bueno. I took the right fork in the road, and hiked all the way to the village of Desmontes before I realized my mistake. "Derecho" means to go straight, while "derecha" is the word for a right turn. It was a costly mistake. The two truckloads of cavers that I had hoped would be picking me up had barely slowed down as they passed La Curva, and had continued on up the correct road to the field house. It would be hours before they would realize that I was no longer walking ahead of the group, and even longer before they would realize that I had returned all the way back down the mountain to the truck we had left at the trailhead.

Many of the old-time cavers are familiar with the place called of La Curva, the home village of Senor Antonio Grimaldo. It was Sr. Grimaldo who first took a group of Houston cavers, led by Charles Fromén, down a mountain logging road, through the thick vegetation, down the canyon to a 20-meter-wide arroyo, then up and over boulders to a place where they could see the Infiernillo entrance, a magnificent 25-meter-wide hole in the cliff face, 40-meters above the canyon floor. As the cavers began the exploration of the cave system through the Infiernillo entrance, Sr. Grimaldo became the local contact and patron, providing warm meals and shelter to the often-weary cavers. This good friend of the cavers passed on years ago, and all that remains at La Curva is a post that once supported the roof beam of Grimaldo's house.

Now I was left to fend for myself alone in the rattlesnake-infested canyon. Although I was somewhat annoyed with the predicament



Pre-rigging the Infiernillo entrance

Gustavo Vela photo

I found myself in, I took some comfort in the fact that I was not the first on this trip to get lost. The day before, Jonathan and a few others had taken an evening hike down the arroyo to the canyon to cool-off in the spring. They decided to hike back a different route that took them up a side arroyo that ended at a sheer cliff - way below the Infiernillo roadhead where we had camped. When the group had not returned by 11 P.M. Peter began a search. We hiked to the edge of the canyon ridge then whistled and hollered. They returned the call and Peter could see their lights way down below the cliff. The plan was to divert them away from the cliff and back over to the flagged trail that led the way up the rattlesnake-infested arroyo. We formed a human chain through the forest, with each person positioned along the line, maintaining visual contact, until Peter reached the edge of the ridge. There he could provide a beacon of light. They were still way down the canyon, but with Peter's light as a guide, they were able to make their way up the slot in the canyon and then back to camp. While holding my position in the human chain along the trail, I had focused on the night sounds, finally recognizing the rustle in the brush as that of a snake slithering loudly through the leaves, "Shh...sheesh, shh...sheesh,"

Now, it was my turn to be lost. Rather than continue to wander around the mountain, the best solution seemed to be for me to return to the familiar campsite.

I was at least half-way up the mountain by then and hated to give up all of my hard-earned elevation, but the alternative was to bivvy along an unfamiliar section of logging road – which I was beginning to suspect was the wrong logging road.

For some reason, making a bed under the truck had seemed like a good plan. Since there had been an occasional rumble of thunder farther up the mountain and a flash or two of lightning, I needed to be somewhat protected from the rain. Under the truck, I would also be out of the path of roaming pigs, burros and other wildlife. I had been procrastinating, delaying the moment when I would need to lie down to rest, busying myself with gathering leaves, cutting large fronds from the abundant palmettos, and, every now and then, turning over another rock looking for the hidden key to the truck. I gathered another armload of the leaves and carried them over to my makeshift bed underneath Peter's Land Cruiser. The lift kit that Peter had added to his truck provided plenty of ground clearance. Trying not to think of the long chilly night that lay ahead, I had spread the oak leaves out on top of the pile then carefully placed five or six large palm leaves on top to ensure coverage over the ever-present poison ivy. With the bed made, I returned to my search for the key, turning over rock after rock. If I could find the key I would have food, shelter and more water. Hell, if I had the key to the truck, I could drive it all the way around the mountain until I found the rest of our group up at the field house.

Next morning, back at the field house, Jonathan was trying to motivate Peter to restart his second rescue of the trip. "Peter, didn't you have a . . . wife?" he cajoled. Peter had halfexpected that I would have made it on up the mountain on my own and arrived at the field house sometime time during the night. Instead, I had spent a long night in my palm-leaf bed underneath the truck, one eye open, listening to the snakes rustle through the leaves. Dawn would not come soon enough. At first light, I began the long trek up the mountain. Near Galindo, I met up with Bev and Nick, who had graciously undertaken their rescue mission. Being found felt so wonderful! I was fed and watered and tucked into Bev's truck and rode the remaining six miles up to Conrado Castillo. Later I learned that the road to Desmontes does eventually lead to Conrado Castillo if you take the correct turns. The road was searched that night by Peter Sprouse and Peter Haberland, who had followed my signs and suspected that I had made the wrong turn there. It must have been their truck that I had heard grinding around the mountain late during the night. Luckily, this rescue mission only cost us a day of caving, but it was not to be the last. The next incident of lost cavers would occur while traversing through the mountain, providing one of the memorable events of the through trip. See details in the Twenty-Fifth Anniversary Through Trip report.

Vivac en la cabecera del camino a Infiernillo

Nuestro grupo de nueve espeleólogos planeó acampar una noche en el la cabecera del camino a Infiernillo, tiempo suficiente para armarar el rapel de 40 m que lleva a la entrada de la cueva, nuestra salida después de la travesía Brinco- Infiernillo dentro del Sistema Purificación. Necesitabamos también dejar ahí la camioneta de Peter para regresar a la casa de campo en Conrado Castillo. Pero temprano al siguiente día empezé a caminar y tomé el camino

equivocado en la intersección de La Curva, antiguo hogar del Señor Antonio Grimaldo, quien enseñó por primera vez la entrada a Infiernillo a un grupo de espeleólogos de Houston. Una mujer local me dijo "derecho" y yo tomé a la derecha caminando hacia la comunidad de Desmontes hasta darme cuenta de mi error. Las dos camionetas llenas de espeleólogos, quienes esperaba me recogieran, siguieron hacia la casa en Conrado Castillo dejándome sóla en el cañon infestado de víboras de cascabel. Decidí regresar a un lugar conocido: el campamento y ahí hacer una cama debajo de la camioneta para mantenerme fuera del camino de los animales y protegerme de la probable lluvia. Tenía el consuelo de saber que no era yo la primera en perderme en este viaje. El día anterior fueron a tomar un baño al arroyo Jonathan y otros compañeros decidiendo regresar por una ruta diferente llegando hasta un cantil escarpado muy abajo de donde se encontraba el campamento. Al no regresar a las 11 P.M. Peter empezó la búsqueda caminando por la cresta del cañon llamándolos a gritos y silbando hasta que ellos respondieron y Peter vió sus luces por debajo de la pared. Al día siguiente, en la casa de campo, Peter medio esperaba que yo durante la noche hubiera encontrado y seguido el camino hasta ahí, mientras que yo permanecí en mi cama de hojas de palma escuchando las víboras hasta el amanecer, cuando empezé el largo camino hacia arriba de la montaña. En la parte del camino llamada "la orilla del mundo" me alcanzaron Bev y Nick emprendiendo juntos las seis millas de regreso a la casa. Después supe que el camino a Desmontes eventualmente llegaba hasta Conrado Castillo y fue en éste donde Peter Haberland y Peter Sprouse me buscaron durante la noche. La misión de rescate costo un día de no ir a las cuevas, pero no iba a ser la última al perderse algunos espeleólogos del grupo durante la travesía al Sistema Purificación. Puedes leer más detalles en el reporte de ésta travesía.

PURIFICACION SPELEOMETRY

compiled by Peter Sprouse

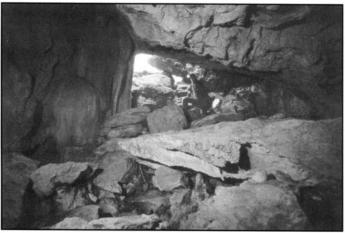
Long caves Ler	ngth(m)
 Sistema Purificación, Tamaulipas 	93,755
Cueva del Tecolote, Tamaulipas	36,562
3. Sótano de Las Calenturas, Tamaulipas	8,308
 Sistema Cretacico, Nuevo León 	6,065
5. Cueva de La Llorona, Tamaulipas	3,540
6. Sótano de la Cuchilla, Tamaulipas	2,716
Cueva del Río Corona, Tamaulipas	2,301
8. Cueva Paraíso Difícil, Tamaulipas	1,799
9. Sistema Manicomio Paralelo de Satanas, NL	1,639
10. Cueva del Borrego, Tamaulipas	1,464

De	Deep caves Depth	
1.	Sistema Purificación, Tamaulipas	953
2.	Cueva del Tecolote, Tamaulipas	424
3.	Cueva de La Llorona, Tamaulipas	412
	Sistema Cretacico, Nuevo León	465
5.	Sistema Manicomio Paralelo de Satanas, N	NL 326
6.	Sótano del Caracol, Tamaulipas	301
7.	Sumidero Anaconda, Nuevo León	278
8.	Sótano de la Cuchilla, Tamaulipas	207
9.	El Hundido, Tamaulipas	186
10	. Cueva Paraíso Difícil, Tamaulipas	178

Twenty-Fifth Anniversary Through Trip in Sistema Purificacion

by Terri Whitfield

After a rowdy night drinking tequila and partying in Cueva de Infiernillo's Camp II on July 4, 1978, Randy Rumer related to the team of cavers that he'd had a dream - of making the connection between Infiernillo and Cueva del Brinco. Next day he and Bob Anderson pushed south in Infiernillo, beyond the Netherhall, through Arne Saknussem Borehole into virgin cave - into an area that was quite different from Infiernillo, an area that was marked by ascending canyons, water-scoured stones, and potholes. After over a kilometer of exploration, they turned back, leaving flagging tape at the limit of their exploration. It was a few days before the group realized what had been accomplished. Pushing from the opposite direction via the Brinco entrance, Peter Sprouse, Terri Treacy, Peter Keys and Hal Lloyd found the new flagging tape, not more than ten meters from the last survey station beyond Fool's Falls. They then proceeded to survey a kilometer of passage, making the survey connection to the Communion Hall.



Just beginning! Peter leads into the Brinco entrance Gustavo Vela photo

Twenty-five years after the connection was first made, the Brinco - Infiernillo through trip remains a Mexican classic. In May of 2003, a group of nine individuals ventured into the hallowed halls of Sistema Purificación. For several of them, this was the first time they had visited the distant recesses of the system. The through trip is a long, brutal excursion through a complex array of passages and obscure rabbit holes that lead the way on. Throughout the years, there have been various attempts at a through trip; some were foiled by heavy rains and flooded cave passages; some were waylaid by problems with route finding. There are a thousand and one ways to get lost in this labyrinth and few have made it through. A small number of hardcore cavers have attempted (and achieved) a double through trip; beginning at the Infiernillo entrance, climbing up, and up and over the Netherhall, ascending further to the Brinco exit. This hardy group relaxed in the fieldhouse for a few hours, then turned around to do it again, this time beginning at the Brinco entrance down through

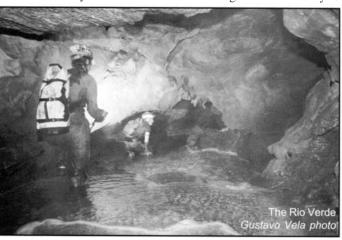


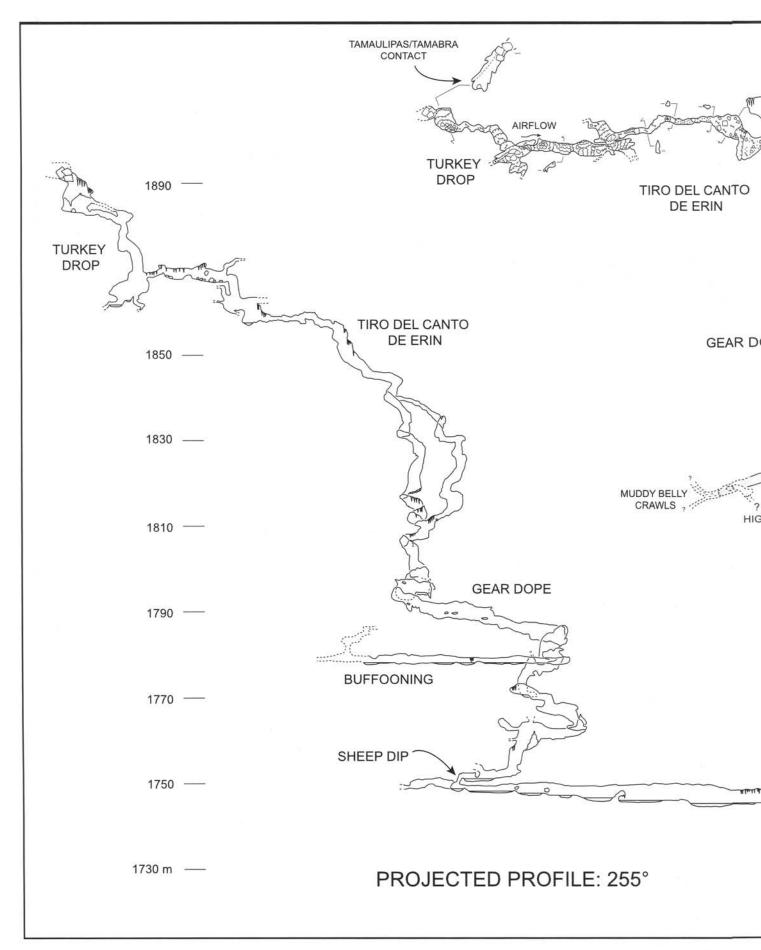
Laura Rosales, Bev Shade, Nick Johnson, Terri Whitfield, Peter Sprouse, Gustavo Vela, Jonathan Wilson (L to R, standing) and Peter Haberland (seated) in front of the field house, before the through trip Chris Krejca/Nick Johnson photo

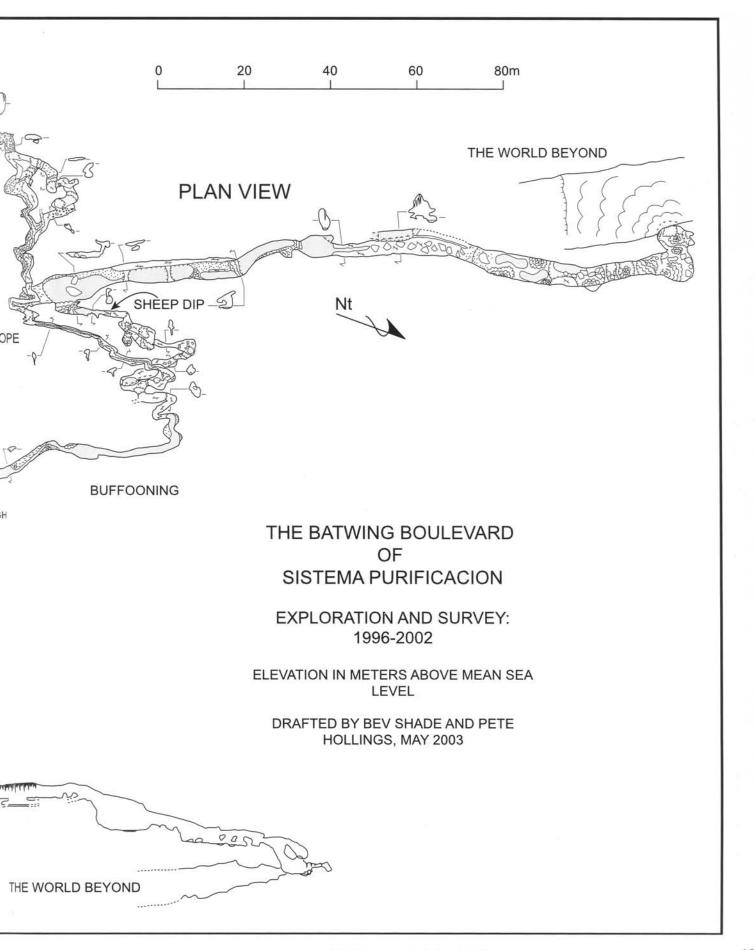
the mountain toward the Infiernillo entrance.

Of the nine people in our group, only Peter Sprouse had done the through trip before and knew the route through the system. Beginning with the familiar Historic Section through the Brinco entrance, our group was led on a fantastic journey through unfamiliar passages, many of which we had only read about.

We entered Brinco late in the day, expecting a trip of at least fifteen hours. We had planned to cave through the night in order to approach the magnificent Infiernillo entrance led by the morning light. Much of the movement through Sistema Purificación involves free climbing. Having entered through the upper entrance, we were starting high and would be going down through the mountain to exit through the gaping Infiernillo Entrance. The steep flowstone down-climbs in the Historic Section provided a fitting prelude of what was to follow. There were to be many such drops. Some were drops that in current times probably would be rigged with a short rope. But this cave was first explored in the late seventies by hardcore cavers who thought it unnecessary to







rig a drop that was free-climbable. It was a time when ropes were used only when absolutely necessary.

One of the interesting climb-downs in the Historic Section is at Traverse Pit. Though somewhat exposed, there are plenty of bombproof and timeworn handholds and footholds, many of which have now been rubbed smooth. The Greasy Climb is lubricated with just enough vampire bat guano to make it sporting. The Slalom is a long slope that follows the dip of the rock, causing you to zig-zag back and forth. Sliding down the ledge of the Treacherous Traverse leads to bigger passage if one does not miss the turn and go off a more tempting side trail. In the Dressing Room, some of us slathered ourselves in Vaseline before changing into wetsuits and heading up the Chute. After performing the one-legged sideways move through the Crack of Doom we soon came to a T-junction called the Laguna Verde Cut-Off leading to the Lunar Way. The Lunar Way is distinguished by remnants of an old floor that now bridge across the passage. At the end of the Lunar Way we made a left at the T and entered the Mudball Crawl singing "Mudball", "Poontang", "Sound-off." Peter indicated that it was the tradition to sing the Mudball song while crawling through this passage, but I was not inclined to linger there for an explanation. We entered the Laguna Verde and began to follow the Río Verde downstream.

We soon came to Flowstone Falls, which is sometimes rigged when cavers are carrying big duffels. It is the biggest down climb in the Río Verde, dropping some 20 to 25 meters. Looking down from the top of the flowstone there is a great view of cavers' headlamps as they head toward a deep, green pool. The Main Squeeze has been enlarged to allow cavers to pass more easily. Then we had to go through the Toilet Bowl. Not a pleasant thought, but it soon flushed us into the Bathtub. We soon came to a low, wet rimstone-floored room called the Mongoloid Room.

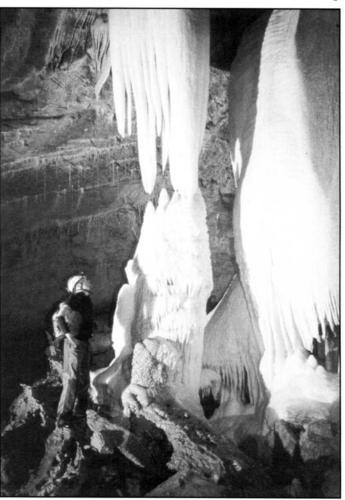
A major landmark at this juncture of the system is The Canal, which is first approached with a low salamander crawl then gradually the water deepens until you are swimming. At some point through the Canal you begin to hear The Roar. When first discovered, The Roar was thought to be the sound of a cascading waterfall but turned out to be a strong wind blowing through a low air space constriction. The Canal ends at a wall, with the only way on being up into the Scallop Speedway. A ramp slopes upward to a climb-down to a lake. The way on from there is to take a left into the Speedway Bypass. Beyond this is the X-Rated Climb, which is a climb-down that elicits expletives when one attempts to negotiate the muddy, knotted rope.

A low crawl gives access to the magnificent World Beyond. This 2 km long, mostly horizontal stream trunk climbs over breakdown, but is punctuated by cold swims through long, deep lakes.

The 100-meter swim gives way to a large 30 m x 50 m x 20 m room which houses an immense flowstone mountain affectionately anointed the Throne of Oztotl. Representing the blending of the earth, water and the unknown, the Oztotl was a symbol of a cave for many pre-Columbian cultures of Mexico. Therefore, it is quite possible and could be argued that this room that houses the throne of this supreme cave deity is the true center of the known caving universe. In any event, there was an impromptu University of Texas Grotto meeting held before the Throne back in 1977,

when then-president, Jocie Hooper, realizing that all of the officers were present, called the meeting to order. The only business was the doing of the "Time Warp," after which they adjourned and continued on towards the Second Swim. We avoided the Second Swim by traversing the pool on the left side.

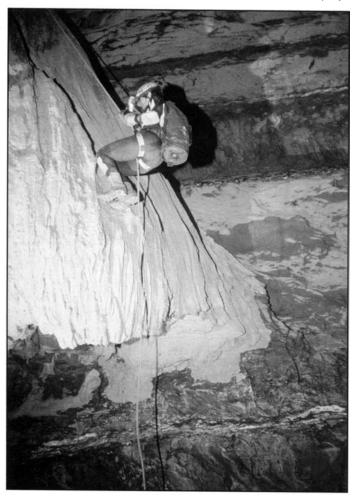
We then passed through Camp VII, which had been occupied only six months before during the Batwing Boulevard push. It soon became obvious that our group was going to be traveling at different speeds. One group, consisting of Bev, Jonathan, Chris, Nick and Gustavo, had been forging ahead and would wait at the next rendezvous spot. Our group, which consisted of me, Sprouse, Haberland and Laura had a slower pace, taking our time maneuvering down the free climbs and having Peter to show us the landmarks and the named features of the various passages. At Camp VII, Peter showed us a climb up onto a small flowstone mound where we could observe a bizarre phenomenon - a strong breeze was being sucked into an impenetrable crack in the ceiling.



Jonathan stops to admire the Angel on our way through the World Beyond Gustavo Vela photo

Beyond the Cube we came into the Hall of Angels, where we found Gustavo taking pictures of the Angel, [see the front cover on this issue]. The large, pure white formation dominated one side of the room. From there we turned left into the Travertine Trail rather than turning right to go down to the Angel's Staircase. Just beyond this, the passage split as the cave made its dramatic reversal and started dropping north toward Infiernillo. The turn

had provided an infusion of hope for the initial explorers whose survey from the Brinco entrance had been taking them away from a possible Infiernillo connection. As the cave began to drop, we came to the first true rappel, Flowstone Drop, which ended at a dry, cobble-floored plunge pool. Next came the long, scary free climb called Fool's Falls, discovered April 1, 1978. We passed Camp III, on through Lisa's Lampfall and into the Zebra Room, where the dark bedrock is crossed by white calcite fractures. It was here that we passed the place where Rumer and Anderson had left the piece of flagging tape marking the extent of their July 5 connection exploration. We were moving pretty fast through the passage when we came upon the distinctive Fossil Fissure. Mid-way up the left

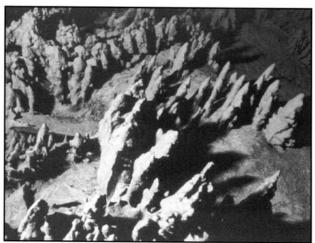


Terri rappels down Lisa's Lampfall

Peter Sprouse photo

wall, a brownish embedded fossil serves as an important landmark indicating the connection route. We continued through the long stretch of the connection passage, rigging a few of the short, tricky-looking climb-downs. The passage took a zig-zag at a feature dubbed the Lightning Bolt. A tricky canyon traverse finally led us into the Arne Saknussem Borehole. Fifteen meters later, we were in the Communion Hall, the location of the final tie-in station for the original connection.

When we arrived at Communion Hall, Jonathan's group was already there and rested. We changed into our dry clothes, took a food break, tinkered for a while with carbide lamps, then headed on. When we stopped at a puddle to get water, Jonathan's group moved on ahead. After filling our water bottles, we pushed on through the Wind Tunnels and into the Foggy Mountain Breakdown, seeing no signs that Jonathan's group had passed through. We made the delicate climb up the scree slope and



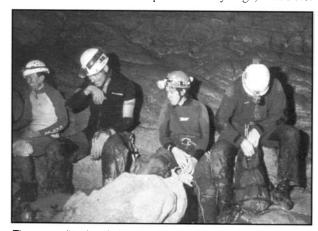
Death Coral in Infiernillo

Gustavo Vela photo

emerged into the huge Netherhall, wondering whether they could possibly have found their way there. Peter's call echoed up and over the 150 meter-high breakdown mountain and resounded through the hall. After calling out several times, we realized we were alone in the humongous chamber.

We gathered our thoughts. We were already behind schedule, having taken ten hours just to reach the halfway point. We had moved pretty fast non-stop from the Communion Hall, taking little over an hour to make it from there into the Netherhall. There were any number of side passages that Jonathan's group could have taken. Since Peter Haberland had not yet completed the full climb into the Netherhall, he agreed to backtrack as far as he felt comfortable to see if he could make contact with them. The rest of us had dozed off by the time he had returned over an hour later, having seen no signs of the group. We weighed our options.

At that point, Sprouse was the only one who knew the cave well enough to undertake a more extensive search, perhaps having to venture into side passages where the group could have gone. The rest of us hunkered down for a long stay. Not knowing what lay ahead, we knew we had to conserve light and water, and to take immediate steps to ward off the chill before our body heat was lost. After I took off some of my sweaty clothes and pulled on a balaclava and a heavyweight polypro shirt, I was able to generate enough heat. We spread our wetsuits out on a wide flat rock, covered them with our cave packs and dry bags, then Peter

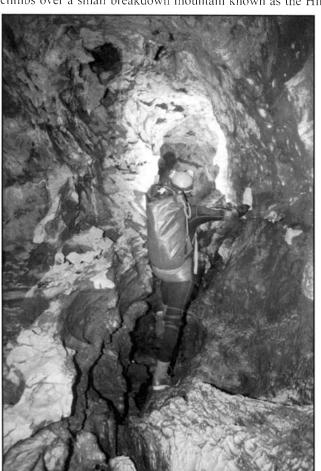


The group dissolves in laughter at the base of the Flowstone Drop Peter Sprouse photo

H, Laura and I snuggled together under Laura's emergency space blanket. We rested in the Netherhall for several hours before we heard voices. The wandering cavers had been found. It turned out that the group had taken a wrong side passage almost immediately after leaving the Communion Hall, separating them from our group. We had unknowingly passed them. They had spent quite a while scouting the route through the Wind Tunnels, but not being sure which was the way, they wisely returned to the last place where we had seen them.

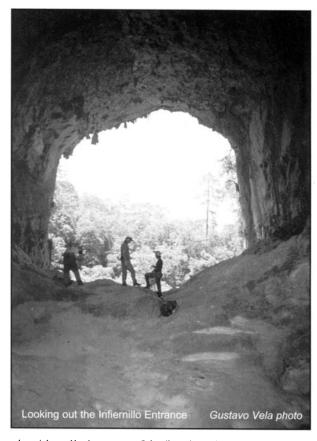
All together again, we made the long, slow climb up the talus slope to the top of the Netherhall, then half-walked, half-slid down the boulder-strewn scree on the north side. From the Netherhall we worked our way to the sand and dirt floored passage leading to Camp Cozy-mel along the banks of the Isopod River. Nestling into the sandy banks, we took another rest break here. We had kept on the move pretty much up until Communion Hall, but short food breaks became more frequent allowing us to replenish our low energy reserves. We waddled through the wide but low-ceilinged Monkey Walk to the Seven Loops Room. From there large walking passage led us to the Dark Forest. At that point, we started to look for the Diamond Shaped Rock, which is the key to entering the Breakdown Maze at the appropriate spot. Peter soon found the car-sized Diamond Shaped Rock hidden somewhat behind and to the right of a large breakdown mound.

Although we had spent over 20 hours in the cave at this point, the pace quickened as we emerged into the South Trunk - a long, mostly dry, horizontal passage that is representative of the Infiernillo section. It climbs over a small breakdown mountain known as the Hitherhall. The



Peter leading the way through the Confusion Tubes

Gustavo Vela photo



South Trunk ends with a climb up out of the Darth Vader Room. Then we passed the junction where the Jersey Turnpike turns off and crossed a series of large, travertine bridges, the last of which contains the climb down known as The Bucket. The Bucket presented an interesting challenge. There are a couple of a small scoured-out rimstone dams midway down a hanging flowstone slope. To maneuver down the slope requires a belly-slide down the flowstone, repositioning your hands from one bucket to the other until both hands are available be cupped into the lower bucket and to mantle you down the slope. You then continue your bellyslide down the flowstone until your arms are fully extended. The next move is to allow yourself to drop, blindly, to the dry, cobble-floored passage below. Interesting move. This procedure was obviously originated by, and for, the risk-takers. After spending some time getting everyone past The Bucket, we continued on through Lakeland Traverse. We were pleased to learn there are ways to skirt around all of the lakes, and there was no need to put back on our cold, wet, and now grimy, wetsuits.

"Help, having trouble with Tubes." While on their way back from discovering the Netherhall back in 1978, Charles Fromén and Mike Connolly wrote this note on a flashbulb package and left it on the floor in the cave. They had been lost in the Confusion Tubes for seventeen hours. This place where the note was found is now called The Help Room, which is the beginning of the Confusion Tubes. These are a series of vadose tubes that run above the water table. Our group collected in the Help Room then swiftly maneuvered through the series of tubes: first came the Seventeen-hour Tube (named, I suppose, for this episode of lost cavers); Carbide Tube; Original Tube; Seven-way Junction; Duffel Tube; and First Tube. At this point we did another climb down where we left the Confusion Tubes to enter the East Loop. The East Loop varies from nice walking passage to more tubes. An important part of the route that leads to the Infiernillo entrance is through Mixon's Tube. This tube

is a rather obscure side passage going off to the left of the walking passage. If this turn is missed, the passage leads away from the Infiernillo exit and on into the D-Survey. We exited Mixon's Tube and soon found ourselves in the Duffel Roll Tube. Being tired and running low on energy, I was more than willing to roll my cave pack down the tube. I continued to roll my pack part way down the Bicycle Run, a steep ramp that dropped over old flowstone and dry plunge pools.

I suspect that we all had a bit of entrance fever at this point, but our pace was again slowed at the Jump Rock. The Jump Rock involves a climb down a wall to a narrow ledge that is only centimeters wide, where you then must steady yourself to take what Peter describes as a "little one-meter-jump." The leap involves pushing outwards from the wall in order to land on a big, wide, flat, menacing-looking boulder that squats in the middle of the passage. I hesitated since this "one-meter jump" appeared to involve making a leap that for me needed to be at least one meter out and then another meter down. After 24 hours of banging through the cave I did not trust that I could make what appeared to be a relatively easy jump, fearing my legs would somehow dissolve on impact and I would splatter face down on the rock. After studying the wall, I was able to use the tiny ledge as a mantle and to slide down almost all of the way to Jump Rock, having only a little jump left at the end. We knew we were getting close to the exit when we passed the Camp I stash, a pile of water jugs left there for future use. At the Four-Way Junction we started our final trek downstream.

After a while, a faint light appeared at the lower end of the borehole passage. We still had a few hundred meters to go, climbing over house-sized boulders and down and around dry plunge pools; being drawn all the while to the ever-widening circle of light. Soon the full, glorious Infiernillo entrance would come rising up like the moon. I slowed my approach, savoring each moment. I allowed my mind to sift through all of those long ago journal entries and trip reports dating back twenty-five years; all of the maps and, now, cases full of maps; the data, and the documents; the cavers and the culture.

Participants: Peter Haberland, Nick Johnson, Chris Krejca, Laura Rosales Lagarde, Bev Shade, Peter Sprouse, Gustavo Vela Turcot, Terri Whitfield and Jonathan Wilson.

Vigésimo quinto aniversario de la Travesía al Sistema Purificación

La conexión entre Cueva del Infiernillo y Cueva del Brinco fue hecha en Julio 4 de 1978, después de lo cual existieron varios intentos para hacer la travesía del complejo Sistema Purificación. En Mayo del 2003, nueve espeleólogos la intentaron nuevamente desde Brinco (entrada superior) hasta Infiernillo (entrada inferior del sistema), de ellos sólo Peter Sprouse lo había hecho antes y conocía la ruta. Entramos a Brinco en la tarde esperando un viaje de 15 horas hacia abajo a través de la montaña. El viaje comienza en la Sección Histórica hasta llegar al Dressing Room, vestidor en el que nos preparamos para la parte acuática del sistema. Pasando la legendaria restricción del Crack of Doom llegamos a Lunar Way, mudball Crawl y finalmente a la laguna y Río Verde. Del Brain Room llegamos a Protractor Lake hasta Flowstone Falls, 25 m



Peter rappelling out of Infiernillo

Gustavo Vela photo

desescalando hacia el Río Verde. Seguimos por Main Squeeze, Toilet Bowl, Bathtub y hasta el Mongoloid Room. El Canal pasa de ser una gatera a una poza terminando en una pared que se escala hacia el Scallop Speedway. Bajamos a un lago tomando a la izquierda hacia el Speedway Bypass y la X-Rated Climb. Una arrastradera da paso al World Beyond, tronco horizontal de 2 km donde nadamos en fríos y profundos lagos. Después de 100 m llegamos al Trono de Oztotl, gigantesco montículo de flowstone, siguiendo a la izquierda para evitar el segundo nado. Pasamos a través del campamento VII observando el viento absorbido por una fractura en el techo. Fue evidente entonces que se habían formado dos grupos de acuerdo a su velocidad de movimiento. Del Cube hasta el Hall of Angels seguimos a la izquierda hacia la Vereda de Travertino donde el camino diverge al norte bajando hacia Infiernillo y llegando al primer rapel del viaje: Flowstone Drop. Desescalamos Fool's Falls pasando el campamento III a través de Lisa's Lampfall hacia Zebra Room, Fossil Fissure, Lightning Bulb hasta Arne Saknussem Borehole y Communion Hall, donde nos pusimos ropa seca. Se adelantó un grupo mientras nosotros seguimos por los Wind Tunnels y el Foggy Mountain Breakdown, sin ver rastro de los demás, hasta el Netherhall donde confirmamos que los habíamos pasado. Siendo Peter Sprouse el único que conocía los pasajes laterales los regresó a buscar encontrándolos en Communion Hall donde regresaron después de perder el camino. Todos juntos subimos los 150 m de derrumbe dentro del Netherhall bajando hacia el lado norte hacia el banco de arena Camp Cozy-mel al lado del Río Isopod. Seguimos el Monkey Walk hasta el Salón Seven Loops hasta el Bosque Oscuro (Dark Forest) donde buscamos la roca en forma de diamante, marca del tamaño de un carro de la entrada al Breakdown Maze. Llegamos al South Trunk, pasaje horizontal y seco representativo de la sección de Infiernillo, pasando por Hitherhall hacia el Darth Vader Room. Después de una intersección cruzamos varios puentes de travertino hasta la desescalada The Bucket. Seguimos por Lakeland Traverse hacia Help Room, entrada a los Tubos de Confusión, tubos vadosos por encima del nivel freático actual. Pasamos Seventeen-hour, Carbide y Original Tubes hacia Seven-way Junction, Duffel y First Tube desecalando hasta el East Loop. Pasando el Campamento I y Four-Way Junction seguimos arroyo abajo guiándonos por la luz natural y subiendo bloques del tamaño de una casa hasta llegar a la entrada de Infiernillo.

Sistema Purificacion Update

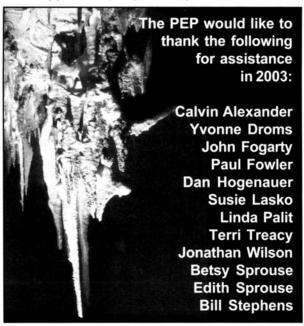
by Bev Shade

In addition to a through trip during the May expedition of 2003, our group attempted to continue exploration of the Dragon River, hoping to push for new passages, new entrances, and a long-awaited connection to Sótano de la Cuchilla. Several previous attemps during the wet months had been thwarted by a sump at the Mud Funnels. The Mud Funnels have long been known to sump in high water. However, early exploration of the Dragon River by way of the Mud Funnels was during the wet months of fall and winter, so the expectation was that recent trips had simply had bad luck with timing and high water. For this reason, we chose to have this push trip during the driest time of the year: end of spring. During our visit, both the surface and subsurface were exceptionally dry: the springs that supply Conrado Castillo were barely seeping, and the cave streams were also low.

To our complete surprise, the Mud Funnels were still sumped. When the first team members rapelled down the ancient bit of goldline that rigs the 5 meter drop through the Mud Funnels, we called back to Peter Sprouse to tell us the way on. "Head upstream," he says. We look at each other, and around at the walls of the passage we're treading water in. The goldline has spun us around enough that we're disoriented, and the water is not noticeably flowing. "Which way is upstream?" We call back....A long pause from Peter follows, as he tries to figure out why we're so dense. "Well," he says, "its... upstream. If you're standing on the ledge, it should be to your-"

"THERE IS NO LEDGE!" We holler back. Splash, splash, splash. "Oh," he says, "then its probably sumped."

It would appear that this sump has become permanent for the time being, perhaps due to shift in the breakdown that lies downstream. Further efforts to push the Dragon River are being planned by way of the Oyamel Entrance.



(above) Helictite cluster in Batwing Boulevard Charley Savvas photo

(below) Bill Stevens in the entrance series of Cueva del Tecolote Gustavo Vela photo



THE GREENING OF PURIFICACION

by Peter Sprouse

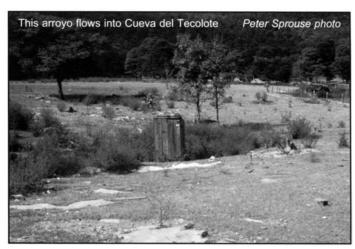
We've squeezed by it in Cueva del Brinco – oozing down a flowstone boss in Tin Can Alley, close to the surface, and underneath an outhouse. We've seen it floating in the pools of Cueva del Tecolote, or what looked like it anyway; who wants to look too closely? For a hundred years, there has been no provision in the mountain communities for keeping human waste from entering caves and contaminating groundwater. At a conference in Cd. Victoria in 2000, and in a meeting with incoming SEMARNAT delegate for Tamaulipas Jorge Cárdenas, I pointed to the sanitation problems in Conrado Castillo and Los San Pedros as among the biggest threats to caves and groundwater in the region. With no prospect of sanitary sewer systems, composting toilets (baños secos) seemed to be the way to go. At that time there was a significant movement building in support of this approach, and I missed a conference on the topic that same year.

So it was a pleasant surprise when we arrived in Los San Pedros in March 2003 to see a new composting toilet at each home, provided by SEDESOL and CNA. These are the perfect "appropriate technology" companion to the solar panel program



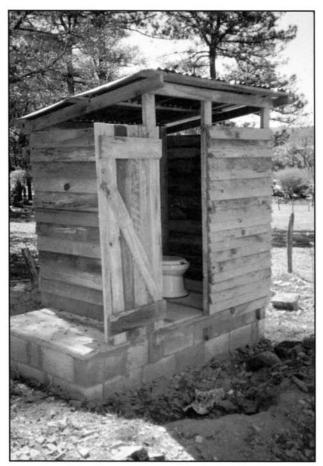
The Old: Outhouse over a pit

Peter Sprouse photo



of recent years. While they have yet to reach Conrado Castillo, we hope they will soon.

Changes are afoot in other ways. Recent years have seen the major karst areas of the Sierra Madre Oriental declared protected areas: El Cielo, Sierra de Tanchipa (El Abra), and soon it seems, the front range from El Madroño on highway 101 to Los San Pedros. The comisariado of Los San Pedros, Roberto Torres, was brainstorming during our visit, trying to come up with alternatives to their logging economy in expectations of restrictions or prohibitions. He discussed cabañas for tourists and birders, and even hoped to sell pollution credits to North American industrial polluters for conserving the local oxygen-generating forests.



The New: Just add some sawdust

Peter Sprouse photo



Profile - 270° Profile - 330° PEP 62 Suunto & Tape survey 12 March 1982 by Jerry Atkinson and Peter Sprouse Length: 9 meters Depth: 8 meters Drafted by Bev Shade and Nick Johnson June 2003

POZO CIEGO PEP 62

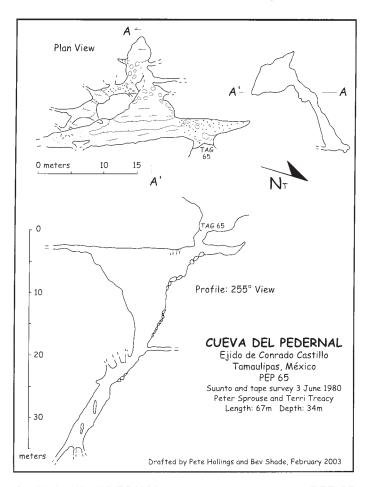
Conrado Castillo, Tamaulipas Length: 9 meters Depth: 8 meters UTM coordinates: 451414E, 2651265N

Pozo Ciego is located 1620 meters north of Conrado Castillo, at 2060 meters elevation. It is on the west side of the road that goes from Conrado Castillo to Puerto Vaquerillo. This pit has two vertical entrances, which connect about 2 meters down, then drop another 6 meters to a sloping floor that appears to follow a dipping bedding plane. The floor of the pit is about 5 meters long by 1.5 meters wide, elongated along a 150° trend. This trend probably represents a bedrock fracture. The floor is covered with rocks and dirt. The pit was surveyed on March 12, 1982, by Jerry Atkinson and Peter Sprouse. (BLS, PS)

PURIFICACION AREA CAVE DESCRIPTIONS

Contributions by Pete Hollings, Mark Minton, Bill Russell, Bev Shade, Peter Sprouse, George Veni and Nancy Weaver Fauna lists compiled by James Reddell

All UTM coordinates NAD27

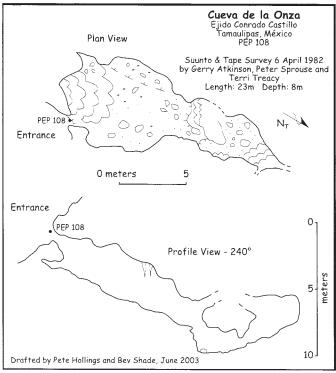


CUEVA DE PEDERNAL

PEP 65

Conrado Castillo, Tamaulipas Length: 67 meters Depth: 34 meters UTM coordinates: 451199E, 2651696N

This cave is located 2000 meters north of Conrado Castillo along the ridge south of Sótano de la Cuchilla, at 2136 meters elevation. The cave is developed along a bedding plane that strikes about 70°, and dips 60° west. Prominent chert beds are visible. The cave is a low, steeply inclined room that is initially 30 meters wide, but quickly narrows to 5 meters wide. The bottom 20 meters of passage are only a couple of meters wide, and at the bottom it becomes too narrow to explore. Cueva del Pedernal was found on 31 May 1980 by Peter Sprouse, who returned on 3 June 1980 with Terri Treacy to survey it. (BLS, PS)



CUEVA DE LA ONZA

PEP 108

Conrado Castillo, Tamaulipas Length: 23 meters Depth: 8 meters UTM coordinates: 451703E, 2650235N

Cueva de la Onza is located a few hundred meters north of Conrado Castillo, below the road to Agua los Allarines. It lies on an east-facing slope at 1960 meters elevation. It has a small entrance that leads to a gently inclined passage about 4 meters tall and up to 6 meters wide. The passage drains to the north, and after about 15 meters splits into two smaller passages around a bedrock column. These two passages rejoin in a final room, where the cave ends. There are two small leads heading north and east out of this final room, but neither was passable when the cave was surveyed. This cave was mapped on April 6, 1982, by Jerry Atkinson, Peter Sprouse and Terri Treacy. (BLS, PS)

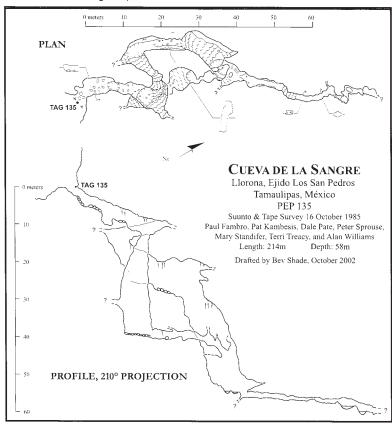
CUEVA DE LA SANGRE

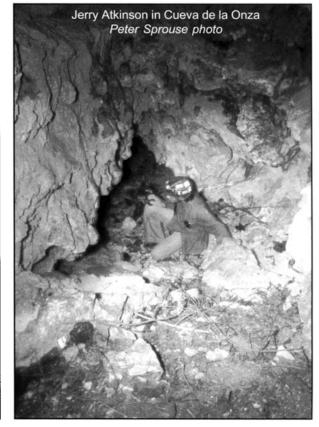
PEP 135

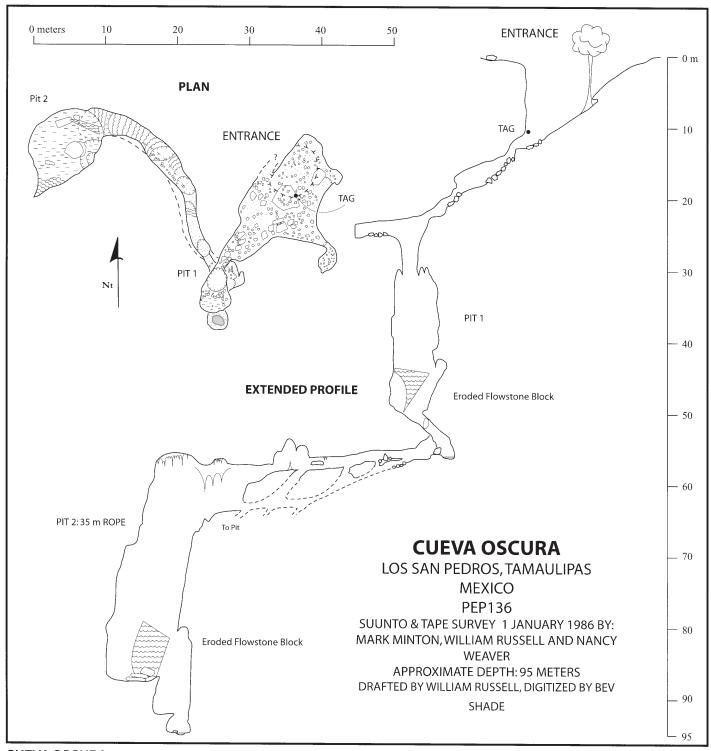
Los San Pedros, Tamaulipas

Length: 214 meters Depth: 58 meters UTM coordinates: 458667E, 2641543N

This cave is located 3.8 kilometers northwest of Los San Pedros, 500 meters northeast of Cueva de la Llorona, at 1882 meters elevation. The cave drains to the northeast. It starts as a gently inclined passage, about 4 meters tall by 4 meters wide. This passage is floored with rocks and continues northeast for about 20 meters, before splitting into two pits that drop about 30 meters before rejoining in another shallowly dipping passage that heads northeast again for 40 meters. The main passage continues as a low, wet crawl, but narrows to a constriction. Peter Sprouse found this cave on 16 October 1985. Returning to the nearby camp, he recruited Paul Fambro, Pat Kambesis, Dale Pate, Mary Standifer, Terri Treacy, and Alan Williams to help explore and survey it. Nancy Weaver pushed the water crawl to a spot where it would have to be enlarged two days later. Mark Minton opened this up in January 1986, but it led to a hopeless pinch. (BLS, PS)







CUEVA OSCURA

PEP 136

Los San Pedros, Tamaulipas Length: 120 meters, Depth: 95 meters

UTM coordinates: 458752E, 2641500N

Cueva Oscura is located 3.6 kilometers northwest of Los San Pedros, at 1881 meters elevation. It is north of the Los San Pedros-El Chihue road. From the entrance sink a steeply sloping passage leads under a 10-meter headwall, soon reaching the top of a pit. It is a vertical drop down through a flowstone opening, then a 15-meter vertical down to a mass of flowstone tilted across the bottom of the pit. At the bottom the passage was once large, but is now mostly plugged with flowstone. After about thirty meters there is a second pit, only 22-meters deep, but requiring a 35-meter rope. At the bottom of this pit is another mass of eroded flowstone. Behind the flowstone, a window leads to a five-meter drop to a climbdown, where the cave definitely ends in a small pool. Throughout the cave there is extensive eroded flowstone, evidence of a change from a period of flowstone deposition to a time of flowstone erosion. The area was much more humid during the Pleistocene and the solutionally aggressive water that is now removing flowstone is likely the result of the current relative dryness. The large detached masses of flowstone at the bottom of both pits are impressive reminders of climatic change. They were also difficult to sketch as their original complex shape is now even more convoluted after re-sculpting by water falling down the pit. Cueva Oscura was found on 18 October 1985 by Mark Minton and Nancy Weaver, who explored down the first drop. They surveyed it along with Bill Russell on 1 January 1986. (BR, MM, NW)

CUEVA LA BRUJA

PEP 144

Los San Pedros, Tamaulipas Length: 15 meters, Depth: 5 meters UTM coordinates: 459640E, 2641807N

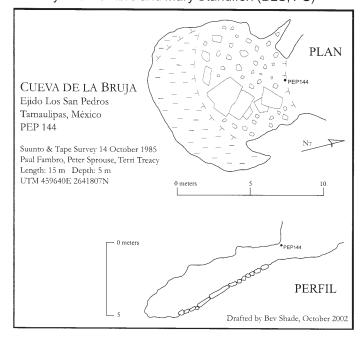
This cave is located 3400 meters north-northwest of Los San Pedros. It lies near the head of a drainage at 1962 meters elevation. It was surveyed on October 14, 1985 by Paul Fambro, Peter Sprouse and Terri Treacy. It consists of one roughly circular room, about 10 meters in diameter. The floor of this room is covered with breakdown and mud, and slopes south from the entrance, which is on the north side of the room. There were no leads out of this room. (BLS)

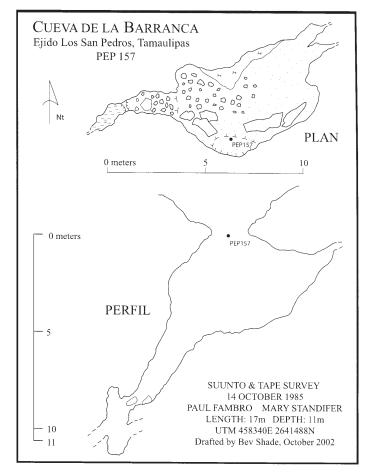
CUEVA DE LA BARRANCA

PEP 157

Los San Pedros, Tamaulipas Length: 17 meters, Depth: 11 meters UTM coordinates: 458340E, 2641488 N

This small cave is located 4 kilometers northwest of Los San Pedros. It lies 250 meters northeast of Cueva de la Llorona at 1855 meters elevation. A sinkhole drops 5 meters into a steeply dipping 13-meter-long, 5-meter-wide room. This room dips to the southwest, and ending in a short 2-meter-deep pit. There were two small leads at the bottom of this pit, but neither is passable. This cave was surveyed on October 14, 1985 by Paul Fambro and Mary Standifer. (BLS, PS)



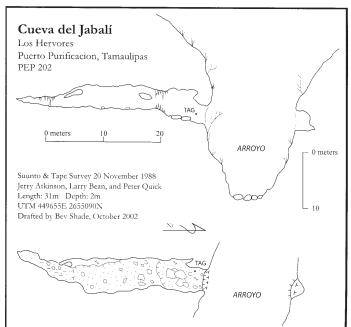


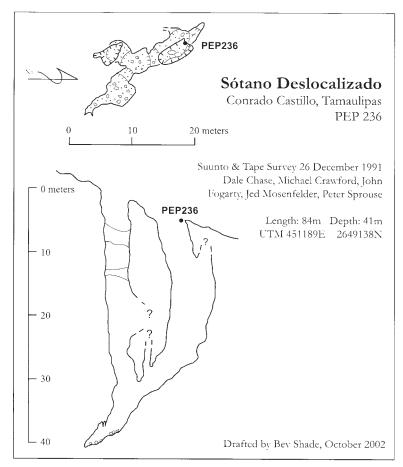
CUEVA DEL JABALI

PEP 202

Puerto Purificación, Tamaulipas Length: 31 meters, Depth: 2 meters UTM coordinates: 449655 E, 2655090 N

This cave is located downstream of Cueva del Infiernillo, on the west side of the canyon at 910 meters elevation. It is a horizontal cave which extends 31 meters south into the south





wall of a small arroyo. A small shelter cave on the opposite side of the arroyo is at the right height and location to have formerly been connected to the cave. It appears that the arroyo truncated the cave passage as it incised into the hillside. This cave was shown to Jerry Atkinson, Larry Bean, and Peter Quick on November 20, 1988 by guide Raul Chavez. (BLS, PS)

SOTANO DESLOCALIZADO

PEP 236

Conrado Castillo, Tamaulipas Length: 84 meters, Depth: 41 meters UTM coordinates: 451189E, 2649138N

This cave lies on the northwest flank of Cerro el Vivero, at 2212 meters elevation, 700 meters southwest of Conrado Castillo. This cave consists of two parallel pits developed along the regional fracture trend that drop about 30 meters before joining. The cave continues another 10 meters deep, along a steeply dipping slope that is covered with rocks and dirt. The cave is elongated along a heading of about 135°. Found by Dale Chase, Michael Crawford, and Jed Mosenfelder while ridgewalking on 24 December 1991. They surveyed it two days later with John Fogarty and Peter Sprouse. It was named after Allan's Cobb's previously dislocated knee. (BLS, PS)

POZO PINTO PEP 237

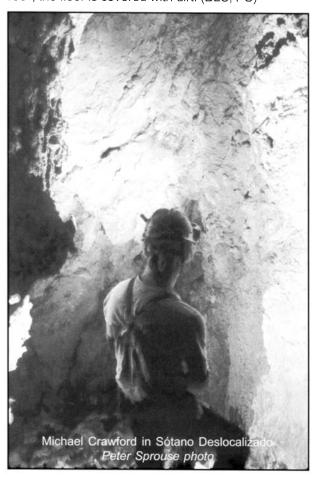
Conrado Castillo, Tamaulipas Length: 31 meters, Depth: 31 meters UTM coordinates: 450701E, 2649413N

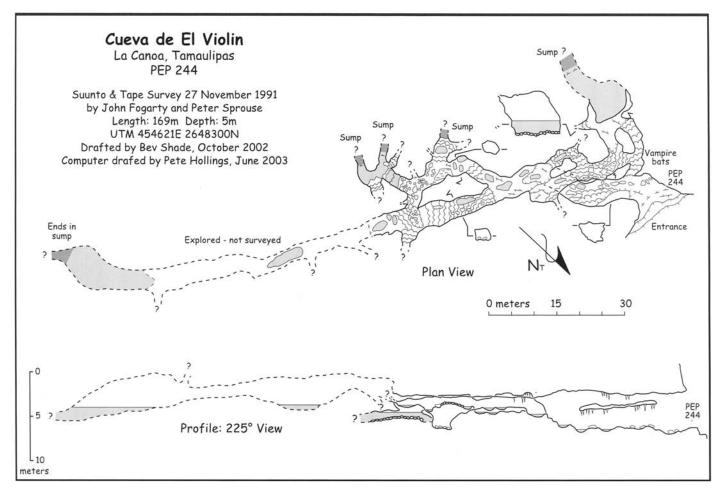
Pozo Pinto is located on the northwest flank of Cerro el Vivero, at

PEP 23⁻

Pozo Pinto
Conrado Castillo, Tamaulipas
PEP 237
UTM 450°01B, 2649413N
Suunto & Tape Survey 26 December 1991
by Michael Crawford, Jed Mosenfelder, and
Peter Sprouse
Length: 31 m Depth: 31 m
270° projection
Drafted by Nick Johnson, November 2002

2170 meters elevation. It is 700 meters southwest of Conrado Castillo. Found during the recon that also located Sótano Deslocalizado, it was surveyed on December 26, 1991, by Michael Crawford, Jed Mosenfelder, and Peter Sprouse. It is a blind pit that drops 30 meters to a flat 8-meter-long by 3-meter-wide floor. Both the floor and entrance sink are elongated along a trend of 135°; the floor is covered with dirt. (BLS, PS)





CUEVA DE EL VIOLIN

PEP 244

La Canoa, Tamaulipas

Length: 169 meters Depth: 5 meters UTM coordinates: 454621E 2648300

This cave is located 3300 meters east-southeast of Conrado Castillo. It is located on a ledge in a massive cliff at 1160 meters elevation. In the wet season a stream flows out of the entrance and cascades off the ledge to the bottom of Cañon la Cueva. There are many pools throughout the cave, and five sumps. There is an upper level near the entrance of the cave, which ends in a sump. The dry cave passages were floored by bedrock and flowstone. About 60 meters into the cave are three sumps, clustered together south of the main passage. The cave was surveyed to a length of 162 meters, and was explored southeast another 90 meters to a fifth sump. This is a very promising cave that probably leads into a major cave system located parallel to and between Sistema Purificación and the caves of the Corona drainage. It should be revisited in the driest period when the sumps may be open.

The existence of Cueva de El Violín was inferred during an airplane flight by the Oztotl Flying Club in September 1989, when a waterfall was spotted coming off a ledge in the wall of Cañon la Cueva, below the meadow known as El Violín. A group of cavers bushwhacked to a point where the cliff could be rigged from above on 27 November 1991. Peter Sprouse made a 150 meter rappel to the forested ledge and located

the entrance. Since a short rappel was required to reach it, he had to cut a short piece off of the rope he'd just rappelled. He then radioed for John Fogarty to come down and they explored and mapped the cave. The long climb back up the cliff in the dark afforded views of the city lights in Santa Engracia. (PS, BLS)

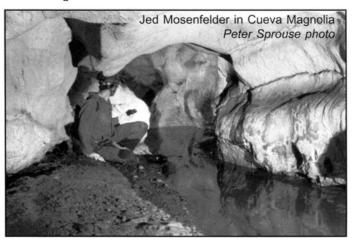
CUEVA MAGNOLIA

PEP 262

Galindo, Tamaulipas

Length: 45 meters, Depth: 4 meters UTM coordinates: 453850E 2650855N

Cueva Magnolia is located 2800 meters northeast of Conrado



Castillo, on the east side of the Galindo valley. An obvious drainage originates from the entrance at the base of a cliff at 1640 meters elevation. It is developed along the axis of a small anticline, at the base of the Tamaulipas Formation. The cave extends southeast for 45 meters before narrowing to a to a low airspace constriction where a full body dunk would be needed. There is good airflow at this spot, so it is a good lead that could be passed with a little digging. The floor of the cave passage is covered with boulders, gravel, and dirt. Juan Puente showed this cave to Peter Sprouse and others on 29 March 1986. It was surveyed on December 22, 1991, by Dale Chase, Jed Mosenfelder and Peter Sprouse. It was named for the magnolia trees that grow along the base of the Galindo cliffs. (PS, BLS)

CUEVA CASSEIOPEIA

PEP 263

Galindo, Tamaulipas Length: 35 meters, Depth: 4 meters UTM coordinates: 453938E 2650855N

This cave is located 2800 meters northeast of Conrado Castillo, just east of Cueva Magnolia in the Galindo valley. It lies at the base of a cliff at 1660 meters elevation, at the base of the Tamaulipas Formation. It has three entrances, with an associated small shelter just to the east. It was likely formed by water seeping along the contact. It was found and surveyed on December 22, 1991 by Dale Chase, Jed Mosenfelder, and Peter Sprouse. It was named for its resemblance to a star constellation. (PS&BLS)

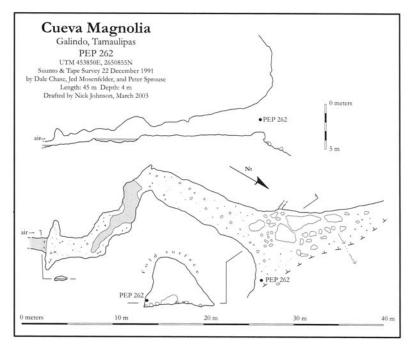
CUEVA EXCAVADA

PEP 296

Los San Pedros, Tamaulipas Length: 29 meters, Depth: 5 meters UTM coordinates: 458690E, 2641130N

Cueva Excavada is located 3500 meters northwest of Los San Pedros, at 1812 meters elevation. The Los San Pedros-Chihue road splits and goes around the entrance sink. An arroyo carries road mud into the cave, causing sediment plugging. A 5-meter-long by 3-meter-wide climbable entrance pit drops about 4 meters into a mud and rock floored horizontal passage that is about a meter tall and a meter wide. This





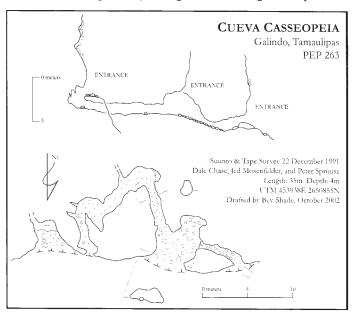
goes 15 meters to a dig with good airflow. Digging was done in this cave on several trips, and it was surveyed in May 1995 by Pat Geery, Jody Horton, Susie Lasko, and Cathy Winfrey. (PS, BLS)

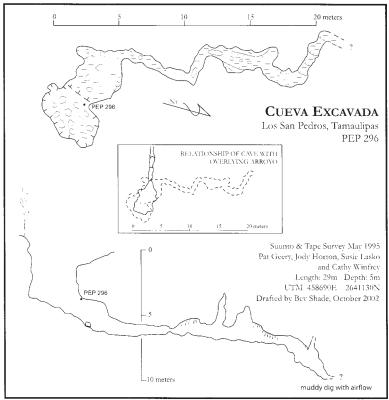
CUEVA DEL CANON DE SALAMANDRAS

PEP 303

Agua de las Vacas, Nuevo León Length: 142 meters, Depth: 26 meters UTM coordinates: 450402E, 2649693N

This cave is located 1200 meters west of Conrado Castillo, at 2110 meters elevation, just west of La Ventanita along the footpath to Agua de las Vacas. The cave has two entrances that open into the same pit, which then drops about 15 meters into a north-south trending horizontal passage that is about 100 meters long. The passage descends gradually to the





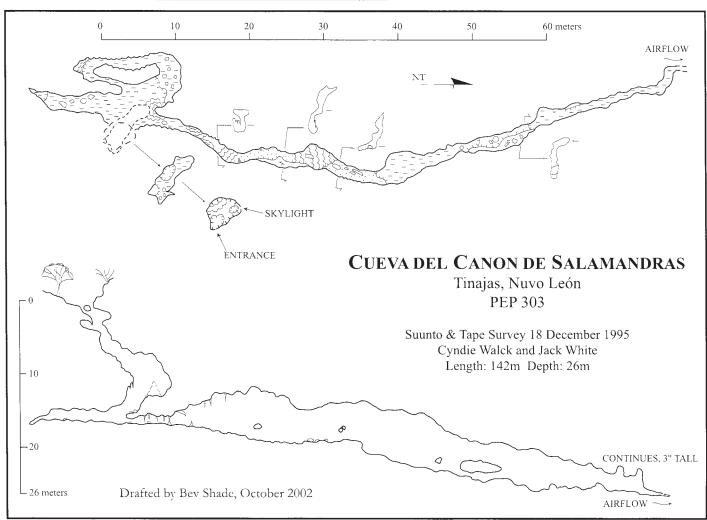
north, losing another 10 meters elevation before narrowing to a 3" high muddy constriction. Good airflow was moving into the cave when surveyed, and was noticeable at the dig lead. This horizontal passage is up to 6 meters tall and 5 meters wide. The floor of this passage is alternately covered with rocks, mud and flowstone. This cave was found by Travis Greig in July 1995. It was surveyed on December 18, 1995 by Cyndie Walck and Jack "Solo" White. (BLS, PS)

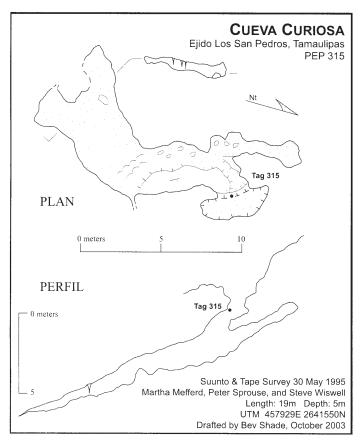
CUEVA CURIOSA

PEP 315

Los San Pedros, Tamaulipas Length: 19 meters, Depth: 5 meters UTM coordinates: 457929E, 2641550N

This curious little cave is located 3 kilometers south-southeast of Yerbabuena. It lies east of the Yerbabuena road, at 1707 meters elevation. The cave is developed along a shallowly dipping bedding plane. A small pit drops about 3 meters into the east-west-striking, south-dipping passage, which is about a meter tall. Martha Mefferd, Peter Sprouse, and Steve Wiswell found and mapped this cave on 30 May 1995 (PS, BLS)





POZO TORTA

PEP 317

La Canoa, Tamaulipas Length: 42 meters Depth: 24 meters

UTM coordinates: 453294E 2647780N

Elevation 1840 meters

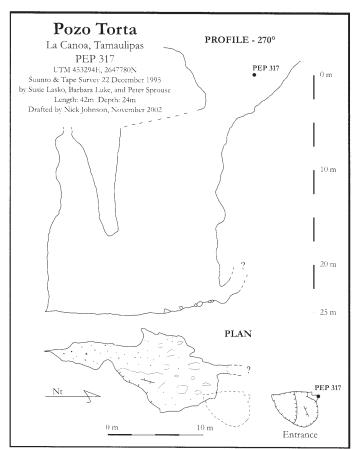
This pit is located 2500 meters southeast of Conrado Castillo, above the village of La Canoa. It lies on an east-facing slope at 1840 meters elevation. It consists of a funnel-shaped sink-hole entrance that leads to a 20 meter pit. The floor of the pit is about 20 meters long by 10 meters wide, elongated along a north-south trend. The south end of this room has a dome that extends more than halfway back to the surface. The floor of the pit is covered with boulders, dirt and organic debris. Pozo Torta was surveyed by Susie Lasko, Barbara Luke and Peter Sprouse on December 22, 1995. It was shown to them by Leonor Pérez. (PS, BLS)

CUEVA CANON DE RIFLE

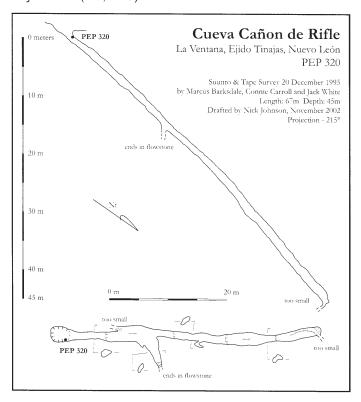
PEP 320

Agua de las Vacas, Nuevo León Length: 67 meters, Depth: 45 meters UTM coordinates: 450361E, 2649794N

This cave is located 1200 meters west of Conrado Castillo. It is situated just northwest of la Ventanita, west of the road at 2094 meters elevation. The cave is such a straight tube that it resembles a rifle bore. Despite its small passage size, one can see cavers all the way at the bottom when standing at the entrance. There is only one small side passage that trends down and is quickly choked by flowstone. There is a



small lead, presumably in bedrock, at the lowest section of surveyed passage that is not currently passable. This cave was surveyed on December 20, 1995 by Marcus Barksdale, Connie Carroll and Jack "Solo" White. They had found it the day before. (PS, BLS)



CUEVA DEL PAYASO

PEP 330

Agua de las Vacas, Nuevo León Length: 13 meters, Depth: 3 meters UTM coordinates: 450369E, 2649775N

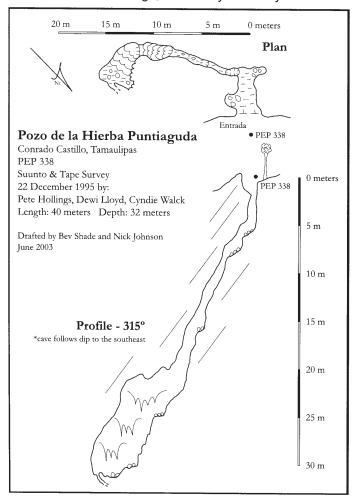
This cave is 1200 meters west of Conrado Castillo. It is lies just northwest of la Ventanita, west of the road at 2090 meters elevation. From an entrance sinkhole that is 8 meters long by 6 meters wide, the cave passage dips gently to the northwest, along a heading of 345°. This passage is about a meter and a half wide by a meter to a meter and a half tall. After 13 meters, the strong airflow dives into a narrow bedding plane slot that is not passable. This cave was surveyed on December 21, 1995 by Peter Sprouse and Susie Lasko. (BLS)

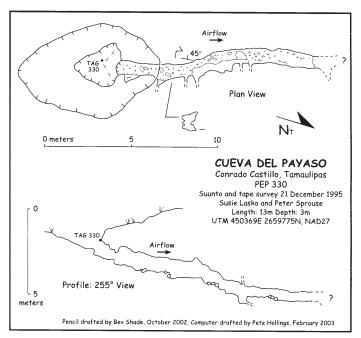
POZO DE LA HIERBA PUNTIAGUDA

PEP 338

Agua de las Vacas, Nuevo León Length: 40 meters, Depth: 32 meters UTM coordinates: 450690E, 2648920N

This pit is located 1100 meters southwest of Conrado Castillo, at 2259 meters elevation. It is about 50 meters east of the Revilla road. It consists of a bedding plane rift at an angle of about 65° that was surveyed to a depth of 32 meters. Susie Lasko and Peter Sprouse located this pit on 21 December 1995, and Pete Hollings, Dewi Lloyd and Cyndie Walck





surveyed it the next day. (PH)

CUEVA PESCANDO

PEP 451

Conrado Castillo, Nuevo Leon Length: 7 meters, Depth: 9 meters UTM coordinates: 449802E, 2650689N

The cave is located at an altitude of 2015 meters on the west flank of the hill at the upstream end of Cañada los Rillitos, about 500 meters north of a road leading 1200 meters east to Conrado Castillo. It is 15 meters north of Pozo de Reese's. The entrance is 3 meters long by 0.8 meters wide and slopes southward to a depth of 4 meters below a caprock slumped



down the hillside. Within a meter, bedrock roofs the passage, which extends 5.5 meters to a narrow 3.7m-deep blind pit. A side passage halfway down the main passage is 2 meters high and wide by 1.5 meters long. Erin Lynch, Linda Palit, and George Veni surveyed the cave on 29 December 2000, and named it fishing a flashlight that had been lost down a crack. The cave is developed along a joint that bears 170.5° and which formed by hillside stress release. Observed fauna include anats, mosquitoes, harvestmen, and webs for spiders. (GV)

SÓTANO DE LA MUJER ESQUELETO PEP 463

Conrado Castillo, Tamaulipas Length: 88 meters, Depth: 55 meters UTM coordinates: 450010E, 2650330N

This pit is located 1600 meters westnorthwest of Conrado Castillo, at 2032 meters elevation. The cave corkscrews down two drops to a depth of 55 meters. The floor of the second drop is about 20 meters long by 2 to 6 meters wide, and is cov-

ered by rocks, dirt and surface debris. Several small leads continue downward, but none were passable, and there was no airflow when the cave was surveyed. This cave was surveyed on June 17, 2000, by Dawn Cardace, Bev Shade and Bill Stone. It was shown to the cavers by David Ledesma on the previous day. This hillside had been recently logged, and several pine trunks had fallen into the entrance and were

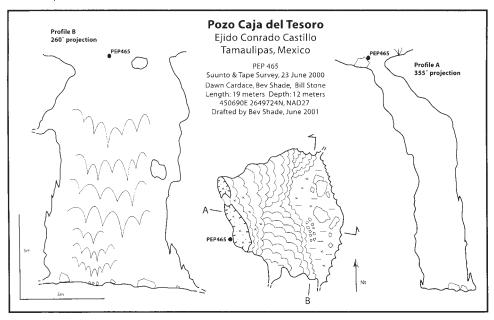
SOTANO DE LA MUJER ESQUELETO Agua de Las Vacas, Nuevo León PEP463 UTM Coordinates: 450010E 2650330N, NAD27 Suunto & Tape Survey 17 June 2000 by: ENTRANCE Dawn Cardace, Bey Shade and Bill Stone Drafted by Bev Shade, February 2003 PEP463 Length 88 meters Depth: 55 meters ENTRANCE 10 RELATIONSHIP OF PLAN SECTIONS 20 10 meters ENTRANCE 30 40 50 -55 -0 meters 20

dangling precariously in the pit. (BLS)

POZO CAJA DEL TESORO

PEP 465

Ejido Conrado Castillo, Tamaulipas Length: 19 meters Depth: 12 meters UTM coordinates: 450690E 2649724N



This pit is located 500 meters west of the west edge of Conrado Castillo at 2086 meters elevation. It is in the valley east of La Ventanita, on the west side of the road on the outside of the last sharp switchback coming up from Conrado Castillo. It is an enlarged fissure, with an abundance of old, rotten flowstone on both walls. There is a gravel drain that takes continuous dripwater, but does not pond. Water obviously drains through the floor, but no airflow was felt. This pit was shown by David Ledesma on June 20, 2000. It was surveyed by Dawn Cardace, Bev Shade and Bill Stone on June 23, 2000. (BLS)



