Dr. Ann
and the
Zacatón Xplorers
They start down together, dropping like rocks through the blood-warm water. Knees bent and streamlined for speed, Dr. Ann Kristovich and Jim Bowden are going deep just as fast as they can.

Above, twin bubble trails rise toward the brightness of the surface. Below, there's nothing but space, shading off into a darkness that easily swallows their lights, giving up nothing in return. Between the two, a descent line speeds by at a hundred feet a minute, the only available point of reference. For a moment, a sulfur cloud obscures the line—a byproduct of the geothermal pressure cooker that feeds this place—and the darkness closes in.

But, just as quickly, they pierce the cloud's bottom into clear water, and Kristovich begins to pull away from Bowden, falling faster into the depths. Something looms up at her out of the gloom; that would be the first big ledge, the one at 250 feet. Four years before it had snared a plumb line and been taken for the floor of this sinkhole, the Mexican cenote known as Zacatón. That was before Bowden brought Sheck Exley down here for the first time, before Exley found that the ledge sloped off into a pit whose bottom lay far beyond the 407-foot limit of his dive, before the pit was sounded and found to reach an astonishing 1,080 feet into the bowels of the Earth.

It's into that pit that Kristovich now plunges, leaving the ledge and Bowden further behind. At 280 feet, she switches from air to trimix, without slowing her drop, deftly changing from her back-mounted 95s to one of two 80-cubic-foot tanks mounted under her arms. A few breaths of heliair 9.5 quickly clear the fog of nitrogen narcosis that has accumulated in her brain.

She free-falls alone, the walls of the cenote rapidly retreating back into the gloom that engulfs her. Even the faintest traces of sunlight are gone now. Kristovich's world has shrunk to the safety line and her pressure and depth gauges, digits rushing by like the numbers on a gas pump. Three hundred sixty, 370, 380 feet. A glow filtering down from above tells her that Bowden is catching up, and a few moments later, he slides into view.

Three hundred ninety, 400, 410. Kristovich has just broken the women's world deep-scuba record, set four years earlier by Mary Ellen Eckoff. She and Bowden continue to drop, falling in tandem toward another ledge, this one at 500 feet. Now Bowden pulls away, his lights fading down into the black just before Kristovich reaches the 500-foot ledge.

Kristovich is all alone in the dark again, dropping deeper and deeper into one of the most hostile environments ever penetrated by a human being. The weight of the water above her is terrifying, crushing down with a pressure seventeen times what her body was designed to take. But terror is the farthest thing from her mind. As she passes 500 feet, Kristovich finds herself filled with an almost otherworldly elation. Out of sheer joy, she yells into her mouthpiece, and breaks out laughing when trimix turns her yahoo into something worthy of Donald Duck—Donald Duck, all alone down here in the Abyss! Then it's back to business, cranking her thumb down hard on her BC's power inflator button, using buoyancy alone to arrest her dive so as to avoid any exertion that might increase her vulnerability to decompression sickness. At 554, feet she finally stops sinking. Then she begins the long journey back to the surface, spiraling slowly around the safety line as she ascends.

Four hours later, when Ann Kristovich emerges into the bright sunlight of a September afternoon in northeastern Mexico, she does so as the first female member of deep scuba's most exclusive circle. Only six people have successfully made the long jump from the surface past 500 feet on open-circuit scuba. Their names read like a Who's Who of deep-diving pioneers: Jochen Hasenmayer, Sheck Exley, Nuno Gomes, Jim King, Jim Bowden. And now, Dr. Ann Kristovich. Six years after her open-water certification, the 42-year-old oral surgeon from Austin, Texas has made a dive into history.
The story of how Kristovich got there, and her part in the dramatic events that followed at Zacatón—the mingled tragedy and triumph of Shick Exley's death and Jim Bowden's record-breaking dive in April 1994, the continuing deep work by the Proyecto de Buceo Espeleologico Mexico y America Central, the preparations for a further dive to bottom out what may be the world's deepest water-filled pit—is one of discovery and obsession, of a quest for adventure that took her from an Austin swimming pool to the dark and watery labyrinths beneath Mexico and Central America. It's a story of equal parts exhaustion and exhilaration, of moments of sheer heart-stopping beauty, of moments so thoroughly painful that, as Kristovich's partner Jim Bowden puts it, "you're afraid you're gonna die and afraid you aren't."

It's a story, after all, with its roots in sump diving—the "graduate school of cave diving," which brings all the physical and mental rigors of dry caving together into an unholy alliance with the most difficult and dangerous of underwater disciplines. Think of it as a kind of underground Ironman event, combining hours—even days—of torturous crawling, climbing, and rope work, with solo forays underwater into small- to medium-sized sewer pipes. After the descent, as a bonus workout, sump divers get to hump their tanks back out of the cave, retracing their steps through what may be miles of uphill passage.

Ann Kristovich got her first taste of sump diving in January 1988, a scant two months after completing her open-water scuba course. Thirty-six years old, in her sixth year practicing oral surgery in Austin, she started diving as part of what she looks back on as her "water fall," a long wet season of daily rowing practice on the nearby Colorado River, lap-swimming, and even, she jokingly recalls, a watercolor painting class. While she loved her job ("Being a surgeon's fun. It's a real privilege to run around in somebody else's body," she says), it was as though she were on a search for something else—a quest that brought her, time and again, back to the water. In the end, it seemed, nothing short of total immersion would do. She took a scuba class through the University of Texas, thinking it might be a good way to meet people who weren't her patients. Her instructor was Jim Bowden. "I just walked in [to the class], I didn't know anything about him, didn't know his reputation or anything.” Although she didn't know it at the time, Kristovich had found the one person who could help guide her in her quest.

At 45, the already white-bearded Bowden had devoted the better part of the previous decade to exploring the river caves of Central America. Austin was his base of operations, but he was most at home in the field, either working solo or with his companion Karen Hohle. Bowden taught Kristovich's open-water class while taking a break between expeditions in Belize. Impressed by her new student's abilities and enthusiasm, he invited her on an excursion to Texas' Honey Creek Cave.

Honey Creek is the longest cave in the state, a half-flooded maze with passages that twist and turn for miles through the ancient limestone beneath the Texas Hill Country west of Austin. Bowden wanted to check out some shallow sumps—tunnels no more than ten feet underwater—unexplored by the University of Texas cave club which had done most of the work in the Honey Creek system. Kristovich went along as non-diving support for what would turn into a day-long endurance test. After what seemed like an eternity worming her way into the watery inner recesses of

Dr. Ann Kristovich and Jim Bowden computing their dive at Zacatón.
Honey Creek, came the highlight of her trip: she had to "chip at a hole for, like, two hours, standing in water chest deep, knocking away limestone for Jim to get through."

To cave divers spoiled by the easy access offered by the springs of North Florida, that may sound like an incredibly miserable, almost masochistic undertaking. But what some might consider a nightmare, Kristovich experienced quite differently. "The cave just knocked my socks off," she says. "I'd never done anything like that. I felt like, I'm at Six Flags, here's the ride, I get to ride it as many times as I want and nobody's gonna stop the ride."

For Kristovich, learning to dive had been a revelation, an opening into a whole new world. Now, at the bottom of a hole in the ground, that revelation redefined itself, taking on new direction and intensity. Right then, Kristovich says, she knew what kind of diver she wanted to be—a diver like the one out there at the end of the safety line, pushing his way into unknown territory. She also knew she needed to get a lot more diving experience before she would be able to make that desire a reality. Much of it she would be able to get on her own, in the rivers and lakes of central Texas. Still, Honey Creek aside, cave diving was hard to come by near her home in the state's capital.
As it turned out, the solution to that problem was also out there at the end of the safety line. Bowden always needed help on his expeditions. The work he and Karen Hohle had been doing in the Caves Branch area of Belize, connecting St. Hermann’s and Petroglyph Caves and the inland Blue Hole, offered a rare opportunity for a neophyte diver to participate in genuine exploration. Kristovich made the most of that opportunity. Taking advantage of an enviably flexible work schedule as a partner in the oral surgery practice, she says, “I just walked in, picked up my appointment book and said I’ll be out these two weeks.” She started traveling with Bowden to Belize.

There, miles back in the jungle, in a vast river cave system straight out of an Indiana Jones adventure, Kristovich began her apprenticeship as an underwater explorer. Climbing, vertical rope work, and cave survey techniques became her bread and butter. There was always gear that needed hauling into the cave and the team shared the heavy lifting equally (“Nobody sherpas for anybody else,” Kristovich says of the attitude that still prevails in the group). It was work, but it was also a chance to be part of something most people only dream about—an adventure into an uncharted world, exploring not just new cave passages, but new personal limits as well. Kristovich loved it.

She continued learning the basics of cave diving from Bowden during his breaks from solo pushes into the Belizean sumps. Within six months of her excursion into Honey Creek, she earned her cavern certification in the Nacimiento Mante, the high-volume Mexican spring where Sheck Exley had just made a world-record 780 ft/232 m dive. By December 1988, when Kristovich traveled to North Florida to officially complete her training as a cave diver, she’d already logged 36 dives learning her craft in caves all over Mexico and Central America.

That training would be seriously tested in the next year, when Bowden redirected the team’s efforts into Mexico’s Santa Clara cave system. Located at the base of the El Abra mountains not far from Mante, *Systema Santa Clara* goes deep. At the farthest reaches of the push team’s exploration—1,400 feet into the system—passage depths exceeded 250 feet. Lacking knowledge of mixed-gas techniques, the members of the Proyecto were attempting deep-cave exploration on air, all the while painfully aware of just what a risky business that could be. Kristovich remembers the pains they took getting “a ton of gas depleted throughout the cave,” in an elaborate stage bottle system meant to save a diver in the event of an emergency down deep.

Kristovich did most of her diving solo, working surveys near the cave’s front at the comparatively shallow depth of 140 ft/42 m. She wasn’t on the push team, but she was spending longer hours in the cave than anyone else. And seeing the difficulties that Bowden and others were having trying to push the cave on air, she could tell that approach wasn’t going to take them much farther in the Santa Clara. This deep stuff was an entirely different proposition from the dives they had been doing in Belize.

Work commitments pulled Kristovich back to Austin after two weeks in the Santa Clara. She didn’t expect to miss anything, the team was wrapping up the project, looking instead at a return to Belize, where they would concentrate their efforts for the next two years. All they had planned were a few more forays into the Santa Clara and some proficiency dives near their camp at Mante, honing skills and techniques for possible future deep work.

Before the team concluded its trip, the divers decided to check out another site that had piqued Bowden’s interest. Like many cavers an inveterate browser of topographical maps, Bowden had come across a reference to large sinkholes within day-trip range of Mante. That aroused his curiosity, because it tallied with rumors about cenotes he’d heard from local people. Bowden had never thought of the plains of northeastern Mexico as cenote country. Yet the map showed sinkholes, close enough to warrant at least a looksee. So Bowden, Karen Hohle, and team member John Orlowski took a day off from diving and piled into a truck, never suspecting that what they would find would change their lives forever.

The holes were there all right—five of them, aligned generally east to west, bubbling with geothermal warmth and sulfurous odors. They ranged in size from tiny 68- by 120-foot La Plíta to giant Verde, more than 600 feet in diameter. In between these two extremes was a 380-foot-diameter cenote with undulating walls rising 70 feet straight up from the water. Drifting slowly across the water’s surface like giant lilies in a goldfish pond were a multitude of curious floating islands, formed by thick mats of the tall grass called zacate.

It was from this grass that the cenote took its ominous-sounding name: Zacatón.

Ann Kristovich didn’t see Zacatón herself until about a year later, when she and the rest of the team stopped off there en route to Belize. The Central American river caves had once again become the Proyecto’s prime focus. For the next two years, Mexico took a back seat to the work going on in the Belizean jungle, as the team added more than 1,500 feet/457 meters of water-filled passage to its survey and found downstream tunnels that promised a connection to the nearby Actun Tzab system. But all the while, Jim Bowden kept thinking about those cenotes he’d found in northeastern Mexico. The Proyecto had obtained permission to dive from the owner of the land surrounding the cenotes (called the Rancho Asufrosa, after the sulfur that permeated its water), and the brief surveys the group had been able to manage had produced intriguing results. The holes were deep—tiny La Plíta’s breakdown cone plumb out at 360 f/107 m—and connections between them seemed likely. Bowden and team member Gary Walten had already found a link between Zacatón and the Nacimiento River, a 600-foot tunnel Bowden dubbed “El Pasaje de Tortuga Muerte” for the skeletons of drowned turtles that littered its floor.

Swimming into the passage through a small cave in the Nacimiento, Bowden and Walten came out where the unfortunate turtles had gone in—26 f/8 m below the surface of Zacatón.

Still, however interesting the Rancho Asufrosa sinkholes may have been, one serious obstacle stood in the way of their exploration. Like the Santa Clara, they were too deep to be worked on air, and no one on the Proyecto had any experience with mixed-gas diving. But Bowden knew someone who did: deep caver Sheck Exley, holder of the world scuba depth record.

Bowden had met Exley at Mante in April 1988, driving up to the legendary diver’s camp to find Exley’s three-man support crew—Ned DeLoach, Sergio Zambrino, and Angel Soto—awaiting his return from the giant cave. Exley went to 780 feet that day, diving alone into Mante, breaking his own 660-foot world depth record. Bowden hung around until Exley surfaced after a ten-and-a-half hour decompression, then introduced himself. The two men hit it off, bonding on the common ground of their love for diving, exploration, and Mexico. When Bowden
Ann wrote and Asufrosa. agreed mixed go Florida, intention Bowden, trimix interesting, of with traveling Mexico (Zacatón's came, out with the class. And one of the major topics of conversation, Kristovich remembers, was the cenotes of Rancho Asufrosa. Exley found them especially interesting, since they seemed a promising alternative to Mante for ultra-deep trimix work. While the cenotes were apparently shallower than Mante (Zacatón's true depth was not yet known), they were also far warmer, and free of the current that made deep dives into Mante more difficult. "We spent a lot of time looking and going back to this Mexico site," Kristovich says. "Sheck got enthusiastic, because of the depth, and he was very curious about the system. He wanted to come along."

A month later Exley got his wish, traveling with Bowden and Kristovich to the plains of northeastern Mexico for a firsthand look at the cenotes. Equipped with trimix, he and Bowden checked out each of the sinkholes in turn, beginning with La Pilata, where they discovered a passage leading southwest at 358 ft/107 m. When Zacatón's turn came, they went down on air, accessing the sinkhole via the Pasaje del Tortuga Muerte. Kristovich and Gary Watten had previously plumbed the pit at 250 ft/75 m, and the team had no reason to suspect there might be anything wrong with that measurement; ordinary air seemed adequate for the anticipated depth. But when Bowden and Exley reached 250 ft/75 m, the bottom was nowhere in sight. There was a wide ledge, and then a sharp drop into...nothing. Amazed by their find, Bowden stayed near the brink of the drop and let Exley, with his unmatched deep-air skills, push on alone.

There's a photo of Sheck Exley that hangs over Jim Bowden's desk, taken just after he surfaced from his first dive in Zacatón. Chest-deep in the water, a broad grin spreading under his dark mustache, he holds up four fingers—one for every hundred feet of depth he'd gone to. Not only had he not reached the pit's bottom after diving 407 ft/121 m, he hadn't even been able to see the bottom. He and Bowden were ecstatic—"like little kids who'd just gotten a lifetime supply of free ice cream for a Christmas present," Kristovich remembers. But the best was yet to come. The next day, when Bowden, Exley and Kristovich came back to re-plumb the cenote, they watched in awe as the pit swallowed more than a thousand feet of weighted line.

They had discovered a monster.

The effort to reach the bottom of Zacatón was born out of the events of that week in April 1993: trimix dives by Bowden to 504 ft/150 m and Exley to 721 ft/215 m, nightly campfire bull sessions on the system's possibilities. Bowden and Exley's now-famous vow to return and bottom out the cenote together. They wanted to conquer this inverted Himalaya, "like Hillary and Norgay did Everest." Deep fever had taken hold of the team, and Kristovich was no exception. "We were sitting around the campfire and I said 'Sheck, what is the women's record?'" she recalls. "Because Sheck held so many records, and he was a documenter. He was a historian for cave diving. And he said 400 feet. I'd already been to 350 by this time. And I said 'Mary Ellen hold it?' He said yeah."

Mary Ellen is Mary Ellen Eckoff, Exley's companion and dive partner, who had set the 400 ft/119 m mark in Mante in 1987. Kristovich knew of her reputation and greatly admired Eckoff's accomplishments as a cave diver. Eckoff had never played up her record; to her it was incidental, a byproduct of a dive with very different goals. "I was never interested in setting a record," she says today. "The fact that there was any publicity at all about my dive was all because Sheck wrote it up. I saw myself as doing a dive that he'd already done, and there was absolutely no glory in my mind in it at all."

To a degree Kristovich shares Eckoff's view of depth records. "I try not to call..."
attention to it,” she says. And she isn’t very comfortable with the notion of a “women’s record” in an endeavor where the physical differences between the sexes don’t seem to matter much at all. But at the same time, she says, “I wanted to experience deeper depths and the record was there to be surpassed.” The women’s record would give her a benchmark against which to measure herself. Her own substantial competitive instincts would push her even deeper. “I couldn’t go down and dive to 425 and say yeah, I broke Mary Ellen’s record,” Kristovich says. “There’s no way. I would have no respect for that. So I decided that if I was going to attempt a dive that was deep for deep’s sake, I was really going to have to push through the record by a long distance. And that’s why I set my maximum dive goal on that dive as 550 ft / 164 m.”

That summer, while they waited for the rainy season to end in Mexico, Kristovich and Bowden immersed themselves in deep-diving physiology. Every day, Kristovich remembers, they hit the books for hours: “Bedside reading and daily reading was Bennett and Edmonds.” They used Exley’s Dr. X softwater to cut literally hundreds of decompression tables, making tiny changes to their dive profiles and then crunching the numbers all over again to see what would happen. And they got in touch with experts in hyperbaric medicine, trying to find out what the research community could tell them about how to take open-circuit scuba deep in Zacatón. As it turned out, that wasn’t very much. Most of the deep-physiology work focused on

Ann Kristovich and Karen Hohle bathing in the jungle.
The next day, when Bowden, Exley and Kristovich came back to re-plumb the cenote, they watched in awe as the pit swallowed more than a thousand feet of weighted line. They had discovered a monster.
surface-supplied, habitat-supported commercial diving; ultra-deep scuba was an unknown quantity. What was known was that there were a lot of ways you could die or get hurt doing it. You could get bent—on nitrogen and helium. You could push yourself over the line into central nervous system oxygen toxicity or debilitating nitrogen narcosis. You could be incapacitated by the tremors and visual disturbances of high-pressure nervous syndrome, exacerbated by the rapid descent rates and limited gas supply required. And that same limited gas supply could easily come up short if you changed your breathing rhythm even slightly under the pressures of the great pit.

As a deep explorer in training, Kristovich mentally confronted the dangers of Zacatón on a daily basis. Whatever the tables said, however foolproof the plan, equipment and training, she knew that somebody could die. Then again, that knowledge and the fear that came with it were nothing new for Kristovich. And she'd long been familiar with the process Exley referred to as “addressing our fears.”

“The project in Belize, where we worked for two years, the first sump is about 1,100 feet long,” she says, when asked whether she ever thought about dying in Zacatón. “I was all the way back there, doing the survey by myself. Anything can go wrong. I can't come up, there's no air belts, nothing. And so, yeah, a long time ago [I came to terms with the possibility of death]. As soon as your participation allows you to into a realm where you’re on your own, then the potential for death rearing its head is there.”

As the Proyecto's medical officer, she bore the burden of additional knowledge and the responsibility of coping with a possible emergency in the field. The nearest available recompression chamber to Rancho Asufrós was at Galveston, Texas, a minimum of eight hours away. Lacking immediate access to a hyperbaric facility, Kristovich prepared herself to treat decompression sickness without one. Formally untrained in hyperbaric medicine but seasoned by a four-year surgical residency at Dallas' Parkland Hospital (the “knife and gun club of Dallas” she calls it), she familiarized herself with the use of oxygen, the controversial French-developed steroid therapy, and intravenous fluids. Both she and Bowden came to see aggressive hydration as key to minimizing the dangers of DCS; they planned to replace lost fluids with Gatorade-loaded bota bags staged on the descent line, and an IV at the surface.

By the end of August, Kristovich, Bowden and the rest of the Proyecto team were back in Mexico. On September 2, Kristovich made her record-breaking 554 ft/165 m plunge. Bowden, diving with her, went deeper still—to 744 ft/221 m. Neither suffered any ill effects. The way seemed clear for Bowden and Exley to make a try for the bottom by the end of the year.

But nothing ever goes quite as expected in exploration. In late November 1993, Bowden caught the flu while at Zacatón preparing for the one additional deep dive he felt he needed before he and Exley could push...
for the pits floor. His bottles already staged, his team ready to go, Bowden suffered through a week on decongestants, "shivering in his tent," as he puts it. Eventually impatience got the better of the 53-year-old caver. Not entirely recovered, and not taking proper account of his dehydrated state, Bowden went ahead with the dive. He broke 800 feet—and returned as Kristovich's first DCI patient. "Once they hit the surface, Karen [Hohle, Bowden's safety diver] called out, 'He's bent!' And at that point you could hear Jim groaning," Kristovich says. "He had multiple joints—both shoulders, both knees, both hips, both arms. Really stabbing, excruciating pain. Really, really bad... We got him out of his stuff, and his color was poor—he was really cold-looking, so he had that blue, purply color of being cold, but also very pale, like people who are getting ready to go sherry on you. Really in pain."

Kristovich put Bowden on 100 percent oxygen and an IV, dosing him with the steroid Decadron. By the next morning the injured diver had improved markedly—after going through three bags of intravenous fluids, supplemented by intense oral hydration. When Kristovich took him back into the water for a recompression dive, Bowden's symptoms abated almost completely, leaving him with only a memory of the agony he had suffered. Still determined to see the bottom of Zacatón, he had been offered a foretaste of just what that might cost.

Four months later the Proyecto returned to the Rancho Asutrosa, ready to go for broke. In the preceding year, team members had dived past 500 f/149 m in Zacatón five times, and Bowden himself had racked up more than 30 dives deeper than 300 f/89 m. Making heavy use of La Pilota as a training site, Kristovich had put Bowden through intensive deep-air proficiency exercises to build his narcosis tolerance. Accompanying him to the cenotes bottom on trimix, she posed him hypothetical problems printed on flashcards, and graded him on his response. Good performance while under the influence of narcosis was critical to the dive's success. Bowden would be operating with an equivalent narcotic depth of 330 feet in an effort to avoid the effects of HPNS. Less than six months before, diving to 863 f/257 m at Bushmansgat, South Africa, Exley had noticed progressive symptoms of the mysterious high-pressure malady as he went past 750 f/224 m—his entire field of vision had filled with small congruent circles, a stinging sensation erupted all over his skin, and tremors shook his body wildly. Something that debilitating, on its own or in combination with another problem, could spell disaster in Zacatón.

On April 6, 1994, after rigging two descent lines and dozens of stage bottles, with Ann Kristovich, Karen Hohle and Mary Ellen Eckoff standing by as support divers, Bowden and Exley dropped away from the surface, bound for the bottom of Zacatón. Each carried back-mounted doubles and a pair of side-mounted tanks, and planned to inflate his BC from his bottom mix. Exley also packed an air-filled stage bottle that he would clip off at 290 f/86 m when he made the switch to his travel mix; Bowden, not wanting to slow his descent, chose to start out breathing from a 15-cubic-foot pony bottle kept on his back. Because of the difference in their dive profiles, Bowden quickly lost visual contact with Exley. Still, free-falling into the black at 100 feet per minute, he felt good—better than on his previous dive, he says. Between 750 and 800 f/224-238 m he slowed up to minimize HPNS, and was rewarded with just the barest flutter of nervous tremor.

So far, things had gone just fine. But at 900 f/268 m, Bowden got the first in a series of nightmarish surprises. A gauge check showed his trimix 6 4/30.6 bottom mix down to just over 1000 psi; 800 psi less than planned, and only 500 psi above the point where his regulator, working against an ambient pressure close to 30 atmospheres, would no longer be able to deliver gas. Immediately, he began inflating his BC (consuming more precious bottom mix in the process), bringing his descent to a stop at 925 f/276 m. Ascending to his first decompression stop at 450 f/134 m, Bowden watched his gas supply dwindle. He had virtually exhausted his two side-mounted tanks—one containing bottom mix and the other a trimix 10.5/50 travel mix—by the time he reached his first stage bottle, at 350 f/104 m. And there he got his second surprise: the stage bottle's regulator went into free-flow when he turned it on, wildly spewing bubbles each time Bowden opened the tank's valve. With eight minutes of stops scheduled before reaching the next bottle at 300 f/89 m, Bowden fell back on a technique he'd practiced but hoped he'd never need—using the tank valve as a manual air control, opening and closing it with each breath. Blurring through the stops on his schedule and trying to compensate with a longer hang at 310 f/92 m, Bowden made it to the next stage bottle. Now he was in familiar territory.

But what Bowden refers to as the "fickle finger of fate" had one more surprise in store for him. He got his first hint at 130 f/39 m, as he switched from air to EAN 30. The light filtering down from the surface was bright enough to let him see Exley's line for the first time since his descent, and see also what was hanging on that line: Exley's stage bottles, unused. Shuck was still down there somewhere. Bowden's confidence in Exley kept him from the obvious conclusion. The master diver had gone deeper than he, Bowden decided, perhaps even to the pits bottom. No doubt Exley was still decompressing below.

Near the surface Ann Kristovich knew better, and had known for some time. Exley's bubbles had vanished. He would not be coming up alive. Holding back her own emotions, she helped the grief-stricken Eckoff through the Pasaje del Tortuga Muerte. Karen Hohle took the bad news down to Bowden, breathing EAN 50 sixty feet below the surface. Stunned, Bowden says he completed the remainder of the dive "mechanically," surfacing after almost ten hours of decompression to take a DCI hit in the shoulder. While he spent the next three days convalescing, Kristovich and Hohle shoulderered the task of recovering the team's equipment from Zacatón. On the third day, they pulled up Shuck Exley's body.

It's been a little over a year since the events of that week in Mexico, and Ann Kristovich is discussing their significance over a Sunday buffet lunch at Nell's Steak and Bar BQ in Branford, Florida. Like a good third of the customers in the restaurant, she and Bowden have come to town for the NSS-CDSS spring workshop. A few tables away, Wes Skiles, Jim King and Bill Stone are refueling after hashing out the preliminary details of what may become a second Wakulla Springs Project: at the opposite end of our table, a bystander listens while Bowden enthusiastically outlines his plans for another attempt at Zacatón's bottom in late 1995. This time, he's saying, he'll carry far more gas—additional back-mounted tanks for BC inflation, and twin aluminum 100s under each arm, manifoldered for convenience. He's also going to do part of his decompression in a "habitur"—a tiny two-person bell just big enough for Kristovich to give him IV fluids. He and Kristovich have been down in
Mexico working on equipment configurations, and so far he's satisfied.

"A caver, a cave diver who wants to explore a new system, wants to see everywhere it goes," Kristovich says. "And where Zacatón goes is deep. But it's still the end of the cave. It's just like a cave that's horizontal, you desire to see where it stops." She pauses for a moment, as if working out what she's going to say, and then plunges in.

"Sheck had had a long-term goal, a desire to dive to a thousand feet... I mean, he started cave diving when he was 16, and he had just turned 45. Six days later he died. It had been a lifetime pursuit for him, the unexplored, the unknown. You are so completely alive when you're exploring something that's unknown. I mean, they talk about the Star Trek syndrome, you know, going where nobody has gone before and so forth. The fact is, as trite as it sounds, it's true. It's an incredible opportunity. It's a rush. Sheck was more alive the moment he died than most people will be ever in their lives. And that's the same experience of life Jim experiences, and the same experience of life I think I've experienced in exploration. In being in an unknown place."

Kristovich still feels the pull of the deep unknown, the force that drew her down into Zacatón. She's looking forward to going back to the cenote with Bowden this fall, to help him push for the pit's bottom. That will be it for Zacatón, she thinks, unless the Proyecto can borrow a Newtsuit: "We know we're not going to be able to swim around at 1,080 feet." But there's plenty more deep work to be done in neighboring cenotes like Caracol and La Pilita, in the Santa Clara system, and at a multitude of other sites Bowden has identified throughout the Sierra Madre Oriental. And while she says she has no further interest in "chasing records," she means to keep pushing into the darkness. If that means going deeper, well, she's ready for that, too. "I think that what I need to do is to continue doing what I love the most, and that's exploring," she says. "If the exploration of certain systems is going to require that I dive deeper, I will. I don't feel hesitant about that."

Spoken like a true explorer.

[Ed: Note that depths are stated in feet of fresh water.]

Jim Bowden discusses his attempt to bottom out Zacatón.

People are going to read this story and think, Jesus, these people are crazy. I mean, Exley died doing this dive, you nearly ran low on gas and got hurt, and now you're going to go back and try to do it again. Is it a suicide wish? How do you explain it?

I've matured a lot after losing Sheck. I don't think that there is a way to explain it. So I don't try. What's the old saying, if you have to ask the price, you can't afford it.

No, I don't have a death wish. I don't really feel there is a career in deep diving either. But I want to do it, and I'm working day and night to insure my safety as much as I can, and to insure that I can have a bail-out so that I can abort if it doesn't work. I'm firmly convinced that if I had had the volumes of gas last time, then I would have done it. Because my dive went very, very well.

All to bottom out Zacatón.

I've spent a decade and a half exploring cenotes. That's my passion. All of every day. And a cave explorer wants to see the end of a cave. This one just happens to be vertical. And I think I can do it. If at any time I feel I can't, well then, I'll move on. You're only as good as your last fight anyway. There are other systems I want to get into. But this is exciting, and I would not trade the experience.

I don't feel that this is the most significant thing I've accomplished either. I'm very proud of the Belize project and that was two solid years of living there, and my deepest dive was 46' [14 m]. I think it had every bit the dangers and excitement and drama. A lot more cerebral stuff and not as much time at the computer.

What aspect of the dive are you most afraid of, or that worries you most about it?

Having a bad day. Just having a bad day. I don't think you can afford a bad day. That was Sheck's reservation, too. When we first talked about doing this, and honestly, Sheck was the one who encouraged me, 'cause he knew my financial situation, to seek sponsorship. And to seek sponsorship you have to seek exposure. Sponsors don't do it out of the goodness of their hearts. We also both agreed that we've seen the camera kill people. Sheck was too mature to fold to that, and that was not the case there. This next time, I'm really considering who I'm going to have there, or if I'm

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