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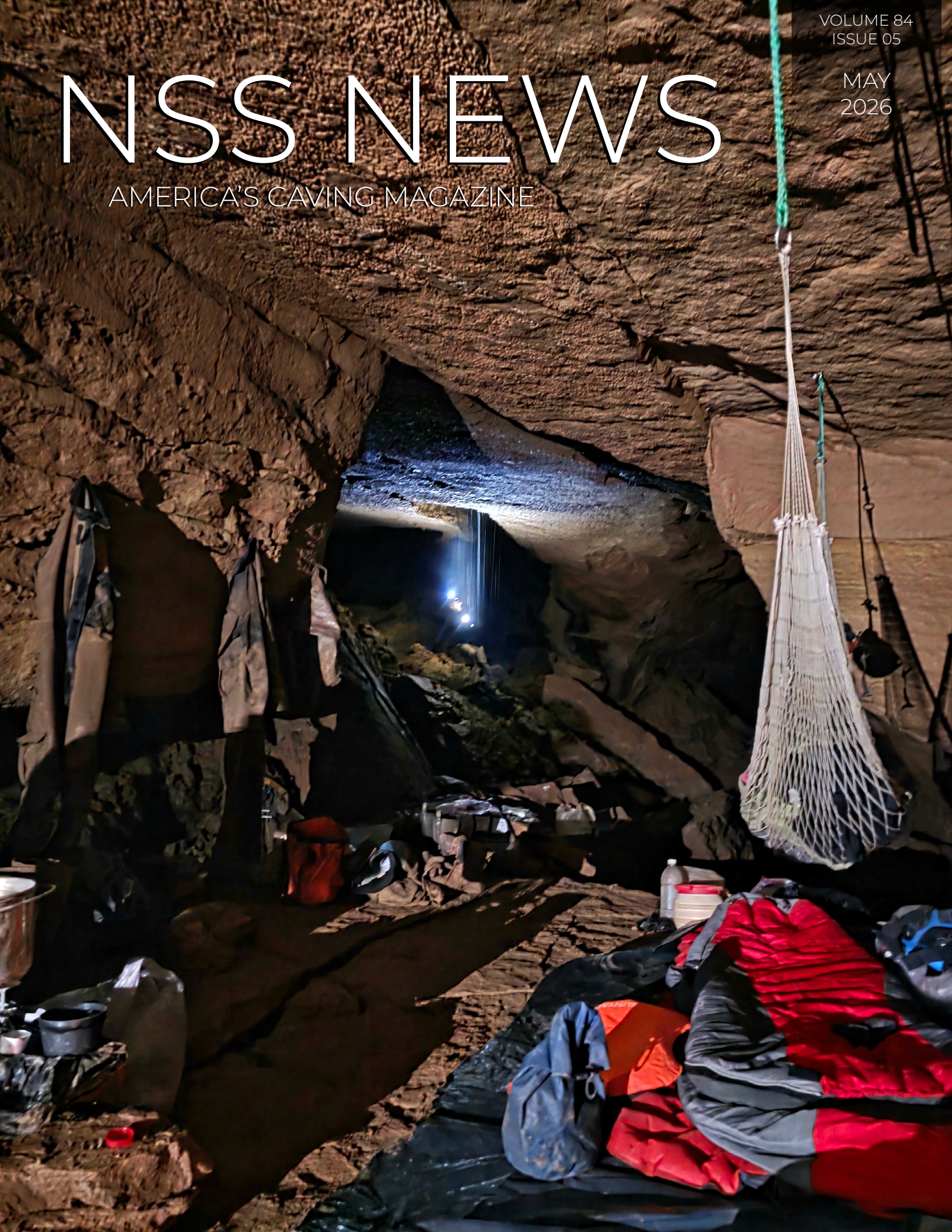
NSS NEWS

AMERICA'S CAVING MAGAZINE



NSS NEWS

AMERICA'S CAVING MAGAZINE

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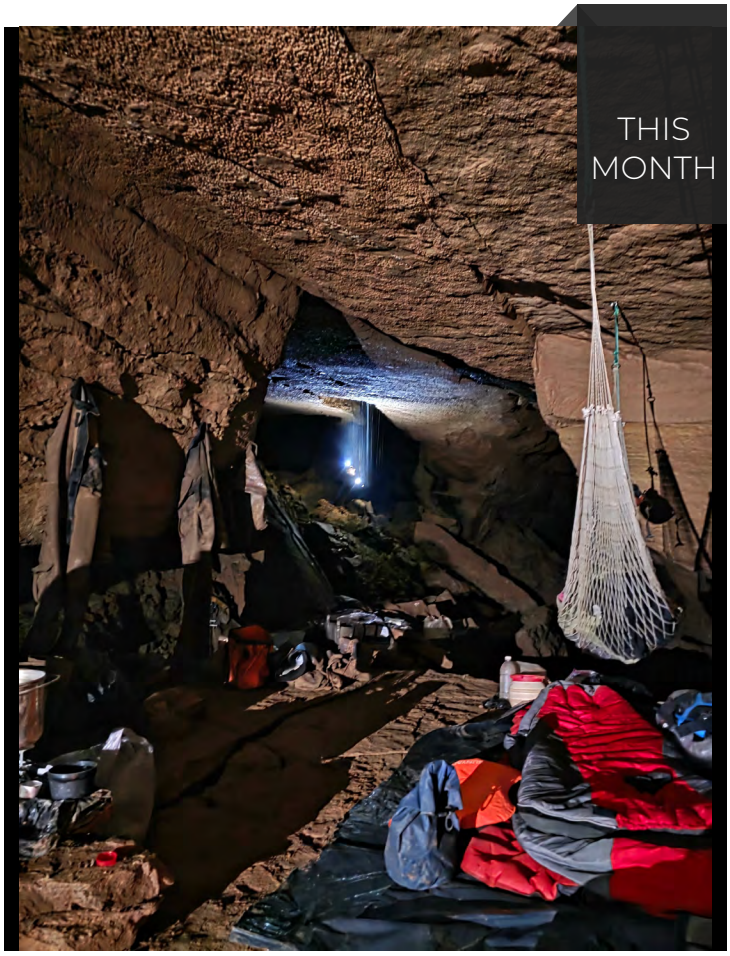

THIS MONTH

THIS MONTH'S COVER

A surprise waterfall as seen from Borehole Basecamp
Article on page 4 of this issue.

Photo by Gavyn Hetzer

CALENDAR OF EVENTS

May 8 to 10, 2026

The Spring VAR will be hosted by Tri-State Grotto, at Endless Caverns, New Market, Va., May 8, 9, & 10, 2026. There will be lead trips, hot showers, flush toilets in the club house. Pre-register for a catered meal. To register on line go to: https://www.zeffy.com/en-US/ticketing/spring-var--2026

May 15 to 17, 2026

The Northeastern Regional Organization (NRO) will be holding its spring event at Thompson's Lake Campground – Thacher State Park in East Berne NY. The Central Connecticut Grotto and the Northeastern Cave Conservancy will be hosting this weekend of caving, camping, and other fun activities. The location is nearby where last year's NSS Convention was held and there will be led trips to many of the same caves. For more info please contact info@ctcavers.org.

2026 NSS Convention
Hundreds of Caves, Hundreds of Miles
Corydon, IN - July 6 - July 10, 2026

The National Speleological Society (NSS) will host the 83rd Annual Convention in the lush forests and rolling hills of Corydon, Indiana.

This scenic sinkhole plain region is home to hundreds of caves that can be visited within a two-hour drive of the site, including the world's longest (Mammoth Cave) and two others among the top ten longest in the nation!

The caves of the area not only provide the thrill of adventure; but a journey through time, having served as shelters for Native Americans and hideouts during the Civil War. Prehistoric bones and antique relics can be found, along with some of the caving community's greatest lore which originates from this area.

This blend of natural beauty and historical intrigue makes caving in the Ohio River Valley an unforgettable experience. We can't wait to host you in July 2026!

https://caves.org/convention/2026-nss-convention/

Sept. 3 to 7, 2026

75th Annual Diamond Reunion - Old Timers Reunion -The Original Underground Party; Come as you were! Dailey, WV
The year was 1950 and the NSS was only nine years old. Cavers throughout the region were busy discovering and exploring caves in West Virginia, and celebrated that by establishing an annual Labor Day weekend tradition. Long-time OTR attendees will have no trouble reaching into their personal way-back machines to draw on their own rich histories of OTRs gone by. New OTR attendees are invited to choose from any of our past themes and imagine what those past decades were all about! Themes started in 2000, but even before then, the DooDah Parades were a vast display of caver creativity. Come join the spectacle and become a part of OTR history!
Website at: NSS Spring regional meeting of the Mississippi Valley Ozark Region, April 29 - May 2, 2027 at Shrine Camp, Buckhorn, MO (past NSS Convention site). Website is not up yet, but information will be available on facebook page MVOR-MVOR.ORG and https://otr.org/2026/01/otr-themes-since-1999/

April 29 to May 2, 2027

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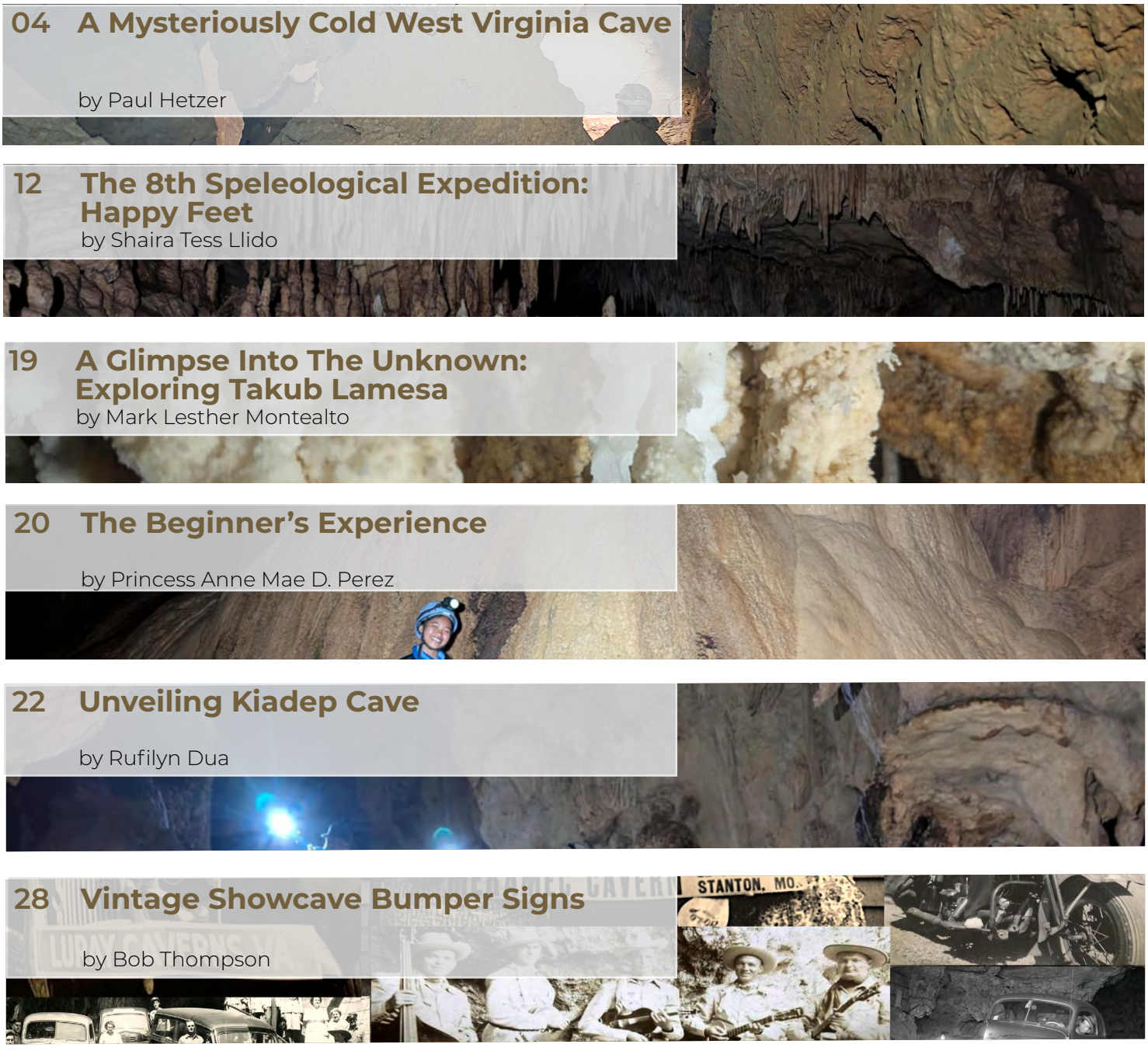
FEATURES



ADDITIONAL CONTENT:

BACK COVER

Inside the Air Blower in West Virginia's Hamilton Cave. This trip happened during the 2025 Young Timers Reunion hosted by the Richmond Area Speleological Society and the VPI Cave Club. There were several cavers, including myself, who managed to make it through the 25-foot tube, but who didn't have the same luck on the way back. Luckily, we had some webbing and a few people ready to tug each of us through the tight squeeze to a point where we could slowly scoot the rest of the way out. By Robert Grace.

A Mysteriously Cold West Virginia Cave

By Paul Hetzer

In the early summer of 2019, my son Gavyn and I were doing some ridge walking in Randolph County, West Virginia. This wooded mountainside had been searched pretty thoroughly over the years and was full of known caves. I wasn't too worried about not finding anything, as there are always holes that are overlooked or deemed unworthy. Also, my son has this uncanny ability to locate holes with good potential. I knew we wouldn't find any big cave openings that could immediately be entered without work. Those are very rare finds anymore. We were searching for those small, nondescript, and unexciting holes that most people would discount as having the potential of leading to a larger cave. We find stuff almost every time we go cave hunting.

This day would be no different for the two of us — with one very good potential dig located (which is a story for another time, and yes, after we dug it open, it turned into a nice big cave). What would become our biggest discovery for the day (although at the time we didn't know it yet, and truth be told, in my estimation, when we found it, it had very low potential of producing a large cave system) was the locating of a dead-bottomed sink.

It wasn't a big sink, about a dozen feet in diameter and maybe ten feet deep. The bottom was weed-covered soil with some lichen-encrusted rocks embedded in it. Easy to discount as worthy of attention — except for one thing: the bottom of the sink was filled with very cold air. You walked through a noticeable thermocline as you descended into the sink. Very, very interesting! I poked around the sink with a metal pole and employed the powder I use to detect air movement. The pole didn't poke through to any voids, and there was absolutely no air moving. The cold was intriguing, but I generally don't dig in dead-bottomed sinks, as it is usually an effort in futility.

However, my son, who had just recently turned nine and had been project caving with me for three years, took a strong interest in it. He was full of questions I couldn't answer about why it was so cold.

Gavyn talked me into digging on it one Saturday in late summer before school started again. I reluctantly agreed to spend some time on it. I had so many other cave projects; I hated wasting time on something with such low potential.

The digging was pretty easy, shoveling out topsoil and prying loose fractured rock. After eight hours of digging, we had made a pretty big hole in the bottom of the sink. Still, nothing that screamed cave — not even a whisp of air. But damn was it cold down there!

We didn't get back to the cold sink until the following year and spent a couple of weekends that summer digging in it at Gavyn's urgings. We had gotten down about six feet with not even a hint of a void. Just clay cemented, fractured limestone blocks. This dig wasn't giving me the warm and fuzzies (it actually gave me the cold and freezies).

As the spring of 2021 started, Gavyn pushed me hard to get back to this dig. We were now getting deep enough that we had to rig a rope-and-pulley system to haul buckets of spoils up through a carefully placed culvert pipe to deposit them on the surface. Our spoils pile was getting quite large. I joked with him that, if nothing else, we were building a nice sled-riding hill. By the time summer started, we were resorting more and more to technical digging, as the rock was becoming larger and harder to haul out. Still, nothing in the dig was karsty-looking.

Then, around the first week of August in 2021, as we were digging, we moved a large rock, and a small void appeared beneath it. Not only a small void, but ice-cold air erupted from below, blowing like a puncture in a truck tire. Holy crap! The kid's instincts had been right on. There is cave down there! Hell, I thought another day or two of digging, and we'd be into something.

I couldn't have been more wrong about that last part than a person speeding down the wrong side of a highway. That week, I put out a call to all my project caving friends and enthusiastically informed them of what we were seeing at this dig.

By our next scheduled weekend dig, we had nearly a dozen cavers show up to help. Many from adjoining states such as Pennsylvania, Virginia, Maryland, and Ohio. It was like I had offered a free vacation with every sign-up, although most people wouldn't consider digging in a tight, cold hole much of a vacation. As the summer rolled along, and even though we weren't making a breakthrough or seeing any voids larger than fist-sized, the crowds kept coming to dig. We were down about 15 feet now. Topside, it had become a party atmosphere. We had a lean-to shelter erected and a big bonfire going constantly, where we roasted hot dogs and boiled water for hot cocoa. It was as much a social gathering as a cave dig.

We were now splitting the project teams up, with one group going in and digging for thirty to forty-five minutes before coming out to warm up at the fire while the next digging team went down to work. At the 18-foot-deep mark, the air took a turn, coming from the spaces and cracks that ran horizontally to the east. Our downward digging was over. The cold air was blowing so hard it sounded like a waterfall ahead of us. It was that cold-blowing air that reinvigorated our excitement for the dig.

The year 2022 rolled around, and the crowds kept coming, incited by my son's passion for the dig and what he thought lay ahead. I just wasn't as enthused with the dig as he was. We still couldn't see where it would open up into an actual cave, and I started thinking we would be digging through mud-cemented blocks forever — plus I had several other big caves I had discovered and was actively working on. Gavyn never lost an ounce of his enthusiasm, though. Spurred on by talking with some of the WVU Student Grotto geology majors (a lot of our diggers were students from this grotto), who speculated on what could cause such unusually cold air to be erupting out of the ground (they hypothesized it had to be a very large volume cave acting as a cold bank throughout the winter).

The rest of 2022 was spent following the air horizontally, busting and digging through nearly solid rock. By now, our spoils pile had completely filled in a small valley that had been a seasonal runoff to the sink. We made it nice and flat, and it kind of became our party place.

When we got back to digging in the spring of 2023, people had begun calling our man-made cave, now about 30 feet long, Air Conditioner Cave. In early spring, the air erupting from the entrance was in the upper 30s Fahrenheit, and warmed into the low 40s by late fall. The late Dr. William Good had placed a temperature logger in the cave for the month of September and reported that the recorded temperature was 43 degrees, rising only a few tenths of a degree throughout the month. Most caves in our area hold around 50 degrees. So, Air Conditioner (or AC for short) was a fitting name.

The 2023 AC dig started out the same as always. Bonfires, cookouts, beer, and many eager project cavers. The digging slowly progressed horizontally. We were still not seeing anything that screamed "karst!" I thought it was going to be another long summer of digging.

July rolled around, and the cavers showed up as usual for the first weekend dig of that month (don't get the idea we were digging every weekend; this was about a once-a-month dig, as I still had many other caving obligations). I usually did the majority of drilling and busting of rock, and would come out to let others remove the spoils. Due to the cold blowing air,

PAGE 4: GAVYN HETZER, ALI CROSBY, NIKKI FOX, AND ZEV YIRMIYAHU AT THE OVERLOOK BASECAMP.
ABOVE: GAVYN HETZER PULLING SPOILS FROM OUR DIG. PHOTOS BY PAUL HETZER

hypothermia would set in if you stayed in the hole too long. That July day, we spotted something at the dig front. What looked like a short drop into small cave passage. We quickly dug it open and then took turns going down to stare in awe. The lead we opened dropped a couple of feet down into a trickling stream passage about 18 inches tall and two feet wide. It was a cave! Unfortunately, it didn't go very far at these dimensions. The water (and air) came down a very low slope to the east, about six inches in height. More digging would be needed.

Everyone was back the next day to continue the dig. I had to lie on my back in the cold flowing water and colder blowing air to drill into the ceiling for rock removal. By midday, I had the slope opened enough to shimmy up it. The air and stream turned and were now coming from the southwest under a low ledge of rock. I could see it got a bit bigger behind the ledge. Even though I was shaking uncontrollably with the cold, I set more holes to bust. I climbed out of the cave, hoping that the ledge would be removed with this last set of straws. I was hypothermic and knew I wouldn't be going back into the cave that day.

Gavyn and a girl named Addie Shanor decided to go in and clean spoils. They were gone for quite some time. When they returned, the look on my son's face told me we were into something good. He and Addie confirmed my interpretation and told me that they were through into going, decorated cave! Five years of digging had paid off; I just hoped the cave wouldn't disappoint.

We were all too excited to wait for another available weekend, and scheduled our first trip for that Tuesday after everyone got off work. Only those who lived in the area could make the trip. The plan was to continue the survey (Wyatt Stimmell et al from the WVU Grotto had completed the first bit of survey through the man-made section of the cave), and we were going to tie into that.

The cave didn't disappoint. The front end was moderately decorated with leads heading off in many directions. Most of the passages and leads were crawlways or stoopways, but at least they went with no end in sight. We could also hear the very enticing, far-off sound of rumbling water.

A few weeks later, the surveys began in earnest. We had nearly two dozen cavers show up to survey AC. We split up into multiple survey teams and headed off into different leads in the cave. This went on weekend after weekend throughout the rest of 2023. We quickly broke our first mile of survey by September. We had also reached a stream canyon that ended up being named Gamijapa Canyon, from the first two letters of the first names of the people who discovered it. Gamijapa runs its entire length in the Taggard Shale group at the interface with the overlying Pickaway Limestone. Above the Pickaway is the Union Limestone, our area's biggest cave maker. So far, we weren't finding anything truly cavernous in AC. Big passages, yes, but nothing with that "wow!" factor. Gamijapa ranged from crawling over slabs of calved shale with the cave stream sometimes a dozen feet below you, to large walking canyon in the water. The walls were always shale and the roof limestone. Pretty extraordinary.We did

Paul Hetzer bolt climbing one of AC's domerooms. photo by Ray Campbell

have one case of a caver getting hypothermic, where we had to employ an emergency blanket and escort the caver from the cave. After that, we learned to layer up even thicker for our trips.
By October of 2023, we reached a terminal upstream collapse — two hours from the entrance. Water and the cold air were bursting through the spaces between the breakdown blocks, but there was no obvious way through them. So, the technical digging began again.

Within a handful of trips, we had dug a crawlway through part of the collapse to where there were some breakdown rooms. On a final trip for 2023 in November, as the cave temperatures began to fall, we were conducting a survey trip into the section by the collapse. Nikki Fox and Hunter Campbell were with me on this trip. After surveying, we began searching intently for leads. Hunter located a very low crawlway with a dirt floor and began digging in it while Nikki was studying the ceiling of jammed breakdown blocks. I turned away for a moment, and when I happened to look back, I suddenly saw her boots disappearing into the ceiling. She had discovered a small breakdown chimney leading up through the ceiling. I followed her up through this very tight climb and popped out into a low, wet, and muddy breakdown passage. We followed it to a shallow pit with leads at the bottom. When I climbed the eight feet down and checked the leads, none seemed to go for more than a few dozen feet before ending in boulder plugs. We did make a voice connection to Hunter at one of the pit's lower leads, confirming his dig led to the pit. We searched high and low for a lead that would take us past the collapse, without any success. That entire upper section of cave was full of sketchy, jammed breakdown covered in slimy mud. Which, of course, coated both of us.

When we returned to the lower section, Hunter had given up on his dig due to the voice connection, and it would also need to be technically dug to go any further. It was beginning to look a lot like this would be the end of our cave.
The 2024 AC Cave season started in late Spring with Gavyn and me picking up some survey in the front section of the cave near the terminal stream sump we had discovered last season. An infeeder fed into the main stream right at the start of the sump. It was a wet, crawly affair, with ceiling heights dropping to around eight inches in some areas. We surveyed several hundred feet up the infeeder before we became too chilled to continue. We continued to pick up some survey in the front end of the cave, and then in July, made plans for a trip to the upstream collapse. I was going to tech dig at one final lead I had identified while Gavyn led a team to survey into the Basement Room, then up through what we were now calling The Fox Hole, and into Nikki's Attic.

After working my lead and finding it a no-go, I caught up with Gavyn's survey team. I let them know that I thought we were out of options on finding a way past the collapse. They told me that they had not been able to get past the Basement Room; unable to locate the Fox Hole in the ceiling (to be fair, the entrance didn't look like a human fit-able passage up through the breakdown). I led Gavyn up through the Fox Hole, and once in Nikki's Attic, he squeezed past me like a hound on the scent of a rabbit. By the time I

Rick Royer and Zev Yirmiyahu surveying in AC Cave. photo by gavyn hetzer

reached the pit, he was nowhere in sight. I figured he had climbed down and was searching the same lower leads Nikki and I had examined last year.

It was about 30 minutes before I heard from him again. I was starting to get worried, and then I heard his excited voice from a hole through the breakdown on the opposite ledge of the pit. He shouted that he had found a way through and had reached a point where he could hear the stream again. I carefully traversed around the pit and found him with his head popped out between tight breakdown blocks in the floor. He wanted to show me what he had discovered and dropped back down like an escaping groundhog.

As I tried to push myself through the lead, I immediately became hung up at my hips. There was no way I was fitting through that hole! I pushed myself back out and tried to move one of the more manageable blocks out of the way. To my horror, the heavy block shifted downward and slid into the open slot, completely blocking the way down. I had trapped Gavyn!

At that moment, Kevin Hilling, who had been part of the survey team, had decided to climb up the Fox Hole to see what was taking us so long. Between the two of us, we managed to unwedge the boulder and roll it up and out of the way. Now the way down was much more spacious. We dropped about 15 feet and found Gavyn waiting for us in a clean, phreatic, hands-and-knees crawlway passage. We were definitely past the collapse now. We scooped several hundred feet ahead to where the passage became tall and narrow, but walkable. We could definitely hear the roar of rushing water somewhere ahead of us. Thanks to Nikki and Gavyn, we had made a breakout, almost one year to the day from opening the cave!

We began scheduling survey trips again. Due to constantly getting wet and slimed in Nikki's Attic, we usually packed a set of wool undergarments to change into for the surveys, as the strong, cold air was still blowing in this new section. Ryan Coplin and Sean Phillips helped Gavyn and me survey up through Nikki's Attic into the new passage we named Gavyn's Bypass. This bypass dumped us into the continuation of Gamijapa Canyon. Here, the canyon was a tall, wide passage, but it was still cut into the Taggard Shales. On another trip, Nikki again joined us to survey nearly 500 feet up the canyon. After several more survey trips, we reached another upstream terminal collapse. It mimicked the first with air and water coming through the collapse. We couldn't find a way through this collapse either.

After reaching this terminus, we decided the next time we would hit some of the upper leads we had noted in the canyon. Gracie Cornish joined Gavyn and me for that survey. Twenty feet above the stream, we finally found ourselves in the upper levels of the Greenbriar Limestones, including the Union limestone.

As we pushed survey, the cave kept getting bigger and bigger, with multiple levels of passage. On the third level up, we were in big, booming passage with side leads dotting the walls. When we surveyed around a corner from this area, we found ourselves looking down a steep slope into an inviting borehole passage. On the next survey trip, we had an AC newcomer, Zev Yirmiyahu, who was fairly new to project caving. We tied into the last survey station and headed down into the borehole passage. It went for a long distance until we reached a large breakdown room that stretched 100 feet ahead of us. This room, Gavyn named the Rubber Chicken Room (RCR), and later in the year brought in a two-foot-long, blue rubber chicken to use as a cave registry. Big blocks of breakdown littered the floor of this room, and several tall domepits were discovered on its flanks. As we slowly surveyed through this room, Gavyn, who was on point for the survey, had set stations ahead of us to the other side of the room. He informed us that there was a large blocking collapse, but he might have found a way through, but needed to modify a vertical squeeze.

Nikki Fox surveying in Gamijapa Canyon
Photo by Paul Hetzer

Paul Hetzer surveying through a decorated section of AC Cave. Photo by Jason Glancy

As I was sketching, I could hear Gavyn somewhere ahead pounding on rock with a hammer. Suddenly, a sickening roar filled the room as what sounded like tons of rock violently collapsed! Zev and I both looked at each other, our faces as white as sheets, as the sound of the collapse trickled away to silence. I thought to myself that I had just lost my son. I urgently called out his name, trying to keep the fear out of my voice and panic from overtaking my thoughts. There was no answer. I felt like my whole being was collapsing as if being crushed by a black hole.

Then, after less than a minute, I heard Gavyn call out that he was alright. I could hear the fear in his voice. We rushed through the room to meet him. He had been in a side room, trying to knock off a couple of limestone blocking shelves that would allow him to continue down a narrow slot, when the entire wall and part of the ceiling gave way. He had been able to fall back out of the way into a small alcove to escape the collapse. He had been very lucky. I almost cried when I hugged him. We ended our survey trip right then. We were all mentally wiped out for the day. We ended up naming that room the Near-Death Experience Room (NDE).

One of the problems we were now facing in AC was the time to get to the project sections in the upstream areas. It was a grueling four-hour trip that left you exhausted at the outset. We decided it was time to set up a camp to base our project trips out of. The problems we had to overcome were finding a suitable dry area away from the cold, blowing sections, and ensuring water access and a suitable toilet area.

Gavyn discovered what appeared to be an appropriate site in an upper fourth-level passage. It was a bit difficult to get to; however, it was dry and out of the way of any blowing air. We named it the Overlook Camp because one end terminated at a drop that looked out into a large lower passage. For the rest of the 2024 season, we began ferrying in camp supplies to cache at our new campsite. Soon we had sleeping bags and pads, a camp stove and fuel, water containers, a drill and rock busting gear, cooking pots and flatware, and a camp toilet that some of our more stoic project cavers humped in. We found an appropriate, small, dry pit near camp to set up our toilet facilities.

We ended the season around 1,000 feet short of two miles of survey. With all the leads we hadn't hit yet, I had no doubt we would break the two-mile mark.

The 2025 Air Conditioner Cave season started in mid-April with short trips to the front end to dig on leads. These were short trips to limit our exposure to the cold. The 2025 season was starting out very wet weather-wise. Inches and inches of rain continued to fall in the WV Highlands, and this was reflected underground, where even normally dry areas were wet and muddy. We were planning our first camp trip at the end of June, and we were all worried that we would be reaching basecamp already slimy, cold, and wet. It was almost a guarantee going through Nikki's Attic! Luckily, we had recently dug open Hunter's dig in the Basement Room, connecting it to the bottom of the attic's pit. This limited our wet mud exposure somewhat.

The weekends before our planned camp trip, we made a few more trips to camp to bring in more gear. On one of these trips, Gavyn made a couple of game-changing discoveries. The first was an upper-level bypass through breakdown above a section of Gamijapa canyon on the way to the terminal collapse. This section of canyon degraded to a brief hands and knees crawl through a deep section of the stream, where you would get completely soaked to the bone. We had called this section the DaF passage after Nikki had put a notation in her sketch that this section of the stream was "Deep as Fu@#". I was thrilled he had discovered this bypass, as we could now stay relatively dry getting to the terminal collapse dig. The second big discovery he made that day was another bypass (now named the PDQ Bypass) above Nikki's Attic, which led directly into the Rubber Chicken Room. This cut off a lot of travel time and also bypassed some other wet, slimy areas. This allowed us to reach the Overlook Camp

in about two-and-a-half to three hours of travel time.

For our first camp trip, Gavyn and I were joined by Alexandra (Ali) Crosby and Kevin. The others who had cached gear, I think, decided to wait and see how miserable a camp trip was going to be in this unusually cold cave.

We went into the cave in the early evening on Friday and reached camp three hours later. As we started setting up the camp, we began to discover problems with the camp location. Due to all the topside rain, there were a few places that constantly dripped on the shelves where we had planned on setting up our sleeping arrangements, plus there were areas of the shelves that weren't as level as they appeared. We ended up setting up on the passage floor, which made it difficult to get around. We decided that Saturday morning, we would relocate camp to what had been our second choice of a campsite down in the borehole passage. This would be much farther from the toilet facility and water supply than Overlook Camp, and we were worried that temperatures would be colder in this area, even though it was above the cold-blowing section. On the plus side, it was a much larger area with a big, flat, pavement block that had fallen from the ceiling, which would be perfect for setting up our sleeping and cooking areas.

Moving the camp took multiple trips from the old camp to the new one. We had to forgo any project caving to make the move. It was well worth it. Our hygrometer showed a steady temperature of 47 degrees Fahrenheit in the Borehole — about 10 degrees warmer than what the blowing sections were presently at.

We slept warm and comfortably Saturday night after watching a movie on Gavyn's phone (he also had hauled in a Bluetooth speaker so the movie had exceptional sound).

Sunday morning, we headed out. Using the PDQ Bypass and the fact that our new Borehole Basecamp was now closer to the entrance, we made it out in under two and a half hours. We had proven the concept of successfully camping in this very cold cave.

Our second camp trip was in July, and due to the success of our first one, we had a lot of interest in this next one. I limited the number of cavers to six, including Gavyn and me. The other four were Rick Royer, Zev Yirmiyahu, Andy Schofield, and Adam Happensack. Only Rick had camped in a cave before. The others were all cave camp virgins. We made good time on Friday evening, arriving at the Borehole Basecamp by 9 pm. The next morning, after a hot breakfast, we began getting ready for our day of project caving. Adam would be joining me for the hour trip to the upstream dig, while the rest would be surveying leads closer to camp. We planned on meeting back at camp in the early evening.

Adam and I made our way to our dig site (a place neither of us had been to before). It took a little while to actually locate it through the jumbled collapse of boulders; however, it was quite obvious once we found it by the air ripping through the tight lead. It took most of the day of digging, but we finally had it open to where we could see a tall, narrow passage. I decided to complete one more digging session to make the window to the passage a little more comfortable. We heard the spoils roll down the slope on the other side of the window, followed immediately by a low-frequency rumble. Something had collapsed. When I got to the dig face and crawled through the much more spacious window, I saw instantly what had happened. The breakdown on the north wall had slumped in, blocking the passage. I crawled forward to investigate and saw that the rest of the north wall on my left looked very unstable and would need some shoring before we even thought about getting through the collapse. That would be for another day.

The survey teams ended up with just under 400 feet of new survey for the day, and we had another comfortable night at camp before heading out the next day.

Over the remaining summer and start of fall, we made several more day trips into AC Cave. Gavyn went to the dig face to shore up the wall that had collapsed using expanding foam, while I completed a bolt climb to a lead in one of the RCR dome rooms. On another trip, Kevin and CoeDee Mowers pushed past the shored area of the upstream collapse and identified several promising leads that needed to be dug open. On one trip, I installed a water pump at the Borehole base camp that fed off the stream 50 feet below. This saved us from having to carry water to camp from a stream access over half an hour away.

Our next (and last for the season) camp trip was scheduled for late October. We had four of us camping that weekend: Me, Gavyn, Mitch Gruver, and Troy Wheland. The plan was for Gavyn and me to dig at the leads at the upstream collapse while Mitch and Troy picked up side surveys between the camp and the collapse.

Gavyn and I spent most of Saturday digging at the leads until we determined they just weren't as promising as we had first expected. We searched around the collapse some more, locating a couple of very promising side leads and one higher up in the breakdown. However, we were out of time and would have to postpone digging on them until another trip. Mitch and Troy had caught up to us by this time, and the four of us made the long trip back to camp. We were all exhausted, and after a hot dinner, we crawled into our sleeping bags and quickly drifted off to never-never land. We were out of the cave by mid-afternoon the next day.

A week later, Gavyn talked me into doing a day trip to the dig site. He was (overly) excited for the upper breakdown lead he had discovered on our camp trip. He had used his phone to take a video around the tight corner of the lead and it appeared to open up into a narrow canyon. That is all he talked about all week, as he was sure that was going to be our breakout lead. I was less sure, as I have learned not to trust video footage without a size reference. However, I agreed to do a dig trip. It would be a long, grueling day. The Saturday after our camp trip, we met up with Kevin and headed to the cave entrance. The three of us were fast cavers and sped through the cave like Allegheny Wood Rats. We stopped at camp to pick up digging supplies, including the drill, and then worked our way to the dig face.

The lead was about 15 feet above the small room we were staging from. It was a bit difficult digging as I had to straddle the walls to wedge myself into place to drill the wall of the lead. After about two hours, I had enough rock removed that the lead was (barely) human passable.

Gavyn and Kevin were the first to squeeze through. Then it was my turn. I'm a little bit bigger around the chest and hips than both of them, so I knew it would be a bit more difficult of a squeeze for me. After getting my torso into the passage, which is about 1.5 feet tall and wide, I started wriggling forward on my side. As I progressed, my hip briefly hit against a piece of limestone on the ceiling, which suddenly dropped free, pinning me against the floor of the tiny passage. I couldn't even look back to see it. I called ahead to Gavyn and Kevin to let them know a rock had fallen on me and I was pain-

fully stuck. I could feel the heavy weight crushing into my ribs. Kevin ducked back into the crawlway and had an "Oh Sh*t!" moment when he saw my situation. I was jammed in the passage that was our only way out, and all our tools were back behind me! As calmly as possible, I assessed the situation and determined a course of action. The only solution I could come up with was to have Kevin squeeze over top of me and try to press the slab of rock into the wall, hopefully holding it there while I attempted to twist myself loose from its pressing weight. The rock was about three feet tall, by two feet wide, and one foot thick. It probably weighed around 150 pounds. If he could keep it from slipping deeper into my side, I thought I could turn and flatten myself on my belly, even if it meant breaking a couple of ribs, and then squirm backward from under it.

Kevin carefully slithered over me and did his best to jam the rock against the wall. I carefully rolled onto my belly, feeling the pressure of the rock relinquish its painful grip as I turned. While Kevin kept the rock pinned, I sucked my breath in and backed out from underneath it. I was clear! Kevin let go of the slab, and it slid briefly, jamming into the slot. They were stuck on the other side, but now I had the tools to deal with it. They went off to explore the lead while I got rid of the rock. My side felt like someone with a baseball bat had tried to hit a home run with my ribs. I was able to determine that they were bruised and not broken.

The good news was that it was indeed a breakout lead. Gavyn and Kevin climbed nearly thirty feet up through a passage where they encountered the biggest room of the cave so far, with many enticing leads. I was in too much pain to follow up or to begin surveying. We made our way out of the cave, exiting into the cold evening air, happy to have escaped what could have been a very tragic event!

All indications are that AC Cave has a lot more passage to give, probably many miles more, although it seems it will make us work for each of those miles!

The YUP Borehole near basecamp. Photo by Paul Hetzer

The 8th Speleological Expedition: Happy Feet

by Shaira Tess Llido

All Day Trip

The Department of Tourism of Region 12 provided two vans to carry our team from Gensan all the way to Esperanza, Sultan Kudarat, and back. This team comprises members of the Sarangani Bay Area Outdoor Club (SBAOC), student volunteers and professors from Mindanao State University (MSU-GSC), and student volunteers from Ramon Magsaysay Memorial College (RMMC).

Before the sun even started peeking over the horizon, the vans had already made their way to Cronasia — the assembly site — and all the baggage and donations had been lodged in right away. Since there were two vans, one was utilized solely for gear, while the other carried passengers. We were set for a speleological expedition from July 18 through 29, 2025.

The trip commenced at around 4:15 in the morning. Honestly, I thought we wouldn't make it, since Fionah and I were still back in Polomolok, waiting for the bus to take us to the assembly site. We could've just asked them to pick us up from our town rather than traveling there ourselves (I don't know why we never asked). But then, by God's mercy, we made it to the van, and the moment I stepped in, a spacious seat welcomed me.

Our first stop was at the Provincial Capitol in Isulan, Sultan Kudarat, around six in the morning. Before that, we had a quick pre-breakfast at the 7/11 convenience store located just in front of it. Everyone picked their choice of food, munched on it, and then we headed to the Capitol itself, where we dropped all our baggage and waited for the dump trucks to arrive for another trip to the town hall of Esperanza. While waiting, I went on a quick stroll, satiating my ever-curious feet whenever a new place welcomed me. As soon as the truck arrived, we hauled everything in, making sure it would remain dry in case of rain. Once everything was in place, the engines roared toward the town hall of Esperanza, where we were welcomed with a scrumptious breakfast and an opening ceremony, along with the orientation for this week-long expedition and the chance to get to know each other, before officially setting out on an all-day trip.

The entire expedition team — including us from Gensan, the government offices of the Municipality of Esperanza and the Province of Sultan Kudarat, and our military personnel — was finally complete, full of enthusiasm and anticipation for the journey ahead. By 10 in the morning, the battle against scorching heat, chilling winds, and darting raindrops, along with seemingly endless road bumps that could've torn our bones apart, began. Amidst the endurance the trip demanded, the scenic moments captivated not only our eyes but also our minds, making us forget that we had been hurling our bodies against each other the whole time. Part of those scenic sights were the little waves from the children we came across. Unlike the kids downtown, these kids took heed of our presence, often greeting us with timid smiles. Amidst the pouring rain and its darting sting as we paced along. The team tried to take a not-so-good nap, though every rough distance jolted their bodies, forcing them to keep their heads awake.

Since we took a roundabout route — from Maguindanao del Sur to Lebak, then finally to our basecamp — we arrived at around five in the afternoon after roughly seven hours on the road. At last, we set foot on solid ground. As soon as we stepped down, an affable community awaited us, along with the caves that had long been calling to us.

The Tales of the First Cave

Takub Miyong was, in fact, the second cave I had ever visited. Yet it was the one that gave me my first official caving experience. My very first cave was Salkak Cave, back in my hometown of Polomolok. But I hadn't had the premium adventure there due to time constraints; I was only able to traverse a few meters from the entrance. There weren't many notable speleothems, and the cave itself was quite short. And so, Takub Miyong holds the seat in my heart as my first official cave.

I never knew what to expect when I first entered Takub Miyong; all I knew was that I was about to experience something novel, and it had to be grand. During our entire stay, I visited this cave twice. In total, it was revisited four times. On our first visit, we were tasked with restoring the cave. We, the

Page 12: Arrival at the Provincial Capitol. Photo by Shiela May Sagusay
Above: Loading of items in the dump truck. Photo by Mikko Cuevas

biology group, were to restore vandalized cave walls at the entrance and conduct a cave assessment. But since we didn't have much in the way of restoration supplies, some members of the team had to take on other duties instead. This included documentation, fetching water for the spray bottles, and rotating with the ones working so we could take a quick break.

On my end, a quick break didn't mean sitting still; it meant letting my feet wander toward engrossing places. That's when I decided to follow the cave survey and mapping team. As I made my way to them, I wasn't yet fascinated with what I had seen. There was a stream and the usual speleothems, with stalagmites that seemed to be covered in mud. But as we continued the survey during the revisits, I began to truly see the beauty the cave holds.

The waterline reached a height taller than a person. Pieces of trash also seemed to have drifted inside the cave. With all the mud covering the lower speleothems untouched by the stream, it was assumed that the cave water may have risen wildly — most likely during the heavy rain season — making the cave a perilous place to be in at such times. Still, these are merely observation-based assumptions, and further studies should be conducted to put things in place.

What amazed me more was the number of passages available. It felt like a maze — one where several passages led to the same end and then extended further. As we moved deeper inside, the formations grew increasingly intricate, making it a hefty task to be the designated book person. Thus, I salute our book persons in every cave survey, for the painstaking detail they capture in their sketches.

With all those passages, my happy feet were in favor, and I had the chance to activate "Dora mode" (my nomadic personality). At some point, traversing the cave felt like deliberate parkour with all the gaps on the floor. All the while, we struggled to keep our balance with the mud clinging to the soles of our shoes. While waiting for our book person to sketch the sinuous passages and complex formations, we took the moment to advance our steps further — and that's when I finally got to greet more of Takub Miyong.

Further inside, we reached a huge chamber with a ceiling so lofty it made me gasp in awe. I felt like an ant in its vastness as I stood atop what seemed like a hill of broken boulders, trying to take in the scene around me. One section of the chamber had a guano-filled floor, making the air pungent and difficult to breathe; nevertheless, I chose to endure it and pressed on, only to find another chamber gated with pristine stalagmites. As I approached, the bats roosting inside were disturbed by my light and took flight. There must have been close to a thousand.

I decided not to push further — thinking it could be a vertical passage (though uncertain), with the stalagmite gate so tightly connected and too precious to risk breaking. Besides, my buddy, Marifer Piad, couldn't stand the smell of guano along that passage. I was left alone, armed only with a working handheld light and a dead headlamp (which felt valorous in a way, though certainly inadvisable for any unwanted circumstances).

At the farthest extent we reached, we found a waterfall (more of a stream cascading over a shallow drop) forming a waterfall of its own. Beyond that, the cave stretched even further, though we were unable to compass its full length.

At some point, we made our way back to the survey team. But as we traced our path, I began to lose my sense of

direction. Thankfully, it wasn't just Ate Marifer and me; all I had to do was tail behind the others. While patiently waiting for our book person — Sir Paulding Cadorna — some of us observed the mapping process, and I even tried learning their manner of reading instruments, which turned out to be far more convenient than mine. Others took naps. I, too, slept inside the cave.

The calmness of everything — the silence, the darkness, and even the water running against my back — could surely lull anyone into a sound sleep. Our loud snores might be heard by troglobites — fish and crabs (though they weren't captured on camera) —as well as the bats, and even the rats captured in the traps inside the cave. More of Takub Miyong still awaits survey. Even after all the revisits and hours spent mapping it, time has proven insufficient. Yet, it remains out there, calling, waiting for the next expeditions to unravel its hidden allure.

The Resilience Amidst Hurdles

Back at our campsite, we were given a room to serve as our resting place, where we also crammed all our personal belongings. Since it was an adolescent center (more like an office), we had no beds, but this circumstance wasn't a problem at all. As outdoor goers, there's definitely no room for finicky people. So, we pitched our tent inside the room. It might sound odd, but we used a tent indoors for two reasons: our spot was right beside the comfort room, which was reasonable enough, and it helped us keep our things organized. Other team members simply spread their human-sized insulator foam on the floor, and they were set for sleep.

We had cooks from the Municipality of Esperanza who never let our stomachs go empty. Every morning, all we had to do was get ourselves ready and take a seat at the table. Since we were in a far-flung area, we didn't have much variety in food resources, so we had to make do with what could last longer, like canned goods and eggs. Still, we also enjoyed some protein and fiber from the meat and vegetables served. It always delighted me to see veggies on my plate, and to sip some soup — it made me feel like I was living a healthier life.

Apart from that, they also served us lechon, which lit up my eyes in frisson — as a Filipino who delights in the crunchiest, tastiest lechon. On a separate meal plan, they also served us mutton dishes, which, for many Filipino men, is a cloud-nine recipe — though not to overgeneralize.

For drinks, water was provided, though most of the time they prepared juices for us. One night, while we stayed up late compiling data, we witnessed how clever the dog was in manipulating the water dispenser to serve himself a drink. All of us were astonished at the sight, and the moment shook off our

Takub Miyong entrance. Photo by Shiela May Sagusay

Passages in Takub Miyong Photo by Mikko Cuevas

drowsiness. We reported this to the heads, and they immediately cleaned the dispensers the next morning. Still, we had already lost hope in drinking from that dispenser, so instead, we fetched water from a flowing source or simply bought mineral water from the store.

Electricity wasn't much of a problem in the area, though we did experience a few power outages. Electricity was essential for us to recharge our headlamps and other electronic devices. I didn't have a phone; it was broken, which led me to a no-joke digital detox for the entire duration (which was very welcome). My headlamp was both solar-powered and chargeable, meaning I had one less problem to worry about.

As they say, anyone can live without electricity, but without water? That's certainly not possible. Their water system wasn't well-established. They had comfort rooms with faucets, but most of the time, the taps ran dry. Every other day, a mini truck would fetch gallons of water for us to use in washing dishes, bathing, or flushing the toilet. We had to be mindful of how much water we used, conserving as much as we could.

There were also common faucets nearby, where locals fetched water, did their laundry, and even bathed. However, water only ran in the mornings, stopped by noon, and wouldn't flow again until the next day. This wasn't ideal for us, since we were already out by at least six in the morning and gone all day. By the time we returned to the campsite, the water had already run out. Still, with resiliency built in us, we quickly adapted to their lifestyle.

As we engaged with the community — especially the kids — we learned that they actually had a flowing water source where they did most of their fetching. But along with it came various struggles — it was more of a "pick your poison" situation. During our stay, we learned about two flowing water sources.

The first was just near our basecamp, but the floor was muddy and slippery, and a single misstep could send you down a cliff. We had only about 1.2 meters to squeeze ourselves into, bathing and doing laundry all at the same time. To add to that, we could only use this place at night, after a whole day of caving and after dinner. With no other light source but our headlamps, the task became even trickier. Thankfully, local kids would accompany us. They were the ones handing us our things since our movements had to be limited to avoid slipping. They made our nights easier, but we often worried for them, as they stayed late until we were done. Their families — and in fact the whole community — were already asleep by seven in the evening. And as if the tight space, slippery floor, and cliff beside us weren't enough, we also had to battle with the largest mosquitoes around.

The second water source was the opposite of the first — it was really spacious. The only drawback was that we had to walk approximately 1.6 km back and forth just to bathe and do our laundry. Afterward, we would carry baskets of freshly washed clothes along empty streets where doors were locked, lights were out, and everyone was fast asleep. Most of the team didn't prefer this second option, since the long walk added to the toll. But for some of us, it was much more convenient and far safer.
During our first cave visit to Takub Miyong (Miyong Cave), we had to face several battles. What I thought was the end of the horrendous rutted roads was actually just the beginning of a series of violent tossing. Every cave we visited required us to ride a dump truck to the jump-off points, and if no attention was paid, our heads could easily get caught on low-hanging branches, giving us a direct plant slap to the face. Thankfully, the travel distance from the basecamp to the jump-off point at Takub Miyong was not too far, which lessened our suffering every time we levitated off our seats from the potholes and ruts we passed.

The trail itself also posed struggles. As a first-timer and with little rigorous walking experience, I am quite proud to have conquered them. Unlike other trails, this one wasn't too bad in terms of distance; it was literally the trail itself that had to be dealt with. We tramped across rolling hills, keeping our balance on narrow tracks where one small slip could send us tumbling downhill. The tracks also got quite muddy and slippery depending on the weather. Without prior training — and even for those who had trained — we often found ourselves with flaring noses, thumping hearts, and sweat staining our garments. But this doesn't occur throughout the trail, as most of our paths could be as calm as walking on a cemented road.

I find these things to be normal; a typical outdoor setting. And it is all reasonable for the scenery it rewards. For the love of outdoor endeavors, nothing beats the perseverance, adaptation, and resilience we first-timers poured into this, just to survive and live up to the spectacular journey we can look back on and cherish, hereafter.

The Restoration

No wonder, in our first cave visit for this expedition, we were tasked to prepare restoration materials — because the moment we stepped into Takub Miyong's entrance, a rather poignant sight of vandalism greeted us. There were eight of us from the biology group assigned to spearhead the cave restoration movement. The only materials

Expedition team doing cave restoration.
Shiela May Sagusay

we had were soft brushes (new toothbrushes) and an improvised spray bottle (a water bottle with holes in its cap). The graffiti on the cave walls mostly consisted of names and dates. Some vandals wrote quotes, while others drew random figures. Judging by the handwriting on the walls, it could be inferred that people of varying ages may have committed such a disheveled act. The mediums used were charcoal and cave mud.

To clean them, we fetched water from a few meters down the cave, using our small, improvised spray bottle. This way, we ensured we did not introduce anything that could disrupt the cave's ecosystem. With that water, we began cautiously brushing off the graffiti while spraying it down. Graffiti made of mud was much easier to clean than that made of charcoal, since only a thin layer of residue remained even after several brushes.

With all hands laid to this movement, the restoration became much easier. However, some of the graffiti was out of reach, likely the work of those who had done a bit of parkour on the cave walls before putting their schemes into action. We could have attempted to reach those heights and brush them off, but it would have been risky — and safety was our priority.

Just when we thought we were done with the restoration, more graffiti appeared as we went deeper into the cave. Certainly, the culprits knew no bounds, for even the most pristine walls were shown no mercy. I highly doubt the vandals are from the Indigenous People community residing near the cave, since they had mentioned that they do not enter the caves unless necessary — such as for hunting food — in fear that they might not make it back outside, believing that an entity guards it.

Fortunately, we were able to restore some sections of the cave walls where water was available. However, in a separate chamber, there were myriads of graffiti, so much so that it looked like skin covered in tattoos. Sir Lyle X Dadulo even remarked that it felt as though he was reading an endless comic strip. What made it more disheartening was the fact that this specific chamber had no nearby water source, and fetching water through a squeeze passage proved too difficult. Thus, the chamber was left unrestored. This only reveals how long Takub Miyong has been welcoming visitors — even the most irresponsible ones, whose pleasure was not satisfied by the cave's natural intricacies alone, but who felt the need to leave their marks, as if the world actually cared.

Question and answer session with Professor Cabrera. Photo by Shiela May Sagusay

Even if we had managed to fetch enough water, restoring all sections at once would have been impossible. The graffiti was so prevalent that it was as though the walls were sheets of paper we could just crumple with careless scribbles. Manpower and supplies fell short, and time was never on our side. Should Takub Miyong be enlisted for a revisit in future expeditions, may the team be equipped with greater numbers, more restoration materials, and a more strategic method of fetching water so that its walls may once again recover their lost sophistication, which had been marred by the egoistic arrogance of visitors who thoughtlessly sought to leave proof of their presence. Truly, it is important to raise awareness of caves in order to protect and preserve them.

The Outreach Program

Aside from descending into the heart of the earth, our team also descended into the hearts of the children. Beyond speleological pursuits, we carried out an outreach program in several schools across Esperanza, Sultan Kudarat. Prior to the expedition, our team sought out sponsors, allowing us to gather primarily school supplies and slippers for the students. Alongside these were toys, some of which were generous donations from Esperanza, as well as clothes, most of which were given to their parents. Beyond material gifts, the outreach also embraced nourishment, with a feeding program held for all four schools we visited.

Our team also prepared a few parlor games for the children. With the slight language barrier — since many of them primarily spoke their tribal tongue, though they were fairly multilingual — managing the crowd and giving instructions posed some challenges. Thankfully, teachers stood by our side and helped guide the kids. Regardless of whether they were in kindergarten or high school, they showed no fear in expressing their competitiveness. Their laughter, giggles, and joyful clamor still seem to echo in memory.

To deepen our community interaction, we also conducted a lecture series in every school we visited. These sessions were led by our professor, Maria Luisa Non Cabrera, who spoke about caves: their significance, natural connections, and the life forms associated with them. In essence, she instilled awareness of cave conservation and the importance of protecting such a natural treasure. This part of the program was my favorite. It delights me to share the knowledge I have gathered — not to keep it caged in my head but to pass

it on, to be lived and applied in the world. Each discussion ended with a short question-and-answer portion in which correct responses earned small rewards. This manner encouraged the children to really head for the microphone and share their thoughts with confidence.

Not only did we offer them gifts and presentations, but they also had their own. The students would wear their tribal attire — Manobo or Teduray (something I had learned about for the first time) — and perform their tribal dance. Some of them were a little off the ages with their modern dances, like doxology and the trends. To be honest, they are quite talented; those kids have potential. And I love the fact that at every arrival, they would cheer in excitement to meet us — something a typical Filipino would do to their visitors: always hospitable and full of enthusiasm.

Back at the basecamp, some students who lived nearby would often visit. I would ask them questions — about their whereabouts, their daily lives, and even have them teach me a bit of their language. Whenever the Coleto bird would call during late afternoon, we biology students would take out the binoculars and spot the bird perched in the trees. It was delightful to let the kids try it for themselves. All these interactions fostered knowledge, and even attachment, to the kids we shared moments with. Personally, I regret leaving without taking a picture with the kids I used to chat with. Those moments were embedded in my heart and will continue to live in my mind.

This expedition had been my first and longest official outdoor activity without my parents or relatives around — apart from school — and I wondered why I never got homesick. Maybe it's because I found a home away from home. And I left the place with a heart so full and with brand new knowledge that I could finally call it a heck of a journey.

Anthony Elvas in Takub Miyong's passage. Photo by Mikko Cuevas

A GLIMPSE INTO THE UNKNOWN: EXPLORING TAKUB LAMESA

BY MARK LESTHER MONTEALTO

It was the fifth day of the Speleological Expedition, July 23, 2025, and our team had just finished an outreach program at Bongo-Bongo Integrated School. After a quick lunch break, the whole caving team had a brief meeting about dividing into two groups. It was discussed that one team will explore a sinkhole, while the other will explore a horizontal cave. After the discussion, we packed our gear and headed to our respective destinations. The other team was led by Sir Mikko Cuevas. As for our team, we are to explore a cave known as Takub Lamesa. We were a diverse group, composed of volunteers from Mindanao State University, General Santos City, led by Professors Maria Luisa Cabrera and Shiela Mae Sagusay, staff from the Provincial Tourism Office, responders from the Municipal Risk Reduction Management Office, members of the Armed Forces of the Philippines, and the Philippine National Police. We were also joined by locals who manage the area, whose knowledge of the land was invaluable. Our goal was to map and assess the cave, but with a late start — we arrived at the cave entrance around 1:15 p.m. — and a strict deadline to be back at the jump-off point by 4 p.m., we knew we were racing against time. We were only able to measure about 50 meters from the entrance before we had to turn back.

Despite the limited time, the cave was fascinating. The main passage was a chaotic jumble of boulder breakdowns. We could see visible lines on many of the walls, which we speculated were caused by the frequent earthquakes that have shaken the area over time. Near the entrance, a massive boulder breakdown looked like a table, or lamesa in the local language, which we believe gave the cave its name.

Takub Lamesa also had passages that went up and down from the main route, almost like a building with a basement, a ground floor, and a second story. We were able to enter one passage that led to a smaller one with a water source. It was in there that we spotted some small cave fish. It was just a glimpse, but it gave us hope that one day we could return to explore the full extent of this incredible cave. Our time in Takub Lamesa was brief, but it left us with a thirst for more.

The team mapping the entrance of Takub Lamesa.

Takub Lamesa entrance. Photos by Alberto Ponce Jr.

THE BEGINNER'S EXPERIENCE

BY PRINCESS ANNE MAE D. PEREZ

The allure of unexplored places calls to the adventurous spirit in many of us, but few undertakings strike as much awe and challenge as the journey to discover remote caves deep within the mountains of Esperanza, Sultan Kudarat, unbeknownst to the bustling world outside. Jumping off from base at six o'clock in the morning, riding the monstrous truck that fought the rocky and unstable roads of Esperanza, we began our first hard cave exploration, where we were divided into two teams. The first team was composed of experienced cavers and individuals who have joined countless expeditions through the years. Then there is the second team — our team — composed of more biologists and nature enthusiasts than tough-to-the-bone cavers, respectfully called the Beginner's Team. By seven thirty, the teams started their 13-kilometer hike at the village border, which served as today's jump-off point, slowly making their way to the promised destination.

For a beginner — someone new to the demands of mountaineering and spelunking — this kind of expedition is not just a test of physical endurance and strength, but one of mental resilience, persistence, passion, and unyielding curiosity. Each step forward is a blend of sweat, deep breaths, excitement, looming fatigue, and caution, knowing that nature's obstacles are never far and the wonder of this unknown cave we would discover is just one step closer. Crossing each mountain reveals new trials one after another. From the boiling sun, tricky terrain, dense forests, slippery rock, and the increasing inclines, the trek demands unwavering focus and determination. If not for the medics, military servicemen, and local guides who patiently guided us and tirelessly lent us a hand during the tough mountain treks, beginners such as I would have long since tumbled and, worse, been injured on the trail. The glimpse of wild creatures, plants, and the vast wilderness offers brief moments of awe and inspiration that fuel our perseverance.

Finally, after hours upon hours of arduous travel, the cave's entrance appears — just large enough to fit one person at a time. The locals called this cave Blekayawen — the last of the four caves sharing the same name in the area — a fitting name, based on their ancestors who first discovered the cave's existence. With great excitement, spiritual blessings, and protection bestowed upon us by the spirits dwelling within the cave, we began our preparations.

Armored with hard hats and headlamps, the team started moving in. One person after the other, observed by the curious eyes of the local guides, we entered the cave, and the true challenge began. The cave's narrow entrance, coupled with the slippery, muddy floor that leads directly to a narrower path, poses unknown difficulties and fear. Our movements become slower, clutching our measuring tools and instruments ready to record every nook and cranny of the cave, where we are rewarded with a large and spacious room that welcomed us, showcasing the beautiful boulder formations, stalactites, and stalagmites — truly a sight to behold. Though still in awe of the cave's beauty, our team continued to map and document the area, climbing to collapsed boulder formations and unstable stepping stones. We reached deeper and deeper into the cave, where we found Swiftlet droppings and mushrooms, indicating the presence of life forms thriving within.

After hours of cave exploration with seemingly no end in sight, another entrance welcomed our team, leading to deeper areas that our humbling, teetering headlamps cannot reach. With the unpredictable conditions that awaited us, empty candy pouches, mud-covered water bottles, and growling stomachs echoing louder and louder, the team decided to stop and mark the end of today's cave exploration with a sense of accomplishment and growing hunger. As we exit the cave, we are reminded of what started as a tentative adventure evolving into a transformative experience. With each bite of our prepared lunches, we come to recognize and further appreciate our team and teammates, our own unique strengths and honed skills, and our respect for nature's hidden wonders. Though not perfect, the meticulous mapping work becomes a symbol of triumph over uncertainty and fear.

Ultimately, another challenge was laid upon us. Now beaten and battered, our remaining energy and will were pushed further as we trekked back to our jump-off point. With the soundtrack of KPop Demon Hunters in the background, we continued. This time, really testing our creativity in distracting ourselves from the fatigue and increasing inclines, some of us have grabbed fallen branches, turning them into DIY trekking poles, and tak-

MSU-GSC student volunteers tirelessly work in collecting map data.

Shiela May C. Sagusay looking at the stalactites. Photo by Fionah Adelaide Ngilay

Shiela May Sagusay is climbing the unstable boulder breakdown far within the cave. Photo by Fionah Adelaide Ngilay

ing unconventional routes and trailjust to make the way back easier. Going up, up and up until we're golden as we bask in the mountains' setting sun. Soon, we finally reached our first pit stop at a local public school in the area. Here, the team gathered and replenished some of our energy by enjoying cold spring water sold by local stores.

Once everyone was ready and refreshed, the team continued the journey back, enjoying the beauty of the surrounding vegetation and the local guides' stories about their culture, history, and childhood experiences. Now, they prioritize their children attending school and graduating for a better future. One of the store owners proudly told us that they were blessed to be the only household in the vicinity with 24-hour electricity, a complete solar-paneled roof, and a refrigerator, due to their son graduating with a degree. They proudly said, "Naa man gud mi graduate Ma'am," implying that one of their children successfully finished school and was able to attain greater heights, serving as the breadwinner of their family. These words filled us with awe, pride, and motivation to keep moving forward and do our best to bring fruitful results in this expedition.

After a few more hours of walking — stinking with the smell of sweat, dried off mud, dust, and body odor — then embarking on another hour and a half of getting massaged from all the bumps, humps, and dips on the road while riding the truck, we finally reached the base at 4:00 pm, where we were greeted with dinner. While enjoying our simple supper, we shared stories and enthusiastically chatted about the things we did with the other teams and locals we met. This peaceful atmosphere and resonating laughter from the silly jokes and funny stories we tell mean more than just reporting what we did; they reflect the joy, the wonder, the inspiration, and the lessons we found along the way, leaving us relieved of our stress and body pains. These small interactions also enlightened us that, beginner or not, nature can still deliver challenges that beat the label. From here, we are given the opportunity to look back and laugh at the difficulties and appreciate the sweat we poured into this endeavor, hyping us up for the days to come!

UNVEILING KIADEP CAVE: A FIRST-PERSON ACCOUNT OF DISCOVERY AND CHALLENGE

BY RUFILYN DUA

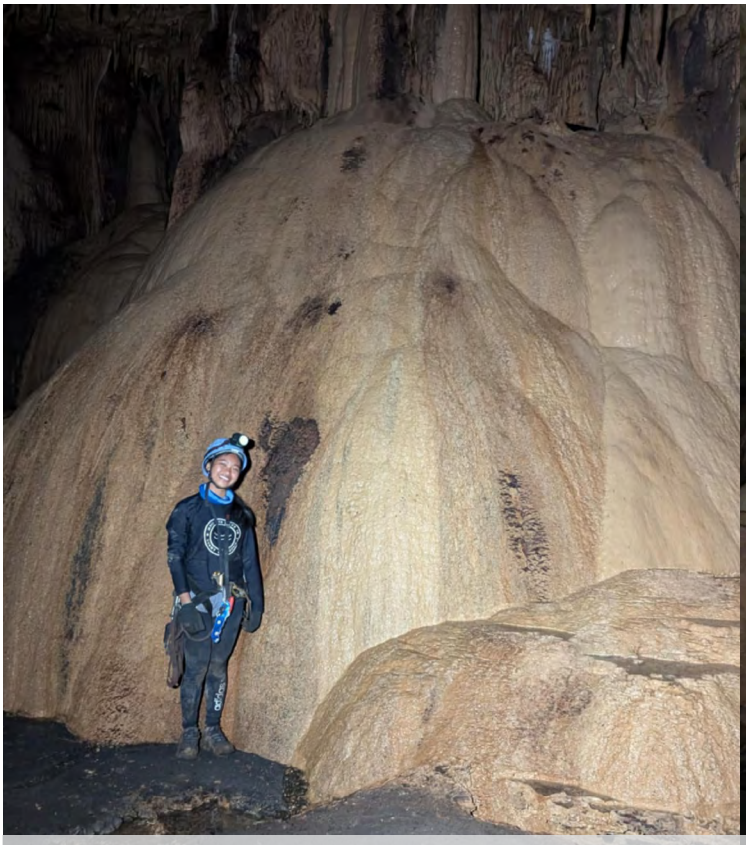
The moment I stood at the mouth of Kiadep Cave, I understood why the locals spoke of it with reverence. Its vertical entrance demanded skill — rappel gear for us, pure rock-climbing for the Manobo tribesmen guiding us. The cave's name, Kiadep (meaning "hunting"), reflected its history. Generations ago, their ancestors stumbled upon this cave. But what they left behind was no ordinary cave. Inside lurked creatures unlike any we'd seen elsewhere — tarantulas and crabs that lacked pigment due to the absence of sunlight.

The team was split into two. Our group was composed of Mikko Cuevas, Lyle Dadulo, Pope Quinto, John Paul Cadorna, Shiela Mae Sagusay, Shaira Tess Llido, Christian Rich Teves, and me, Rufilyn Dua. We took turns descending due to equipment availability. We plunged into the cave's belly, while the other stayed behind to document and conduct a biological assessment. Their team was composed of Maria Luisa Cabrera, Mark Lesther Montealto, Princess Anne Perez, and Fionah Adelaide Ngilay.

For those of us who ventured in, the descent was quite challenging. A tight squeeze through jagged passages led to a rope transfer — heart pounding in excitement as I swung deeper into the abyss. The walls opened suddenly, with passages in both directions. We were greeted by a remarkable flowstone glowing pale in our headlamps. On the right, I had to go through a tight squeeze, then revealed boulders like broken teeth underfoot. Exploring further, I found a chamber split by a natural partition. More sharp boulders, and the passage briefly came to an end. We headed back to explore the other passage.

Here, Kiadep unveiled its beauty. Soda straws glistening like chandeliers, draperies frozen mid-sway, stalactites so pristine they seemed untouched by time itself, not to mention that their size was unbelievably lengthy and huge. Pushing deeper into the cave, Mikko spotted another sinkhole. With no bottom in sight, he rappelled anyway — because that's what explorers do when faced with voids whispering mysteries (and because someone had to document how deep defiance could go). The sinkhole was unexpectedly deep, and he fell short with the rope. It just indicated that the sinkhole needs to be revisited again in the future, as there's still more to it. He took a quick documentation using his cellphone showing that he was near the bottom. Not long after, he decided to head back.

Later, though, watching him sketch rough maps made me realize something raw about caving science — sometimes data is more than pencil scratches on a damp paper and sketches on a digital scale. It takes courage, dedication, and perseverance to come up with a quality and reliable output.



Shaira Llido standing next to a huge flowstone formation.

Shiela May Sagusay descending the vertical entrance
Photos by Mikko Cuevas.

2026 LUMINARIES

Prepared by: Geary Schindel

Jill Yager, NSS 19089 FE
The Discovery of the World's Most Exciting Crustacean, As Told by a Farm Girl From Rural Indiana
Thursday, July 9, 2026, 12:30 PM

Jill Yager's Luminary Presentation will share the fascinating timeline of discovering Remipede crustaceans. She'll reflect on her upbringing on a rural Indiana farm and how it unexpectedly led to exploring underwater caves and identifying not just a new species, genus, family, or order, but a new Class of cave crustacean. From earning a basic scuba certification in a cold Indiana lake to spending a decade diving in the Bahamas, Jill's journey shows how curiosity can open unexpected doors. While her dive partners focused on mapping caves, Jill was drawn to the tiny creatures drifting in the water — observations that eventually contributed to significant scientific discoveries.

Her talk will also highlight the equipment and techniques used in the early days of cave diving, as well as the experiences of exploring caves in the Bahamas, Cuba, and Mexico. It's a story of exploration, perseverance, and the surprising paths that passion can take.

Biography

From a young age, Jill Yager was captivated by the wonders of caves. Her grandfather introduced her to the first cave she ever saw, Wyandotte Cave in southern Indiana. The memory of beautiful cave decorations and a tiny bat sparked a lifelong fascination.

While attending Earlham College, she helped band bats with her biology teacher, Jim Cope. However, Jill didn't pursue traditional "dry caving." Instead, after relocating to the Bahamas in 1974, she began cave diving, exploring Lucayan Cavern — then rapidly becoming the longest documented submerged cave worldwide. During these early explorations, Jill discovered a previously unseen small animal swimming in the dark passages. Remarkably, this discovery led her to define a new Class of Crustacea, which she named Remipedia, meaning "paddle foot." She named the first remipede Speleonectes lucayensis, "cave swimmer from Lucayan Cavern." Following this groundbreaking work, Jill earned her PhD under the mentorship of John (Captain Karst) Holsinger.

The remipedes continue to fascinate biologists around the world with their surprising anatomy. Jill watched as remipedes captured and ate other cave crustaceans, and she speculated that they could poison their prey. That has since been confirmed, and they are the only venomous crustacean on the planet, capable of injecting a toxin that neutralizes and digests their dinner.

Her research has been showcased in television documentaries such as *Smithsonian World, 3-2-1 Contact, The New Explorers, and National Geographic*. Jill taught biology at Antioch College for 18 years and currently serves as an Adjunct Professor at Warren Wilson College in Asheville, NC, where she teaches a popular course on Cave Ecology and Conservation. She continues her focus on Remipedia as a Research Associate in the Invertebrate Zoology Department at the Smithsonian Institution.

Jill Yager, NSS 19089 FE

Gordon L. Smith (NSS 8847 CL, FE, LO, H)
Sixty-Seven Years in the Dark — And Counting . . .
Wednesday, July 8, 2026, 12:30 PM

Gordon L. Smith (NSS 8847 CL, FE, LO, H)

My parents took me to Smokehole Caverns in WV sometime in the early 1950s. Several years later, my family went to Seneca Caverns, but we couldn't afford to take the whole family in the cave. Since I had already been in a show cave, my Dad took my brother in, and I had to wait in the car with my Mother.

In October of 1959, while a student at Potomac State, after accidentally reading Caverns of West Virginia, I went in my first wild cave with two geology students from Moorfield, WV. The cave was the Keyser Quarry Cave. Before long, I was taking them to caves such as Kites Cave in Mineral County.

In February of 1961, in a snowstorm, in a 1929 Model A Ford, I went to Parsons in Tucker County to visit Cave Hollow Cave for the first time. How I survived that trip with five others (no hard hats, "big" flashlights, no idea what we were doing) is amazing to me. It turned out to be the first of many trips to Cave Hollow over the next ten years. It was about two miles long when we started with two entrances, and when we "finished" the survey, it was five miles long and had five entrances. When Judy and I got married, the owner of the cave sent us a wedding present.

I presented a paper on Cave Hollow at the AAAS Geology meeting in Washington, DC, in 1966, and met Russ Gurnee, who insisted that I join the NSS, which I did with his recommendation. I also met Denny Burns, who was the Chief Cartographer with the Cave Research Foundation. Denny invited me to come to Flint Ridge for the Spring Expedition, where I met Stan and Kay Sides. We are still in the Mammoth Cave area.

In the Spring of 1973, at a Louisville Grotto Meeting, I learned that Marengo Cave, a show cave in Southern Indiana, was for sale. I visited Marengo shortly afterward and, to my amazement, learned that the owner was desperate to sell the cave. Buying a show cave was the farthest thing from my mind — I had just purchased my first home and didn't have a penny to my name. Somehow, I formed a group with Pat Stephens, Gary Roberson, and Terry Crayden (all cavers), and much to my surprise, we were able to get a loan to buy the cave. I eventually bought out the other partners and owned the cave by myself from 2001 until 2017. I couldn't have done it without the support and encouragement of my wife Judy. While owning Marengo, I (and others) discovered a passage in the cave that turned out to be the largest ever discovered in Indiana.

In 2002, the State of Indiana was going to close Wyandotte Cave. I protested, and the head of the Indiana Department of Natural Resources said that the only way he would keep it open was if I operated the cave. I said "hell no," and he said to be in his office in Indianapolis the next week to discuss the details. I operated Wyandotte for seven years until white nose hit.

In 1968, at my first NSS Convention in Springfield, MO, I began my hobby (obsession) with collecting cave books, postcards, etc.

On Thanksgiving Day 1968, Judy and I discovered Lee Cave on Joppa Ridge in Mammoth Cave National Park. Lee Cave would become the second-longest cave in the Park at about 18 miles. Soon after, I was elected to be a Member of the Cave Research Foundation, and Judy and I managed the Flint Ridge Field Station from 1967 until 1974. When the connection was made to Mammoth Cave in 1972, I was the Expedition Leader on the surface.

In 1970, I was elected a Fellow of the NSS. In 1981, I became the President of the National Show Cave Association. In 1979, with a big push from Russ Gurnee, I was elected to the National Speleological Foundation Board of Directors and served as Secretary and Chairman of the Investment Committee until I "retired" in 2021 after 42 years.

In 1999, I put together a group of cavers to purchase Diamond Caverns in Park City, Kentucky. The reason behind buying another show cave was to locate the National Cave Museum at Diamond Caverns. The groundbreaking was at an NCKMS in 2016 at Diamond Caverns.

In about 2005, Jack Herschend, a good friend, purchased Cumberland Caverns from Roy Davis. Roy strongly suggested that Jack put someone on the Board of Directors who knew the show cave business. I have been on the Board ever since.

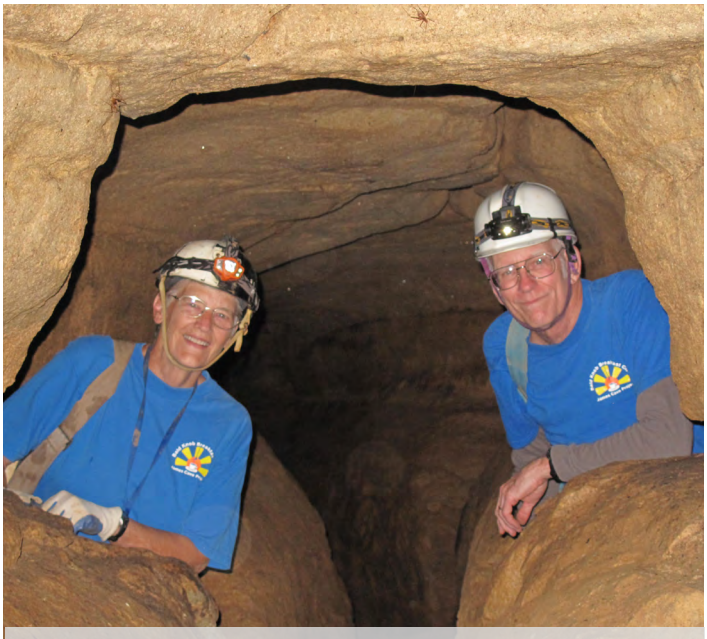
I have traveled extensively over the past ten years visiting caves in England, France, Iceland, Spain, Portugal, Switzerland, Belgium, Slovenia, Italy, Hungary, Czech Republic, Slovakia, Sweden, Bermuda, Jamaica, Grand Cayman, Bar-

bados, Curacao, Belize, Brazil, Australia, and New Zealand with Judy and more recently with my partner Laura Allen. At the 2024 NSS Convention in Monteagle, Tennessee, I was awarded Honorary Membership in the NSS, the highest honor given by the Society. My cave exploring days now behind me, I am the managing partner at Diamond Caverns, and always delighted to show cavers through the National Cave Museum. However, I'm not quite ready to fold my tent. At the 2022 NSS Convention in South Dakota, I initiated a cave project that has recently been amazingly successful.

Biography

Gordon L. Smith was born in Brooklyn, New York, in 1942, where he completed his early education. He attended Potomac State College of West Virginia and graduated with an associate's degree in engineering. He went on to get his BS in Mechanical Engineering (1964) and MS in Environmental Engineering from West Virginia University (1966) and an MBA from the University of Louisville in 1971. Along the way, he married Judy Edmonds (NSS2 8353FR) in 1969 and had two wonderful children. He moved to the Louisville, Kentucky, area in the fall of 1966 and has lived in the Louisville area and southern Indiana since then.

Gordon was the operator of Marengo Caverns and Wyandotte Caverns in Indiana, and is now the managing partner of Diamond Caverns in Kentucky and The National Cave Museum. He serves on the board of Cumberland Caverns and has served as President of the National Show Caves Association. He was a board member of the National Speleological Foundation for 42 years. Gordon is a member of the Cave Research Foundation, where he was expedition leader during the Mammoth-Flint Ridge connection. He also founded Cave Country Canoes in Milltown, Indiana, and the Tourist Information Service.



Charles Bishop, NSS 9355 FE LB
Catherine "Cat" Bishop, NSS 12100 FE LB

Charles Bishop, NSS 9355 FE LB
Catherine "Cat" Bishop, NSS 12100 FE LB
Title: A Couple of Cavers from Kentucky
Tuesday, July 7, 2026

A family vacation trip to Mammoth Cave in 1965 was Charlie's introduction to the underground world. He joined the NSS in 1966 while still in high school, started caving with Blue Grass Grotto in central Kentucky, and learned to survey after he was invited to work on the Sloan's Valley Cave mapping project. Catherine "Cat" Bishop also started with a commercial tour of Mammoth Cave but didn't do any wild caving until a few years later when, as a summer camp counselor, she helped other staff members lead younger Girl Scouts through a small cave in the nearby Daniel Boone National Forest. In 1969, she joined Blue Grass Grotto and assisted in exploring, surveying, and mapping numerous horizontal and vertical caves in the karst areas south of Lexington, Kentucky.

After entering college with the intention of becoming a geologist, Charlie soon changed his major to engineering. He graduated from the University of Kentucky with bachelor's and master's degrees in civil engineering with specialization in geotechnical engineering. Cat's degree is in social welfare because, as she says, "People are so interesting! They do such crazy things!" Her professional career has included teaching high school equivalency courses and writing technical articles for a company that conducts research on nutrition and exercise physiology in Thoroughbred racehorses.

For over 50 years, Charlie and Cat have participated in the ongoing exploration and study of James Cave. Located only a few miles south of Mammoth Cave, James is an 11-mile-long maze of vertical and horizontal passages on five levels under 30 acres. Coach Cave, less than 200 feet away, offers 3.5 miles of low crawls, huge domepits, a booming canyon, and hundreds of Civil War-era signatures. As the keeper of five decades of survey notes, Charlie is working with the next generation of cavers to update and produce a digital map of the two caves. Both Bishops are NSS Fellows, and in 2010, they received the Lou Bicking Award, which honors cavers who have devoted many years to a specific caving project.

Biography

Charlie and Cat are part of an ongoing restoration project to remove lighting fixtures and deteriorated wood left in James and Coach after commercial tours ended in the 1980s. They also assist US Fish and Wildlife biologists who conduct a biannual census of endangered gray and Indiana bats that hibernate in both caves.

When they aren't caving, Cat and Charlie enjoy backpacking, whitewater canoeing, and competing in Masters track and field events. Charlie is a pole vaulter and distance runner, while Cat excels in shot put, hammer throw, and the 200-meter sprint. Charlie says, "She throws things..and I run!"

SPELEAN SPOTLIGHT

OF JENNIFER FOOTE

BY APRIL GOCHA

How did you first get interested in caving?
Jennifer: I always liked rocks as a kid. I grew up in California, and my dad would sometimes take us to mines. After college, I went to Mammoth Cave and took a wild cave tour. The tour guides recommended that if we liked the tour, we should look up our local grotto — so I did. That's when I was living in Memphis, TN, and at the time, I was working as an engineer for a construction company. They expected us to work six or seven days a week, so I was working stupid hours. I thought going once every three months was a lot of caving. Things really changed once I moved to New Mexico in 1998. I started working for a subcontractor at Los Alamos National Lab, so I was working more like 40 hours a week. The local grotto was really active with a lot of project caving, and I also had weekends free. So I became a lot more active in caving. At some point, I was trying to make myself only go caving three times a month — I thought I should stay home at least one weekend a month to work on the house or do chores, things like that.

What is your current professional role?
Jennifer: I am the Cave and Karst Resource Coordinator for the Lincoln National Forest. That doesn't fit on one line on a business card, so I usually just go with Cave Specialist. My goals in this role are to monitor the caves we know we have, either go find new caves or encourage others to find new caves, and then share their information. I basically manage the caves. Our caves are not developed — it's like a two-hour drive from town, including a four-wheel-drive portion and hiking to reach them. We get some people who've just been to Carlsbad Caverns and now want to see a wild cave — we are not for them. We have a couple of different levels of caves, and most of them require trip leaders. Visitation has been difficult, especially since COVID. But we have some wonderful volunteers we work with, including Phyllis Boneau and Mike Mansur (who has been bringing a lot of people in with his cave repair projects). We have around six volunteer projects in the Forest, so I manage volunteers, I manage permits, I try to know what our resources are, and make sure they're not being damaged by overuse.

As a kid, it was my dream to be a geologist, to run around and look at things, and write it down so that other people could know about it. That didn't seem like a real job, so I went into civil engineering. But now I kind of have my dream role. There are not many of these positions around. I volunteered for the Forest for more than 20 years, and I applied for this position six times, but I finally got lucky and got it.

Where in the world have you been caving?
Jennifer: I've done a couple of trips to Belize through our caving grotto, which had a good relationship with some local archaeologists. I went to China when Erin Lynch was there — that trip was really cool because I had actually just quit my job at Los Alamos. You can't go to China when you work for a nuclear lab in the US. One of my dreams was to fly around the world, so China was the first step. I spent three weeks there caving in the boonies. It was really scary when I got off the plane and realized I was by myself and couldn't read any of the signs. I had a little cheat sheet that I would hand to the taxi driver and use at the bus station to get around. Caves in China are just so huge and really cool. After China, I hit a couple more countries to get around the world. It was such a cool experience, and so fun to make caving a part of it. Whenever I'm traveling, I always check to see if there are caves, which makes it more interesting. Over this past Christmas, we went to Iceland and got to see a glacier cave. It was really amazing but also really sad because they're melting so fast. They showed us where they had marked the glacier edge three years ago, and now it's like another half-mile back, so the caves are changing every year. And I went to the International Congress of Speleology (ICS) in Brazil in 2025, and I'm planning to go to ICS in Romania in 2029.

Do you have a favorite place to cave?
Jennifer: It's definitely the Guads (high Guadalupe Mountains above Carlsbad, NM). Whichever cave I'm in is my favorite one, because you can't pick a favorite. They're beautiful caves, nice and warm and dry. I don't know how to swim, so not needing to swim is helpful. Where I grew up in California was desert and mountains, so the Guads are familiar to me for that reason.

Do you have a caving-related accomplishment that you're proud of?
Jennifer: I've gotten a couple of caving awards that I'm proud of. The first one I got was the Southwestern Region Honorary Membership in 2009. It was really nice to be recognized for doing something for our local organization. And now I'm in charge of that committee. Then in 2021, I got the NSS Victor A. Schmidt Conservation Award. That was a big thing for me because I had been doing it for so long. Sometimes it seems like the work goes unrecognized, when people are angry because you tell them not to go off trail, and you're just done cleaning up their messes. So it was really nice to be recognized with that award. Another fun one was the Dixie Pierson Memorial Award from the Western Bat Working Group. I had been doing bat counts in New Mexico for a long time, and that data became very important once white-nose syndrome became a concern. Mike Mansur also has given me his Stalactijack Award, which was really nice. I think we should always remember to tell people that they matter and that they're doing something that people care about. I try to do that with my volunteers. A lot of times, people feel like agencies, especially if they don't even read the reports you send them. But I do read them all, and I try and respond and tell my volunteers what a great job they do.

Have you experienced any caving-related failures? What did you learn from that situation?
Jennifer: It wasn't a failure, but what comes to mind is that very early in my caving career, I went on a trip, and somebody had a caving accident and died. It shook me up and affected me

a lot. I regret being on that trip, but it probably did good for me because for the first few years I thought I should keep caving and keep doing these things in honor of her memory.

What strengths or skills do you bring to the caving teams that you work on?
Jennifer: I sometimes get invited along if there's a conservation need, because I love inventory (identifying and logging cave formations, features, fossils, geology, etc.). But it's sort of changed over the years, because I used to be small and could fit into spaces. I'm slowly trying to realize that I am the old person now instead of one of the youngest. I have a bunch of experience, and that means sort of knowing when a trip is going to take two hours longer than you think. Things are not just going to be fast and easy — somebody's going to lose their shoe, and we're going to spend an hour in the parking lot looking for it. So don't make your call-out time too early. I guess now I have the old-age experience.

Why caving?
Jennifer: One easy thing is that you can be in nature but not get sunburned. You can be in the shade and still look at rocks and things. When I was doing a lot of project caving in New Mexico, you're looking closely at things while doing inventory, trying to see all the details in the cave, and sort of remembering how details have changed over time. Being able to go outside and physically do things, while also noticing beautiful things and being present, is really wonderful.

What is your favorite thing to do inside a cave?
Jennifer: Inventory. I don't actually like being the lead person on a survey and having to put those first marks on things. But I like being on the team and writing down the inventory of what rocks and bugs there are, documenting things as you go. Sometimes inventory can get boring when it's the same thing over and over again, but then all of a sudden you look, and there's something weird and different. If you weren't going slow, you wouldn't have noticed it. It's being in a place and really seeing what's all around you.

Do you have a favorite piece of caving gear?
Jennifer: PStyle is definitely my favorite cave gear that I can't go without. Followed by awesome LED headlamps that my boyfriend used to make. They're non-magnetic, very bright, and last a long time.

If you were posting in an app to go on a date with a cave, how would you describe your ideal cave?
Jennifer: An under-visited scenic cave with walking passage. No ticks, no snakes, no guano.

When caving, how do you navigate the unknown and handle risk?
Jennifer: Since that cave accident experience when I was young, I am pretty cautious about everything. If I get a creepy feeling, I don't need to go any further. In general, I do a lot of pre-planning and try to figure out what equipment I need, whether kneepads or how much rope. If there's vertical caving, most of the time, somebody in our group has a little rescue kit. I always make sure I know where I'm going and have, like, three backup options. I'll document where we're going and keep that information in a little folder so that somebody else can figure out what's going on if we don't come back. And we're trying to get the local community trained up for rescues. We've been doing a bunch of rescue pre-planning here in the Carlsbad area with the federal agencies and practicing, getting a bit more prepared, and we're making a lot of progress.

Can you recall a time you made a surprising discovery while caving?
Jennifer: While doing inventory in Fort Stanton, we found a hydromagnesite balloon, which is one of the rarer cave formations. We were having a snack break, so I had some time to look a bit closer at everything. And looking in the popcorn, I found a hydromagnesite balloon, which was pretty cool. That trip was when we actually found the first big junction in Snowy River. So the whole thing was a big trip, like 30–32 hours. It was the longest day trip I've been on.

Jennifer in the Velcro Chimney in Great X. photo by Hazel Barton

VINTAGE SHOW CAVE BUMPER SIGNS: CONVERTING CARS INTO PERSONALIZED BILLBOARDS

By Bob Thompson

Over the years, show caves and other attractions across the United States have adopted a variety of advertising strategies to connect with the general public. Billboards, painted barns, highway signs, brochures, postcards, and bumper stickers were just some of the effective advertising methods employed.

Bumper signs — now better known as bumper stickers because of their adhesive backing— were initially rectangular white cardboard signs that displayed the name of the attraction and were designed to fit a narrow car bumper, whether at the front or back. While they provided a way to advertise the attraction for free, the signs were first regarded as keepsakes, and travelers commonly showcased them with pride.

My initial encounter with bumper signs happened in the 1970s at Lost Sea in Tennessee. After completing a cave tour, I discovered a sticker on my shiny new Chevy Nova. I was furious!

Tourism was the first industry to really embrace bumper signs. Lester B. Dill, a promoter and entrepreneur from Meramec Caverns in Missouri, introduced this advertising method in 1928 while managing Fisher Cave. The initiative proved to be so effective that he decided to continue using it.

The family history of bumper signs can legitimately be traced back to the early days of outdoor advertising, when horsefly nets were sometimes used to carry the name of an advertiser. With the coming of the first USA Ford Model A bumper in 1927, the long strip sign was attached to car bumpers. The standard "bumper sign" in the 1930s was made of heavy paper or cardboard, preferably well waxed, and attached to the bumper by a cord or wire. "Bumper stickers" came into the picture with the invention of the adhesive label in 1935. Ray Stanton Avery from Oklahoma City, OK, was the pioneer behind the very first stickers. Later, Forrest P. Gill of Kansas City, MO, enhanced this idea by adding fluorescent paint, creating what we now know as "bumper strips," the first bumper stickers.

Some of the earliest cardboard bumper signs were custom-made for Meramec Caverns in 1935. Dill pioneered the use of the tie-on cardboard bumper signs. While visitors toured the cave, he would have schoolchildren or "bumper sign boys" tie Meramec Caverns cardboard signs to their cars, giving him free advertising and visitors a free souvenir. Dill was one of the first Missourians to widely promote Missouri as a vacation state. He was the first to use bumper signs to advertise a cave. Countless travelers crisscrossed the US on Route 66 with the name of Meramec Caverns pasted to their bumpers.

Vacationers across the country reported Meramec Caverns signs on vehicles. "This week, Miss Mildred Strauser wrote from Salt Lake City, Utah, saying she had just seen a car on Capitol Hill in Salt Lake City with a Meramec Caverns sign. Edgar Mothershead, who is at old Albuquerque, New Mexico, wrote an interesting letter this week, saying he felt right at home when he parked beside a car in the Grand Canyon with a Meramec Caverns bumper sign. On his way from El Centro, California, to Yuma, Arizona, Mr. Mothershead writes, he came upon two cars with these signs and also passed one car with a Washington, D.C. license and another with a Virginia license, both having Meramec Caverns bumper signs."

According to Dill, he used an average of more than 1,000 bumper strips per day in 1966. Bob Hudson, one-time manager of Meramec Caverns, and Lester Turilli Sr. (whose grandfather was Lester Dill) both mentioned that they started working at Meramec Caverns, putting

Page 29: Collage of vintage bumper sign photos.

Courtesy of Bluff Dwellers Cave, National Cave Museum, & author.

All other vintage bumper signs from the archives of Gary K. Soule.

on bumper signs. In 2013, Turilli stated, "I still hold the record. I put 427 on one Fourth of July."

For many years, Lyman Riley, who assisted Dill, worked to turn Meramec Caverns and Onondaga Cave into essential stops along Route 66. In an interview conducted in 1990, just before his passing, Riley remarked, "I hate to admit this, but it was me who originated the stick-on type of bumper signs. That was about 1950. Before that, we could only tie them on with pieces of string. We called those signs badges of honor. We told folks that if they had a bumper sign from our cave, the state patrol would leave them alone because they were tourists."

According to a 2023 article in *Route Magazine*, Turilli reflected on how his grandfather came up with the idea of stickers, while manager Riley made him a prototype. "He used flypaper on clear plastic, rolled up like Saran Wrap," Turilli shared. "The less expensive ones were hard to take off, but later, they produced better quality vinyl stickers that peeled off easily." Eventually, the cost of the stickers exceeded a dollar, and they decided to stop using them.

Lookout Mountain, located in Tennessee and Georgia, was another popular attraction for the use of bumper stickers. A newspaper reported that the mountain was "swarming with cars bearing bumper signs for Ruby Falls and Rock City. Parking attendants wire them on the cars, unbidden, while the tourists are inside."

Attaching the early cardboard signs to bumpers posed a challenge. This issue stemmed from the requirement to tie cords or wires around the flowing aprons that once occupied a useful gap. The cardboard signs had holes in their corners, which facilitated attachment to a car bumper with wire or string. Unfortunately, they were not designed to resist weather elements, making them rather impractical. There were attempts to enhance the weather resistance of the bumper signs with varnish, shellac, or wax, but these efforts did not yield significant improvements.

By the 1940s and 50s, more and more signs were being printed with a wax paper backing that could be peeled back to expose flypaper-like glue that could be neatly stuck to the bumper. The bumper signs, whether adhesive or cards, were produced by a large number of printing houses. The W. J. Bradford Co. of St. Joseph, Michigan, was one of the first to make cardboard signs in the 1930s and 1940s for popular cave attractions such as Mammoth Cave, Luray Caverns, Meramec Caverns, Cave of the Winds, and Howe Caverns. and Ruby Falls. Bradford also made leather goods, pennants, and souvenirs for the attractions. In 1952, Virginia's Natural Bridge used about 500,000 signs a year, and Cave of the Winds in Colorado used 100,000.

Bumper stickers became a staple of political campaigns starting in the 1950s. A bumper sticker poll taken in Washington, D.C. during the 1972 Nixon/McGovern presidential election showed bumper stickers from "Luray Caverns out front with George McGovern running second and President Richard Nixon third."

The overall sentiment among cave attraction owners was that advertising through bumper signs was quite effective. An official from Luray Caverns, VA, highlights a crucial point: "People enjoy visiting places where others are going. If they can communicate a message to drivers, especially on the roads that lead directly to their attractions, they have a winning strategy." Most sign users report that "a significant number of their guests mention they first learned about the attraction via a bumper sign."

Operators of roadside attractions noted that between 90 and 98 percent of their visitors appreciated the concept of

bumper stickers. Very few drivers request that attendants refrain from placing signs. In fact, many visitors go to the opposite end of the spectrum, asking for additional stickers. Some wish to display them on their home walls. Others seek replacements for when the original signs become dirty. Some even want to take them to friends, who will then place them on their vehicles and joyfully pretend they have visited the attraction themselves. The operator of a well-known sightseeing spot confesses that some guests come not to enjoy the views but specifically to obtain a bumper sign.

Historically, bumper signs were primarily used for basic promotional use at tourist sites featuring straightforward lettering and colors. But over the years, these signs began to develop a character all their own. Today, bumper signs are still a popular choice for both promotion and personal expression. It's advertising at its finest!

Sources:

Meramec Caverns: In Legend and History – H. Dwight Weaver and Paul Johnson, 2013
Quotes are from various Missouri newspapers from 1940 to 2013

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