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NSS NEWS

AMERICA'S CAVING MAGAZINE



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THIS
MONTH

THIS MONTH'S COVER

The Enigma Dome,
from the story on page 4.

Photo by Jim Fox

CALENDAR OF EVENTS

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: <https://www.otr.org> and <https://otr.org/2026/01/otr-themes-since-1999/>

April 29 to May 2, 2027

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](https://www.facebook.com/MVOR-MVOR.ORG)



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BACK COVER

Gooseberry Falls in Enigma Dome by Clinton Elmore. Note the figures up high in the dome and on rope below. Shot from the article on Page 4. Photo provided by Joel Buckner. Note: Photo has been reversed for magazine production.



The Enigma in Rocky River Gorge

by Joel Buckner

We knew there had to be a monster cave system in the Rocky River Gorge.

The Rocky River drains perhaps 75 square miles or so off the Cumberland Plateau in Tennessee, then cuts an 800-foot-deep gorge through the Pennsylvanian caprock into the underlying Mississippian limestones. Except in flood, it usually sinks high in the gorge, about seven miles up from the large Laurelburg springs that the sinks have been dye traced to.

Paradox is the second-longest cave in the gorge, at over a mile and a half long. The five or so streams in its Hall of Falls penetrate nearly straight down a surveyed 418 feet deep via a pit series (including 125- and 165-foot drops) with 200 feet or so of that depth below the riverbed in the bottom of the gorge. And it's just one of many tributaries draining into the subterranean Rocky River.

Not long after I found Paradox on a Tennessee Cave Survey ridgewalk in the Rocky River Gorge in the 1980s (story of the discovery and fight to keep the gorge from becoming a military range told in the February 1985 Nashville Speleoneers), Thany Mann spoke with a fellow who lived at the mouth of the gorge and told of a blowhole back in it next to an old road and river ford.

He took us to it, and sure enough, in an area a couple of miles back, by a faint, overgrown road, it was there just as he

described. It had to have been palpably obvious to anyone passing by in summer, as there was cold cave air gushing out from numerous holes in a rubble pile near the base of an outcrop. There was so much air emerging that it created a cool micro-climate of about a thousand square feet around the rubble pile. It formed an invigorating oasis of cool comfort and blessed relief on a hot and humid summer day.

Thany is an avid and savvy amateur botanist, and noted that gooseberries were growing in the rubble pile, so we referred to the oasis as Gooseberry Grotto. We began digging with a wide variety of tools and moved tons of talus. Our subsequent enticing speculation to others about big booty just waiting to be found simply by moving some loose rocks suckered.....er, that is, I mean we wanted to share the exciting potential (not to mention the hard labor) with our friends and so invited them on the frequent trips that followed.

But it was a very pleasant environment to dig in on a hot day with the natural air conditioning from the unknown void somewhere below. Many times, we had 10 to 15 people helping. It became another one of our "picnic digs" where, in summer, when you're not digging, you can comfortably lounge away from the surrounding oppressive heat to babble, speleosophize, snooze, stuff your face, tell the diggers what they're doing wrong, and so forth. We excavated dirt and small rocks at first

until we uncovered several large boulders (about six or so feet in diameter) that obstructed further progress. We wrapped them in chains and straps and used a hand winch to drag the multi-ton boulders off the blowhole, only to reveal more blowing boulders below. So we started drilling rock after rock as the dig morphed into a mini mine.

At first, there was a lot of enthusiasm, and we went often, but eventually our pace began to slacken as we were never able to penetrate anything but more rubble with air blasting out from in between every nook and cranny. We would dig at one spot for a while, then decide over there, or back there was more promising, and repeat ad nauseam. Eventually, we burned out on the dig and moved on to other leads.

But the gales of air kept haunting our dreams. We would return months or years later, after our memories had dimmed a bit, and we would persuade ourselves again and again that there must be BIG cave somewhere under the rubble, just out of reach.

This went on and off for over 20 years.

By 2010, it had been a year or two or so since our last digging effort. One summer day, Hal Love, Bernie Eskesen, and I went to Dancing Fern Cave in the nearby Calfkiller Valley to explore some leads in the Tennessee Cave Survey description. We donned our wetsuits with enthusiasm, but after pushing long,

flat out, face in the gravel, wet belly crawls and digging open passages, we had found perhaps a mere hundred feet of miserable new passage at best, except for one last lead. Hal dug his way into it and almost immediately announced he could see a big black space ahead!

I then told Bernie that we should get ready to leave. I knew from experience that such a pronouncement from Hal almost invariably means it is just his excitable imagination causing HALucinations, and the passage is about to end. Sure enough, within a few more minutes, he dug closer to the black void only to realize it was just a dark wall.

So we headed out of that hellhole and found Thany hanging out at the truck, having conveniently arrived too late to enjoy the misery with us. We were pretty worn out from our hundreds of feet of wet, slimy belly crawling and digging, but it was only mid-afternoon, so I suggested we take another look at the Gooseberry dig yet again.

On our last attempt a few months previously, where we had moved up the slope a bit, Hal had spotted a blowhole at the base of what looked like a small

bluff. It could have just been a large boulder that happened to land with the bedding planes relatively flat, giving the appearance of bedrock, but we thought we might as well try digging where it at least looked like solid rock. We had managed to dig down into some rubble rooms, trying to follow the air, and in the most recent efforts had actually penetrated perhaps 20 feet or so underground.

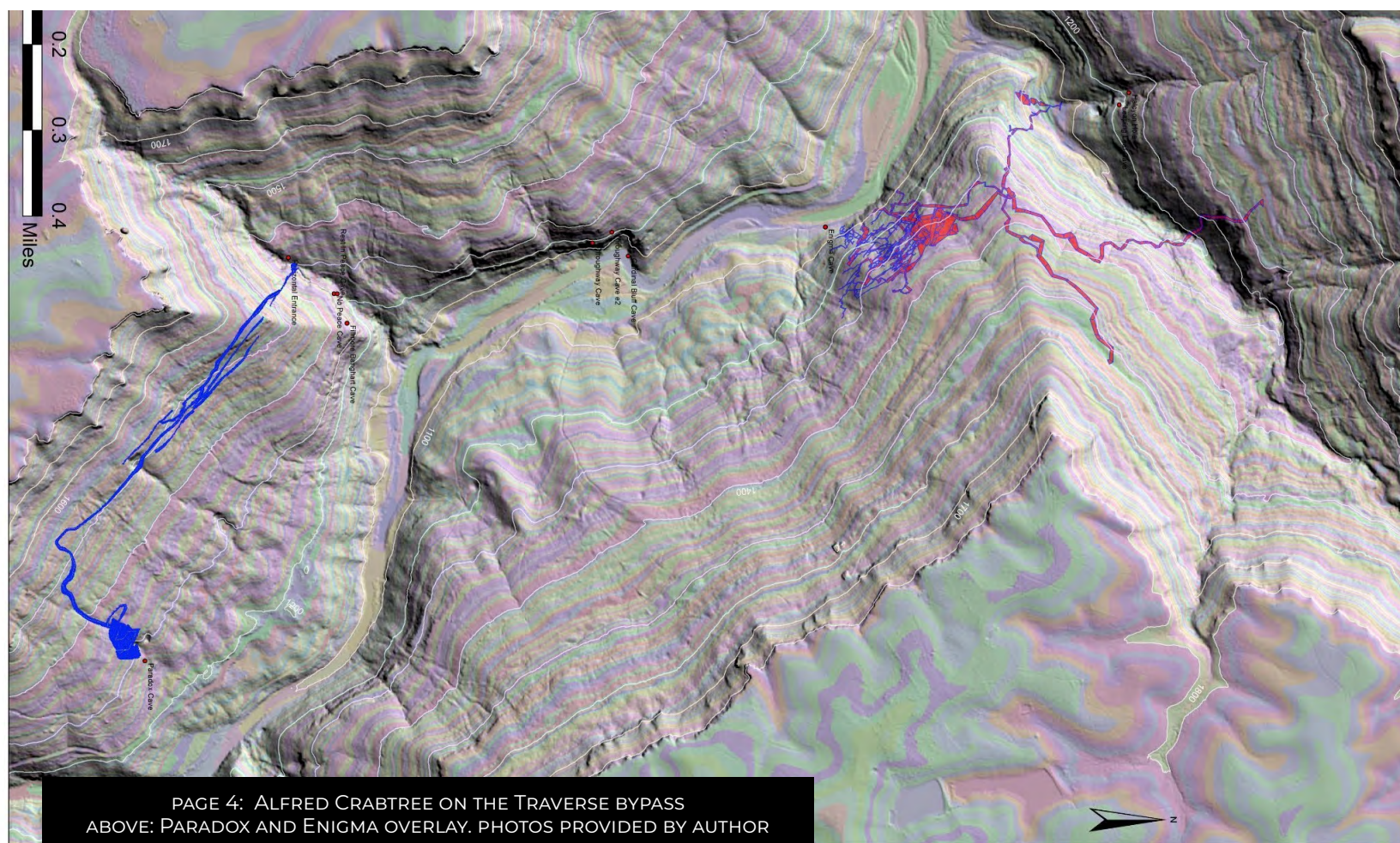
Arriving at the dig after our crawling ordeal, Thany, being fresh, went in while the rest of us lay around in the refreshing oasis, moaning and groaning. He returned a few minutes later and emphatically stated that with thirty minutes of work, we would be in. We collectively rolled our eyes and mumbled, "Uh-huh, sure thing, you bet," and the like. The thought of getting our wet and muddy gear back on just then didn't have much appeal, so instead we went into tourist mode, hiking nearby and planning to return on another day with a better attitude.

That turned out to be in November when Hal, Bernie, David Parr, and I returned yet again for another assault on the lead. It was David's first trip as he had somehow managed to miss all the trips before. We had previously dug

straight down about 15 feet into a small room, then drilled horizontally, before going down again past a squeeze. There, we got through a triangular hole for another few feet, reaching a point perhaps 30 feet below and away from the entrance. At that spot, there was a small, blowing slot that appeared to cut back towards the plateau.

On this trip, we first drilled and popped the squeeze and triangular hole to enlarge them. That facilitated removing a lot of rock that needed to come out for working room. Then we drilled a couple more holes at the dig face and hauled out the spoils. Luckily, the little rooms we had dug out gave us a nearby alcove to dump everything into, so we didn't have to haul it all the way up to and out the entrance.

After the second pop at the dig face, I slid down to the furthest penetrable point and began passing rocks up as well as sticking whatever would fit into nooks and crannies off to the side. A little rubble slope into a smaller space gradually appeared below me, but several rocks were still jammed in the way. All but one yielded to sledge and crowbar. The last one resisted all the pounding, prying, and stomping I could muster. Fortunately, though, the



PAGE 4: ALFRED CRABTREE ON THE TRAVERSE BYPASS
ABOVE: PARADOX AND ENIGMA OVERLAY. PHOTOS PROVIDED BY AUTHOR

slope below it yielded to digging, which created just enough room to ease under the rock and into the little space below. Sliding down a body length or so, I found I could sit up in the small space.

Incredibly, and finally, before me was a solid, unbroken wall of bedrock with several tantalizing, breezy solution-al openings beckoning to virgin inner space beyond, just waiting for us! Peering into the largest, which was about three feet high and wide, I saw a hands and knees crawlway in solid rock going about 20 feet ahead, then appearing to enlarge considerably. I hollered back to the others, "We're in! Come on down... will you go get my pack?" Then I sat contemplating the unknown ahead while one by one the others joined me.

Then we crawled where no cavers had crawled before.

The passage did indeed open up ahead and intersected a nearly perpendicular walking passage with a three-foot-wide and 10-foot-deep crevice in the floor. We chimneyed down and checked both directions, but each appeared to end quickly. Hal found a muddy crawl off the right side above that headed deeper in. Past a small pool, the passage split. Hal checked the left and said it didn't look good. I went right, and the passage kept widening ahead for about 50 feet, then opened to a 10-foot pit into a small dome-canyon about 30 feet high. Several possible ways on were visible

in it.

We left in a weary but euphoric state and feeling like we were finally about to get a big payoff for all the years of hard labor breaking big rocks into little rocks.

Persistence Pays Off

The next several trips led us through a labyrinthine series of crawls, traverses, pits, and dome complexes, to where, on the last trip, we had been looking down a short drop into an approximately 80-foot-high, 25-foot-wide canyon. In that canyon, we had been highly perplexed to see what seemed to be a large cairn stacked in the distance ahead!

On the return push, David couldn't make it, but Jason Wyatt was with us. Jason had found the way on a few trips previously, when we seemed stymied about where to go. We quickly set bolts and descended into our highly anticipated lead. Once down, we breathed a sigh of relief when we saw that the cairn was indeed an illusion, just Mother Nature messing with our heads with a naturally stacked pile of the rock layers. We worked our way up a breakdown slope and began poking around. There were some elephantine rocks up ahead, so we spread out a bit, looking for the best way onward through them. In a few minutes, Hal found a climb down, then announced he could hear water ahead.

Everyone immediately bee-lined to-

wards Hal. We entered a room about 25 feet in diameter with a couple of openings in the far wall. A thunderous waterfall could be heard raging somewhere beyond! Peering through the openings, a dark and vast void of frantically swirling mists appeared. The opening on the left led to a ledge, and we found Hal down there, clearing rocks to make it passable. It stair-stepped down over several ledges and then dropped into the void. At the top of the drop, we found ourselves on a balcony alcove beside the raucous waterfall that was crashing down in waves about 30 feet out into the void. It felt like we had been transported to some ethereal scene out of *The Lord of the Rings*.

Turning our lights on their brightest settings, we could only dimly make out through the maelstrom that there was a huge breakdown pile way beyond. We were unable to see the ceiling, floor, or any of the walls! Tossing rocks, we guessed the drop was 50 to 75 feet. The water was screaming down at a high velocity, indicating the source was way up there somewhere. We suspected it was from a nearby side hollow to the gorge. In side hollows, the water typically sinks in the Bangor Limestone about a third of the way down the side of the gorge. It then flows horizontally, sometimes for a considerable distance, before cutting its way through the resistant Hartselle Formation and forming large dome pits into the underlying Monteagle limestone. It frequently emerges miles away. We estimated the



THE LATE, GREAT LEE WHITE SORTING CLIMBING GEAR PHOTO BY ALFRED CRABTREE

Monteagle was 250-300 feet thick here, and that the bottom of the pit was approaching base level, which meant the waterfall might be well over 200 feet high!

The views and sounds of the falls from the balcony were wonderfully spell-binding. We sat, awe-inspired, for a few minutes, enjoying the discovery of a hidden alcove behind a torrential waterfall in a vast, dark, and secret place.

Rigging on the balcony looked like it would make for a very wet route, so we looked around for alternatives. Partway down the ledges, there appeared to be a possible passage behind a boulder. Hal and I cleaned off the ledge up to it and climbed up and through a hole into another passage that led away from the waterfall. A little way back down the other side was a 15-foot pit into a canyon that headed back down toward the waterfall. We cleaned rock debris from the lip and found a spot to rig to nearby. Hal rappelled down and said it continued. After studying it a bit, I decided a rope wasn't necessary and climbed down. From there, a short crawl led to another climb down that intersected yet another passage. Going toward the waterfall, we reached an overlook into

the void in about 50 feet. The opening, while of standing height, was much smaller than the first balcony, and we weren't able to see much more from its vantage point.

There was a massive flowstone visible on the left about 25 feet out, but the far-side breakdown continued past it, indicating that the actual left wall was way out somewhere beyond. This overlook was another 20 or 30 feet from the falls, so it would be less wet. We called it a day here and left feeling like we were getting close to finding the massive base-level river trunk passage of the Rocky River we had dreamed about for so long.

Into the Void

Upon our return, it was cold and had snowed the day before, but hadn't rained much, so we thought the waterfall might have decreased in volume and reduced our likelihood of getting drenched. Our crew this time was Trey Caplenor, Hal Love, Thany Mann, Jim Smith, Jason Wyatt, and me. This was Jim's first trip to our find as he hadn't been caving much lately while recovering from surgery.

We slowly made our way into the cave, across the traverse, through the Cobble Crawls, down the nuisance pits of Carrot Top Dome and Cairn Canyon back to the smaller balcony. There was no discernable lessening of the flow of the falls. We volunteered Jim to go down first and make sure the rope was on the bottom. We were glad to see him get some booty after being laid up so long.

He got on rope and leaned out way over the edge for a look. After a moment, he said he could see the rope was on bottom and used some quite colorful X-rated language to describe how undercut the balcony was just under the edge a bit.

He rappelled down and within moments gave a long, loud yell of "B-O-O-O-R-H-O-L-E!!"

He then proceeded to repeat that at least 20 or 30 times, apparently taking great joy in the thrill of discovery as well as the echoing reverberation. We all quickly made our way down and were surprised that we landed on a smooth flat floor rather than a complete jumble of breakdown. The bottom of the massive pile of breakdown visible from the balconies began a few feet away.



THE HALL OF FALLS IN PARADOX. PHOTO BY CHRIS HIGGINS

The bottom area was a Niagara like scene of crashing water and swirling mists. We regrouped off to the side in a scalloped walking passage about 20 feet high and wide heading into the unknown. There also appeared to be at least two sizable passages on the other side of the waterfall room. The waterfall was an awesome and beautiful sight. We guesstimated it was well over 200 feet high and coming from the top of a big dome about a hundred feet or more in diameter. The breakdown sloped nearly halfway up the far side. The stream arced out from the top and formed a shimmering and sparkling wall of water all the way down.

We explored perhaps a half mile or so of mostly walking passage off the bottom without finding the much-anticipated river trunk passage. The passages all seemed to be overflows or infeeders. The waterfall itself sank disappointingly into a too-tight crack in the floor of the dome that lacked air flow. We later had many hard pushes by us and subsequent explorers but all efforts to find the elusive river have been stymied to date. Our survey showed the bottom of the dome was about 125 feet below the gorge riverbed! On wet season trips, when the upstream sinks were overflowing, we forded through river water several feet deep to go far below it in the cave. Jason and I later came up with the name Enigma for the cave, as that's what it was to us, with its missing river, and that also went well with its sister cave up the gorge, Paradox.

We later finished digging open another riverside blowhole further down the gorge, which Bill Walter had found and we had dug on years before. We dubbed it Dungeon, as a small pit immediately dropped into a large, dank room below the riverbed. A couple of thousand feet or so of passages were discovered off the room, including some pleasant ones, but we left several wet bellycrawls and digs unpushed. The relative grimness of the crawls, along with the difficulty of discerning where the best air flow was, has to date deterred much of any enthusiasm for a return.

Perhaps the best remaining known prospect for finding the enigmatic river is a breakdown pit lead with good air in Hillis Cave situated above the Laurelburg springs. Many years ago, Bill Walter, Bill Deane, Frank Shires, and another caver whose name the Bills have forgotten, went through a passage in Hillis, which is now a large and deep sump at the abrupt end of a brief but huge trunk passage perhaps 100 feet wide and 40 high, to explore several thousand feet of breakdown trunk passage and domes without reaching an end.

They either went in during a time of extremely low water, or something has changed, causing the stream to pond there. When checking it in recent droughts, the sump was always still there. The pit lead is in a blowing passage across a traverse above the sump, which Jim bolted, and is perhaps fifty feet beyond the sump. We spent our last day there enlarging the pit, which dropped 20 feet or so into a slimy appearing breakdown space, but we were too pooped to pit when we finally got it big enough. A push trip is planned in 2026 if access can be obtained again, so perhaps more of the story is yet to come. The sump also looked big enough for a mini submarine — if only one were to somehow magically appear there.

Enigma Survey

We surveyed about a mile and a half, but when the much-sought-after river trunk was not found, our interest waned, as other projects always lured us away. Fortunately, Zeke McKee took over surveying, and many others, including the late Lee White, took an interest. They pushed the cave up

hard, as Lee was a dome-climbing juggernaut.

They eventually tallied up over four miles of survey, finding a 3D labyrinth of smaller interconnecting domes and drops, totaling over 30, to make the cave a vertical jungle gym. The Enigma Dome was also climbed in stages by several climbers and topped out by Mike Green. A stream trunk passage was found at the top and surveyed for thousands of feet heading toward a swallet with a dig we had up in Rocky Branch, a major side creek to the Rocky River. It was later confirmed as the source by a dye trace. The dig had good air flow, so some determined work could lead to a great through trip with a big drop. Access to the gorge has been problematic in recent years, but hopefully that will change in the future.

The results from Thany, Zeke, and crew's dye trace project are yet another paradoxical enigma in this mysterious gorge. The water sinking in the river several miles upstream of Enigma and Paradox at Hydraulic Thunder Cave, somehow manages (at least at normal water levels) to bypass them and flow the seven miles or so to the Laurelburg Springs. The waters in Enigma and Paradox flow over three miles and five miles, respectively, to Boyd Spring, while the Laurelburg springs are another couple of miles down the valley! However, Frank Bogle, who did the Paradox trace years be-



GOOSEBERRY FALLS.
PHOTO BY JIM FOX

Enigma Cave

VB 839

Survey Length: 25,897 feet/ 7,893 meters/ 4.9 miles

Horizontal Length: 23,249 feet/ 7,086 meters/ 4.4 miles

Vertical Extent: 310 feet/ 94 meters



Elevation relative to entrance



Entrance

250 500 750 1,000 1,250 1,500 Ft.

Zeke McKee 2026

fore, doesn't think bugs were placed at Laurelburg Springs at that time, so that possibility remains. Some speculation is that perhaps:

1. The upper Rocky River water that sinks at Hydraulic Thunder Cave stays on top of the Hartselle Formation all the way past Enigma and Paradox. But they quickly breach the Hartselle, so it would seem the river would as well.

2. At very high levels, water might flow through crossover overflow passages down in the Monteagle limestone and join the upper gorge water to resurge at Laurelburg Springs as well as Boyd.

3. Another possibility seems to be that the missing river trunk is down in the Monteagle but flows past Paradox and Enigma further to the east under the plateau and is or has become a separate system.

I guesstimate that perhaps only a few per cent of the cave system's passages in the gorge have been discovered to date.

Boyd Spring Cave Drought Push by Zeke McKee

On November 18, 2016, Zeke McKee and Marion O. Smith met at the parking area above Boyd Spring on Rocky River Road. The area was suffering a severe drought, and the spring had run dry. Upon scrambling down to the riverbed, we were greeted by cool air pouring from a four-foot-wide, 1.5-foot-high crawlway.

The passage inside was heavily scalloped with sharp bits of St. Louis limestone tearing at our clothes as we scraped along. We encountered several pools containing sculpin and cave-adapted crayfish. The cave was all belly crawl in wide passage without distinguishable walls for the most part, just columns of heavily eroded rock providing some division. Not much over 50 feet in, the ceiling dipped to 1.5 inches over a shallow and sharp pool.

The air blasted out over the pool hard enough to ripple the water's surface. Marion, a few feet behind me, said he had no interest in navigating the sharp pool and ceiling-sucking belly crawl ahead. I found wisdom in his years, and we retreated to the surface.

Dome Climbing in Enigma by Zeke McKee

In 2014, the exploration of Enigma was literally taken to a new level. Dome climbers, including John Harman, Derek Bristol, Clinton Elmore, Chris Hig-

gins, and others, began to gain interest in the cave — specifically, the Enigma Dome and the source of the waterfall at the top.

Some of these parties were under the influence of a certain Marion Smith, while others came to the dome of their own accord. Not knowing each other's plans, the two teams met in the cave, prepared to climb the same dome on the same day! In addition, on the same day, the original explorers were digging open Dungeon, a new blowing cave a mile downstream.

Deciding to work together, the Enigma crews began to climb the massive dome. These trips led to a rebelay series up the south wall of the room. A large ledge was reached 170 feet off the floor, with one path going over a saddle and down a 140-foot pit back into known passage, while the other course went up to a small ledge just under the Hartselle sandstone. This end of the climb was very near the waterfall, yet the condition of the rock was so poor that climbing was halted.

Later in September 2014, Marion convinced Lauren Satterfield, Jeff Moore, and Elliot Stahl to climb a smaller 30-foot dome much closer to the cave entrance, just off the main route. This effort proved to be the key to unlocking a vertical maze of domes and pits interconnected at various levels and adding thousands of feet to the length of the known cave.

In July of 2015, Marion, Mike Green, Elliot Stahl, Damien Lebrun-Grandie, and Sammi Carley made their way into the cave to try to tackle the top of the Enigma Dome. With Mike leading and Damien on belay, the others watched as the duo bolted their way up the remaining height of the dome and over to the waterfall window. A J rappel was rigged, and the team exited the cave. The next weekend, a team including Mike, Damien, Elliot, and Andy Zellner returned to the top of the waterfall to explore the new passage. At first, a Hartselle crawl, soon a climb up into a nice Bangor cave was encountered. This went for approximately 4,000 feet before ending in breakdown.

On Marion's birthday in 2016, Marion, Lee White, and Zeke McKee entered the cave to do a bolt climb in the Natural Arch Dome. Lee led the climb and reached going passage around 30 feet off the floor. After following Lee up, some passage went right through a narrow canyon and terminated at a pit where known passage was seen below. Back to the left, the passage continued to another drop that intersected

Damien's Dome. This maze of passages was interesting to me, and after talking to Marion, I decided to pick up the project to map the remainder of the cave.

In November, due to an intense drought, the waterfall had ceased to flow. Marion decided this would be an ideal time to resume the survey by entering the upper level of the cave. Marion, Terry "Monk" McClanathan, Nikki Fox, Chris Coates, and I entered the cave and began surveying from the bottom of Damien's Dome. We mapped through an upper-level passage and to a window in the pit, a mere 15 feet below the beginning of the J rappel. Chris bolted a line up to the J, and we all proceeded across. We then mapped the Hartselle crawl to the Bangor passage. Here was a very nice formation room.

We split into two teams: Chris and Nikki would map from the formation area onward, while the remaining three of us leapfrogged ahead to map further down the passage. We stopped at a point that would require crawling through water. We turned around; Monk taped the waterfall drop at 246 feet to the floor. Then we all left the cave, netting 2,200 feet of survey for the day.

Since that trip, another 30 survey trips have been conducted, with many of those containing dome climbs on the same days as the survey. Lee White has climbed a number of the domes in the cave and has been an extremely valuable asset to the exploration. Jim Fox has also developed his skills as a bolt climber by leading several climbs in the cave and adding significant passage to the cave. Jim extended the lower section of the cave by bolting, leading to the discovery of two large rooms and crossing the cave underneath Rocky Branch. Also, 1,600 feet of additional passages were surveyed in the Bangor limestone above the waterfall, with no end in sight. It seems, though, that every time a dome is climbed, we end up with more questions than we started with.

At present, the cave stands at 4.16 horizontal miles and 314 feet deep. Currently, the map is divided into seven layers, most of which are an overlapping vertical maze in the dome complex. There are currently 58 known rig points into 34 domes/pits that require rope work to navigate, several of which are permanently rigged to provide access to the various levels of the cave. Four of these dome/pits are over 100 feet tall, while one is over 200 feet tall, making Enigma one of the most vertical caves in the TAG region.

In 2018, Thany Mann decided to begin a dye trace of the Rocky River Gorge. This was prompted by the discovery of these cave systems that cut so far below the valley floor, and the fact that for a large portion of the year, the Rocky River is dry from the head of the valley until it begins to resurge in a series of springs several miles down the valley. I asked to assist with the project, and Thany accepted my offer.

We put fluorescein dye in the large swallet that takes most of the water at the head of the gorge and directs it into Hydraulic Thunder Cave. We also put Eosin dye at the base of Triangle Falls, high in Rocky Branch. This water disappears into Triangle Cave. The trace proved that the water from Triangle flows through the upper level of Enigma and over the waterfall, disappearing into the floor to resurge mainly at Boyd Spring. The dye from Hydraulic Thunder did not travel through Enigma but was detected in Hillis Cave and then in high quantities at the large Laurelberg springs, seven miles, as the crow flies down gorge from the swallet.

The Rocky River is slowly revealing its karst secrets while also challenging the limits of cavers' abilities. The hard work and determination of cavers from around the world have led to amazing discoveries and continue to do so. The ongoing efforts have proven that the spirit of exploration and discovery is still alive and well here in Tennessee, as we continue to find deep pits and miles of cave.

Exploring Above Gooseberry Falls by Zeke McKee - October 13, 2018

"Rock!" The words echoed into the darkness, down into the Enigma Dome.

I looked out of the window where I was relaxing, safely on this side of the nerve-wracking J rappel. Glancing upward, I saw Warren, on rappel, just over the lip. A silent waterfall leaped off the Hartselle sandstone ledge behind him.

The water fell 246 feet to the floor, where it crashed in a violent, noisy typhoon, but not here. At the top, it's silent. Far from the violence below. "Did you say rock?" I shouted out to Warren,

wondering why I hadn't heard it crash to the floor below. Then it happened — a crash, followed by a thundering boom that rose through the dome like a clap of thunder. Warren chuckled a little, then got back to business, negotiating the J rappel, changing over to a parallel rope, and rappelling the 15 feet back to the safety of the window. The hard part was over. We'd be back to Warren's Jeep and headed home in less than an hour. It had been a productive day.

It started at 9:20 when we entered Enigma. Happy to be in the relative warmth compared to the brisk fall weather that had finally found us on the surface this year. Warren and I made our way through the cave, ascending a few hanging ropes and traversing over a few pits in the floors here and there. An awkward 12-foot rappel, a short squeeze, and there it was, the J rappel. A hanging rope attached at two ends and used to traverse both horizontally and vertically over pits. This particular one just happens to be over a giant dome 246 feet off the floor at the high end. Plus, it had been hanging next to a waterfall, unused for over two years.



LEE WHILE CLIMBING IN ENIGMA CAVE. PHOTO BY ALFRED CRABTREE

That made it a little frightening as the first one over, not knowing the condition of the rigging on the other side.

Well, I got over there, and the rigging was fine, except for the carbon steel screw links beginning to rust. We will have to replace those with stainless hardware on the next trip. Warren came over, and we made our way through the low Hartselle belly crawl in the stream. After a few hundred feet of this bullshit, we finally popped into standing passage. Climbing up 15 feet, we entered nice Bangor stream passage.

Detouring around the corner to see the formations, we realized the formation room was flooded. We proceeded into the walking Bangor stream. With a cobble-riddled floor, a shallow stream at our feet, and small formations poking from the carved limestone walls, I announced, "Welcome to Merrybranch" (a similar stream cave that was the first cave map that Warren and I ever made). Warren asked how he and I always ended up in this sort of passage surveying. A few hundred feet more and we were at the end of the current survey.

We donned our wetsuits and found a tie-in station. Warren had the Suunto Tandem (visual compass/inclinometer) and the smart end of the 100-foot tape. With the dumb end, I was on point and book for the day. We began a hands-and-knees survey in water two to three feet deep. We had two splits in

the passage, but they turned out to just be short parallel trunks and not worth the extra work to shoot, so I elected to "draw them in." Strangely, the passage was trending east, rather than the north I had expected. We reached a point with a dry breakdown pile to the left, and a low airspace stream crawl continuing to the right.

Warren probed the breakdown and declared that it went big that way. I announced that I was going to check the low airspace and see what it did. It opened gradually before popping into a large, 20-foot-high, 40-foot-wide walking canyon. I saw dry passage to the left and realized this was where Warren was. I met him, and he showed me a lead.

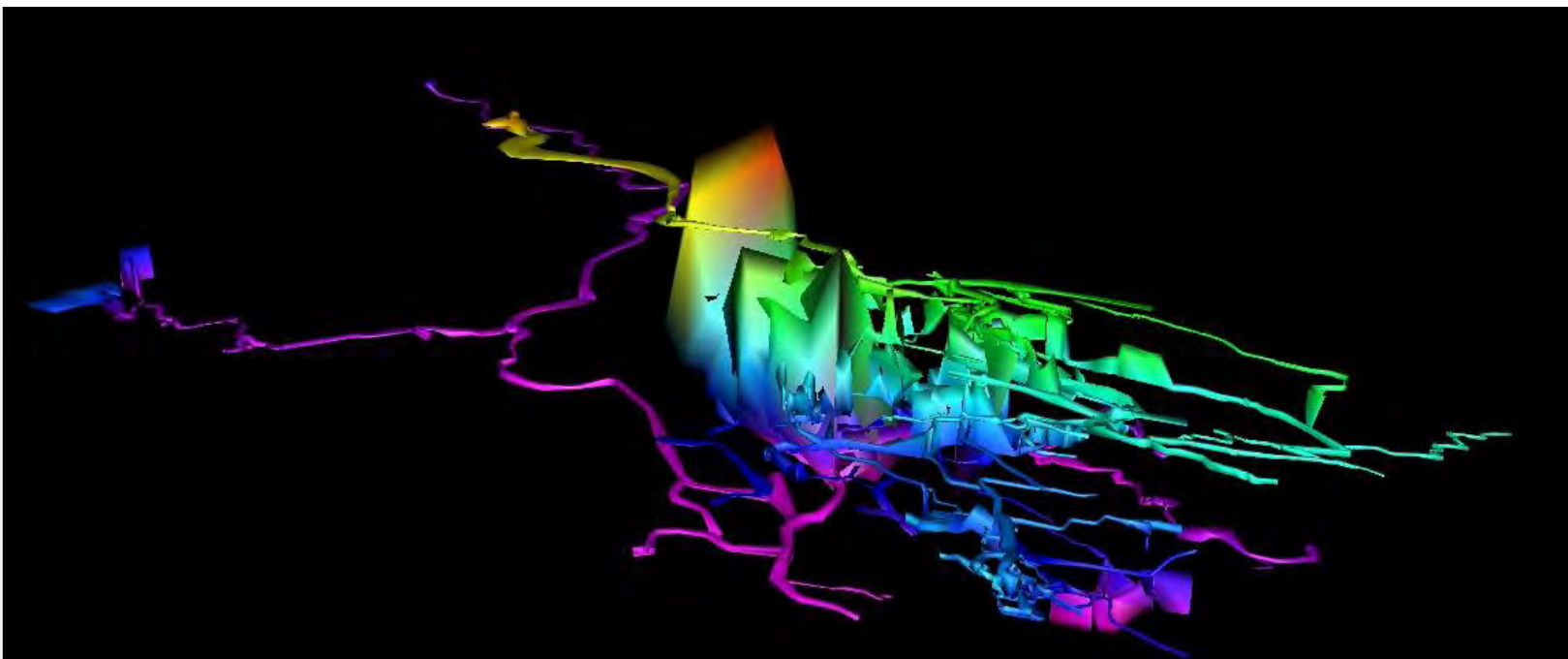
It was dry, large, Xanadu-like, paleo trunk. We reached where the footprints of the "scoop crew" had stopped and declared virgin passage ahead. This went to a large, breakdown-floored room within just a few feet. It may have had leads off the sides, but we didn't probe hard, as we were here to survey, not scoop. We headed back, and Warren checked out a climbup on the way. This led to a virgin upper-level dry canyon following a joint. We followed it for maybe 100 feet, scared a bat, and then headed back to survey.

We elected to survey through the breakdown and back to the stream, leaving the paleo passage (dubbed "Wyatt's Riot" since he scooped it) for another day. We continued down the

nice, big canyon passage, which gradually got lower, but 100-foot shots were had more than a couple of times. The passage gradually lowered again to a hands-and-knees stream crawl with very deep mud. Some leaf debris with small sticks was noticed. I popped into a larger room with a breakdown floor and the stream skirting the edge. I put a station on a rock on the "beach."

Warren caught up, and I showed him raccoon prints I had seen on the beach area. There had to be a way to the surface around here somewhere. We explored ahead. The room contained breakdown, a muddy sandbar, and a hands-and-knees stream continuing off the other side. We elected to set a station high in the room away from the flood threat. Then we routed. Surveying the low airspace loop on the way back. We grabbed a snack at the beginning of survey and then made our way to our vertical gear that we had stashed at the top of the J rappel.

We totaled 1,742 feet of horizontal survey. Increasing the cave length from 3.83 to 4.16 miles. This adds a lot to the map and gives us a better picture of what's going on up there. As usual in the Rocky River caves, this passage did not do what we thought it did. We will have to get back up there to survey some more and see what we have going on. Maybe that can happen before the winter brings more water, ending our chances to visit that part of the cave for the year.



3D CAVE MAP RENDERING PROVIDED BY ZEKE MCKEE



ENIGMA DOME, JIM FOX PHOTO



Old Timers Reunion

A Caver Gathering for the Ages

1950-2026



By Sarah Richards, Chair of OTR 2025-2026, and Charlie Williams, Chair of OTR 2011-2012

Art and visual design by Amanda Willis

Photos from the TRA archive, Charlie Williams' personal collection, Mike Tripodi

Picture this: The year was 1950; the NSS was just nine years old; and cavers throughout the mid-Atlantic region of the U.S. were busy discovering, exploring, and documenting caves in the mountains and hollows of West Virginia. Caver "Robbie" Robertson organized a small end-of-summer gathering at the Worden Hotel in Davis, West Virginia, with a twofold purpose: to bring cavers to the area and to honor esteemed caver Felix Robinson, who had recently recovered from a prolonged illness. The event drew 45 cavers, gathering to celebrate Robinson, explore local caves, and share their tales of cave exploration. It was a resounding success—so much so, in fact, that the September 1950 NSS News reported, "...the group unanimously voted to repeat it every Labor Day as an NSS Pilgrimage to Davis."

In the years since the inaugural gathering, OTR has evolved tremendously from its humble beginnings. It has grown from those initial 45 cavers in 1950 to a high of nearly 2400 in 1999. It has relocated to several different locations throughout West Virginia, as the reunion outgrew each preceding location. In 1978, OTR's early chairpersons incorporated The Robertson Association (TRA), a nonprofit organization named for OTR's founder "Robbie" Robertson. And in 1985, TRA purchased 24 acres near Dailey, WV, where the reunion has been held every year since.

75 reunions after the first gathering, true to its roots, OTR carries on for one simple purpose: to bring cavers together to celebrate their common interest in all things caving!



1950s. Traditions are born.

The first decade saw the reunion grow in size and complexity, moving from Davis, WV, to Franklin, WV, in 1954, and later to Marlinton, WV, in 1959. In 1952, OTR cavers took their inaugural trip to the Sinks of Gandy and established the "IBINTHRUTHESINKS Club." The 1955 reunion was the first to offer live music for dancing; the 1957 reunion featured a treasure hunt in Schoolhouse Cave; and the 1959 reunion introduced an organized picnic lunch and a dance.

1960s. The McCoy's Mill Era

The 1960s solidified the traditions established in the 1950s, continuing the reunion each year even as the location changed. In 1961, OTR moved to McCoy's Mill in Franklin, WV, where it remained throughout the decade. 1961 also saw the first ever Speleo-Olympics competition, which included a rescue contest organized by the Potomac Speleological Club (PSC), a road rally on the roads surrounding Sites and Sinnett Thorn Caves, and a pulley swing hanging from high rocks into Thorn Creek. 1964 brought us the first Carnegie awards, recognizing outstanding contributions to the caving community, and 1968 saw the banquet move to Thorn Spring Campground.

1970s. A Time of Growth and Governance

1971.

Black lights, strobe lights, color wheels, and black light posters brought a psychedelic vibe to OTR, attendance exceeded 500 for the first time, and John Denver's hit "Take Me Home, Country Roads" filled the airwaves and became OTR's unofficial anthem.

1975.

Attendance reached a new high of 849, and once again, OTR had to find a new location to accommodate the growth.

1976.

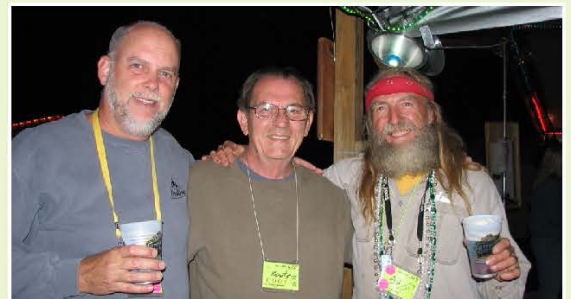
OTR relocated to a 4-H camp near Petersburg, WV, implemented its own security team, and began strict enforcement of registration to squelch the overwhelming presence of non-cavers at the reunion and return to OTR's roots as a gathering for cavers.

1977.

OTR moved to Alpine Shores in Bowden, WV, and attendance exceeded 1300 cavers, reinvigorating the spirit of the gathering. The move to Alpine Shores was a success, as it rekindled the enthusiasm of cavers and restored the original essence of OTR as a cherished event for cavers.



OTR Through the Years





1978. The Robertson Association (TRA) is born.

Up until now, OTR had been organized each year by disassociated crews, with the organization and operations passing to a new chairperson every couple of years. However, as attendance continued to increase, the former chairpersons identified the need to institute formal structure and legal oversight.

Early in 1978, OTR's former chairpersons established The Robertson Association (TRA), named in honor of OTR's founder G. Alexander Robertson ("Robbie"). TRA was officially incorporated as a non-profit organization, and the annual reunion was designated as the group's annual meeting.

The 1980s.

The Speleo-Olympics obstacle course grew ever more challenging, including the addition of a vertical squeeze box. A volunteer DJ played music on a reel-to-reel tape player from the back of his car. A blue-tuxedo-clad Kelley Deem took on the role of auctioneer for the OTR auction.

1982. Staff recognition begins.

A new tradition was established to reward the hard work and dedication of volunteers by giving staff hats to those who gave hours of their time to OTR's success year after year.

As OTR again outgrew its space, TRA started shopping for a permanent location, and in 1985, a 24-acre plot of farmland was purchased on the Tygart River near Dailey, WV. A year of site preparation and improvements, all completed by the ingenuity and sweat equity of dedicated cavers, transformed those 24 acres of unimproved farmland into a 24-acre cavers' campground complete with a 40' x 100' pavilion, gravel roads, a water well with a storage tank and distribution lines, electricity, gas service, phone service, shower facilities, a first aid pavilion, and 1500 trees planted for future shade.

1986. First reunion at the new OTR campground!

The new OTR campground opened to its first OTR in 1986 and has undergone continual improvements over the years since, serving as home to OTR and also as a venue for other caving-related gatherings, including NSS Conventions (2000, 2023), NCRC Orientation to Cave Rescue weekends, VAR Meetings, and grotto gatherings.

1987.

The Doo-Dah Parade was introduced, offering attendees the opportunity to march around the campground in a wild display of caver creativity that would become one of OTR's favorite and most time-honored traditions.

1990s.

The 1990s carried on the traditions set over the previous years and finished with a bang—literally!

1999. OTR celebrates 50 years!

To mark our 50th reunion, Chairman Vic Ward planned a reunion to remember, featuring a spectacular celebratory fireworks display on Saturday night as well as an impressive entertainment lineup of four live bands and DJ music throughout the weekend. Once again, OTR set a new attendance record, drawing nearly 2400 attendees.

Cooters Pub Opens.

Cooters Pub opened, offering Guinness draught plus a variety of craft beers for sale for the discerning beer lover seeking an upgrade from the free swill offered in the pavilion.

OTR Museum Begins.

An OTR Museum was established to archive and display memorabilia from our previous years.



2000s. Event Themes Take Hold.

The 2000s ushered in the concept of event themes to help shape the celebration each year. With a permanent campground established for our annual reunion, OTR chairpersons could turn their attention to making the reunion one to remember, year after year. As a reflection of popular culture, themes have shaped the decorations, music, merchandise, and activities and encouraged attendees to express their creative genius in their costumes and campsite decorations. Early themes included 2001, A Cave Oddity, Blackjack Comes to Club Grotto, and Pirates of the Carabiner.

TRA Awards established.

TRA established the Robbie Outstanding Service Award and the Fellow Award to honor volunteers who dedicated countless hours to developing and maintaining the OTR campground.

"The Coot & Holler Gazette" was introduced as OTR's new daily newsletter.

NSS Convention.

TRA hosted the 2000 NSS Convention, bringing cavers from around the country to experience West Virginia caving.

2007. River Party is formalized.

After years of informal parties in the river, OTR 2007 offered the first official River Party in and on the banks of the Tygart River, complete with a live band playing from the brand-new River Stage. The official River Party was such a success that it continues to this day as one of the most beloved activities at OTR, inviting attendees to bring their chairs, snacks, and beverages to the river to dance and socialize and enjoy one final hoorah to bid farewell to summer.



2010s.

Throughout the 2010s, the event themes became more and more creative, leading to even more caver creativity in campsite decorations, costumes, and DooDah Parade entries. Themes included South of the Border, Masters of the Night, Knights of the Blue Moon, Oktoberfest, Cavestock, Wild, Wild West Virginia, Steampunk, and Studio 70.

2011. New Pavilion!

The original pavilion was replaced with a new 120' steel pavilion with a concrete floor.

2013.

Chairman Steve Owens once again raised the bar for all the chairpersons to follow when he ignited a greater emphasis on live music, bringing in more live music acts than any chair before him. To support the great bands, Owens expanded the merchandise offerings to include not only T-shirts but also hats, bandanas, and coffee mugs.

2016.

Bubbles Fun Run begins. As a grassroots movement among OTR attendees, the Bubbles Fun Run was organized in memory of a popular OTR attendee, Syracuse University Outing Club (SUOC) caver Kim "Bubbles" Michalek. As someone who had never met a stranger, Bubble's loss was felt throughout the OTR community.

2017. The Event Tent begins.

Chairwoman Sarah Mosberg introduced the Event Tent to bring educational programming to OTR. Today it hosts presentations on cave exploration, science, photography, survey, and rescue, along with yoga, arts and crafts, and other creative workshops. It is also home to the annual Virgin Reception, welcoming first-time OTR attendees and their sponsors to the community.



The 2020s.

2020-2021. COVID Pandemic.

OTR was canceled for the first time since its inception due to the COVID-19 Pandemic.

Since 2020, themes have continued to bring attendees together and stretch their creativity.

In 2022, after two OTR's cancelled for COVID, OTR resumed operations in with a "Family Reunion" themed event. Though attendance was low in this first post-pandemic year, the dedicated attendees who came felt a deep reconnection with the community that they had missed for two years.

2023's Underground Speakeasy celebrated The Roaring 20s; 2024 celebrated Caves, Cavers & Caving; and 2025 brought us Cavers in Wonderland; Down the Rabbit Hole.

2023. NSS Convention.

TRA hosted the 2023 NSS Convention, once again bringing cavers from around the country to experience WV caving.

2024. Caving Festival begins.

To bring attention back to CAVING, the common thread that started this whole wonderful journey, Chairman Ben Mirabile introduced a Saturday-afternoon Caving Festival, providing live music and free beer in the pavilion to coincide with Saturday's Speleo-Olympic contests and create a center of festival-like activity in the pavilion.

CARE Connection takes root.

OTR leaders introduced OTR's own harm-reduction and accountability platform focused on consent, anti-harassment, and judgment-free reporting. The goal was and is simple "Have fun, look out for each other, and help to keep OTR safe."

2025. Crafty Cavers Coalition begins.

Chairwoman Sarah Richards introduced the Crafty Cavers Coalition as a consignment booth on Vendors' Row offering attendees an official venue to sell their handmade crafts.

Cavers Built It All

Since 2000, the OTR campground has seen significant improvements, all thanks to the ingenuity, talent, and countless hours of labor volunteered by members of the OTR family. Over the years, TRA volunteers have constructed everything on the site, including an enclosed Registration building, an enclosed gate house, a 120' steel pavilion with a concrete floor, a new open-air concrete shower house, and a new permanent in-ground hot tub.

OTR's Cultural Significance and Legacy

The Old Timers Reunion holds a unique place in American outdoor recreation culture. Often described by attendees as a "family reunion," OTR represents far more than just a caving event. It is a gathering of a community bound by a shared passion for underground exploration, conservation, and fellowship. The event embodies the spirit of West Virginia's cave country and has helped to establish the region as a premier caving destination in the United States.

The deep bonds forged at OTR extend far beyond the Labor Day weekend. Cavers form lifelong friendships, establish business connections, and create networks that span across the entire caving community. The traditions established at OTR—from the awards given to the music played to the contests held—reflect the values and spirit of the caving community at large.

The reunion's longevity—spanning from 1950 to the present—speaks to its deep roots in the caving community and its ability to adapt to changing circumstances while maintaining core

traditions. The only interruption in OTR's remarkable seven-decade-plus run occurred in 2020 and 2021 when it was cancelled due to the COVID-19 pandemic—marking the first times in the event's history that the annual gathering was not held. The rapid return to full operations in 2022 demonstrated the community's commitment to the tradition.

OTR has played a central role in the regional caving community in many ways:

- **Promoting cave safety education and best practices across the caving community**
- **Advancing speleological research and discovery through educational sessions and seminars**
- **Building conservation ethics within the caving community, including White Nose Syndrome awareness**
- **Creating intergenerational connections among cavers**
- **Documenting and preserving the history and culture of American caving through the OTR Museum and historical records**
- **Establishing technical standards for cave exploration through competitions and educational programming**
- **Supporting environmental stewardship through partnerships with the West Virginia Cave Conservancy**

From its humble beginnings with 45 cavers honoring Felix Robinson at the Worden Hotel to its current status as the world's largest gathering of cavers, attracting around 1,500 annual participants, the Old Timers Reunion has preserved and celebrated caving traditions while adapting to changing times.

OTR 75: The Original Underground Party; Come as you were!

Labor Day weekend, 2026

2026 brings us the 75th OTR! To celebrate, attendees are invited to look back over the last 75 years of OTR, choose their favorite themes, costumes, decorations, or moments from any OTR in the past, and reprise their old costumes and decorations. For those who are new to OTR, we invite you to reimagine any previous theme in your own special way!

What's on tap for the 75th Old Timers Reunion?

THURSDAY: Gates open at Noon! Evening activities include the Opening Ceremony, Memorial Tribute, Virgin Welcome, Bonfire Lighting, and Virgin Reception.

FRIDAY: Spend the day exploring the area and getting to know your campground neighbors. Evening activities include an OTR Trivia Night followed by live music by Jeremy Short delivering his own unique blend of gritty blues, deep funk, and Southern soul that he affectionately calls Appalachian Space Funk.

SATURDAY: Daytime activities include Speleo-Contests for all ages, the Bubbles Fun Run, Batman the Magician to amaze the kiddos, and the 3rd annual Caving Festival with live music by local duo Tim White & JB Stalnaker. Evening activities kick off with the DooDah Parade followed by an exciting evening of live music by Steely Dan cover band Not Reely Dan and crowd favorite Queen City Funk and Soul playing familiar favorites for us to dance the night away. Saturday's after-dark activities will also feature a special 75th Reunion Fireworks show!

SUNDAY: Daytime activities include the Yard Sale, TRA Elections, and the ever popular River Party with live music by The Jugbusters. Evening activities include the OTR and TRA Awards ceremony followed by live music by OTR's own Buzz City Grotto.

MONDAY: Farewell. Gates close at Noon.

Throughout the weekend, attendees are invited to patronize our vendors on Vendors Row, attend a presentation at the Event Tent, have a craft beer or root beer at Cooters, learn about OTR's storied history at the Museum, relax at the Sauna area or on the banks of the river, explore the Wildside, and otherwise immerse yourself in the OTR community!

Special Invitation to NSS Members!

This year, for the milestone 75th reunion, we extend a special offer to NSS Members: we are waiving the sponsorship requirement to attend OTR. When you register online, simply select "NSS Guest" as your registration type, and then enter your NSS number. Online registration opens in early July.*

Learn more about OTR and TRA at www.otr.org, where updates will be posted as plans are set for OTR 2026. Follow us on Facebook or Instagram for event updates.

*This offer is available only to active NSS members in good standing. This offer is not available to NSS members who are restricted from attending NSS events. OTR and TRA are serious about safety and security. All NSS guests are expected to comply with OTR's Code of Conduct and Campground Guidelines and Event Rules. Any NSS guest who violates these rules will be expelled from OTR immediately. NSS Guests must preregister online no later than August 15. This offer is NOT valid for on-site registrations.





Reflecting on a Man-Made Cavern at the Cincinnati Museum of Natural History, 1968-1990

by Bob Thompson

Prior to the 1960s, cave exhibits were largely small educational displays that simulated real cave environments to teach visitors about geology, biology, archaeology, paleontology, and cultural symbolism. Most of these displays were set up in natural history museums, science centers, and national parks. In 1926, a miniature replica of a room of formations from Endless Caverns, VA, was set up in the Milwaukee Public Museum, WI. Around the same time, a popular cave formation from Crystal Cave, MO, called the Washington Monument, was replicated by the Smithsonian Institution for its Museum of Natural History. Large-scale cave models did not exist until The Cavern opened in 1968 within the old Cincinnati Museum of Natural History and Planetarium. At the time, the Cincinnati Museum was considered the oldest natural history museum west of the Allegheny Mountains.

While the museum had many exciting individual exhibits, the standout was undoubtedly the 294-foot man-made cave with its impressive 20-foot glass bridge. Over the years, the bridge instilled fear in the hearts of thousands of visitors who crossed it. The adventure of going through the well-constructed cave was remarkable, holding everyone's attention and interest to the point that many wanted to do it again and again.

The Cincinnati Museum of Natural History and Planetarium added the

cave exhibit in 1967, a decade after its establishment. The large cave exhibit was considered the only one in the world and was the first project of its kind undertaken by a natural history museum. A large Museum Annex was constructed and completed in June 1966, containing two rooms, one for the cave. A massive concrete box (34 feet high, 40 feet across, and 60 feet long) was constructed and subsequently filled with a complex, sculpted tube made of sprayed concrete. It was a marvel of both engineering and education. The initial cost was over \$300,000, and it required about four years to plan and build.

The cave felt genuine; it had a constant 59-degree temperature, four vertical dome pits (one soaring 40 feet high), an 18-inch squeeze between the rocks, three waterfalls (including one 32 feet high), an underground stream, crystal formations, and transparent cave-dwelling creatures, including a bat colony. The cave's original designers, Cincinnati Museum of Natural History president Jim Geier and Museum Director/NSS caver Ralph Ewers, drew inspiration from trips to Mammoth Cave and sought workers who had in-depth expertise in caves, rather than just general contractors. The walls and floors were formed using gunite to create a lifelike structure. At every step of the way, the museum crew consulted three-dimensional color photographs taken in real caverns on their dozens of preparatory trips.

The cavern glass bridge over the large dome pit was made of three inches of safety glass and Herculite, which made it completely safe to go across — although many did so with caution. Seeing animal bones at the bottom of the 22-and-a-half-foot pit from the bridge did not help matters! Many would not walk dead center on the glass bridge, visually stepping only on the part that had support underneath. Eventually, the museum had to place carpet over the glass.

A more ambitious undertaking was the creation of a river segment, operated by a massive pumping system, which had a special glass-walled cutaway section for underwater viewing. The cave had real blind cave fish and colorless crayfish — not fabricated models. All other life forms in the exhibit were simulated or preserved. The clusters of bats — 1,400 of them — were freeze-dried except for a row of real bats in front. The cavern's bat grotto was cast in rubber, with a coat of felt-like "fur" applied by glue.

After about four and a half years, 3,333 cubic feet of concrete, 494 tons of sand, 127 tons of cement, 178 low voltage light bulbs, 3,000 feet of electrical wire, 3,751 gallons of water, 20,000 square feet of wall space, 1,289 stalactites, 40 stalagmites, 17 gypsum flowers, two flowstone wall formations, 1,386 animals (31 species), and 31 major field trips, The Cavern opened to the public on March 30, 1968. Two days before



Page 20: Photo 2. Framework of domepit complex under construction
Above: Photo 5. Making rubber bats and salamanders

the opening, then NSS President Jack Stellmack — together with then NSS Director John Cooper and several cavers from the Greater Cincinnati Grotto — climbed a series of steps up, under an arch, and into the first realistic man-made cave.

At the beginning of the cave exhibit, a sign greeted visitors with a warning, “travel at your own risk,” 38 stoops and 37 stairs. The artificial cave was definitely not for the faint of heart, and if you weren’t careful or paying attention, you could easily get lost, as some did. No children under six years of age were permitted inside. Children ages 6 to 18 had to be accompanied by an adult. There were “cave guards” stationed at different intervals in case of emergencies. Approaching the exhibit, the cavern’s visual layout was a little misleading: one sees steps at the entrance and people exiting just a few feet away.

A description of the cave exhibit from the Cincinnati Post newspaper read: “The cave is entered from the main lob-

by of the museum, through a doorway cut high into the lobby’s north wall and reached by steps of gunite. The first few feet of cave is obviously artificial, and contain exhibits of cave-life and a miniature model of an entire cave system. As the visitor goes deeper, the cavern becomes more and more realistic. After the first 50 feet or so, at a point where the narrow entrance passage bends hard right and the visitor steps out onto a glass-floored bridge across a big dome pit, almost all sense of artificiality vanishes. The cave descends gradually, usually without steps, in an easy spiral. The entire cave is only 300 (actually 294) linear feet. But the constant curving of the passageways lends an illusion of far greater distance and depth. The spiral winds down 34 feet in two complete turns.

“At the very bottom, there was a huge cavern room, with a stream flowing from a waterfall at one end, through a pool. The pool contained live blind fish from real caves. The visitor was led down into a short stairwell so the pool’s surface is at eye level. In case no

live blind fish are swimming by at that time, there were dead specimens in a preservative sealed between two panes of glass that form a window between the stairwell and the pool’s depths. From the big room, the visitor winds back up and out, emerging in the lobby directly beneath the entrance. The cave is so chillingly realistic, so ingeniously done, that the exit comes as a sudden, disappointing surprise.”

To exit the cave, you had to push a huge rock slab that was the concealed exit door. The complete walk-through of the cavern took about 20 minutes, including time spent listening to 11 telephone stations that had recorded explanations of its notable features. The multiple-story cave became the favorite exhibit of visitors at the Museum and won national recognition. Ralph Ewers and the Cincinnati Museum of Natural History Board received a certificate of merit at the 1968 NSS Convention for their outstanding contribution to the public understanding of caves and cave phenomena in the construction of the cave exhibits.

After 33 years, the old natural history building closed on September 24, 1990, and moved to the Cincinnati Museum Center at Union Terminal. The construction of a new, larger cave covering two levels and 500 feet of passage opened in 1991. The original natural history museum was undersized and had no room to expand exhibits. Most of the old cave was left behind, including the glass bridge, except for some of the smaller formations that could be removed and reinstalled. In 2004, the old museum was razed to make way for the new WCPO-TV studio.

For years, after they moved to the Union Terminal, it was rumored that the cave still existed beneath the old museum or now the new TV Studio. Occasionally, curious visitors would show up asking if the cave was still there. The reality was, there was no cave, no waterfall, no glass bridge — just a basement and a parking garage.

Photos:

1. Ralph Ewers and “the Cavern” entrance/map - L.D. Matthews photo - courtesy of NSS
2. Framework of dome pit complex under construction - L.D. Matthews photo - courtesy of NSS
3. Ewers with examples of formations molded from real formations - L.D. Matthews photo - courtesy of NSS
4. Geologist Tom Klekamp with a cabinet of flexible rubber formations - L.D. Matthews photo - courtesy of NSS
5. Making rubber bats and salamanders - L.D. Matthews photo
6. Clusters of freeze-dried bats - Postcard - courtesy of author



Photo 1. Ralph Ewers and the Cavern entrance map



Photo 6. Clusters of freeze-dried bats



Photo 3. Examples of formations molded from real formations

HOW THE REDISCOVERY, CLEAN-UP, AND SURVEY OF POST HILL CAVE BIRTHED AN ART PROJECT

BY NICOLE RIDLEN

As all cavers experience, driving around karst country often gives me a case of whiplash: there are so many interesting “cavey” spots along the sides of the road. I remember in undergrad my geology advisor jokingly called it an “occupational hazard” as we drove past a roadcut on a geology club trip and we all found ourselves looking at the stratigraphy instead of the road in front of us. Today it’s all caves, and while I certainly find my mind wandering with my imagination of what could be just over the fence in that sinkhole, I have never met anyone with a stronger case of “karst neck syndrome” than my fiancé, Brandon Van Dalsem. I can’t drive anywhere without him loading up his cave data to see if a random hole he saw has already been documented or not, loading the property viewer to see who to contact for permission, and exclaiming to me, “There’s a cave over there! Right there!”

It is this natural curiosity (and obsession, if we are being honest) that led to the discovery of Post Hill Cave. Bran-

don mulled over a spot, looked up the landowner, found him on social media, and contacted him about access. The landowner turned out to be a very friendly guy, a family man who was very welcoming of Brandon investigating the depression he found while exploring leads on lidar maps. The landowner had purchased the property only a year or so before and had no idea what could be in the sink in his backyard, located in the middle of town. Brandon, however, had daydreams of another cave yet to be discovered, as it was not identified in the TCS data.

The sink wasn’t exactly inviting. It was filled with old construction debris, piled high with shingles, broken glass, random trash, and even an old electric meter. Brandon got to work with fellow Cumberland Caverns Cave Crew member and friend, Josh Farless. They carefully and tediously extracted rocks and cinderblocks, sifted through broken glass, and dug through countless layers of old tar shingles. Eventually, they created a hole in the debris large enough to squeeze through (barely). They had

to be careful not to get cut by the broken glass and nails, but they managed to get into the cave! Eureka! They had a cave!

It didn’t take long into the exploration to find evidence that the cave had been explored by locals long before. There were signatures dating back to the late 1800s in the far reaches of the cave, the most recent from the 1970s. We presume this is when the cave was filled with the construction waste, maybe because the landowner was tired of youth trespassing and entering the cave, perhaps afraid of liability or upset by the vandalism. Looking at the ceiling of the cave and seeing recent evidence of the entire cave flooding with stormwater, maybe there was a close call for some inexperienced explorers that forced the former landowners’ hand. Or maybe they just didn’t want to pay the landfill and thought they could bury it in one of those fabled “bottomless pits” — you know the kind where you put trash that magically disappears every time it rains?



The survey of Post Hill Cave is in progress. So far, about 280 feet of survey has been completed, with an estimated total of around 1000 feet of passage.



Shovels, a pickaxe, buckets, and PPE: Tools of the trade when trying to get back into the cave. Josh Farless is here, helping pull out some cinder blocks and boulders.

While we may never know why, those are a few educated guesses based on our past experiences exploring Missouri caves that suffered similar fates. No matter the reason for filling in the cave entrance, Post Hill Cave stands as a prime example of what happens when the general public misunderstands cave and karst environments. It is why public education and access to caves in a responsible, monitored fashion should be paramount in any caver's mind. Education through experience can help save the caves we so love. We can't make cavers out of everyone, but we can make everyone appreciate caves by allowing them to experience show caves and go on beginner caving trips with their local grottos. Unmitigated access to caves leads the general public to develop harmful hobbies, such as spray painting, speleothem collection, and bat disturbance.

While the survey hasn't yet been completed, the cave is estimated to be at least 1,000 feet in length, with only 280 feet surveyed so far. There are still a few leads to dig and push deeper into the cave, so perhaps there will be more. In the far reaches of the cave, one can sit in a large room with late-1800s signatures and hear the occasional rumble of a vehicle passing over the surface, which Brandon believes goes under a nearby city street. This room has been aptly named "The Subway." The cave

is often littered with raccoon and rodent feces, so it can have quite the smell if it hasn't been flushed by recent rainfall. When Brandon and I visited, we found a cluster of tricolored bats hanging out in the biggest room, Jacob Hall, named after the landowner. This indicates either a second, small entrance somewhere big enough for bats and rodents, or the opportunistic use of the freshly opened cave entrance, courtesy of Brandon and Josh. The cave is located in the Warsaw formation and gets remarkably tall for a Warsaw cave — there are several rooms you can actually stand in! There are plenty of fossils to be viewed in the cave walls and ceiling: shark teeth, crinoids, and brachiopods, to name a few. The cave seems to get a regular influx of new trash when large rain events take place, so you never know what you may find. The survey and clean-up efforts have been slow going, requiring the alignment of the five stars: Work life, prior volunteer commitments, personal life events, and the weather. This is certainly not a cave you would want to enter if rain is in the forecast at all. This was the first cave Josh had ever participated in a survey in, and he was eager to learn. Since we do not currently have the funds to purchase any electronic survey equipment (anyone want to donate a Bric?), we have been doing survey the old-fashioned way: Suunto tandems, a tape, a "dumb disto," and

paper sketching on Rite in the Rain.

A trip to the Tennessee Aquarium in Chattanooga inspired me to start an art project: creating art from trash pulled from caves. If you have had the pleasure of visiting the Tennessee Aquarium in the last few years, you may have seen large sculptures of sea animals created from trash pulled out of the ocean. This was my inspiration to do the same for the trash I pull out of the caves we visit. Post Hill Cave has plenty of trash to work with, but perhaps it could be an ongoing project to satisfy my creative side and my cave-conservation mind at the same time. I can find art incredibly meditative as you play with materials to bring an idea from your mind's eye to life. I can't say when the sculpture will be completed because art doesn't happen on a timeline; it happens when inspiration hits. I'll certainly keep our extended caving family in the loop as we have any updates on the project.

I hope to see you all underground again soon, if not here at Cumberland Caverns, perhaps somewhere else. There are so many caves to love and care for in our beautiful state of Tennessee. We are all so privileged to call the state with the most documented caves in the entire country as our home.



Post Hill Cave was full of lots of broken glass and old shingles. It continues to be tedious work to pull it out, and caution must be taken when entering/exiting the cave to not get hurt. been completed, with an estimated total of around 1000 feet of passage.

A cluster of tricolor bats was seen in Jacob Hall in Post Hill Cave in Nov 2024. This photo was taken from a distance with the amazing zoom power of a Samsung Galaxy Ultra lens.

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