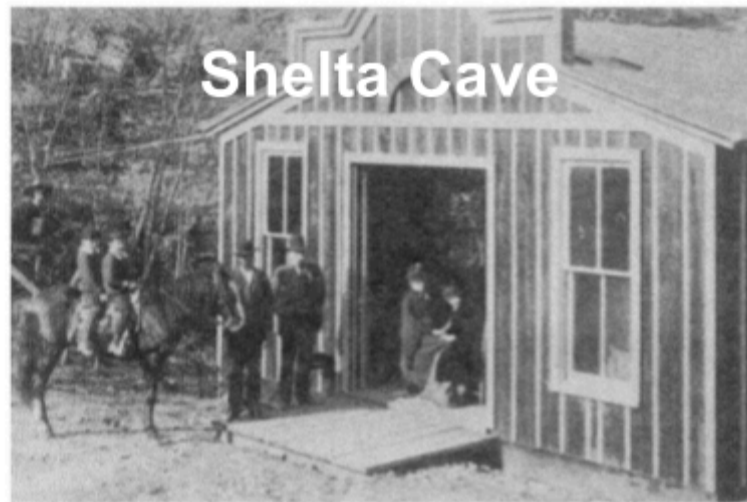


The FLOWSTONE

Vol 26 Issue 10

Nov-Dec 2019



A Monthly Newsletter of the Cullman Grotto of the National Speleological Society

CULLMAN GROTTO FLOWSTONE

Nov-Dec 2019

Volume 26 Issue 10



Inside This Issue

- 2 Echo Chamber
TAG Calendar
- 3 Trip Reports
Limrock Blowing Cave
- 4 Bridge Day 2019
- 7 Black Friday
- 8 Spry Canyon
- 10 Minutes

Visit us: www.cullmangrotto.org or

facebook

The Flowstone is published monthly by the Cullman Grotto of the National Speleological Society. Items submitted for publication must be received by the 20th of each month for inclusion in the following month's issue.

The Cullman Grotto will exchange by request with any publishing grotto. Republication of items within **The Flowstone** is allowed provided credit is given to author and source.

Membership to the Cullman Grotto is fifteen dollars (\$15) per year for individual or twenty dollars (\$20) per year for family. Dues are payable at the first grotto meeting of each year (January) and includes subscription to **The Flowstone**. Subscription rate for non-members is fifteen dollars (\$15) per year.

The Cullman Grotto meets on the first Monday of each month unless the first Monday falls on a holiday or otherwise noted. In those cases the meeting will be held on the second Monday. Meetings begin at 7:30 p.m. and are held at the old L&N train depot, Arnold St., Cullman, AL. All visitors and prospective members are welcome.

Official Grotto Address

Cullman Grotto
c/o Harold Calvert
123 Co. Rd. 250
Cullman, AL 35057
webecavers@hotmail.com

Newsletter Exchange

The Flowstone
Lisa Huff

cgrottonewsletter@gmail.com



2019 OFFICERS

Chairman
Harold Calvert
(256)287-9770
webecavers@hotmail.com

Vice Chair
Scott Murphy
smoothys1@gmail.com

Secretary
Evon Thompson
binerbat@gmail.com

Treasurer
Tracy Calvert
webecavers@hotmail.com

APPOINTMENTS

Advisor
Vic Bradford
by carrier pigeon only

Safety
Jeff Lynn
(256) 558-7042

Membership/Library
David Drake
(205)790-1350
dmdrake1@gmail.com

Webmaster
Kuenn Drake
kuenn.drake@gmail.com

Front Cover: Shelta Cave -
Huntsville, AL

Google Images

ECHO)))) CHAMBER

How Stalagmites Get Their Shapes

<https://www.nytimes.com/2019/11/27/science/stalagmites-physics-caves.html>

By Katherine Kornei
The New York Times
Nov. 27, 2019

Researchers developed a physics-based model to explain how the structures on cave floors take so many different forms.



Stalagmites in Lewis & Clark Caverns State Park in Montana-C. Miller, The New York Times

Plop.

Plop.

Water drips from stalactites hanging from cave ceilings.

Each successive drop adds a thin layer of minerals to a growing stalagmite below. These remarkable structures are found on the floors of caves all over the world. Although they grow only a fraction of an inch each year, they serve as record keepers of past environmental conditions, such as droughts.

But while there has been a lot of research focused on how stalactites form, relatively little has been done on stalagmites.

Simulations of their growth tend to assume that water droplets fall straight down, resulting in

candlestick shapes. But that is not what is observed in nature. Stalagmites are found with cone, dome and even “pile-of-plates” formations, which resemble stacked dishes.

New research published last week in [Proceedings of the Royal Society A](#) sheds light on why stalagmites have diverse shapes. The study presented a physics-based model that shows that stalagmite forms are dictated by how far water droplets fall from their stalactite of origin. Drips that fall farther tend to result in wider stalagmites. These findings can be used to reconstruct a cave’s geometry over time, the research team suggests.

In 2015 and 2016, scientists visited seven caves in the south of France to understand this diversity. They brought high-speed cameras to study the caves’ stalagmites, many of which were milky white and glistening with moisture.

“They’re beautiful,” said [Tristan Gilet](#), a fluid dynamicist at the University of Liège in Belgium who participated in the fieldwork. The researchers photographed water droplets falling onto 65 stalagmites and recorded videos at 5,400 frames per second.

A water droplet strikes a flat stalagmite in the Orgnac cave in France.

[Justine Parmentier](#), who led the data analysis and is pursuing an engineering doctorate at the University of Liège, and her colleagues found that the sizes of the falling droplets were remarkably similar, all about one-tenth of an inch in radius.

High-speed videos revealed that the droplets created a splash when they impacted a stalagmite. But the extent of the spray — up to roughly 0.7 inches in radius — was much

smaller than the stalagmites themselves. That left the team wondering: What explained stalagmites’ widths?

The answer, the researchers realized, was that the water droplets were not falling in a straight line. “The drops don’t fall in the same place each time,” Ms. Parmentier said.

Instead, successive droplets were dispersed by as much as a few inches each time they struck stalagmites.

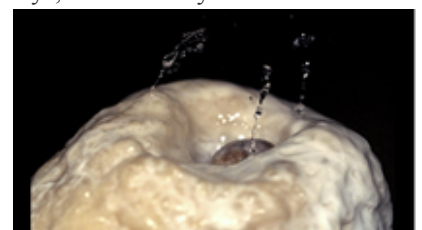
Were air currents within the caves causing the discrepancy? Probably not, the team concluded. The air speed in one of the caves the team visited was far too low to explain the droplets’ lateral movements.

What did explain it, Ms. Parmentier and her colleagues concluded, were aerodynamic forces induced by the droplets themselves. Most objects moving through a medium — air or water, for example — create a turbulent wake.

“Me walking in the room here, I actually shed vortices behind me,” Dr. Gilet said.

The effect is exacerbated as an object moves faster: More and more asymmetrical vortices form, each exerting a random force on the object.

“The force is tiny for one individual vortex,” said Dr. Gilet. But if you have hundreds or even thousands of them acting during a free fall, he says, “ultimately that matters.”



A droplet lands in a concave stalagmite that contains a calcite pearl.

Using Newton's second law of motion, and considering the force applied by each individual vortex, the researchers calculated that water droplets falling from more than about 100 feet would be jostled enough to be displaced by up to a few inches.

Droplets falling less than a few feet, on the other hand, would meander by less than a tenth of an inch because they do not build up as much speed and they fall for a shorter time.

This link between stalagmite shape and droplet fall distance can be used to better understand caves. For instance, it can be used to reconstruct how a cave's height has changed over time because of events such as partial collapses.

"We might be able to obtain some information about cave history," Dr. Gilet said, "based on stalagmite width."



Speak Easy/ Shelta Cave Presentation

October 17, 2019

By Scott Murphy

Leginia and I went to the Speak Easy Tonight October 17 to take part in a Huntsville Grotto presentation of Shelta Cave. It was interesting. They had a speaker from Alabama A&M who talked about the different species of wildlife in this cave.



TAG Calendar

December 2

Grotto Meeting - This month's cave trip will be discussed at the meeting.

December 7

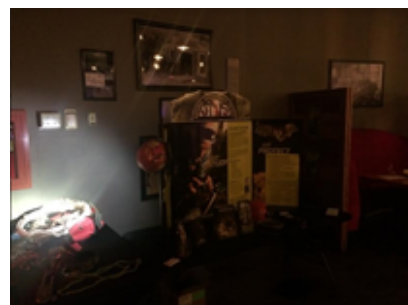
Cullman Grotto Christmas Party

December 14

Montgomery Grotto Christmas Party

Dec. 31, 2019 -to- Jan. 1, 2020

4th Annual NSS New Year's Eve Party and Bat Ball Fundraiser



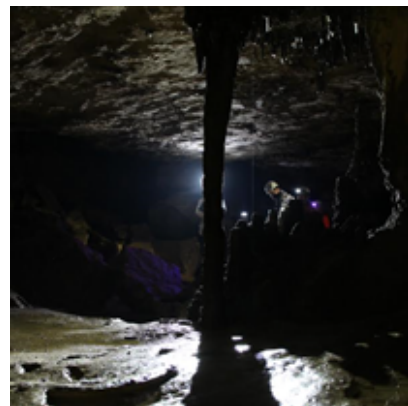
Limrock Blowing Cave

October 16, 2019

By Scott Murphy



Limrock Blowing Cave. First time to go to this one. Very nice.



I thought there was going to be a lot of crawling but turned out nice. The wet exit wasn't that bad.....



Formation in the Register Room.



Bridge Day 2019!

October 17, 2019

By Mike Huff

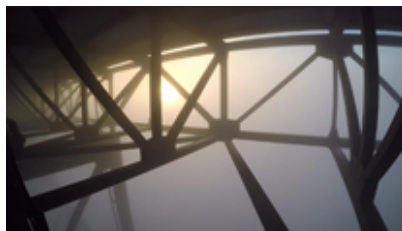
Bridge Day 2019 was my first in several ways. Not only was this my first decent off the bridge, but it was my first time under the bridge, my highest rappel, my first time rappelling into a fog so thick, I couldn't see the ground. All these things made for a great adventure, which began in MGM with a car ride to Cullman. After picking up Harold, Chuck, Terri and I headed north to WV with a quick layover in TN to rest at a cheap hotel. The next day after a round breakfast (round egg patty and round greasy sausage patty on a hard round biscuit), we hit the road. Several hours later, we arrived at the campground, which was already filling up with our caving cohorts. We took the traditional tour of the bridge and welcome center overlook, attended the mandatory safety meeting, then enjoyed some pizza and beer.



4am came way too early, especially since it was 3am for us. Luckily there was a hot breakfast at the bar to enjoy before we hit the road. Contrary to the previous day, the weather, while clear, had turned frigid which made things a little uncomfortable but still fun.



To complete my experience, I went with Tiny's group to assist with the rope rigging. This was another first. What the guidebooks don't tell you is that being on the rigging team means you have to leave the warmth of the campground to drive up and sit on the side of the highway. While everyone else enjoys hot coffee, you stand around waiting for a dog to come by and sniff your packs for explosives. I wasn't bitter, but I was very cold LOL.



With all the sniffing done we got the all clear and began our trek under the bridge. Words cannot adequately describe-and pictures don't do justice to the catwalk underneath. The only way to really experience it is to be there and feel the vibrations and hear the sounds that emanate from the structure. Our walk to rig meant we had to hike across the entire length of the bridge to reach the other side, crossing the river below. That bridge is a heck of a lot longer than it appears when you have to walk it.



The morning fog had rolled in as we climbed onto the catwalk obscuring the canyon below. I lost sight of the ground shortly after we started our walk with only faint glimpses of the river below as we crossed the midway point. As we approached our rig point the cold really began seeping in but the sun was starting to peek through fog and brighten things up. I still couldn't see very far but there was no denying the feeling that you were very high up. Speaking of being up very high the time had come to rig the rope. For some reason the rigging points are considerably higher than you might imagine them to be. As part of the "complete experience" tour package I was signed up for it was my job to climb up onto the handrails to reach the hanging carabiners...what's another 4 feet at this point :-O



With the rigging done, our first member started down through the fog followed soon after by the "off rope" call from the radio. My time had now come. I attached my safety and crawled out onto the girders, the

view somehow opened up even more. There wasn't any real fear per say only a sense of hyper-nervousness. I trusted my gear so I felt secure but the height has a way of making you triple check everything. My rigging was done as I've done it many times before and it felt good but a 3rd check just to be sure. With a nod from the safety officer I shifted out over the girders, hanging out over the void, feeling the weight of the rope. Down I go,,sort of. Because I rigged all my bars going down became more of reverse climb so I had to work to clear the girders. Going too fast wasn't going to be a problem. Drop a bar and begin again with a lot more movement. Time to enjoy the ride and what a ride it was. As I slipped out of the fog I began to see the canyon, the river, the trees. What a sight!!! With the ground approaching I knew the ride was nearly over so I took it all in. This was the first of 3 rappels that day and each one became easier and easier to enjoy but nothing compares to your very first one.



Bridge Day 2019!

October 17, 2019

By Harold Calvert

Once again it was time to find our way to West Virginia for the annual New River Gorge Bridge Day Festival.



This is a one day event, celebrating the opening of a bridge across the New River Gorge, and is held in October every year.

Each year, rappel teams, and base-jump teams are invited to go off the bridge for a spectacular ride to the bottom, 876 feet to the river.

This year, over 300 rappellers participated.

I am involved in a two team group, VBATS. Each year, we take a two team group there, with 12 rappellers and several belayers.

This year, we were able to camp at the old Aces camp, which is convenient. The shuttle busses stop there and take us to the bridge, where we get on the walkway to the entrance of the bridge. The rappellers rig on a catwalk underneath the bridge off of the

main structure.

We had arrived the day before to setup camp, get registered, and go to a safety meeting. The safety meeting is required for all rappellers participating.

We spent the rest of the day sight-seeing, and getting a game plan ready.

The day of the festival starts early for the rappel teams. There is a three person rig team for each rig spot. There are 26 rigs.

We must be at the end of the bridge about 6am and line up everything we plan to take under the bridge on the roadside. The security brings bomb dogs to check everything.

With a good to go, we make our way to the catwalk and are marched out single file to our designated rigpoint.

The hardest part of rigging in is standing on the top rail of the catwalk to reach the pre rigged straps we have to clip into. It's a bit unnerving standing on a rail above an 876-foot drop!



After rigging, the safety teams inspect our rig, and then ask for a pull test from the bottom. Once this is done we are cleared to rappel. We were done before the flag was completely raised, Chuck rigged in and made the first drop. Our rope was in the trees, once down he had to pull it up a few feet and pass it back down to the belayers.

This done, there was a steady

stream of rappellers making their way to the rope. All did well. There were no problems all day. We had a total of 36 rappels on my rope, and close to that on our second rope.

The event is shut down at 3pm and the rope must be pulled and packed out. Chuck and Chris was there to help and made easy work of derigging.

After the event we all head for a good dinner, then back to camp for a legendary VBATS bonfire. They say it's not a VBATS bonfire if you cannot see it from space. And this year's does not disappoint. We all gather there and discuss the day and have a few drinks, making plans for the next year and more rides on long ropes.

With another good bridge day in the books, we look forward to many more.



A different kind of bridge day

By Harold Calvert

The story you are about to read is true. The names have been changed to protect the innocent. Or maybe not?

I was visiting a friend in Central Alabama, when he asked if I was interested in visiting some famous movie sites close by.

Sure! The first stop was at a bridge, a very old arch bridge. As we walked across the bridge, I noticed hangers, like the ones we use to rig in caves.

The conversation quickly changed to how much fun it would be to rappel the bridge, which changed even faster changed to, "How can

we do it?"

A plan was formed: Go at night; rig the arch post; rappel down to a boat waiting at the river.

Seems a solid plan. It was a go!

The rig point at the walkway was hidden unless you stop the car directly at the spot. The rope dropped onto an island, landing in only a few inches of water.

There was a kayak tied on the island. All the pieces were in place.

With a seat harness hidden under a long shirt, and a backpack full of rope, we calmly walked up the walkway and to the center of the bridge.

No cars coming, time to rig. My helper did a quick wrap and clip in, as I threw the pack down with the rope feeding out. With a splash, I knew the rope was down. We had pre-checked the depth and knew how much rope to pack, 65 feet from the edge.

With a quick rig in, step over and zip down, it was over. The top guy dropped the rope as soon as it got limp and headed off the bridge to meet me at the boat launch.

The rope was stashed in the hold of the kayak, and I started paddling down river, lights off.

The rig and rappel was done in less than two minutes, the trip back to the launch in about ten.

Done.

And we had done something that most likely had never been done. With another good fireside story to tell.



Black Friday Trip Ellison's Cave Fantastic Pit November 29, 2019 By Chuck Tice

A group of seven traveled to Pigeon Mountain to be a part of Cullman Grotto's annual Black Friday trip. This year, the group traveled to Pigeon Mountain to make the hike up to Ellison's Cave and then drop the 586' Fantastic Pit.

We left the Blue Hole parking area around 11am. About an hour later, we reached the dug entrance to Ellison's. Some went on in to start rigging the 123' Warm Up Pit while several others continued up the hiking trail to view the original cave entrance. It was about an hour by the time everyone regrouped and made the first drop. The waterfall was running, but the flow was not as heavy as in the past.

Everyone headed over to the 30' Nuisance Climb and had the added task of passing a knot just after getting over the lip. A butterfly knot had been placed in the pre-rigged rope because of a bad spot. Everyone reached the top fine and then made their way to the Attic.

Pre-rigged edge lines were already in place around the ledge and over to the main rig point for Fantastic. There were at least five bolts in the area, and we rigged into two hanging out over the pit.

Everyone made the rappel successfully after dealing with a few "sticky" spots in the rope on the way down. There was a mist at the bottom, but it was nothing like the hurricane wind and water we have experience there in the past. Everyone also had good climbs out, though some of us were sucking a little (actually a lot) more air than

other towards the end.

Time-wise, it was a typical Fantastic trip taking around 12 hours start to finish from the vehicles. It was a great group, and we had a safe, fun day.

Thank you to Cullman for another awesome Black Friday trip!!



A Very Black Friday November 29, 2019 By Harold Calvert

It's a tradition with our grotto to do a black Friday trip. Years back it was always an Ellison's trip to do Fantastic Pit. We had strayed from that for years. This year, we decided to do the big one again.

The trip was originally meant to be one to Flowing Stone Pit, with an alternate trip to Ellison's, in case some were wanting a bit more of a challenge. But this year, the group got smaller, and there were not numbers to do both. So it was decided at last minute to do The Big One. I had planned ahead just in case, ropes and rigging were in the car. So we headed off to do a 586 foot pit.

The trail to the pit did not disappoint. It was as bad as I remembered. Terri decided to not go any further. She had been having some ankle problems. Back to the car for her.

The rest of us proceeded to the cave. Six on the trip.

Once in, we made our way to the first pit, a 124 footer. Jason and I rigged the pit while the others made their way to this point. All made it down with no problems. The pit is usually wet, but today we only got

a light spray from the waterfall.

After this pit, there is a short distance to cover to the next obstacle, A short handline climb, a narrow rock bridge, then an 18 foot climb called the nuisance drop. It is awkward, but manageable, all made it through without any problems.

At the top of this is another short passage before you come to the big pit.

At this point you have to clip into a safety line that skirts the top of the pit along a dugout ledge. This is a belly crawl around a crumbling ledge with one leg hanging off of the 586 foot pit, while bringing all the gear and ropes around. Just a little unnerving, I try not think about it and focus on getting around to the rig point.

This rig spot is called the attic, and is the highest spot to rig the big pit.

Once everyone is around safely, we drop the long rope, it is rigged into two bolts in the ceiling. There are new bolts there now, replacing the old rig point we used for years. This rig gives you a free drop from the top. To rig in, you have to pull the rope to you, rig in, and then step off.

The waterfall was low today, all we got from it was a slight mist in the pit.

We all had less than perfect rappels, the rope seemed to have flat spots in it. You would hit a flat spot and speed up, then the flat would twist and stop you. Time for a new rope, and pit rope this time not Highline. We have never had that problem with PMI rope.

We all climbed out tandem, and made decent times out. I climbed with Jason, our time out was 42 minutes.

Once we are done with this pit, you still have to climb the warmup pit. After climbing the big one and waiting awhile, this one seems to be way deeper. All made good time with this and we headed out of the cave.

We made it back to the cars, a total of 11 hours.

With a trip to the Huddle House for a well-deserved meal, all parted ways for home.



Spry Canyon Zion National Park October 17, 2019

By Kuenn Drake

Prologue

It had been a long time since I strapped on the 5.10 Canyoneers for Canyoning, 3 years to be exact - much too long. Most of the time these boots are used for caving, and they are a great caving boot. Come hell or high water this year I was determined to keep the date and get out west; as it turned out it pretty much involved both.

Getting There

The flight path this time to southern Utah was ideal. The last leg from Denver to St. George found my nose stuck in the window for most of it, flying over a lot of spectacular landscape.



Upheaval Dome

[Some scientists believe it to be made by meteor impact.]

Most of the 8 days there would be shared with my buddy Hank as at least one of the partners, and a few others. He was an excellent host. Thanks again, Hank.



Day 1 - The Business

Trying to break in the legs and lungs subtly Hank proposed a leisure trip through Spry. In years past I had held permits for this canyon on multiple occasions only to watch them get superseded or canceled. This pic taken the day it was stricken from the schedule the last time we were there on a Cavation - 2014 - Flash flood.



This day dawned crisp and beautiful. Just Hank and I for the day. Leaving the parking area right out of the starting block there is much to see on the approach. Natural beauty everywhere and some rather spectacular man-made

artistry that one could easily miss.



With an admiration for skilled craftsmanship, the days are almost gone when conservation efforts are of such quality - work such as this is often supplanted with haste. Reminds me of an admired promotion I once saw on a heavy equipment construction company's poster, "We don't build Websites".

The native welcoming party showed up to observe intruders, from their superior vantage point.



October Canyoneering may have some drawbacks with short days and dry conditions, but it makes up for it in a natural arena of shimmering colors. WOW, being



the most spontaneous word of the

day.

The first and longest rappel of Spry was quickly reached. Hank performed some toggle magic with our 165' and 125' ropes, the obstacle was craftily descended. There was a pungent aroma at the sandy bottom of this drop. Earlier reports of a decaying bighorn sheep still filled the alcove, however the carcass remained a mystery.

Lots of rappels and a few down climbs.



An impressive variety of vertical challenges, each pretty much having its own signature. Some straight forward, another with a lean across, and one where I honestly thought my partner was hanging me out to dry.

"Where's the anchor?", says I.

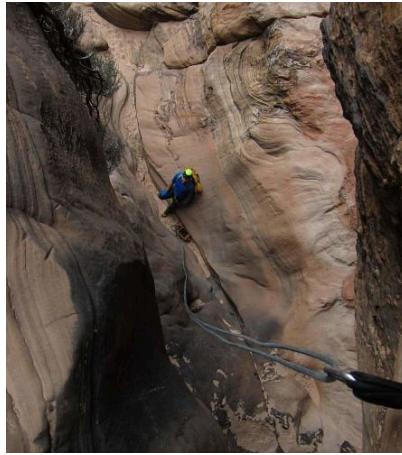
"Oh, you don't need a rope here.", Hank replies.

"O...K... Uh, we are still friends, right?"

Hank, "Don't be such a baby, Q."

It really was easier than it appeared at first survey.

Lunch break, more stories and laughs, it was an excellent day one.



More variety and vertical fun.



It wasn't long before the canyon was bending south and Pine Creek valley (of sorts) was coming into view.



Now we're standing atop the last rappel. No threat of flashing water today!



The same place from the first image in this report of the canyon when it was flashing.

Spry quickly became a classic favorite for me. The perfect cure one needs from time-to-time when life turns gray with routine.

The Ugly?

What is it the Canyon Delphi says, "It's not an adventure until something goes wrong?"

Nothing big, but you may have noticed the pics in this report are predominantly... well, me. (Your punishment). Brilliance here, left his camera back at the trail head in the passenger seat of Hank's car... along with the keys to the rental that was supposed to provide shuttle, at day's end. Doh!!

Hank, being the more attractive of the duo, set out to try and hitch a ride back top. And it didn't take long before he had schmoozed up a ride. As for me, I loitered at the take out.

The Almost Unbelievable

Settling in for the relay wait, directly a jeep pulls in with an "attractive" young couple aboard and they start up a conversation.

"Where you been?"

"Spry"

"You need a lift?" (How about that, aim-shoot-score...must have been the legs.)

"Well, yes and no...we did, but Hank Moon is about to secure that for us." (Hank now talking to another driver.)

"Uh, are you Kuenn??" the driver of the Jeep asks (James aka Yellow Dart on Canyon Collective forum). My southern drawl is a dead give away in Utah.

"James?" (We had communicated several times over the past few years, this being the first time to meet up in person.)

Chatting went on for several minutes after that.

So that was pretty cool and a sweet end to the day's events... but that wasn't the last of it.

The park being very busy this time of year with the fall colors, there were several cars parked in the pullout, on both sides of the road. I had noticed a family on the other side of the road with hood up during all the meet-n-greet. So, about this time another attractive woman crosses the road and walks up to where Hank is.

"Does anyone have some jumper cables we could borrow?" Hank responds that maybe so, but not here.

I'm standing to the side of this person about 10 feet away. There was something familiar in her profile and speech. She begins explaining her predicament and then, I think, I recognize her. "Janie?!?" Startled, she turns and looks at me, "Kuenn!"

Janie lived less than a mile from my home in Alabama when I was a

teenager back in the 70s. I knew her family very well. They later moved to St George around 1980. Now living in Kaysville with her family, they were taking a fall break in ZNP.

Unbelievable! What are the odds? An amazing place, it is. For a moment I thought I better clear my head and definitely not think of Elvis....he would have pulled up in a 1966 Cadillac convertible.

Epilogue

I often ask myself what I like most about getting outdoors. Is it the beautiful places? The beautiful people? The problem solving and adrenaline rush?

Yes. Yes. And Yes!

There are all kinds of perks for me to venture out west for a little vertical canyoneering fun. I lived there for the first 4 1/2 years of my life... and echos from the past still keep drawing me back.

"There's a long road, I've gotta stay in time with

I've got to keep on chasin' that dream, though I may never find it

I'm always just behind it"

Tom Scholz - Boston - Long Time



Minutes of the Meeting of the Cullman Grotto of the National Speleological Society

November 4, 2019

The regular monthly meeting of the Cullman Grotto of the National Speleological Society was called to

order on Monday, November 4, 2019, at 7:35 p.m. by Harold Calvert, Chairman. 9 were present.

The minutes from the October meeting were read. A motion was made by Micah Sims to accept the minutes as read and was seconded by David Drake. The motion was approved.

The treasurer's report was given.

The editor needs submissions for the Flowstone PLEASE!

Announcements:

The Cullman Grotto Christmas party will be held at Jeff and Mandi Lynn's house.

The Montgomery Grotto Christmas party will be held on December 14th.

Trips: Black Friday trip to Ellison's or Flowing Stone

Old Business:

STILL NEED submissions for a 25th Anniversary T-shirt design.

New Business:

No new business.

The meeting was adjourned at 7:55 p.m.

