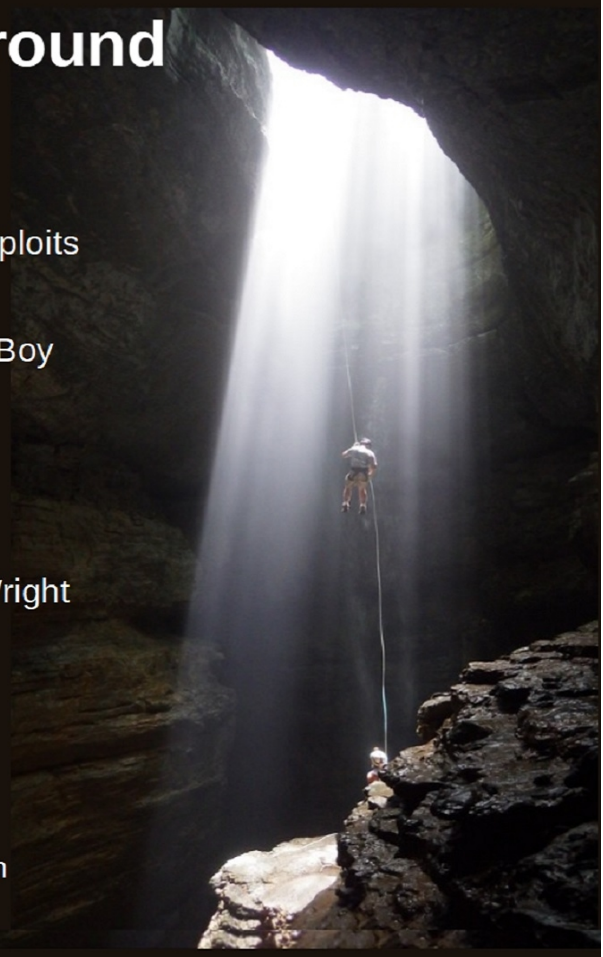
Underground

Caving Exploits
of a
College Boy

by
Charlie Wright



Reston
2022

On the Cover
Caver on rope at Stephens Gap
Stephens Gap Cave, Limrock, Alabama

Photo by W. R. Cochran
https://www.flickr.com/people/wrcochran/

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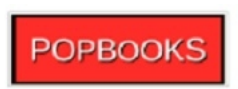

First Edition: December, 2022

FOR MY WIFE KATHY TO WHOM I CAN NEVER EXPRESS ENOUGH THANKS AND LOVE

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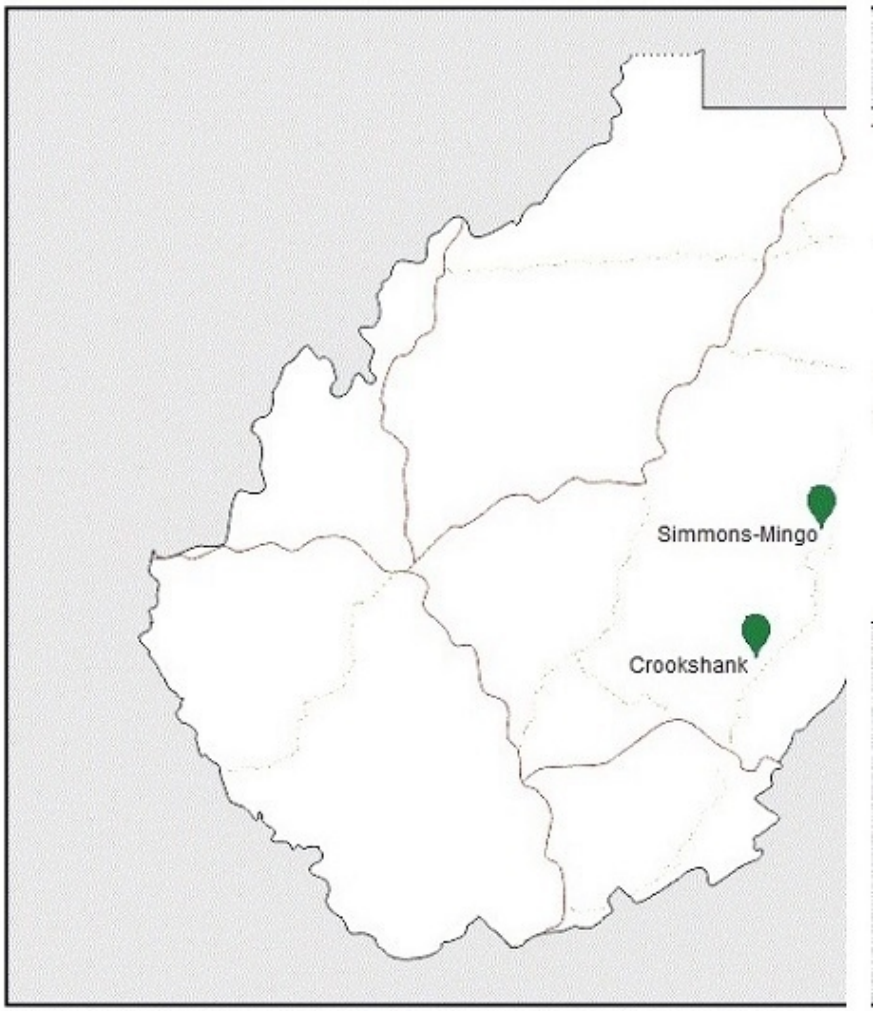

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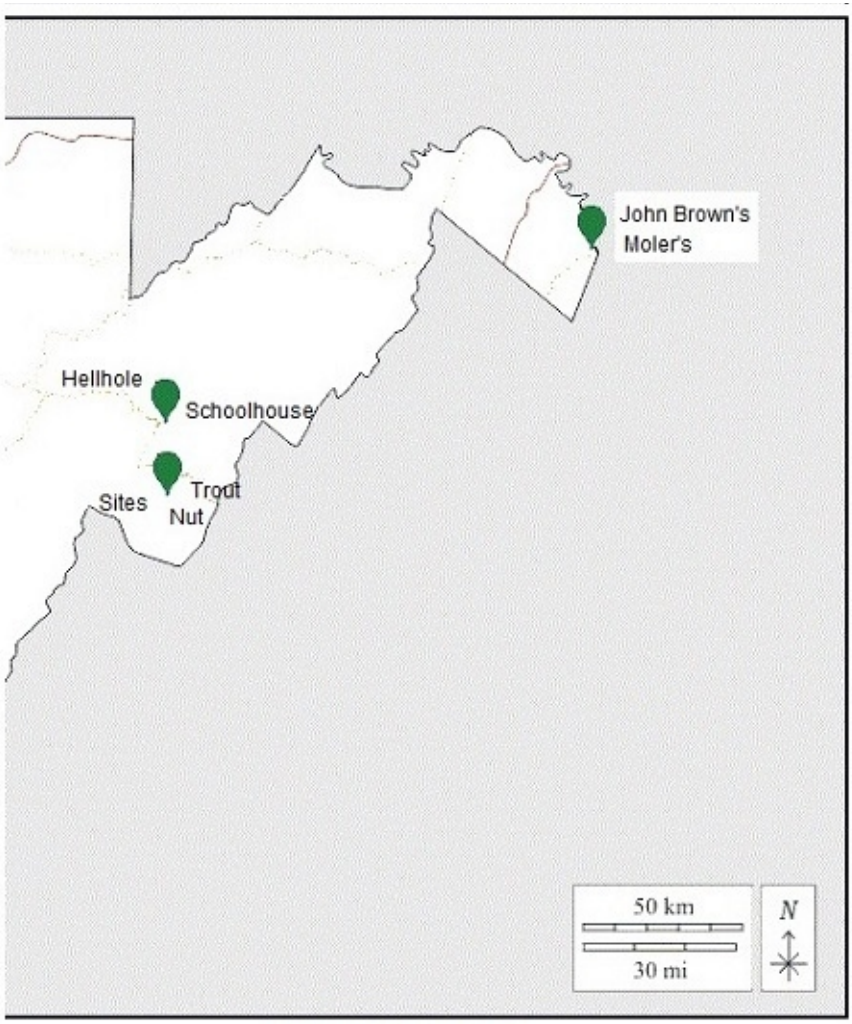
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FOREWORD

A recent flurry of emails announcing a planned reunion of my wife Kathy's high-school class reconnected me to an old friend. In high-school, he and I and several other friends often spent our weekends hiking and camping. We visited the Shenandoah Valley, Skyline Drive, Old Rag and Sugarloaf mountains, and nearby State and National Parks.

On one such trip, in the Summer of 1966, while exploring along the railroad tracks adjacent to a small riverside campground near Harper's Ferry, WV, we happened upon the entrance to a cave. Thus began a series of caving adventures that consumed all of my college years (1966 – 1971.)

Exchanging email with that friend brought forth many fond and almost-forgotten memories of those weekend trips. I decided to document some of those memories here before they were lost to history altogether.

I found caving both enjoyable and exciting. I hope readers will enjoy reading about my experiences and that some might even be tempted to create some underground adventures of their own. If so, I urge them to contact the National Speleological Society where they will be able to meet many like-minded enthusiasts who will teach them how to do it safely.

Charlie
January, 2023

PRELIMINARIES

Caving[1] can be fun. I heartily recommend it as an outdoor recreational activity. However, caving entails risks. You must remember that you will be underground – sometimes far underground. A minor accident along a hiking trail becomes a major incident deep inside a cave. Rescue will be slow and complicated. But if you educate yourself to the risks, use proper equipment, and exercise good judgment and common sense caving can be quite safe.

Safety

Before reading any further, let's review a few **mandatory** safety rules about caves and the adventures recounted here:

- NEVER go caving alone.
- ALWAYS let someone who is **not** in your caving group know what cave(s) you will be exploring and when you expect to be back.
- ALWAYS make sure that EVERY person who enters a cave is carrying at least **two** different and independent light sources.

1 Pro Tip: True aficionados refer to *cavers* and *caving* not *spelunkers* and *spelunking*, as the uninitiated typically do. When discussing the subject, always use the terms *caver* or *caving*, rather than *spelunker* or *spelunking*. Your credibility with the audience will be greatly enhanced.

The above are the obvious basics, but there are many, many more safety guidelines you should keep in mind if you do more than a little caving. Every visit to every cave can bring surprises. Cave conservatively, plan for contingencies, and expect the unexpected. The book *On Rope*[2] (See References,) written by one of our group and first published in 1987, provides an excellent discussion of the techniques, equipment, and safety precautions one should follow.

Caving Etiquette

Caving, like many recreational activities, has its own unique etiquette. As with any such set of practices, most caving customs are recommendations more than rules. But it takes only a few ugly practitioners to ruin the enjoyment for others. If this book tempts you to try caving, and especially if you decide to take up caving as a regular recreational activity, I urge you to consider the following:

- Be considerate. If possible, get permission from the property owner BEFORE entering a cave that is on private property.
- Follow the motto of the National Speleological Society[3]: *Take nothing but pictures – Leave nothing but footprints*.
- Be especially careful around all cave formations. NEVER walk, climb on, or touch ANY cave formations.

2 "*On Rope*" is the formal verbal signal a climber shouts to his group before beginning a climb or descent. "*Off rope*" signals the opposite.
3 National Speleological Society (NSS): https://caves.org/

- Be secretive about cave locations. Don't reveal the location of a cave to anyone you cannot trust to follow these recommendations.
- NEVER interfere with bats. Bats provide an important service in controlling insect populations. You are in their house. Treat them with respect.
- NEVER touch or interfere with equipment (ropes, rigging, etc.) that you may encounter at the entrance to or inside a cave.

Those are just a few of the most obvious recommendations. There are many others. Just follow common sense and common courtesy and you will find caving very enjoyable.

Cave Facts

Caves present an environment that is altogether different from what most people have encountered and one that presents unique experiences to those who have the curiosity (and courage!) to explore them. So, let me set the scene by introducing a few obvious and some not-so-obvious facts about caves. For example:

Caves Are Dark

That statement seems – and is – entirely obvious. Nonetheless, people are often surprised by the totality of the darkness. Most people have experienced the difficulty of walking outside on a moonless night. However, even starlight on a clear night can provide sufficient light to make ones way

slowly and carefully. There is no starlight in caves. Once you have traveled even a short distance from the entrance of a cave, the darkness envelopes you. Without lights, the blackness can seem intense. And …

Caves Are Quiet

The total darkness can combine with complete absence of sound to become even a bit disorienting. Sometimes the quiet can even seem eerie. With no birds chirping, breezes blowing, or other ambient noises, normal but usually unheard sounds such as clothing rubbing as you walk, or simply breathing, become audible. In tight spaces (some passageways can be skin-tight) you can often hear you heart beating. As counter-intuitive as it seems, when camping overnight in caves, the absolute silence often makes it difficult to get to sleep.

Even when there are sounds in caves – for example the babbling of a flowing stream, a waterfall, or the voices of those in you group who have separated from you – sounds can fool you. That is because caves are acoustically complex and unpredictable. Rock walls and floors cause sounds to echo. In those cases, sounds might travel a great distance. A babbling stream can often sound remarkably like people talking and fool you into thinking others are in the cave with you. Clay and dirt floors and walls, on the other hand, absorb sound quickly. In those cases, any sound will dissipate rapidly. Even separating from your group just a short distance can leave you out of earshot.

Caves Are Cool (And Often Wet)

Besides being ‘cool’ in the slang sense, caves are cool in temperature too. Some caves are even cold. William Davies,

in his book *Caverns of West Virginia* (See References) explains:

> Caves can be divided into three distinct zones of temperature and humidity. The entrance is characterized by variable temperatures that generally parallel those of the earth's surface. A second zone extending from just inside the entrance to variable depths in the cave has temperatures that fluctuate slightly depending upon air currents in the cave. The third zone, which occupies most of the cave, has constant temperature and humidity.
>
> The temperatures in caves approximate that which is the mathematical mean for the area in which the cave lies. In West Virginia the temperatures encountered lie in the range of 50° to 54° F. However, noticeable extremes occur.
>
> The humidity in practically all caves is 100%.
>
> Some caves have strong currents of air moving through them. In summer this effect is detected by the cold stream of air that flows from such caves.
>
> The streams flowing in caves have temperatures that are close to that of the cave air and surface streams that enter caves are quickly cooled.

Caves Can Be Confining

Most people have visited or seen caves such as Luray Caverns[4]. These so-called *commercial caves* generally have passageways that have been enlarged as needed to allow ease of walking, with flat smooth floors, stairs, and hand rails. Most of these commercial caves also feature one or more large rooms. Some of these rooms are remarkably large, able

4 See https://en.wikipedia.org/wiki/Luray_Caverns

to hold hundreds of people. Many of the caves discussed in this book include such wide passageways and large rooms. Some rooms easily dwarf even the largest of rooms found in commercial caves.

More likely, though, cave passageways are narrow and snake-like, with irregular walls and jumbled floors. Some passageways are referred to as *crawlways* because they get exceptionally small and narrow. Some get so narrow that one must raise their arms above their shoulders as they climb and crawl because there isn't sufficient width in the passage to keep your arms by your side. If you suffer from claustrophobia, or even just dislike confined spaces, these caves are not for you. But many caves offer reasonably easy passages. So do not discount all caves for this reason alone.

Some Caves Are Vertical

Caves are not limited to a collection of horizontal underground passageways. Many caves include vertical and diagonally inclined shafts (often called pits) that require ropes and other climbing equipment. These vertical passages can range from a few dozen feet to hundreds or even thousands of feet deep. Many of my favorite caves are those that include vertical components. See the section titled Going Vertical.

Caves Have Bats

Yes. As expected, some (but not all) caves are home to bats – sometimes thousands or millions of them. Do not let that deter you. Bats should not be feared. Popular wisdom about wild animals advises that *animals are more afraid of humans than humans are of them*. That is certainly true of bats. And bats are expert aviators. They actively avoid

humans with amazing flying skill. (See my personal experience in Schoolhouse Cave.) Others worry that bats carry rabies. In fact, bats carry rabies no more often than any wild animals. Most are perfectly healthy. Finally, let me debunk the popular cliché that bats get tangled in women's hair. I can personally assure you that **bats do not get tangled in anyone's hair**.

If you explore more than a few caves, you will certainly encounter bats. But, unless you are in a cave during the early evening (when bats go out to hunt for insects,) or in the early morning (when they return,) you will see them only hanging from the walls and ceiling sleeping or (in the winter) hibernating. Leave them alone and they won't bother you.

(Some) Caves Have Insects

Bats are the only animal to inhabit caves. There are **never any snakes** or other animals in caves because of the darkness. For that reason, even bears cannot venture more than a few yards into caves to hibernate. However, you will occasionally find unusual insects – spiders, crickets, beetles, worms and others – unique to caves. They are rarely seen in large numbers. None are dangerous or poisonous. And all of these insects are essentially blind too. They are harmless. As with bats, leave them alone and they won't bother you.

Caves Can Be Impressive

Caves often (but not always) contain remarkable geologic features called *formations* or *speleothems* formed over dozens, hundreds, or even thousands of years. The most well-known formations are *stalactites* (icicle-like deposits which

hang from the ceiling) and *stalagmites* (matching deposits that grow upward from the floor directly under a stalactite.)[5]

Some formations are small and delicate. Others can be immense, growing to tens or even hundreds of feet high. In addition to stalactites and stalagmites, there are literally dozens of other types of formations.

Despite the fact that most formations essentially consist entirely of stone or crystal, many are surprisingly delicate. Beautiful to behold, but easily broken. Remember the admonition given earlier: *NEVER walk, climb on, or touch ANY cave formations*.

Many pages could be devoted to naming and describing the huge variety of formations. Instead, I'll direct you to the Internet where you can quickly find descriptions and enough pictures to satisfy your curiosity. Suffice to say that encountering these various formations in their native habitat is impressive and is one of the reasons we visited many of the caves discussed in this book.

Each Cave Is Different

As you can guess from reading all of that, there is a great deal of variety in caves. To paraphrase Forrest Gump[6]:

> Caves are like a box of chocolates – you never know what you're going to get.

Let's open that box!

---

5 My favorite way to remember which is which: Both begin with *stala*. The 6th letter, however, gives them away. A stala**C**tite hangs from the **C**eiling. A stala**G**mite rises from the **G**round.

6 A popular 1994 motion picture. See https://en.wikipedia.org/wiki/Forrest_Gump

UNDER GROUND

With introductions out of the way, it's time to head underground. In this section, I describe my experiences in a few of early caves that were particularly memorable. Later sections (Going Vertical, Other Memorable Caves) relate accounts of other caves that I can remember by name or simply because of the adventures within.

Some 'literary license' has been invoked, from time to time, as incidents described as having happened in one cave might easily have happened in some other forgotten cave. But everything you will read here actually happened in one cave or another.

Most caves were visited multiple times either because they were large or impressive enough to warrant return visits or because they were especially beautiful or had other features of interest. Some were visited simply because they were fun to explore. Except for John Brown's and Moler's – my first two caves – the caves are presented here in arbitrary sequence. Sadly, I have forgotten more than a few caves I visited.

For each cave, under the heading *Cave Description*, I provide the summary of that cave excerpted from *Caverns of West Virginia* by Wm. Davies (See References) – the book our group used as its 'Bible' in deciding which cave we should visit next. To this day, that book remains one of the most comprehensive lists of caves in West Virginia. Long out of print, it is still highly sought after by cavers for it's detailed

information. I'm embarrassed to admit that one member of our group, having discovered a copy of it at a local public library, 'accidentally forgot' to check it out as walked out with it.

Following the description taken from that book, I provide a recollection of my personal memories of the cave under a sub-heading titled *My Adventures*.

The trips our group made were memorable for the camping as much as for the caves themselves. During the summer months, we camped under the stars. Motel rooms and even tents were a luxury we college kids couldn't afford. In winter, or when the weather was rainy or snowy, we camped in various caves. Inside a cave there was never any bad weather. With constant temperatures in the 50s near their entrances, caves were often far warmer in winter than the outdoors. No worries about wild animals either since we camped far enough into the caves that we were well past the distance animals could manage without daylight to guide them.

As college kids, we had little money. Nor did we have training as chefs. Our meals reflected both of those facts. One of our group had a Coleman stove on which pancakes were the most complex meal cooked. Mostly, we ate the bare basics. A stop at a random grocery store on the way to the mountains stocked our nutritious gourmet pantry: Canned sardines, crackers, loaves of bread, 10-packs of hot dogs (usually eaten cold,) and boxes of Pop Tarts (also eaten cold) were the staples.

A typical weekend trip comprised three or four of us, though the membership in our group varied from trip to trip. Sometimes we'd take more than one car so various members of the group could arrive later or depart earlier. Sometimes

we'd visit multiple caves in one weekend. Sometimes we'd make multiple ventures into the same cave over several days. On unusual occasions, we'd splurge and have a hot meal in a favorite roadside restaurant. Even more rarely, we might rent a motel room for the night after a particularly eventful day.

We quickly acclimated to the typical 4+ hour drive from homes in the Maryland suburbs near Washington, DC to whatever was our first destination. In 1966, Interstate-66, Virginia's gateway to the Shenandoah Valley, was still incomplete. So, our route relied on smaller highways, often 2-lane, through and over the several mountain ranges between the Maryland suburbs and central West Virginia. The drives were enjoyable and scenic. On arrival, usually early evening, we'd establish a camp for the night and discuss plans for the next day.

Without further ado … the caves.

John Brown's Cave

Charles Town (Martinsburg) Quadrangle[7].

Cave Description

The entrance to John Brown's Cave is at track level of the Baltimore and Ohio (now CSX) Railroad, 300 yards east of the mouth of Elks Run (elevation, 330 feet). The entrance, 7 feet wide and 4 feet high, after 40 feet, opens into a crevice passage, 4 to 6 feet wide, 10 to 30 feet high, extending south for 225 feet. The passage ends in a clay bank at the top of which is a small crawlway leading steeply upwards. The cave continues on the east as a stream passage, 3 to 15 feet high, 10 to 20 feet wide, 250 feet long. At the rear the ceiling descends into a small pool, or siphon, blocking further traverse.

Siphon

A siphon (also referred to as a sump) is a cave passage similar to the u-shaped drain under a bathroom sink. Some siphons are filled with water and typically signal the end of exploration. Many are extremely narrow, often barely large enough to allow a human body to squeeze through. Even

7 Quadrangle maps are detailed topographic maps produced by the US Geological Survey. Typically a quadrangle map covers an area 7.5 minutes of latitude and longitude. Information can be found at https://www.usgs.gov/programs/national-geospatial-program/topographic-maps.

when dry, traversing a newly-encountered sump is often problematic. What's on the far side? Entering head first requires one to essentially 'dive' down into a steep hole and then crawl up the other side. Head-first is the preferred technique if you know in advance that the siphon is open on the far side. However, if the far side is unknown and turns out to be blocked or otherwise not passable, the explorer must then find a way to reverse-crawl, feet first, back out of the hole he dove into. Such a maneuver is awkward to say the least. Entering an unknown siphon feet first makes it easier to extract one's self from a dead end. But requires backwards climbing into the unknown second half. Siphons are one of my least loved cave features.

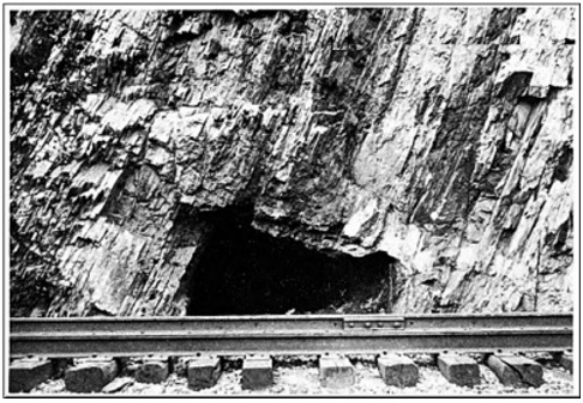
In dry seasons the siphon can be passed by descending a shoot for 10 feet to a series of small rooms. The stream flowing through the passage is offset beneath the entrance passage at the small slot connecting the two passages.

John Brown is said to have used the cave to store arms in preparing his raid on Harper's Ferry during the American Civil War.

My Adventures

This was my first cave – stumbled onto by our group. As I mentioned in the Foreword, weekend camping trips with friends were a regular part of my college years. On one such trip in late Summer or 1966, a group of friends and I stopped at

a small roadside camp ground near the banks of the Potomac river just north of Harper's Ferry, WV. As we walked along the adjacent railroad tracks, we happened upon a cave.



John Brown's Cave Entrance [8]

The entrance had been uncovered in the mid-1800s during excavation of the railroad bed. Today, the entrance is heavily gated – closed off in the 1980s by the CSX railroad which owns the tracks and surrounding property. But it was readily accessible in 1966, looking very much like the picture above.

Imagine a group of teen-aged boys walking past such a sight. Of course, we all *immediately* rushed inside. Asking permission (see Etiquette) never even crossed our minds. We slowly made our way into the darkness over a sloping, uneven floor. We proceeded as far as daylight would allow – probably no more than fifty feet. Lacking flashlights, though, we were forced to stop. We simply could not see. We had no choice but to retreat. ***Unacceptable!*** As we made our way back out – before we had even reached the entrance – we already had

8 Photo by Wm. E. Davies.

resolved to return the next weekend better prepared. We simply had to find out where this cave went.

Nearby camping and parking, ease of access, and its apparently simple interior (as yet still unknown to us) combined to make this the perfect cave from which our group could learn. I think we visited it three or four times as we acquired equipment, gained experience, and began what would become an engrossing pastime for the remainder of our college years.

One week later, flashlights in hand, we felt fully ready to discover the wonders of this cave. Little did we know. The flashlights allowed us to make only minor progress. Their weak beams were wholly inadequate and penetrated little more than a few feet into the darkness. On this second expedition, we managed to advance only a disappointing 200 feet or so farther than on our first visit before we were stopped again. Not by darkness this time, but by the siphon noted in Mr. Davies' description above.

We had not anticipated anything like a siphon. We didn't yet know what a siphon even was! The siphon was dry when we encountered it. Its entry and exit were, however, quite steep and much narrower than any of us were prepared to proceed through given our limited equipment and experience. We simply were not yet experienced enough or even mentally prepared to attempt a 'push' to its far side. [Thankfully, we were then, even as teen-aged boys, not complete idiots.]

We realized that our hand-held flashlights were clearly insufficient and, despite it being a warm afternoon outside, the interior of the cave was *cold*. THAT was a surprise. We would clearly have to learn more and equip ourselves better if we

were to explore this (or any) cave further – something about which there was never a question.

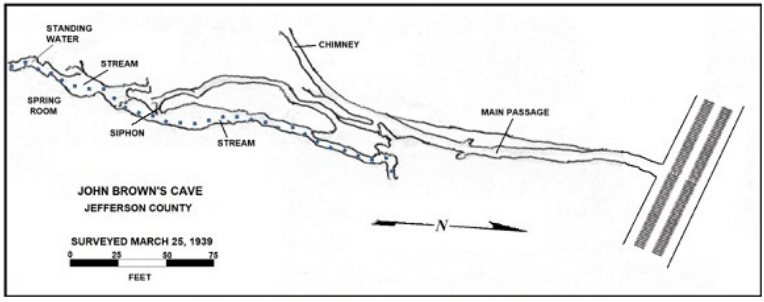
At this point in our caving careers, we clearly understood that we were novices. We had no idea what this cave might hold, nor did we fully appreciate the potential dangers a cave – ANY cave – might present. But we knew there was more adventure and excitement ahead of us. We began our research.

It was early Fall now, so school had started again. Weekends were our only available free time. One of our group spent time in the local library. The result was the discovery of Mr. Davies' book, with its extensive list of caves, their locations, descriptions, ***and maps!*** Another joined the local chapter of the National Speleological Society. Now we had some hard information we could use to inform our decisions about further exploration of this cave.

Several weeks passed. This time, we returned better dressed and better equipped. We had acquired thermal underwear, boots, gloves, helmets, carbide lights[9], and small packs to carry water and other supplies that would, henceforth, be our caving uniform. And this time we had a map and a plan: From our previous visit, we knew the siphon was dry, so we would attempt to push thru and see if the stream depicted

9 Carbide lights: See (https://en.wikipedia.org/wiki/Carbide_lamp) are helmet-mounted gas lamps that burn acetylene which is generated by the chemical reaction of water with calcium carbide (in the form of small gravel-like rocks.) The acetylene is ignited to produce a candle-like flame which, with the aid of a circular reflector produces a brilliant white light. The lamps must be recharged every three-to-four hours by replacing the spent calcium carbide which, as a result of the chemical reaction, has become calcium hydroxide – a powdery or pasty white compound.

on the map was dry too. If so, perhaps the passages at either end of the stream could be pushed farther, allowing us to explore so-called 'virgin passages'[10] – the 'Holy Grail' of the caving world.



John Brown's Cave Map [11]

Our carbide lights provided exceptionally bright light and provided a strong wide beam. With the lamps attached to our helmets, we now had both hands free as we explored. We quickly reached the siphon, confirmed it was still dry, and with the confidence of our lamps and proper clothing the siphon no longer seemed as narrow as it did during our previous visit. Still! How to proceed. I agreed to make the first attempt.

Recalling Mr. Davies' statement that the siphon was sometimes blocked I elected to enter feet-first to make my retreat easier if I couldn't get through. Gravity quickly brought me to the bottom of the U-shaped passage. Then I began the awkward crawl up the other side – backwards and upside

10 *Virgin passages* is how cavers describe those passages which have supposedly never been visited by humans in all of history. They are the caving equivalent of climbing Mt. Everest, or Shackleton reaching the South Pole. Discovering a virgin passage rarely makes one famous. But it is an awesome feeling to 'go where no person has gone before.'

11 John Brown's cave map courtesy Wm. Davies from *Caverns of West Virginia*.

down – pulling my pack with me as I went. I probed with my boots as I pushed with my hands, moving slowly and clumsily, inch-by-inch up the far side. My shirt snagged on rocks, and was pulled up my chest as I continued, nearly coming over my shoulders. Perhaps feet-first was the wrong way to attack this obstacle? [Future siphons would be attacked head first.] Undaunted, I continued.

Kicking with my boots, I could feel that the passage was not blocked. In fact, it was getting wider. Shortly, I could bend my knees and elbows. A few more feet and I could pull my shirt back down. Finally I reached the top of the far side and found myself sitting in a small passage. A quick survey confirmed that the stream was still present, but small. A few feet away was a small shelf on which I could easily sit. The passageway extended in both directions for some distance. There was clearly more to see. The others would certainly want to join me.

I shouted into the siphon that the far side was clear and that the rest of the group should follow me. They could enter head-first, however, making their traverse through the siphon far faster and easier. Presently, we were all sitting on the shelf, resting as we observed the stream, discussing which way to proceed. The answer was obvious, of course: We would go **both** ways.

I don't recall details of the rest of that trip. I do know that we made several additional trips back to John Brown's cave, each time pushing one passage or another as far as we could. The north end of the stream passage proceeded to a small pool where the stream disappeared into the floor of the cave. The pool was several feet deep. Plunging a waterproof flashlight

into the pool, we could see that the passage continued quite a bit farther. But we were not interested. Caving was, we reasoned, risky enough. Cave *diving* was simply insane. Plus, the water was quite cold. No way were we going to fully submerge ourselves in cold water, regardless of what might be on the other side. Besides, we thought, the stream clearly could reach no farther than the Potomac river less than 50 yards from the railroad tracks. And it was unlikely that the passage would enlarge as it neared the river.[12]

Sadly, the south branch of the stream passage also disappeared into the rocks in what cavers refer to as a *pinch down*. There was no standing water, but the passage simply narrowed to the point that human passage was impossible.

If the stream passages went nowhere, perhaps the upward trending passages would be more productive. On another trip, I pursued the `small crawlway leading steeply upwards` that Mr. Davies described. I spent some time worming my way into the passage as it necked down more and more. Soon, I heard a periodic thumping or pounding. Having climbed some way up, I surmised that I could be near the surface and that there was someone up there digging a hole. I looked for tree roots that might confirm my proximity to the surface but saw none. A brief rest, however, revealed that the pounding was not someone on the surface – it was my

12 Disappearing streams: There is an entire technology devoted to answering the question that every caver who has ever witnessed a stream disappearing into the ground has asked: "I wonder where that stream goes?" It's called *Dye Tracing* and it has led to the discovery of some remarkably extensive cave passages. We never did any *dye tracing*. But if you are interested, https://www.nps.gov/articles/000/dye-tracing-wind-cave.htm and https://dyetracing.com/dye-tracing should provide a start.

heartbeat **(!!!)** echoing off the walls of this now exceptionally tight passage. I finally accepted that the chimney I was climbing led nowhere and reluctantly made my way back to the main passage.

On our last trip, our group discovered a full six-pack of beer on the cave floor near the siphon. The cave had very considerately refrigerated the beer to cave temperature. We carried it with us as we exited. As we enjoyed a cold beer at our campsite, we concluded that we had seen everything John Brown's cave had to offer. But we had Mr. Davies' book. There were dozens of other caves out there that simply had to be explored. The only question was: Which caves?

Moler's Cave

Shepherdstown (Martinsburg) Quadrangle.

Cave Description

> Moler's Cave is 800 yards southeast of Bethesda Church (Moler Crossroads) at an elevation of 415 feet. The entrance, 8 feet high and 15 feet wide, at the junction of two shallow ravines, opens into a sewer passage of similar dimensions 60 feet long. Rolls of fence wire and other debris have been carried into this part of the cave. The cave continues northeast for 1500 feet as a passage 5 to 15 feet high and 4 to 10 feet wide. For most of this distance it is on two levels although the lower level is not large enough to permit continuous traverse. The levels are connected at a number of places by vertical pits. The upper level is blocked by clay 400 feet from the entrance. Two hundred feet from the end of the cave is a large room, 135 feet long, 20 to 30 feet wide, and 6 to 20 feet high. The cave ends in a pool and siphon.
>
> Torrents of water flood much of the cave, including the upper level, to the ceiling and caution should be exercised in entering it in rainy weather.

My Adventures

Preparing to depart John Brown's cave on our previous trip, we sat in our camp and reviewed our 'Bible' of caves, quickly discovering nearby Moler's cave that looked promising. It was located only a mile or two from John Brown's cave, only 90 minutes from home. In addition, it was six or eight times larger

(longer) and included what was termed a *large room* and a *mud lake!* We decided that would be our next adventure.

But Moler's was located on a private farm. The NSS had not yet formally introduced us to the rules of caving etiquette. But traipsing all over someone's farm without asking permission seemed rather rude and, one never knew when an angry farmer might appear with a shotgun in his hands. The farm was nearby. We decided to swing by on our way home, introduce ourselves to the owner(s) and get permission. If we were denied access to Moler's, we'd forgo a wasted trip back and pick another cave.

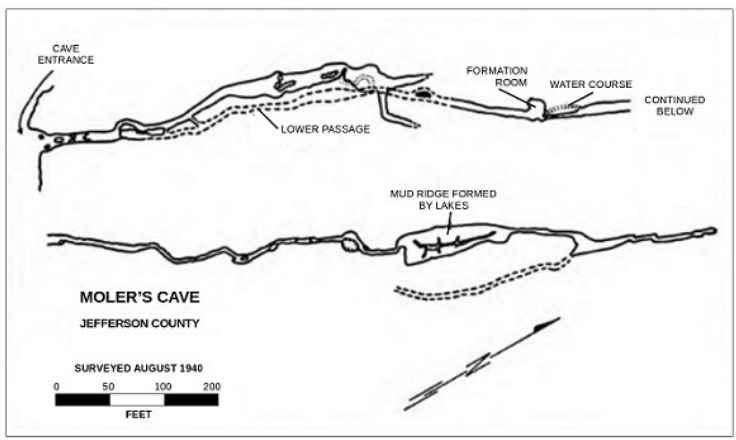
Later, we would discover that successfully finding cave entrances would be the controlling factor determining our ability to visit a cave. But this one was fairly easy. Using the known latitude and longitude of the cave entrance, the location description Mr. Davies provided above, and the Shepherdstown quadrangle map from the USGS, we located *Bethesda Church* and *Moler Crossroads*. Once there, we followed a nearby gravel drive to a small home to the southeast. We cleaned ourselves up as best we could, knocked on the door, introduced ourselves to the woman who answered, and inquired if it would be OK if we returned in a week or two and explored their cave. The woman called her husband over and we repeated our request.

Thus began a lengthy, but friendly, conversation. Who were we? Where did we come from? Why in the world did we want to explore the cave? To keep things cordial, we asked about their farm, cattle, and their life in the country. Perhaps it was our openness and friendly manner. Perhaps our out-of-state license plates. Perhaps simply the courtesy we had shown by

asking politely. In any event, and almost to our surprise, the couple agreed to let us explore the cave. [Sadly, in subsequent years, the owner was forced to close the cave and no longer allows visitors after some thoughtless cavers dumped the calcium hydroxide leavings of their carbide lights on the ground outside the entrance, poisoning his cows.]

We promised the farmer that we'd return in a week or two with a camera, would develop the pictures (no digital cameras yet,) and would return again to show him the inside of this place he had never entered. We headed home, all the way discussing how we'd explore the cave on our next visit.

From the description, we were confident that the cave was not beyond our limited experience. Aside from providing nearly a quarter-mile of cave to explore, our main interest was the *Formation Room* depicted near the far end of the map. We knew of formations, of course, but had not yet seen any 'in the wild' and looked forward to seeing them.



Moler's Cave Map 13

13 Moler's Cave map courtesy Wm. Davies from *Caverns of West Virginia*.

We returned some weeks later, having first checked the weather forecast to assure it wouldn't rain. Mr. Davies' warning that *torrents of water flood much of the cave, including the upper level* – ***to the ceiling!*** – had not escaped our notice. We knocked at the farm house and announced our arrival, thanked the couple again for allowing us to enter, and started off across the pasture to find the cave entrance.

The first obstacle we encountered were cattle and 'cow patties' sprinkled liberally throughout the pasture as we made our way toward the shallow depression among the trees some 100 yards from his driveway that the farmer pointed out to us. At the entrance, we discovered the *rolls of fence wire and other debris* described by Mr. Davies. Apparently, this was the farmer's way of preventing his cows from entering the cave while trying to enjoy its relative cool. We charged up our lamps and went inside, heading directly for the formation room. The going was relatively easy, and we confirmed that the lower passage was, indeed, not large enough for us to fit through easily. Besides, it was wet and muddy. No sense crawling through mud if there is an easier, drier way on an upper level.

We soon reached the *formation room*. I'm sure we were impressed by what we found there – most likely flowstone and stalactites. Sadly, both the memory and the pictures we took to show the farmer have been lost to time. We continued on.

As promised, the floor of the *large room* was covered with mud – soft, wet, and deep. The size of the room impressed us, having not yet been in any cave room this large. Our lamps, bright as they were, could not fully illuminate the far end. A few brief attempts to traverse this mud room to its far end proved problematic. Even skirting around the edges, it

was not possible to get through without wading calf deep into the mud. We turned back, feeling success despite the muddy impediment. We exited, cleaned up, said goodbye to the farmer, and promised to return again soon to show him the pictures we had taken.

Before long and true to our word, we returned again to present the farmer and his wife copies of the pictures we had taken. They were grateful to finally see for themselves what these silly cavers had been so eager to see. They certainly did find the pictures of the formations interesting. Overall, though, it was clear that they thought we were crazy. Nonetheless, we suited up for another failed attempt to reach the end of the cave.

GOING VERTICAL

With a couple of simple caves under our belt, we were beginning to feel comfortable underground and wanted something more challenging. As I noted earlier, at some point during our first two cave expeditions, one of our group had joined the local branch (*grotto* in NSS lingo) of the NSS. As an NSS member, he was now privy to their cave knowledge, including the names and precise locations of other interesting caves. At monthly meetings, they had related stories to him of so-called *vertical* caves. ***Vertical caves!*** THAT sounded both interesting AND challenging.

In caving, *going vertical* means simply that: exploring vertical passages[14]. But cavers rarely, if ever, attempt to scale vertical passages using the rock-wall-climbing techniques that have become popular today. First of all, cave walls are different. Unlike the exposed and weathered rock of mountainsides, cave walls are usually muddy and dirty. They are often slippery and wet and, at best, dangerous to climb. Typically, they are not climbable using rock climbing methods.

More fundamentally, though, the goal of a caver is entirely different from that of a climber. Climbers rightfully pride themselves in honing the skills needed to scale a particularly difficult pitch. To climbers, *the climb itself is the goal*. But to a

14 As a former Naval Aviator, I find it necessary to explain here that, in military aviation, *going vertical* refers to an aerial combat strategy in which aircraft with greater thrust exploit that advantage by climbing rapidly to evade a less powerful opponent. That's not what I'm talking about here.

caver, *the climb is merely a means to the desired end*, which is to quickly move past the climb to whatever lies beyond.

To climbers, technique is king. Free climbing – using only hands and feet – without any artificial assistive devices or safety ropes is often considered the pinnacle of accomplishment. For cavers, technique and finesse are beside the point. Getting past a vertical obstacle is the goal. Any means to that end is satisfactory. Ease and speed are preferred. Mechanical assistance – anathema to rock climbers – is entirely acceptable, even welcomed, if it will put a vertical obstruction in the rear view mirror.

Also, some cave entrances are simply holes in the top of a dome. No amount of rock climbing skill will allow entry or exit. Only ropes will suffice. And, exit from such caves is possible only with the ability to climb back up the rope you came in on. So, before we could experience vertical caves, we would need to learn rappelling and rope climbing techniques and would have to acquire the ropes and specialized equipment needed for both activities. We would have to learn how to *go vertical*.

Vertical techniques associated with caving as practiced today are quite well developed and the associated equipment, though quite sophisticated, is remarkably safe and easy to use. In the late 1960s, however, cavers were on the leading edge. Even the ropes available then were primitive compared to contemporary climbing and caving ropes – and you thought rope was just rope! Not only was rappelling equipment evolving, but new and improved mechanical climbing devices were being invented almost monthly.

The NSS was then (and still is) on the leading edge of those developments as they relate to caving. NSS

recommendations and leadership allowed us to not only acquire the latest equipment (not widely available at the time,) but also to learn how to use it all safely. For practice, our group spent many enjoyable afternoons climbing ropes strung from trees in our back yards. We often traveled to Great Falls and Carderock in the Maryland suburbs where several 30-to-50 foot high, nearly-vertical rock faces allowed us to practice our technique. By the time summer had arrived again, we felt ready to attempt vertical caving.

But, before I can describe our vertical cave experiences, I must introduce the basics of rappelling and rope climbing. I emphasize that I am describing **only the basics**. For a comprehensive discussion, the book *On Rope* (See References) provides an excellent discussion of the equipment and techniques used by vertical cavers.

Finally, I once again strongly emphasize that caving entails risks and vertical caving entails even more risks. Done carefully, vertical caving is safe and quite enjoyable and I highly recommend it. **But vertical caving should NOT be attempted with a cavalier attitude**. BE SMART. BE SAFE.

Rappelling

Regardless of rock climbing ability, when the initial entrance to a cave is a purely vertical drop, rappelling is required. Here, I provide a basic introduction to rappelling so that readers may understand what is involved. Anyone wishing to learn how to rappel in real life should research the subject and seek **professional** instruction **before** attempting any of the activities described here.

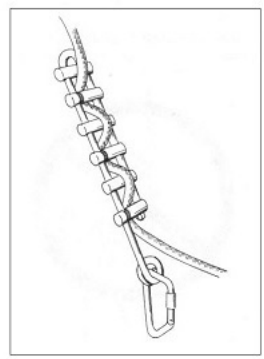
At its most basic, rappelling can be accomplished simply by wrapping a rope around one's torso, using the friction between the rope and clothing to control descent. However, this method is simply impractical, not to mention unsafe, for all but the shortest of vertical drops. It is out of the question for purely vertical drops. We never used this method and it is **strongly** discouraged. Instead, we wore a seat-harness and attached a mechanical device that provided more control over the needed friction.

A seat-, or waist-harness is simply a set of straps around one's waist and thighs, with built-in attachment point(s) from which the wearer can hang comfortably in a sitting position. Some harnesses, called climbing harnesses or torso harnesses, also include shoulder and chest straps and additional attachment points. Outdoor equipment providers today offer a wide range of harness types.

A mechanical device is connected to the main rope, provides the friction needed to control a descent, and is attached to the harness. Today, there are numerous

mechanical rappelling devices – from simple to complex. Again, today's outdoor equipment stores offer an almost infinite variety of them.

Our choices in 1967 were somewhat more limited. The primary device our group used for rappelling was a *rappelling rack*. The rack, now commonplace, was comparatively new when we used it, having first been introduced by cavers in early 1966. The figure below shows a six-bar rappel rack with rope threaded through, as it would be when descending. The carabiner shown hanging from the bottom of the rack is attached to the climber's seat harness.



Six-Bar Rappel Rack 15

During descent, the horizontal 'brake bars' generate friction as the rope passes through them. The climber can increase friction to slow his descent by pushing the bars in the rack closer together and by tugging on the bottom end of the rope with his gloved hand. With enough tension on the rope from below (either from the climber himself or from a safety observer below) sufficient friction can be generated to prevent the climber from moving entirely.

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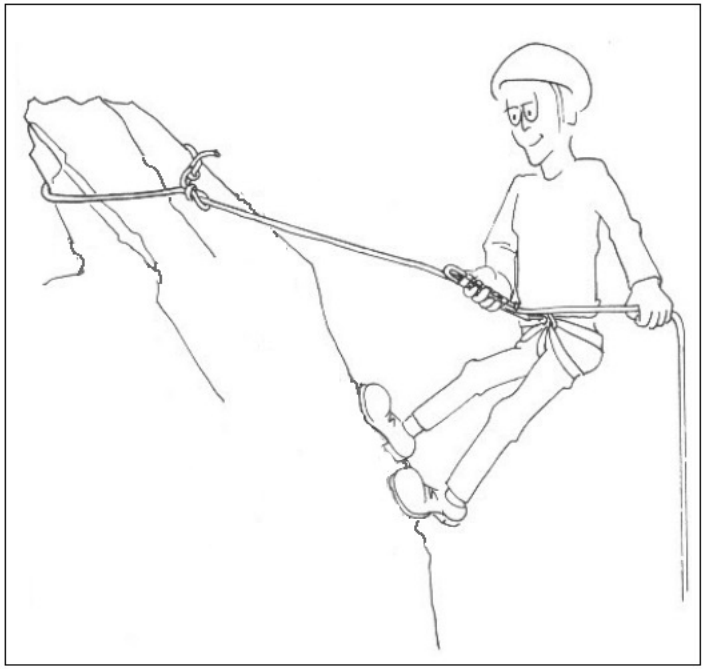
15 Illustration adapted from *On Rope*. See References.

Rappel racks vary in size. The figure shows a six-bar rack. Larger racks can accommodate additional bars and are used for heavier loads and longer drops. Most of our group found that a three- or four-bar rack was entirely sufficient for our needs.



Rappelling Using a Rack [16]

In rappelling, gravity does all the work. The climber need only slide the bars together or tug on the bottom of the rope to control the speed of descent as he looks around and enjoys the view.

16 ibid.

Rope Climbing

Now that we know how to descend into a cave, let's learn how to climb back out. As with the section on Rappelling, I provide here only a basic introduction to rope climbing for the reader. Anyone wishing to learn how to climb rope in real life should research the subject and seek **professional** instruction **before** attempting any of the activities described here.

Rope climbing as practiced by cavers does **not** rely on brute strength and *hand-over-hand* climbing as some might imagine even though the basic process of climbing any rope does rely on gripping a rope in two places and alternating one grip, then the other to progress up the rope. Hand-over-hand climbing is far too dangerous and is simply out of the question when long vertical drops of hundreds or even thousands of feet are considered.

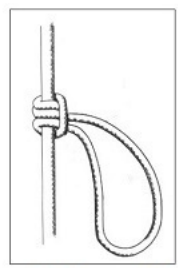
Instead, as in rappelling, cavers use harnesses and mechanical aids. Not only are mechanical aids easier to use and faster than hand-over-hand, they make rope climbing far safer. The aids are physically attached to the rope, and the climber is physically attached to the aids. Properly used, these aids make it impossible for the climber to fall even if they make no attempt to hold onto the rope.

Until the early 1960s, vertical caving was rare and simply not done recreationally. There were few, if any, mechanical aids available to assist with climbing within caves. Over several decades, however, the techniques and the equipment used by cavers evolved in parallel to produce systems that

make rope climbing surprisingly fast, safe, and efficient, relying on a climber's **legs** to do the hard work of climbing a rope – almost as effortless as walking up a flight of stairs. Herewith, then, a brief history of rope climbing and the techniques and equipment our group used in the late 1960s.

Early cavers used wooden or rope ladders. But wooden ladders are clearly impractical for long drops. And rope ladders are remarkably cumbersome and, despite their apparent simplicity, unusually difficult to use. [**Note:** The climber seen later in the picture of the entrance to Crookshank cave depicts a climber on a rope ladder.] Improvements would be needed if vertical exploration was to progress.

The first advancement came when, in 1931, Austrian mountaineer Karl Prusik was credited with describing the knot subsequently named after him – the *prusik* knot – and a technique with which it could be used to climb a free-hanging rope.

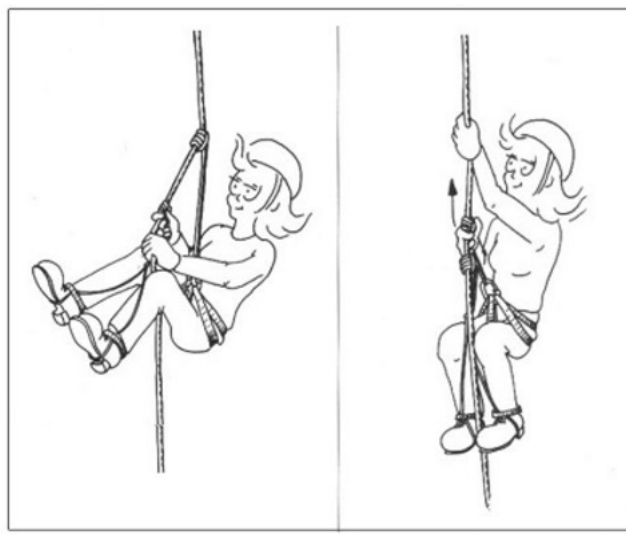


Classic Prusik Knot 17

His method, using two such knots – one attached to a seat harness, and the other attached to a foot loop – allowed a climber to negotiate up a rope using what is now commonly referred to as the *sit-stand* method. In this method a climber

17 ibid.

hangs by his seat harness from a prusik knot attached to the main rope. A second prusik knot is attached to the main rope below the first knot. Foot loops and a sling attach to this second knot. While hanging seated, the climber bends his knees to raise his feet, reaches down and slides the lower knot up the rope as far as he can. Grabbing the rope above him, the climber then stands straight up in the foot loops which are supported by the lower prusik knot. He then slides the upper prusik knot as far up the rope as he can reach. Finally, he bends his knees to return to the sitting position, hanging again from the upper knot and seated in his harness.



Sit-Stand Climbing 18

Repeating the *sit-reach-slide-stand-slide* process, the climber inches up the rope. The illustration above depicts the process. Depending on various factors, each cycle lifts the climber 12 to 18 inches. Tedious, but effective and safe. With

18 ibid.

practice, one could climb 100 feet straight up in only a few minutes. Over the years, several variations on *sit-stand* have been developed, some easier to master than others, but the basic method remains the same. Even so, prusik knots were problematic or ineffective on wet, muddy, and icy ropes encountered in caves. Further advancements were needed.

In 1961, German mountaineer, Anton Hiebler, attempting a winter climb of the famous Eiger North Face[19], developed what he called the *Steigklemme*[20] – literally *step clamp* – to replace the prusik knot. Now called *ascenders*, these step clamps were inexpensive and effective. They held especially well on the wet and icy ropes encountered on Eiger. No longer in production, Hiebler ascenders were one of the few devices available and were widely used when we began climbing.

Hiebler ascenders, however, had an alarming tendency to easily become detached from the rope unintentionally while being raised during a *sit-stand* climb. Thus, it became standard practice to add a simple prusik knot attached to the seat harness and placed between the upper and lower ascenders as a third attachment point. Even so, because of their tendency to detach, Hiebler ascenders fell out of favor.

While *sit-stand* climbing continues to be used in many situations, it is incredibly inefficient. Other techniques or associated devices were sorely needed to make long climbs easier and less exhausting. The first alternative our group

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19 See https://en.wikipedia.org/wiki/1936_Eiger_climbing_disaster

20 Hiebler ascenders are no longer in production, but you can see them at http://www.verticalmuseum.com/VerticalDevicesPage/Ascender/T1LeverCamPages/T1LeverCam0085.php. Our group used the very early "Version A" model.

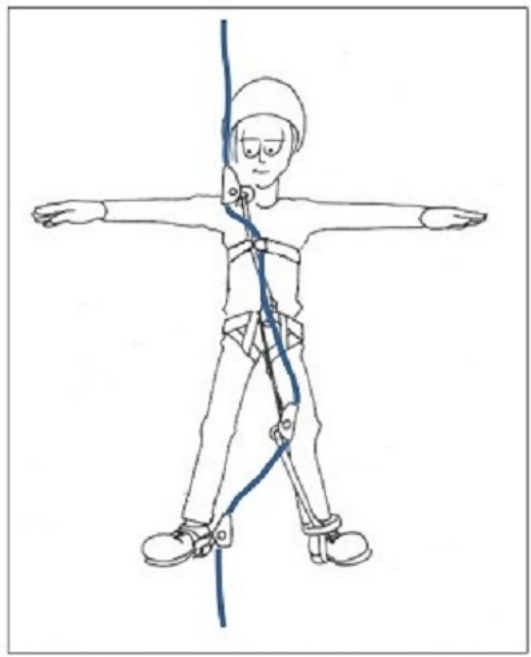
found to replace the Hiebler was the Gibbs[21] ascender. Designed by a pair of US cavers, and first produced in 1965, the Gibbs was inexpensive and simple to use. It quickly became popular among cavers because, like the Hiebler, it was effective on wet and muddy ropes. Its cam-operated design meant that it could be dragged up a rope rather than requiring it to be pushed up by hand. Most importantly, when properly attached to a rope, it was **impossible** to inadvertently remove a Gibbs.

Gibbs climbing uses two or three devices. One Gibbs ascender is attached to a foot loop and strapped to an ankle. A second also uses a foot loop, but is strapped to the knee of the other leg. The main rope is passed through a chest harness (often with rollers) to assist climbers in standing upright. Finally, an optional third Gibbs device or a prusik knot is attached to a shoulder harness to serve as a point from which to conveniently hang when resting. The illustration below depicts a typical Gibbs climbing rig.

To ascend, a climber simply stands up straight, leaning slightly backwards to allow the chest harness to hold himself upright and steps up as though walking up stairs. As he lifts his ankle, the attached ascender simply slides up the rope. As he puts his weight on the ankle, its cam grips the rope and allows him to step up. Lifting the opposite leg slides the knee ascender up the rope. Placing his weight on the sling attached to the knee ascender allows him to take another step up. With each step, the shoulder ascender simply slides up the rope.

21 Still widely used today, the Gibbs ascender has evolved through an almost uncountable number of variations since it was introduced to cavers. Our group used one of the very early versions. See http://www.verticalmuseum.com/VerticalDevicesPage/Ascender/LCam1.php.

To rest, the climber simply bends both knees and relaxes to allow himself to hang from his shoulder harness. This method of climbing is incredibly efficient, allowing a climber to move up a vertical rope with ease, using only their legs, leaving both hands free. In fact, it is often referred to as *rope walking*.



Gibbs Climbing Rig [22]

Rope walking with this type of climbing rig works exceptionally well on pure vertical drops, allowing remarkably fast climbing[23]. But the chest harness rollers become problematic when climbing a rope falling along a slanted wall,

22 Illustration adapted from *On Rope*. See References.

23 The NSS held climbing competitions. The men's record for climbing a 120 meter rope, posted by Rossano Boscarino in 1978 was 4:10. Louise Hose captured the women's record in 5:40.

forcing the climber to lean into the wall, when natural balance wants him to stand up straight.

Ironically, the most critical drawback to Gibbs ascenders is the feature that drove cavers to them in the first place: Their inability to accidentally detach from a rope. More frequently than one might expect, there are times when detaching the ascender is necessary, such as when attempting to negotiate a climb where the rope passes over the lip of a rock ledge. When a climber's full weight is on the rope, it is simply not possible to slide a Gibbs ascender up (or down) past the lip. Chest harness rollers are similarly troublesome. Still more improvements were needed.

Enter a pair of European mountaineers, Adolph Jüsi and Walter Marti. Combining the first few letters of each of their last names, these two Swiss climbers created the Jumar[24] ascender. The Jumar is more sophisticated and far safer than a Hiebler. And because they can be quickly and easily (but **not accidentally or unintentionally**) detached from (and reattached to) a rope using just one hand, Jumars are more versatile than a Gibbs. Jumars can, and often are, substituted 1-for-1 for Gibbs ascenders in the above illustration. Jumars are more expensive than the Gibbs, but are an excellent addition to a climber's equipment arsenal.

Starting with the first, eventually our caving group acquired and used all four devices: Prusik knots, Hiebler, Gibbs, and

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24 See https://en.wikipedia.org/wiki/Ascender_(climbing)#Jumar. As with all climbing equipment, many design changes have been introduced since the Jumar was introduced in 1958. The model pictured in the article referenced here is a circa 2020 version of the device. Our groups' Jumars, obtained in 1968 (and now considered antiques!) are slightly different. But their functionality is essentially the same.

Jumar. Each has its purpose. Today, there are many ascenders similar to Jumars and Gibbs. Each claims unique features that make it preferable in specific situations. The name Jumar has even come to be used by cavers as a generic term to refer to most all mechanical ascenders regardless of type.

Now that we have learned how to descend and climb, we can finally get back to caving – *Vertical caving!*

Hellhole Cave

Onego Quadrangle.

Cave Description

Hellhole is 600 feet west of the Harper Gap–Riverton road, 0.9 mile south of the site of Cave School (elevation, 2200 feet). The entrance is in a compound valley sink. Two large openings, with a third small hole between them, develop into a large entrance room 300 feet long, 160 feet wide, and 167 feet high. The entrance, at the top of the room, is a **sheer drop of 180 feet to the floor**. Two passages lead from the entrance room. One trending north is in two levels connected at several points by pits, 20 to 30 feet deep. After 400 feet the lower level is cut out but the upper level continues for 425 feet averaging 25 to 40 feet high and wide. The last 150 feet slopes steeply upward and is covered by a deposit of bat guano over 5 feet deep. The passage is blocked by wash from a surface sink.

One hundred and thirty-eight feet from the entrance to the north lead, a small opening on the lower level drops for 20 feet to a series of passages, 5 to 20 feet wide, and 4 to 15 feet high, which connect with a pit 54 feet deep known as Little Hellhole.

From the base of the pit, sewer-like passages up to 15 feet high and wide trend south, southwest, and northeast. The northeast passage ends in a small room which is choked with driftwood, sand, and similar material. This point is over 300 feet below the entrance.

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The east passage is a large vaulted chamber
150 feet wide and 50 feet high extending for
500 feet.  One hundred feet from its entrance
room is a pile of breakdown[25] covered by deep
bat guano.  The passage narrows towards the
end and the ceiling lowers until slabs of
breakdown block it.  Several small pits near
the end of the east passage lead to a small
passage below.  The floor of the entrance room
is large slabs of fallen rock while along the
north passage it is sand and wet clay.
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My Adventures

As you can glean from reading Mr. Davies' description above, Hellhole cave was a major upgrade from our two earlier caves. Not only was it vertical, it was **big**. His map describes the extent of the cave as it was known when he surveyed it in 1946. When we arrived in 1967, additional passages had been explored, increasing its mapped length to several miles. Since our group's visits, its extent has expanded significantly. It now ranks as **one of the longest caves in the US**, with various sources claiming as much as 50 miles of passages[26].

Although the cave is closed now (an adjacent mining company has leased the property from its owner and refuses to allow public entry) it was accessible to us in 1967 and an agreement with the cave's landowner allowed NSS members to visit without advance permission. We stopped at a nearby roadside diner to have lunch and plan our assault on the cave. Having never attempted anything like this, we planned to make two entries with an overnight above-ground camp-out between

25 *Breakdown* is the term cavers use to describe slabs of layered rock that break off and fall from the ceiling of a chamber into piles of rock on the floor.

26 Find more interesting information about Hellhole cave at https://en.wikipedia.org/wiki/Hellhole_(cave).

them. Our first descent would allow us to experience the initial rappel, briefly explore the larger section of the cave, then make our way back out. If all went well, we'd repeat the descent the next morning and spend a bit more time exploring the various passages.

A short drive from the diner quickly brought us to the cave entrance in a shallow depression among a grove of trees just 50 yards from the road. We survey the entry. As Mr. Davies described, we found several holes in the ground. These holes were in the ceiling of what cavers call a *dome room*. Such rooms are often formed when storm water seeps into fissures near small depressions in the ground. Dirt is washed away. Loose rocks collapse and are washed down as the water becomes an underground stream. A small chamber forms. Repeated storms bring more water, causing additional ceiling collapse and eroding more loose rocks and soil along the walls and ceiling. Over time, the chamber enlarges. After many, many years, all of the loose material is gone leaving a dome-shaped room with fairly solid rock walls. Hellhole's entrance room was very large. Later, we'd come to rank this as one of the largest underground rooms we'd encounter in all our adventures. But we didn't know that yet.

Unlike our previous caves, with walk-in entrances, the entry to this cave was straight down. Rappelling in was the only option. After some discussion, we decided that the optimum entry choice was the smallest of the three holes (about 6-feet across) in between the two larger openings. Previous cavers had conveniently secured a large log across the opening. We anchored our rope to a large nearby tree, draped it over the log, and dropped it into the hole. Though we knew the rope

was long enough, we didn't hear it hit the bottom[27]. For safety, we remembered one of the most important rules of vertical caving: *always tie a knot at the end of your rope* to prevent yourself from unintentionally rappelling off the end in the event that the rope is shorter than the drop you are climbing.

This was our first vertical cave – with a drop substantially longer than any of our practice had exposed us to. For added safety, we donned our climbing gear as well as our descending gear. That way, in the event that any one of us experienced problems on the way down, he could 'simply' climb back up without having to search his backpack and find his ascending gear while hanging from a rope. Finally, each of us 'inspected' the others to confirm that all the appropriate equipment was being properly worn. We lit the flames on our helmet lamps.

We agreed to let our most experienced member enter first.[28] He 'clipped into' the rope, clambered over the log, and began his descent. Rather than rappel quickly down to the bottom, he moved slowly, enjoying the view, watching the walls fall away, and experiencing the feeling of floating in mid air. Shortly though, in large, wide, deep rooms such as this one, the darkness enveloped him. A slow descent is preferred because it's surprisingly hard to see the bottom of long drops in dark caves and the floor is often rough, wet, and steeply slanted, making it difficult to transition from hanging to

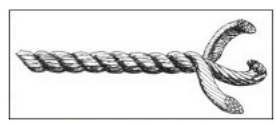
27 It is hard to resist throwing something into a deep hole to assess how long it takes to hit bottom. Doing so may seem fun. But it is dangerous to anyone who might be below and is **heavily** frowned upon in the caving world. Moreover, especially for deep pits like this, it is generally fruitless because any sound often will be too weak to hear. And in this case, we already knew how deep the pit was anyway.

28 Choosing who enters first, especially into a new cave, or when one or more of the members of a group is new to the cave is almost a ritual. Each group decides differently.

standing. So, one must be careful not to hit bottom too fast for fear of injuring himself.

Also, as discussed in Rappelling, every descent relies on friction between the rope and your descending equipment to control your speed. The equipment can get quite hot, making gloves a necessity. One has to be careful not to allow the braking mechanism get so hot that it melts the nylon rope – something to be avoided at all costs[29].

To our great surprise, on this first long descent, we encountered something we had not anticipated and that none of our practice had prepared us for: **uncontrolled spinning!** Early caving rope, such as the *Goldline* rope we were using, was what is termed *laid rope*. Though capable of supporting several thousand pounds, such rope inherently stretches when under load.



Laid Rope [30]

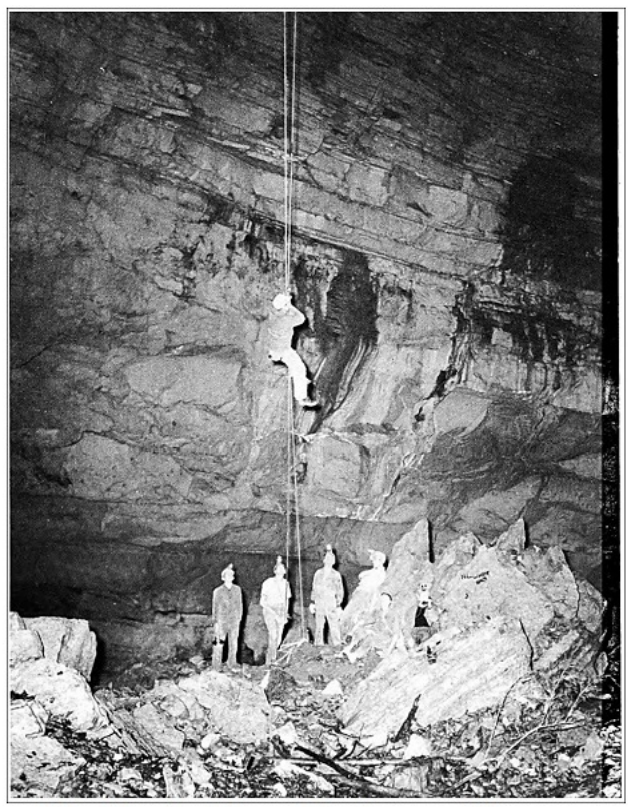
Because of its twisted construction, the stretching causes it to untwist, causing whatever is suspended from it to spin. Without walls on which to brace oneself, the climber too slowly, but inevitably begins to spin. This spinning occurs both during descent and ascent. Typically slow, and rarely disabling (in the dark, it is often difficult to detect that you are even spinning at all) the spin certainly can be annoying. We would learn to tolerate this unavoidable spinning until braided rope (which

29 On very long descents, cavers often carry small water bottles to spray on and cool the descending equipment.

30 Illustration from *On Rope*. See References.

eliminates spinning entirely) became readily available a year or so later.

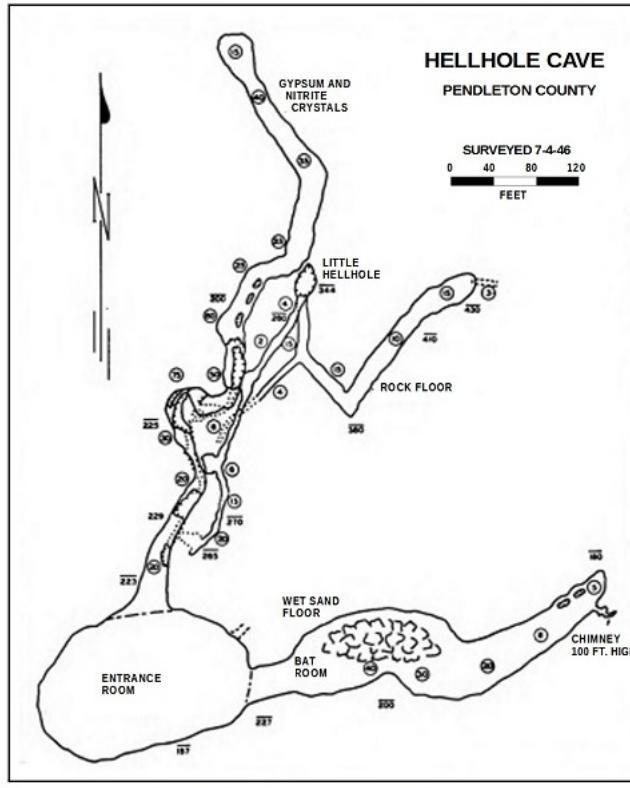
Needless to say, we all descended slowly. The descent was fun despite the spinning and even though hanging in free space in the dark can feel a bit eerie. We each stopped ourselves part-way down just to soak in the ambiance of the experience and look around. The entire group descent took perhaps 20 minutes. Once at the bottom, we oriented ourselves and began a brief exploration.



Hellhole Cave Entrance Room 31

31 Photo by W. H. Watkins, courtesy of National Speleological Society.

Using the map we had copied and brought with us, we located the large passage to the east and made our way to the so-called *bat room*. As noted in Mr. Davies' description, it seemed every bit as large as the entry room itself. We looked around for bats. There were none flying. But a close examination of the upper walls showed a great number clinging to the wall, wrapped in their wings like tiny cocoons, sleeping. There wasn't any notable movement. But there were a LOT of bats.



Hellhole Cave Map

32

32 Hellhole cave map courtesy Wm. Davies from *Caverns of West Virginia*.

We looked for the *deep bat guano* noted in the description. Though mounded, it was quite firm and looked little different from rough, gray clay. There was no odor. We avoided it nonetheless, working our way around the edges of the room. We soon reached the end of the east passage and made our way back to the main dome room to scout for the north passage that was to be our primary target on our second descent the next day.

Our brief exploration complete, we returned to the entry room, found our rope and readied ourselves for the climb out. Unlike descents, for which 'first in' is sought after, no one was entirely anxious to begin the climb. No one wanted to go first. There was, however, the question of 'who will be last out?' Our most experienced climber volunteered to be last. We packed our descending equipment into our packs and re-checked our mechanical ascenders and their associated foot straps. The first climber hooked in and began the climb.

A 180 foot climb such as this was not exceptionally long as vertical caves go, but this was our first big climb, and more than a minor one. We would learn the more efficient *rope walking* climbing technique described in the Rappelling section later, but at this point in our experience, we knew only the *sit-stand* method using our Hieblers; and we knew from our practice that the climb would be tediously slow and tiring.

Today we'd all inch our way up the rope this way, resting frequently on our way, and trying to adapt to the slow spinning we'd encountered on our way down. With progress of perhaps only eight to ten feet per minute, each climber needed twenty minutes, more or less, to make the climb. In the cool of the cave, the climbers waiting their turn at the bottom got cold.

This reinforced our decision first made in John Brown's cave to wear thermal underwear on almost all occasions.

It was more than an hour before the four of us were all safe at the top. By now it was evening. We gathered around a relatively flat area near the entrance and enjoyed a dinner of cold hot dogs, bread, sardines, and crackers and discussed our day. The exhilaration we all had felt during the descent and the sense of accomplishment and satisfaction from having successfully completed the climb was universal among us. Vertical caving was something we certainly would continue. Then we settled into our sleeping bags for the night.

For our descent the next day, we elected to enter through one of the larger holes. Those holes provided a short 20-foot stretch of not-quite-vertical drop before passing over a rock ledge and becoming a purely vertical drop for the remainder. This slanted portion allowed us to more easily negotiate the initial descent because we could stand on two feet as we got on and off the rope. But it also required us to learn how to negotiate the lip where the drop transition from slanted to vertical. We'd get plenty of practice with that in the future.

Rigging a Drop

When rigging the main rope into a vertical drop, deciding which is best among multiple options like the several openings at Hellhole turns out to be widely argued among climbers and rescuers. Our group returned to Hellhole several more times, and we explored other caves with vertical entrances, never agreeing from one time

and one cave to the next which method was superior. A slanted portion near the top of a drop makes it far easier to get on and off rope. But in such cases, the rope itself is rubbed across an often sharp lip as it reaches the final drop-off. That lip is particularly hard on ropes, because stretching and rubbing can easily cause severe damage to the rope. In such cases, pads are usually placed over any sharp surfaces to protect the rope. But the process of placing and removing the pads is time consuming and complex in itself. Conversely, a pure vertical drop, especially when the rope can be passed over a smooth log or pulley, protects the rope from damage, eliminating the need for pads. But getting climbers safely on and off a dangling rope is more problematic. There is no single commonly-accepted answer. Every cave and every group of cavers is different.

Our goal today was to find and perhaps descend *Little Hellhole* which we did, having carried ropes with us to negotiate the smaller pit. We also explored a bit of the several north passages described by Mr. Davies. This part of the cave was wetter that the east passage and more interesting, with lots of smaller interconnecting passages which we also explored. Our descent and climb out were both uneventful.

We returned to Hellhole cave several times to more completely explore all of its passages and increase our experience with rappelling and ascending, enjoying every visit. But it was time to move on. So we did.

Schoolhouse Cave

Onego Quadrangle.

Cave Description

Probably no cave in West Virginia has received the attention and investigation Schoolhouse has. It has been vividly described and pictured by Tom Culverwell in a number of publications. Schoolhouse Cave is 100 yards north of the site of Cave School on the Harper Gap road (elevation, 2205 feet). The entrance is in a sink 50 feet east of the road and opens into a large gallery 30 to 40 feet wide, 70 feet high, and 150 feet long.

The clay floor slopes steeply downwards at the entrance for 75 feet. The ceiling of the entrance gallery is flat with a large channel scar cut into it. The gallery ends in a vertical wall except on the southeast side where a clay bank gives access to three passages 75 feet above the floor. The center passage leads south into the main part of the cave while the one on the east is little more than a side room. The west passage is blocked by clay fill 100 feet in. The center passage trends south for 500 feet as a narrow passage, sometimes a trench cut by saltpeter workers, about 6 feet high. At the end of this passage the character of the cave changes abruptly.

The Big Room, with a number of deep wells and overhangs, is developed here. It is 200 feet long, 30 feet wide and the bases of the pits are 200 feet below the entrance to the room.

On the south side the cave continues as a small passage, similar to that leading off the

entrance room, across a small room with a deep pit to another room (Thunderbolt Room) of the same character as the Big Room but less than half in size. On the south side of the room is a gallery 300 feet long, 20 to 30 feet wide, with several pits in the floor. The cave ends in a clay and rock fill 1600 feet from the entrance. The ceiling from the Entrance Room to the end of the cave remains at practically the same level.

At the bottom of the Big Room two passages lead off. One heads north parallel to the main upper passage for 500 feet to a room and then curves west and ends by pinching out at a point almost beneath the east end of the Entrance Room. The second passage is 50 feet below and apparently is the bottom of the cave. It is well named the Grind Canyon, for it is a crevice-like passage 2 feet wide, 25 feet deep and quite sinuous. The walls are covered by nodules of cave coral. A small stream flows south along the passage. Five hundred feet to the south of the pit giving access to it, the ceiling height of the passage reduces to the point where it is no longer passable.

The passage can also be followed 100 feet to the north. The passage is not directly beneath any of the other passages of the cave. Along the west wall of the Big Room are the entrances to several short side passages.

Formations are found in most of the rooms. The Big Room contains flowstone and **travertine curtains**. Clumps of stalactites hang from the ceiling at various places along the rooms and passages. One of the passages leading west of the Big Room has numerous small stalactites lining the ceiling as well as scattered groups of helictites. Gypsum flowers are found in the clay floors and walls in the lower passage north from the Big Room. The passage connecting the Entrance Room and the Big Room

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is dug in laminated clay 4 to 8 feet deep.
The individual laminae are in the order of a
fortieth of an inch in thickness and are
distinct in any cross-section.  The clay is
now dry and peels along certain of the
laminae, breaking into blocks an inch thick.
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My Adventures

With its entrance located less than one mile from Hellhole, Schoolhouse cave seemed perfect for our next adventure. Named for a former, nearby one-room school house[33], the cave did not include the long vertical entry drop we had experienced at Hellhole. But it had a lot to recommend it. First of all, almost within sight of the road, it was easy to find. In fact, we scouted the entrance as we departed from our first trip to Hellhole. Schoolhouse also included a number of smaller, though potentially challenging vertical climbs and drops. In addition, it promised a large number and variety of formations.

Like Hellhole cave, Schoolhouse cave too is now closed to the public, and for the same reason – the adjacent mining company has prohibited entry. To enforce that closure, as with Hellhole and John Brown's, there is, as this is being written, a well-constructed chain-link cage surrounding the entrance that makes unauthorized access quite difficult, if not impossible. But in 1967, there was nothing more than a crude, hand-written sign nailed to a nearby tree saying ominously: "Make Peace With God."

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33 Cave School, closed in 1945. See https://www.wvencyclopedia.org/print/Article/199. Despite Mr. Davies' claim about its supposed fame, there is very little detailed information about Schoolhouse cave available on the Internet at the time of this writing. I was unable to find any maps or other useful references.

Schoolhouse Cave Entrance Looking In 34

Contrary to my earlier recommendation in the section titled Etiquette, our group **did not** seek permission to enter Schoolhouse. Despite requests by the NSS, the owner of the cave property refused blanket permission to enter. Instead, he insisted on requiring written permission for each visit, provided only after a face-to-face interview with the requesting party. Not prepared to go through that formality, we knew that, if we were to explore this cave, we would have to do so surreptitiously. We decided to use the cover of darkness. With luck, we'd be in and out before anyone was the wiser.

34 Photo by Wm. E. Davies.

Arriving late one evening, we parked our car at the entrance to Hellhole so as to not cause the suspicion of a car parked by the roadside near Schoolhouse itself. After enjoying our usual dinner of cold hot dogs and sardines, we gathered our equipment and began the short hike to Schoolhouse cave. It was after midnight as we walked along the ridge-top country road. I remember being awestruck looking up to the crystal clear sky. There were more stars than I'd ever seen in my life. The Milky Way was so brilliant and dense with stars that it seemed almost artificial – literally like a white stripe painted across the night sky.[35] [Not all of my caving memories were made **inside** the caves! See Above Ground.]

After a short walk, we arrived at the entrance, lit our carbide lamps, and proceeded inside. We quickly reached the vertical wall and clay bank Mr. Davies described. It was steep but not completely vertical. All of our experience in caves up until now had required us to learn how to safely descend first. Climbing had always come on exit. Here we were faced with our first interior climb. We were surprised, then, when we spotted a rope leading diagonally up the wall. Almost like a handrail, it was anchored with bolts drilled into the rock at the bottom and in at least two places that we could see along its path up the wall. It ended, as best we could see, at a small shelf near the top. How convenient. Convenient, perhaps. But we had lots of questions. We tugged on the rope. It felt secure. But was it really? How long had it been there? Who had placed it? How was it anchored at the top? Could we trust it?

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35 The only other time I ever saw such a sight was several years later as a Naval Aviator flying over the Pacific Ocean at 35,000 feet between Guam and the Philippines at 2 AM, when my pilot asked me to turn off all the cabin lights and prompted me to look up.

Schoolhouse Cave Entrance Looking Out [36]

Then followed a brief debate, after which, we decided the rope was safe to use – with some restrictions. The wall was high and steep enough that a fall would be dangerous. But in our estimation, it was climbable with care. We inspected the portion of the rope we could see closely from the base. It was clean and dry – both good signs, indicating it was probably not very old or heavily used. It was some sort of nylon – also good, because nylon does not rot. We reasoned the climb would be fairly safe if we used the rope only for partial support over short sections where footing or handholds were otherwise unavailable. There did not appear to be anywhere along the climb where we would need the rope to support our full weight. We would not need to use mechanical ascenders. We would,

36 Photo by Wm. E. Davies.

however, use a carabiner to clip into the rope during our traverse, just for safety.[37]

With that decided, our best climber went first, bringing rope with him in his pack. After reaching the top, if his assessment was that the static rope was not trustworthy or the climb more difficult than we thought, he would secure his rope and toss it down for the rest of us to use. That turned out to be unnecessary, as the climb went without difficulty, and required only occasional dependence on the rope.[38]

Having conquered our first obstacle, and wanting to leave no path un-explored, we quickly confirmed that the two side passages did, indeed, present nothing of interest. We then followed the center passage into the main part of the cave.

This passage was quite interesting. Nearly straight, with a rectangular cross-section about three feet wide and four to six feet high, and with almost smooth walls, floor, and ceiling, it was clearly man-made. In fact, this was a trench from which saltpeter had been mined during the Civil War. The picture below shows the trench clearly. Note the hand-pick propped against the wall on the right. This passage would become even more interesting several hours later as we exited the cave.

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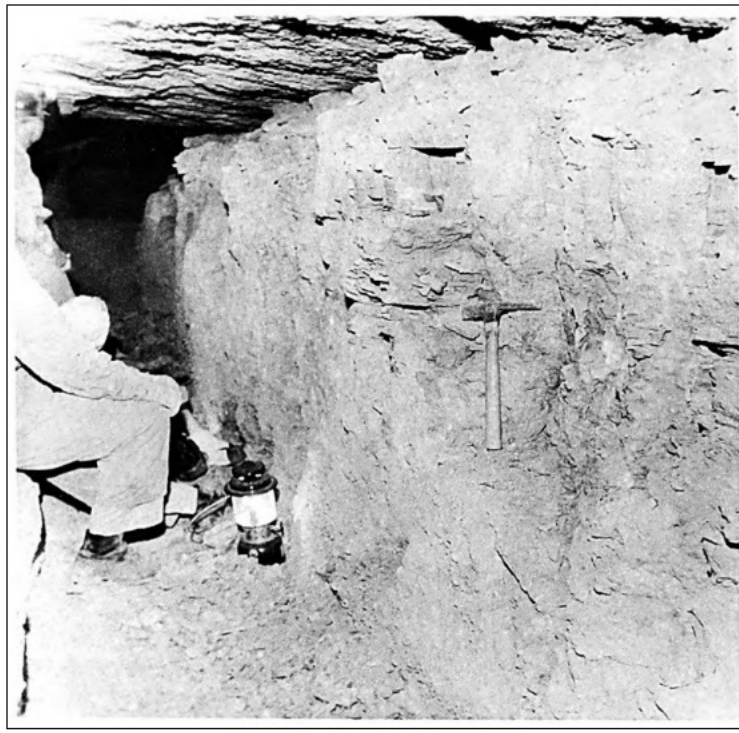
37 We learned later that serious cavers often attach small tags to such static ropes indicating when they were placed, by whom, and describing the rope and the number and types of anchors bolts. Such information gives future visitors information useful in deciding if they want to make use of the rope and bolts or not. This rope was not tagged.

38 In the case of such climbs, where a rope might be placed only temporarily and removed as the party exits the cave, a rope of at least **twice the length of the climb** is needed. That way, it can be looped around the anchor point at the top and simply pulled down on the way out.



Saltpeter Trench 39

Finally into the main portion of the cave, we began to seek out the interesting chambers and formations described by Mr. Davies. We traversed the so-called *Big Room*, avoiding several deep pits. Perhaps we'd return to those pits on a future visit. This time, however, our goal was to see as much of this cave as we could. In contrast to the dry miner's trench we had just negotiated, this part of the cave was wet. There were extensive passages, some easily traversed, others not so much. Some passages were tall fissures that could be negotiated on multiple levels. Some were narrow and winding.

39 Photo credit unknown from *Caverns of West Virginia* by Wm. E. Davies.

We marveled at the extensive variety of formations we encountered. There were numerous stalactites and stalagmites, sometimes joined together to form columns. Some walls were covered in flowstone. We looked for, and found small groups of helictites and even a few gypsum flowers. Here too, and for the first time we encountered travertine *curtains*, some several feet tall and a dozen or more feet long hanging from the ceiling. Some of these stone curtains were only a few inches tall and striped horizontally, giving the appearance of strips of bacon. In fact, *cave bacon* is the caver's term for these formations.

Cave Curtain – Cave Bacon 40

After several hours of exploring, we decided it was time to leave. Remember that we had decided to visit this cave at night, entering near midnight in order to avoid being discovered by the owner. We wanted to be out, and back to

40 Photo by James St. John seen at https://www.flickr.com/photos/47445767@N05/27267903434

our camp sight before daylight and now it was nearing 5 am. We recharged our carbide lamps. Remembering the caver's creed to *leave nothing but footprints*, we carefully collected the calcium hydroxide waste to be disposed of properly outside. Then, we started back, retracing our path to the miner's trench.

At this point, things got interesting for a totally unexpected reason. As we neared the long trench, we noticed several bats flying through the cave. We'd seen bats before in other caves, but never flying. We thought little of it and continued on our way out. Then we saw a few more flying bats … then a few more. By now we were stoop-crawling through the 500 foot long trench, which was neither tall enough to allow us to walk fully upright nor low enough to require hands and knees. As we went, we encountered groups of two or three bats together, flying into the cave. Despite the narrow passage, the bats, almost miraculously, swerved and swooped around us without slowing and without colliding with us. We commented as we progressed what amazing aviators these bats were. Offhandedly, someone mentioned, and we all agreed, that it was nearing morning and the bats were probably returning to roost for the day. Then the onslaught began in earnest.

The occasional groups of two or three bats we had been blithely ignoring became more frequent. Flights of two or three became four, five, ten, then more, rapidly transforming into a continuous, and surprisingly dense stream of bats. Whereas the small groups easily avoided us and each other, this dense stream resulted in occasional collisions, with bats hitting our chest, legs, or arms. The bats recovered quickly and moved on. But it was annoying, to say the least – especially when a bat flew into one's face! We decided to stop for a few minutes, lie flat on the floor, and allow the bats to pass.

After five minutes though, the stream of bats hadn't weakened. If anything, it had become even more dense. And lying still on the cave floor, we began to get cold. With probably thousands of bats, this could go on for a long time. We abandoned our wait. We'd forge ahead and the bats would have to deal with us and us with them. Crawling now, to stay low, with one hand held directly in front of our faces to prevent direct hits to the face, we struggled forward.

After what seemed like an extended period of crawling, we reached the initial passages where the rooms were somewhat wider and the bats could easily avoid us. We scrambled down the static rope to the base of the main entry room. There were fewer bats at the bottom. We collected ourselves and our equipment, and made our way out into the dim light of dawn.

As with almost all caves we visited, we'd return to Schoolhouse several more times to fully explore it and experience the various challenges and surprises it had to offer – especially the several small pits, which allowed us to gain more experience in our vertical abilities. We descended into a few pits, but found nothing unexpected or particularly noteworthy.

As with our initial visit, all of these visits too were at night in order to avoid the cave's owner. Unlike the initial visit, we always made certain during these subsequent visits that we exited the cave long before the *return of the bats*.

Sites Cave

Circleville Quadrangle.

Cave Description

This cave is a quarter of a mile east of Dry Run, 2 miles north of Dahmer (elevation, 2250 feet). The entrance shaft is **298 feet deep** and is vertical except for the lower 90 feet which is inclined to the west. At the base is a passage to the south-west which is 300 feet long. A similar passage extends to the northwest. The passages are 5 to 15 feet high and 10 to 40 feet wide. At the end of the southwest passage is a room 35 feet long and 45 feet high. Several shafts open in the ceiling near the entrance shaft.

My Adventures

After our introduction to vertical caving in Hellhole and having gained a bit more vertical experience in the smaller drops within Schoolhouse, we decided we'd attack Sites cave, if only because of its claimed nearly 300 foot deep entry. By this time, we had upgraded our ascending equipment. No longer were we using the *sit-stand* style climbing technique we used to exit Hellhole. Now we had acquired both Gibbs and Jumar ascenders, both of which allowed us to climb a rope almost as casually as walking up a flight of stairs. Also, we had upgraded our main climbing ropes. In place of the laid *Goldline* rope we had used in Hellhole, we now used braided *Blue Water-II*[41]. The braided rope completely eliminated the

41 *Blue Water* was the first climbing rope designed by cavers for cavers.

spinning that had plagued us during ascent and descent. With this new equipment, vertical work was now almost incidental and we were anxious to see it in action in a real cave. Sites offered just the opportunity we were looking for – a substantial vertical drop, with both pure vertical and near-vertical portions, so we could practice our technique.

As we had become accustomed, there were surprises. The first was finding the cave entrance. There was no farmer to direct us to this cave entrance. We'd have to find it on our own. We knew the latitude and longitude of the cave entrance along with the rather vague location Mr. Davies provided above. With no GPS to guide us, we had to rely entirely on the USGS topographic chart for the area. Parking our car near the specified coordinates, we grabbed our gear and started hiking into the woods toward the spot on the chart.

The latitude and longitude we were given specified degrees, minutes, and seconds. And one second represents approximately 100 feet. ***Only*** 100 feet you say! That sounds easy enough, until you find yourself stumbling around in dense woods, on the rather steep slope of a mountain ridge, with a pack full of climbing gear on your back and a 30-pound coil of rope over your shoulder; struggling with every forward step to not slide two steps sideways back down the slope you had just climbed up. At that point, the word *only* disappears from the description and 100 feet becomes something more.

The entrance to Sites cave, it turns out, is not a big, obvious hole in the side of a huge, distinct rock face like that of John Brown's or Schoolhouse or a pit found at the center of an obvious surface sink like Moler's. It's a comparatively small, almost insignificant, hole in the ground, perhaps 8 by 15 feet

across, in the middle of a rather steeply sloped, heavily wooded hillside. After criss-crossing the area for nearly half an hour; several times passing within *only* a few feet of the opening, we were about to abandon the search entirely when one of our group spotted the hole.

After a short rest, we rigged our rope and prepared to descend. The honor of first-in was given to the one in our group who had 'discovered' the entrance. That turned out to have been both a blessing (honor bestowed) and a curse (drop more complicated than expected.) It turned out that Mr. Davies' description of the entrance was not as simple as he had written. Rather than a single, long "*298 foot drop, except for the lower 90 feet which is inclined to the west*" as he described, what we encountered was rather more.

Our actual experience was a fairly easy-to-negotiate 35-foot, mild slope to a small ledge. Beyond that ledge was a fully vertical drop of somewhat more than 100 feet that transitioned, with a *second* ledge, to another vertical drop of about 50 feet. Then followed a steeply-sloped pile of rubble some 50 feet high. From top to bottom, the entry was nearly 298 feet as Mr. Davies had described. It was not, however, the simple drop we had expected. Once again, we had learned that caves seem to enjoy surprises.

With only ¼-mile of passages, Sites is not a large cave, but it has lots of formations. We spent time exploring the main passages in both directions, taking time to appreciate the formations we encountered. As with previous caves, the pictures we took have been lost.

As we exited, we looked for the `several shafts open in the ceiling near the entrance shaft` that Mr. Davies

described. They were enticing, but too far out of reach for us to even consider attacking. However, the climb was not without issue. It turns out that the *small ledge* I mentioned, in passing on the way down presented itself as more than *small* as we ascended.

A rope passing over a lip or ledge is fairly easy to negotiate when descending. A caver needs merely to push off with their feet, then descend quickly past it. But when climbing upwards, it is impossible to pass it quickly. The climber is hanging from the rope with their full weight. The rope is held tight against the lip. Maneuvering one's ascending devices and harnesses past the point of contact at the lip is often quite difficult. That was the case in Sites. Warned by the first one up, the rest of our party were prepared to maneuver past the lip before they had put themselves in a position that required them to rappel back down and try again. Our Jumars were excellent in allowing us to pass. As with almost every cave, we learned something new with Sites.

We returned to Sites at least once, not only to gain additional experience in overcoming the problems we had encountered during our first exit, but also to revisit the rather impressive formations within the cave.

OTHER MEMORABLE CAVES

The previous chapters recounted my early caves. Following those early visits, our group went caving regularly for the rest of my college years. We traveled almost every weekend, year-round and visited many, many caves. Some, caves we visited because of their vertical features. Some, because of the formations they held. Still others, because they featured exceptionally large chambers. Most, caves we visited more than once simply because we enjoyed it.

This section relates some memorable stories among these later caves that I can remember by name. One chapter, Crookshank, tells of a visit to a type of cave we found particularly intriguing: Caves with more than one entrance. It was always fun to execute what cavers call a *thru trip* – exiting through a route different from where we entered.

All of these caves were fun. Some were more exciting than others, as you will read in the following chapters.

Crookshank Cave

Lobelia Quadrangle.

Cave Description

This pit, 90 feet deep, 40 feet in diameter, is at the head of Friars Hole, 1/4 mile southwest of the Greenbrier-Pocahontas line (elevation, 2500 feet). A stream flows into the entrance pit. At the base of the pit is a passage recently opened by removal of the gravel fill by stream flushing. This passage is a stoopway for 500 feet to the main passage of the cave. The main passage is 25 feet high, 10 feet wide, trending east for 2600 feet. Logs are lodged in the ceiling **as much as 30 feet above the floor of the main passage.** Near the entrance pit are several other shafts in the ceiling. Eleven hundred feet from the entrance a side passage trends north for 300 feet. A stream flows along this passage to a lake at the end. The main passage of the cave extends close to Snedegars Cave.

My Adventures

The description provided by Mr. Davies above is based on what was known about the cave in 1958. As with Hellhole, the description is rather outdated today. At its end, his 1958 description indicates that *the cave extends close to Snedegars cave*. By the time we visited it in 1968, contemporary explorations had just confirmed a direct connection to Snedegars. Connections to still other nearby caves were confirmed some years later. Various sources today report that

the entire cave system within the valley comprises more than 40 miles of interconnected passages. Referred to by cavers as the *Rubber Chicken*, the collection of caves is formally known as the Friar's Hole Cave System in the Snedegars Cave area and the name *Crookshank* has fallen by the wayside, no longer considered an individual cave.

When we visited, though, only the connection between the then Crookshank and Snedegars caves was known. That connection was our primary interest. The connection meant it would be possible to enter one cave and exit through the other. That fact was novel enough to earn a visit.

Mr. Davies' description also is rather understated, to say to least. He casually refers to *a passage recently opened by removal of the gravel fill* and *logs lodged in the ceiling* ***as much as 30 feet above the floor*** *of the main passage*, and discusses a stream and stooping. Focused on a *thru-trip*, our group casually overlooked his comment about *logs lodged in the ceiling*. The stream wasn't of concern to us as we'd been in other caves with streams. And stooping seemed not that much of a deterrent. We were anxious to get started.

Before continuing with my story, let me provide some additional context, unknown to us then, of what lay in store. The following slightly edited and annotated excerpts are taken from an extensive blog post written by a group who visited the cave in 2015[42]:

> Crookshank Pit was one of the first known sections of what would become the Friars Hole

42 This description of a trip to Crookshank cave was taken from https://underarockphoto.blogspot.com/2017/04/crookshank-section-friars-hole-cave.html. The blog also includes several interesting photos.

Cave System, along with the Snedegars Cave area. Crookshank Pit (…) drains a large part of the valley south of Snedegars, pirating the stream into a sink hole that **takes up the entire width of the valley** (…) Crookshank lies within the northern wall of the sink, which measures roughly 50ft by 60ft and is 10-40ft deep. (…) A point of caution (or warning) about Crookshank: **the water levels are highly variable and can flash.** (…) Do not do the pit in wet weather unless properly equipped. Further, the stream mostly sinks before the pit before bursting out of cracks in the wall. **Do not trust the amount of water flowing over the lip to be an accurate representation of the water levels inside!** Also Crookshank is a cold air sink, and in the winter winds **carrying frigid outside air howl through the pit.**

The rigging point is commonly the tree with the **"Caution: Rats May Chew Your Rope!"** sign. (…) The drop is roughly 95ft total, with the first 15ft being on the wall and the final 80ft being very free in the middle of a large canyon passage with **a waterfall cascading in.**

From the bottom of the pit the stream flows through a large canyon passage for about a hundred feet before dropping to a belly and army crawl. Off shooting passages lead to areas like the Baltimore Dome Complex, and Crap Canyon. The stream sumps (or sinks) right before a low pinch. **This area has been known to flood completely or fill with dirt. Cavers had to dig it open back in the 50s to find the rest of the cave.** From here the passage forks. Right takes one through the (**sometimes passable**) 400ft long Terrible Crawl to the Promised Land. Left takes one through a hands and knees crawl for several hundred feet before emerging in the Crookshank Stream passage.

> From the junction with the stream: going down stream quickly leads to a sump. Going upstream leads through a large and pleasant stream-borehole. Fully 20ft wide and 40ft tall, the clean washed borehole, with its deep blue plunge pools, is one of the more beautiful stream passages in the cave [sadly, we never made it this far on our visit.] The borehole ends at a two-tiered 10ft waterfall. There are multiple ways up, **most require getting very wet**. Above the waterfall the stream can be followed for several hundred feet to the Snedegars Sump, whose passing connected Crookshank and Snedegars in the 1960s – the first in the system [this was the connection we were looking for during our visit.]
>
> Above the waterfall a passage to the right leads through the Sloppy Crawl and into the Promised Land Passage. The Promise Land continues as crawling and walking for several hundred feet, past a junction with the Terrible Crawl and ends in a room full of breakdown where the first connection with Rubber Chicken is. Also out here is the long, narrow, and strenuous Lew's Last Climb Passage which goes south for almost a thousand feet.[43]

In the foregoing excerpt, take note of the rather extensive mention of **crawling, streams, waterfalls, and getting wet**. Obviously, this is a difficult cave (system) full of obstacles and flooding, not to mention cold wind during the winter. We knew none of that at the time, however, and were focused on the novelty a *thru-trip*. Coincidentally, the weekend we selected to visit saw some particularly bad weather. It was New Year's

43 Often, the names early cavers assigned to the various parts of caves are rather bland. Almost every cave we visited has a chamber referred to simply as the 'Big Room.' This excerpt, however, mentions a number of more imaginative names typical of those given by more contemporary cavers.

Eve weekend, **cold** – in the 20s – and snowy, on top of as much as 18 inches of already-fallen snow. But, we reasoned, we'd be underground, where it's typically in the 40s or 50s. What could go wrong?

We knew that the cave could flood in wet weather, as the above descriptions confirm. But it was winter – the 'dry' season. Our hope was that water levels in the cave would be low enough to allow us to pass through without much difficulty. There were four in our group for that trip. We had two cars. Our plan fairly straight-forward: We'd park one car at the Snedegars entrance, drive our second car to the Crookshank entrance, drop a line, make our way through, and exit where we had parked the first car. We'd come back to pick up the drop line and our second car after we explored.

We found the entrance to Snedegars cave and parked. It was already snowing. The four of us crammed ourselves and our equipment into a VW bug and started through the hills on the one-lane gravel road towards the pit entrance to Crookshank, managing to get only part of the way before stopping in the deep snow. Better, we thought, to hike the remaining distance rather than get our car stuck in the snow. The subsequent quarter-mile hike across rolling pasture in the thigh-deep snow was manageable. But the wind and blowing snow were biting. We commented to one another that it would be great to finally get into the cave because we were sure it would be so much warmer inside.

We arrived at the entrance to see a HUGE icicle hanging into the mouth of the cave where the surface stream, running over a sheer drop, flowed into the cave. The actual flow of the stream appeared minimal (remember the warning about the

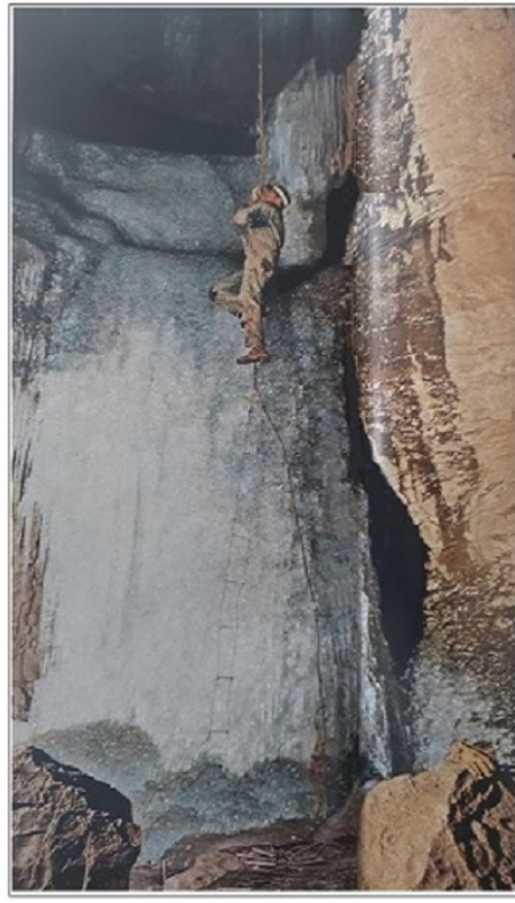
stream in the blog post?) The cold and the large surface area of the icicle appeared to have caused most of the flow to freeze before it reached the tip and we saw only a trickle running down into the darkness.

But the icicle was immense – probably 30 feet long – and must have weighed half a ton. The drop-in would require us to rappel down directly under the massive icicle. We decided that the icicle was potentially dangerous. It could, we reasoned, break and fall if we bumped into it as we were climbing and injure or kill us. So, as any group of intelligent (?,) adolescent, testosterone-infused males would have done, we decided it would be safer if we broke it off – to eliminate the danger.

Half an hour and various attempts eventually saw it crack, break, and fall into the pit with a thunderous boom. Victory! Now we could enter the cave safely. For this rather short drop, we elected to use our trusty *Goldline* rope. We might spin a little during the descent, but it was a relatively short drop. We didn't need to carry our long, heavy braided rope for this 'little' drop. And, as we intended to walk out the second entrance, we weren't concerned about potential spinning during a climb out.

Our icicle removal victory celebration was short-lived however because, as we descended, we realized that our descent path was directly under the trickle of stream water. Meanwhile, the trickle of stream water, in the absence of the freeze-inducing icicle, had become somewhat more. Oops! The picture below shows the frozen waterfall in winter. But we were committed now, so we all dropped in quickly and tugged the rope aside, out of the direct path of the falling water to protect it from getting saturated and iced up. None of us

looked forward to a potential climb up under that cold shower, but we planned to walk out the other entrance. So, no matter. Little did we know.



Crookshank Cave Entrance [44]

As hoped, it was a *bit* warmer inside, though still surprisingly cold. And we immediately commented on a noticeable breeze blowing through the main passage. But, we decided, even that

44 Photo credit: National Geographic Magazine, June 1964.

fact boded well because it meant the passage through to the Snedegars ground-level exit was fully open as air could flow freely through the entire passage. The stream was quite shallow and our group, still hopeful, followed it for quite a long way. But the passage, initially quite high and wide, slowly narrowed. And the ceiling lowered, eventually shrinking the passage to a crawlway with stream in the middle. Despite only an inch or two of water, even a short belly crawl in the two-foot high passage would fully saturate us before (if!?) we managed to find our way through.

Surprisingly, common sense prevailed. Even in the face of rather the strenuous effort we had made to negotiate the small passage, and our thermal underwear, we were beginning to get cold. We decided we should return and exit the way we came in before hypothermia set in. We'd try the *thru-trip* again another time.

On reaching the entrance chamber again, we found our rope. Tucking it out of the way had not helped much and it was now saturated and already had some ice on it. Still, even under the small water fall, the 90-ft climb didn't seem too intimidating. With Jumars, it should be short work. How bad could it be?

The first of our party to began the climb using the *rope walking* technique (See Rope Climbing.) This would allow him to climb very quickly and minimize his exposure to the falling water. However, only about 20 feet up, his Jumars became almost unusable with ice jamming the mechanism. While hanging, he pulled a poncho from his pack. Working for a few minutes, he was able to remove some of the ice. He even attempted to use the flame from his a carbide lamp in an

attempt to melt the ice. That maneuver was dangerous, because the flame could easily damage the rope. In any event, it was futile because the water snuffed out the flame almost as quickly as he re-lit it.

Being safety-minded, we had brought with us several pairs of Hiebler ascenders for backup and we knew that they would work well on the icy rope. Switching over from Jumars to Hieblers while hanging from the rope, our lead resumed his climb. In the cold and ice and under the falling water, it was difficult and prolonged. The possibility of spinning that we had so cavalierly dismissed as we entered made the climb even more difficult and prolonged. By the time he reached the top, the rest of us had all cooled down from our exploration and were beginning to feel the effects of the cold.

At the bottom, one of us pulled a 150-foot length of dry, non-frozen, ¼" braided hardware store rope from his pack and attached it to the bottom of our main rope. Now finally at the top, our lead climber pulled the rope up, secured it to the main rigging point, and tossed it and his pair of Hieblers back down to us.

One by one, the rest of us started up the tiny line. Generally, cavers avoid using ¼" rope for vertical climbing. While it is strong enough to support the full weight of an adult, its small diameter actually makes it harder to climb. But it's small size also reduces its bulk, so it is often carried along for use in emergencies like this. That emergency rope and the Hieblers saved us all that day.

Meanwhile, drenched and shivering from cold despite his very difficult ascent, our lead climber immediately headed for our parked VW, a quarter mile away across the hills.

Our second climber, having stood in the falling water in a vain attempt to assist the first, was already drenched and beginning to shiver. He started up almost as soon as the dry line had reached the bottom. Reaching the top, he again passed the Hieblers back down to the two of us who still remained and then he too immediately rushed to what he hoped would be the warmth of our car.

I ascended last. I remember the water and the cold, and struggling with but cherishing the Hieblers for their ability to crush and hold firmly on the ice that was even now forming on the new rope. Because of the ice, it was impossible to slide the ascenders up the rope during the climb as one is supposed to do. Instead, I had to fully detach and reattach each one for each 'step' of the climb. This, of course, violated one of the first rules of climbing: *Always maintain **at least two** attachment points when you are on rope*. Here I was, intentionally relying on only a single attachment point with each twelve inch step up the rope. With wet, icy gloves, and ice-cold water raining down continuously, it seemed to take forever.

By the time I had made it to the top, the third climber, who had managed to stay mostly dry under his poncho, had retrieved and coiled our main rope and most of our rigging. The two of us quickly pulled up and derigged the ¼-inch rope, packed it up, and started our hike back through the snow.

Meanwhile, after starting the car, our first climber huddled inside shivering and waited for it to warm up. When the second climber arrived, the car had warmed a bit, but both of them were shivering almost uncontrollably. Rather than wait

for us, they decided to immediately drive back to where the other car was parked to find some dry clothes quickly.

For my partner and I, it was a LONG trek back through the deep snow. Once back on the gravel road, we could, at least, follow the wheel tracks in the snow and the going was fairly easy. Not as wet as the first two, we even warmed a bit as we fought our way through the snow.

When we arrived at the initial parking spot, our two friends had changed clothes and started the other car to warm it in anticipation of our arrival. Both were sitting in the car like zombies, staring straight ahead, fixed-gaze, like statues, with the heat blowing full-blast.

We packed everything into the cars and immediately headed to a nearby town to find a diner where we ordered and ate nearly everything on the menu. We also treated ourselves to a motel room for the night, each of us spending long minutes reveling under a steaming hot shower.

In the coming years, our group visited a number of other multi-entrance caves (names since forgotten) and enjoyed the novelty of finally completing a *thru-trip*. But we never returned to Crookshank cave as a group. One of us, though, would continue caving and climbing for many more years, returning to Crookshank several times over the years with other groups. He commented to me recently that his subsequent trips – all of them *thru-trips* as we had planned that day – were completely uneventful and that he is still surprised at how much trouble we had that day.

Nut Cave

Circleville Quadrangle.

Cave Description

Nut cave is located 1-1/4 miles south of Hoffman School Cave. The entrance is at road level on west side of Thorn Creek. The cave is a crawlway extending 400 feet SW to a stream passage 20 feet high and wide, 300 feet long; breakdown blocks passage on west and east ends. **Rimstone near entrance.**

My Adventures

As caves go, Nut is tiny. But the short description provided by Mr. Davies above belies the interesting interior of this cave. We chose it explicitly for the last three words of his description: *Rimstone near entrance*. Up to this point, we had not seen *living* rimstone in any cave and were hoping this cave would satisfy our curiosity.

Rimstone

Rimstone is a type of cave formation formed as very slowly flowing water moves over horizontal or gently sloped surfaces. As the water creeps over minor ridges, calcite and other minerals dissolved in the water precipitate out forming a stone dam enclosing a pool of water. Over time, the walls of the dams grow slowly taller. Such conditions almost always result in the

formation of multiple pools, one after another, as water continues down the slope. The dams often appear like stairs. Some rimstone dams can grow several feet deep and hundreds of feet in breadth. In addition to the mostly small and modest pools found in caves, immense rimstone pools can form in the open air when conditions favor them. The picture below shows the huge outdoor rimstone pools at Pamukkale in Turkey. Rimstone pools in caves are generally much smaller than seen in the picture, and often quite delicate.

Note that I refer to *living* – as opposed to *dead* – rimstone. Cave formations are created by, and depend on water. As long as a cave is wet, and water is dripping or flowing across a formation, that formation is said to be *living*. If conditions change, and water stops flowing, a cave dries out. At that point, all of its formations stop growing because it is the minerals precipitating out of the flowing water that create them. Dry caves are, therefore, considered *dead* from the standpoint of formations.

But *living* formations, despite being made of stone (calcite) still can be surprisingly delicate. Dirt from boots and gloves, or bodily oils and bacteria on the skin can seriously disrupt or destroy the ability of the formations to continue growing even if the water continues to flow. The admonition *Look, but do not touch!* applies to all cave formations, living or dead.

Rimstone Pools in Pamukkale, Turkey [45]

We wanted to see *living* rimstone, and Nut cave promised to provide. We'd see rimstone again, and more extensive, in other caves, but this would be our first. Nut cave was readily accessible, not requiring ropes or vertical entry, and was close to the nearby roads. It was ideal.

The cave is tiny, extending only a few hundred feet – crawling almost all the way. Other than its formations, Nut cave has little to recommend itself. We were impressed nonetheless and enjoyed the experience of seeing these *living* formations in their native, unspoiled environment, and were glad we visited. As usual, all of the pictures we took have been lost.

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45 Photo by the author. This picture of **outdoor** rimstone pools is provided as an example simply because most pictures taken inside caves do not allow for the lighting and vantage point needed to show the detail and beauty of the formations.

Simmons-Mingo Cave

Mingo Quadrangle.

Cave Description

> This cave is on the south side of Mingo Run, 1-1/4 miles southwest of Upper Mingo, at an elevation of 3000 feet. The entrance shaft is 35 feet deep and opens into a debris laden passage trending southwest to a large room (The Big Room). This room is 100 feet high, 192 feet long, and 132 feet wide. The floor is covered to a considerable depth by massive slabs of breakdown. The cave continues as an irregular crawlway beneath the breakdown to a pit 38 feet deep which leads to a series of crawlways, high fissures, pits, and breakdown extending to the southwest. The beginning of these lower level passages is 372 feet below the entrance while 500 feet farther on (**the end of present exploration**) it is about 600 feet down. A stream flows along the lower level. A branch of the cave opens to the northeast just below the entrance pit and is **only partially explored**. It extends for over 1000 feet with extensive chambers and passages.

My Adventures

Several things in Mr. Davies' description of this cave recommended it to our group: Its several plainly-described internal pits indicated some vertical work would be needed. That made any cave more interesting to us. He also described several fairly large rooms and a stream that meant that it was wet enough that it might present some interesting formations.

The most compelling part of the description, however, were the words *end of present exploration* and *only partially explored*. There was no way we would pass up the opportunity to potentially find and explore some *virgin* passages.

In the end, Simmons-Mingo turned out to be far more interesting than Mr. Davies' description had led us to believe. As with many if the caves we visited, its 1955 description was only the beginning. Like Hellhole and Crookshank, subsequent exploration has enlarged the known extent of the cave considerably. Very much like Crookshank cave had turned into the Friar's Hole Cave System, Simmons-Mingo has since been confirmed to be a part of an extensive system of caves and underground streams that drain the entire nearby watershed. A quick web search for *Simmons-Mingo Cave* will return hits for numerous trip reports – a number of which refer to cave rescues – and several YouTube videos.

In anticipation of the described internal pits, we carried in with us a number of shorter ropes that we would use to negotiate whatever pits we encountered. Mr. Davies had indicated, the cave was deep. Not in the sense of a single, huge drop. But more in the sense that the numerous smaller drops and steeply sloping passages combined to proceed ever deeper.

We had no map of Simmons-Mingo cave and, thus, were unaware of the maze-like nature of some portions of this cave[46]. While all of our previous caves had consisted of

46 We'd subsequently explore a number of caves with maze-like passageways, where it was difficult to find our way through from one end to the other. But this was our first.

essentially single main passages, Simmons-Mingo had several sections comprising small passages which split into two or more. After still more splits, those passages would reconnect after some distance and numerous random turns. The result was somewhat like a city street map of random and irregularly shaped city blocks of varying size. These passages were often winding and the widths varied so that we could rarely see more than 10 or 15 yards ahead.

Additionally, none of the maps we had (of any cave) properly depicted the true, three-dimensional nature of caves, because they failed to show the vertical scale of the passages. Much of Simmons-Mingo trended steeply downward even if ropes were not required.

We explored for several hours and were impressed with the cave's size and structure. But we were beginning to tire. Future visits were a certainty but, for now, we decided it was time to head back to the surface. We had fixed a couple of ropes at several small drops, leaving them to be used as we exited, so we began to retrace our steps. Only then did we discover the maze-like nature of the passages we had been exploring.

We worked our way back, retracing our inbound steps along what we *thought* had been our entry path. At a distinctive pile of rocks, one of our group casually remarked, almost in passing, "didn't we go past these rocks a few minutes ago?" The rest of us brushed off the question. No, someone suggested. Passages all look alike. We're fine. We continued on.

But when we passed the same unusual rock pile five minutes later, it was clear. We HAD been there before. We

had been walking around in circles for some time. OK, we thought, we'd just pay more attention to which passage we followed. Five minutes later, our group found ourselves back at the same pile of rocks. This was NOT good. What to do?

None of us had been lost in a cave before and no one had any ideas of how to proceed. We didn't want to break into separate groups for fear of losing one another. But we had to find a way to progress through this no-man's-land. Separating as we walked and yelling to one another was problematic. As noted in the section on Cave Facts at the beginning of this book, echos in caves are misleading.

Ultimately, we decided on a scheme that included a combination of 'controlled' separation from one another, yelling, and marking the cave walls. Yes, we knew the caving rule: *Leave nothing but footprints*. But this was serious. If we didn't find our way, we could be stuck here for a long time. The farmer who owned the land knew we were in the cave. If our parked car wasn't gone by morning, surely he'd call someone. But still… We weren't prepared to spend the night.

Our plan was to send a single one of our party down a promising passage. When he reached a turn, he would yell to us to let us know he was at a turn point. Then, another of our party would follow to meet him while he marked an 'x' on the cave wall with the soot of the flame of his carbide lamp. Upon reaching the lead explorer, the follower would wait at the marked turn and the lead would proceed to the next turn point. Then the process would be repeated. Another of us would proceed to the first turn point to meet the first follower. The first follower would proceed to meet the lead, and the lead, having marked the next turn, would proceed looking for the

next turn. Using this method, we'd be separated by only moderate distances and each of us would know which route we had taken. If/when we wound up back where we started, we would know that the marked pathway was NOT correct. We'd regroup, follow the x's to the first opportunity for an alternative turn and repeat our process.

Half an hour later, repeatedly ending up back at the rock pile, we had marked all the turns and still hadn't found a path forward. We were stumped. Another discussion reached the conclusion that we had been exploring a complex and extensive dead-end. To get out, we'd need to back-track, head back in, and look for turn points we had overlooked during our first exit attempt.

Shortly, we spotted a promising opening. Sure enough! After continuing only a short way along this new route, we spotted one of the ropes we had rigged on our way in. Finally, we were on the right track. This was the way we had entered. We waited while one of our group went back to the turn point and used his carbide lamp to mark the wall 'OUT' with an arrow. That marking would serve as useful guidance when we returned in the future. Later, we'd realize that we had occasionally seen these kinds of seemingly innocuous 'x' markings in other caves. Now we understood their purpose.

We did eventually return to Simmons-Mingo to see some other small pits, remarkable stream passages, waterfalls, and pursue a search for new passages. We never got lost again, but we were apparently not very good explorers because we never did discover any *virgin* cave either.

Trout Cave

Circleville Quadrangle.

Cave Description

Trout Cave is in a prominent escarpment on the north side of South Branch[47], 3.5 miles southwest of Franklin, on U. S. 220 (elevation, 1975 feet). The entrance is 20 feet wide, 15 feet high, opening into a room of similar dimensions, 350 feet long. The floor is of fallen rock. The cave is offset to the west and continues as a passage 10 to 15 feet wide, 12 to 20 feet high, with a floor of huge boulders of fallen rock. This passage is 400 feet long where it develops into a maze of crevice passages to the northwest. A small hole leads to **a lower level** which continues northeast as a series of small, irregular rooms connected by passages 2 to 4 feet high and 10 to 15 feet wide. Three hundred feet from the junction it changes to a series of complex crawlways at least 400 feet long to a point where the passages are too low for further crawling. It is reported that a few persons have traversed this section and emerged at the surface through a small opening. A strong current of air at the rear of the cave indicates **there is such an opening.**

The floor throughout most of the cave is composed of fallen rock. In some sections deep beds of saltpeter earth occur that were mined extensively during the War Between the

47 *South Branch* here refers to the south branch of the north fork of the Potomac River. Water from within this cave would flow, eventually, right past our homes in Maryland.

States. **Gypsum crystals** are embedded in this earth near the rear part of the cave. The walls and ceiling have a soot-like deposit of manganese dioxide through all parts of the cave. The deposit is on a crust of crumbly travertine about a half inch thick. **Fossils from the limestone lie on the floor of the cave free of the parent rock.** Excellent specimens can be obtained in the rear part of the cave.

A small fissure cave lies 100 feet west of Trout Cave. The passage, which opens 25 feet above the base of the cliff, is 75 feet long, 2 to 4 feet wide, and 10 feet high. It trends northeast for 50 feet and then heads east toward Trout Cave but is reduced to a low, narrow crawlway. It apparently connects with one of the passages on the west side of the entrance room of Trout Cave.

My Adventures

After reading that description, how could our group **NOT** pursue this cave. An easy entrance – possibly **multiple** entrances – multiple levels, gypsum crystals, and **fossils**! And, unlike Simmons-Mingo, we had a map of this cave.

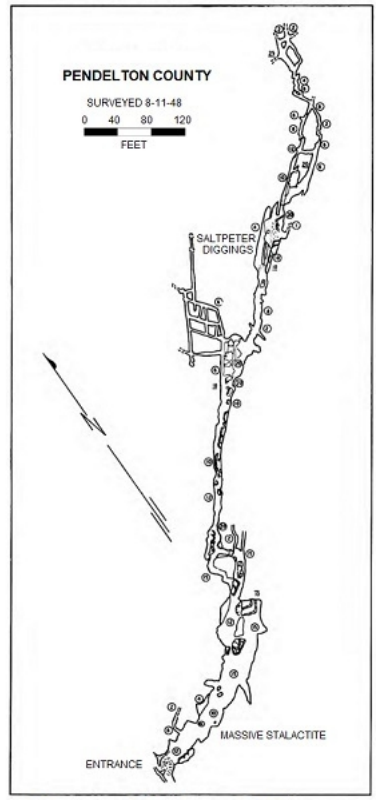
While this cave clearly had been very wet during its formation thousands of years ago, it was quite dry when we explored it. There was lots of crawling, but none was agonizing. The formations, though dry and dead were still impressive, and it was a nice break from the wet and confusing caves we had been exploring recently. Its nearby 'cousin' – New Trout Cave – is similar in character and has become quite popular as a 'beginner's cave' with local caving enthusiasts and outdoor adventure companies. [A web search for *Trout Cave West Virginia* will return dozens of hits, mostly related to New Trout Cave, which we never explored.]

Trout Cave Entrance [48]

Because of our experience getting lost in Simmons-Mingo cave, and even though we had a map, we avoided the small maze-like section of Trout cave. Even ignoring the maze, there was plenty to see and enjoy in Trout. We did see some sea-shell-like fossils, but left them there because: *Take nothing but pictures*. And yes, the pictures that we took have been lost.

Like so many other caves we visited, Trout cave has since been closed permanently, in this case in 2012 by the US Fish and Wildlife Service in order to protect its extensive bat population from White Nose Syndrome. See the section on Tagging Bats for details on White Nose Syndrome.

48 Photo by Wm. E. Davies



Map of Trout Cave 49

49 Trout Cave map from *Caverns of West Virginia* by Wm. E. Davies.

ABOVE GROUND

There were many more visits to many more caves whose names I cannot remember. Most were visited multiple times. Some were easy and some hard. Some vertical and some not. Some were less than exciting. All were interesting and fun. I tried (unsuccessfully) to interest my brothers and sisters and my wife Kathy's siblings in caving. I even have a vague memory of having taken several of my younger sisters and Kathy's younger brother to visit a cave (whose name I am unable to remember) but none took up caving recreationally.

So far, I've recounted my *underground* adventures. But not all of my memories happened underground. Many fond memories of my caving trips were made above ground too. In this section, I'll describe some of the more memorable ones.

Tagging Bats

In the section titled Etiquette, I admonish you to *NEVER interfere with bats*. That is great advice. But, there are times when that rule is broken. During one of our trips, we participated in a scientific study sponsored by a local college in conjunction with the National Speleological Society. The NSS is very involved in bat conservation, being directly responsible for periodic census-taking trips to assess the health of bat populations in various caves throughout the country.

During this trip, we visited a cave (name long since forgotten) in which we explicitly worked with bats. It was summer, so the bats were not hibernating. [Disturbing a hibernating bat could be fatal because the animal is unable to restart its biological processes too quickly.] During summer, bats do not hibernate in caves. They simply sleep, waiting for evening when they go out to feed. We entered the cave and located the roost where the bats had gone to sleep for the day. Eventually, we found a section where the roosting bats were accessible to our group without requiring a potentially dangerous climb.

We took pictures of the area so that accurate estimates of the population could be made later using notes taken documenting the size of the area and the picture to determine the density of bats. For safety, we wore gloves and otherwise covered any exposed skin. We also wore goggles or safety glasses to protect our eyes. Each of us carried a pillow case.

We'd reach up quietly and grab a single sleeping bat as it hung from the wall, quickly placing it into the pillow case.

Back on the surface, trained students would weigh each bat, categorize it by species, measure its wing span, and record any identifying features. Then they would attach a numbered band to its leg. By the time they were done, each bat was fully awake, and was simply released to return to the cave on its own. It's likely that one of the students took blood samples to test for the presence of rabies and other bat-borne disease, though I don't remember that explicitly.

We did this bat tagging only once, at one cave. The entire operation took only an hour or two from entry to departure. It was quite interesting to be able to see these tiny animals up close. Each was only the size of a mouse. Their claws were sharp, though they didn't pierce our leather gloves. The claw on the elbow of their wing (their hand) was particularly interesting to see. The bats clearly disliked being handled and we could hear their high-pitched squeaks of distress. When released, they flew away quickly.

One hope was that at least a few of the bats that we had randomly selected from the cave would have carried a tag from a previous census. Any such 'priors' would have been examined even more carefully. Sadly, none of the several dozen bats we selected had been banded previously. I never heard the results of this study.

Years later, studies of bats became national news when declines in bat populations were noticed beginning in 2006.

This heralded the discovery of White Nose Syndrome. To summarize Wikipedia[50]:

> White-nose syndrome (WNS) is a fungal disease in North American bats which has resulted in the dramatic decrease of the bat population in the United States and Canada, reportedly killing millions as of 2018. The condition is named for a distinctive fungal growth around the muzzles and on the wings of hibernating bats. … (F)irst identified (in) February 2006 (t)he syndrome has rapidly spread since then. In early 2018, it was identified in 33 U.S. states and seven Canadian provinces. (…) Most cases are in the eastern half of both countries, but (has since been seen as far west as) Washington state (and) California.
>
> The disease is caused by the fungus … which colonizes the bat's skin. No obvious treatment or means of preventing transmission is known, and some species have declined more than 90% within five years of the disease reaching a site.
>
> The US Fish and Wildlife Service (USFWS) has called for a moratorium on caving activities in affected areas and strongly recommends to decontaminate clothing or equipment in such areas after each use. The National Speleological Society maintains an up-to-date page[51] to keep cavers apprised of current events and advisories.

As noted in the final paragraph above, most caves which support a population of bats have been closed to the public since 2009, when the US Fish and Wildlife Service called for a moratorium. In response, most states, including West Virginia, instituted restrictions on caving to prevent further spread of this

50 White Nose Syndrome: https://en.wikipedia.org/wiki/White-nose_syndrome

51 NSS White Nose Page: https://caves.org/white-nose-syndrome/

disease and conserve their healthy bat populations. As a result, my earlier suggestion for readers to take up caving as a recreational activity may be rather pointless. However, the NSS continues to study bats and their caves and still allows caving under strict supervision.

Encouragingly, as this book is being written, it appears that some restrictions on caving have been lifted, so If you are interested, please contact your local NSS chapter for the latest information.

Traffic Court

One particularly humorous above-ground adventure occurred as a result of a minor traffic incident encountered as we returned home following the ice adventure in Crookshank cave. As we drove home, it was still (!!!) snowing heavily as our two cars headed out, one following the other. Two of our party were in one car and two followed in the other. The two-lane country roads had not been plowed, so we were driving essentially in the center of the road as we encountered another car going in the opposite direction. We all swerved toward the side of the road to avoid one another. Our two cars passed safely, but the oncoming car skidded and ran off the road into a culvert. We stopped. Thank goodness no one was injured. There was no damage that we could see. But he was stuck.

The driver of the oncoming car turned out to be a well known resident of the nearby town of Cass[52]. He owned the largest grocery store in town and was a generous benefactor to the town. The four of us spent half an hour pushing and using our caving ropes to tow his car out of he ditch. The drivers exchanged information, and we all went on our way. As we continued home on Interstate-81 following a phalanx of three snow plows, we marveled at how much had happened to us on this trip, glad to finally be on the last leg of the trip home.

Several weeks later, as the driver of our lead car was casually getting gas in Shepherd, WV, the station owner, a

52 https://en.wikipedia.org/wiki/Cass,_West_Virginia

friend of his, came out and handled him an arrest document with orders to report to Charleston, WV before 5 pm on the coming Friday. The other driver had filed charges against him. Our friend attended a short hearing in Charleston in which a trial was scheduled in Cass for a later date.

When the court date arrived some weeks later, we of course planned yet another caving trip. No sense driving the four hours all the way to Cass without taking full advantage of it. The 'court house' turned out to be a storage room above an old generator/transmission repair shop. This aged building had oil soaked floors and probably had changed little since it had been built in the 1920s. The four of us arrived dressed in our finest jeans. We also may have put on collared shirts?

We met our guy's attorney out front, climbed the stairs, and walked the full length of the second floor back to the 'court room' where there as an old wooden desk (circa 1930) positioned at one end. There was a row of folding chairs and boxes and other stuff stacked up along the walls. The Justice of the Peace walked in, sat down, banged a gavel, and declared court in session. The plaintiff was a no-show, so the charges were dismissed.

We then relaxed and spent more than a few minutes talking about the town, the surrounding area, and caving. The entire morning reminded us all of an episode of the Andy Griffith Show[53] in the fictional town of Mayberry, though we never saw Sheriff Taylor, his deputy Barney Fife, or Opie.

I don't remember which cave(s) we visited on that trip. The Lawyer cost our friend $100.

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53 https://en.wikipedia.org/wiki/The_Andy_Griffith_Show

AFTERWORD

My caving adventures ended abruptly when I graduated from college and joined the Navy. Marriage, military service, and career quickly became the focus of my life. The Navy took our family to places where caves were all but nonexistent. By the time I left the Navy and returned home to the Washington area, my career left little time for trips to West Virginia, though Kathy and I did spend one long weekend in the hills during which I showed her a few of the cave sites.

I have since visited a few commercial caves, but I never went underground recreationally again. Unable to let go of it, and having no one to pass it on to, all of my caving equipment still sits unused on a shelf in one of the closets in my basement. In addition to several hundred feet of caving rope, there is my helmet, a climbing harness, several carbide lamps, assorted carabiners, brake-bars, three pairs of different mechanical ascenders, and various foot straps, loops, and a chest harness. Almost all of this equipment, state-of-the-art at the time, is considered antique today and probably shouldn't be used again.

But the memories are still strong.

REFERENCES

Following is a list of References and other resources cited in this book. Included are a number of web sites and other resources readers may find helpful as they pursue information about caving and caves in West Virginia.

Titles published by the Author, PopBooks, PopFlix, or PopPress are available in various formats by contacting the author at wrightsinreston@verizon.net. Some titles may be downloaded from the Wright Family web site found at: https://wrightstuff.site/.

Books

1. William E. Davies (July 1958). *Caverns of West Virginia*, Williams & Heintz Lithograph Corporation, Washington. DC
2. William E. Davies (1965). *Caverns of West Virginia – Supplement*, West Virginia Geological and Economic Survey.
3. Bruce Smith and Allen Padgett (1987). *On Rope: North American Vertical Rope Techniques for Caving – Search and Rescue – Mountaineering*. National Speleological Society. [Out of print. Updated and revised edition published in 1997.]

Web Sites

1. Carbide Lamps: https://en.wikipedia.org/wiki/Carbide_lamp.
2. Cass, West Virginia: https://en.wikipedia.org/wiki/Cass,_West_Virginia.
3. Gibbs Ascender: http://www.verticalmuseum.com/VerticalDevicesPage/Ascender/LCam1.php.
4. Hellhole cave: https://en.wikipedia.org/wiki/Hellhole_(cave).
5. Hiebler Ascender: http://www.verticalmuseum.com/VerticalDevicesPage/Ascender/T1LeverCamPages/T1LeverCam0085.php.
6. Jumar Ascender: https://en.wikipedia.org/wiki/Ascender_(climbing)#Jumar.
7. NSS White Nose Page: https://caves.org/white-nose-syndrome/
8. West Virginia Geological and Economic Survey: www.wvgs.wvnet.edu.
9. West Virginia Speleological Survey: https://www.wvass.org/.
10. White Noise Syndrome: https://en.wikipedia.org/wiki/White-nose_syndrome.

Other Titles by the Author

1. Kathy and Charlie Wright (2021). *Our Sea Story – A Memoir of Our Navy Years*. PopBooks.

Other PopBooks and PopPress Titles

1. Ann Martha Sandberg (1955). *A Biography and Selectively Annotated Chronological Bibliography of the Published Writings of Dr. Herbert Francis Wright*. PopPress.
2. Jack Wright (1972 – 1987). *Dear All: Letters to My Children*. PopPress.
3. Jack Wright (1985). *Katherine Kirk: Teacher – Mother – Teacher*. PopPress.
4. Jack Wright (1985). *That Jack the House Built*. PopPress.
5. Jack Wright (1986). *Albert Wigglesworth: Frontier Doctor – A memoir*. PopPress.
6. Jack Wright (1988-1989). *Now Hear This: Columns in the Montgomery Journal*. PopPress.

PopFlix Titles you might enjoy

1. William F. Haber (1954 – 1981). *Various Family Videos*. PopFlix.
2. Charlie Wright (2000 – 2010). *Various Family Videos*. PopFlix.
3. Charlie Wright (2001 – 2010). *Various Short Subject Fictional Movies with Grandchildren*. PopFlix.