

Burns Cave

by Tommy Shifflett

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I've just squeezed into a small, cramped room. As I contort myself, I find it barely possible to turn around and see the crack I just exited. My breathing is heavy. Sweat drips down my forehead and stings my eyes despite my being soaked from hours of crawling in 49-degree water. I focus on the passage ahead, the way out of here to the surface.

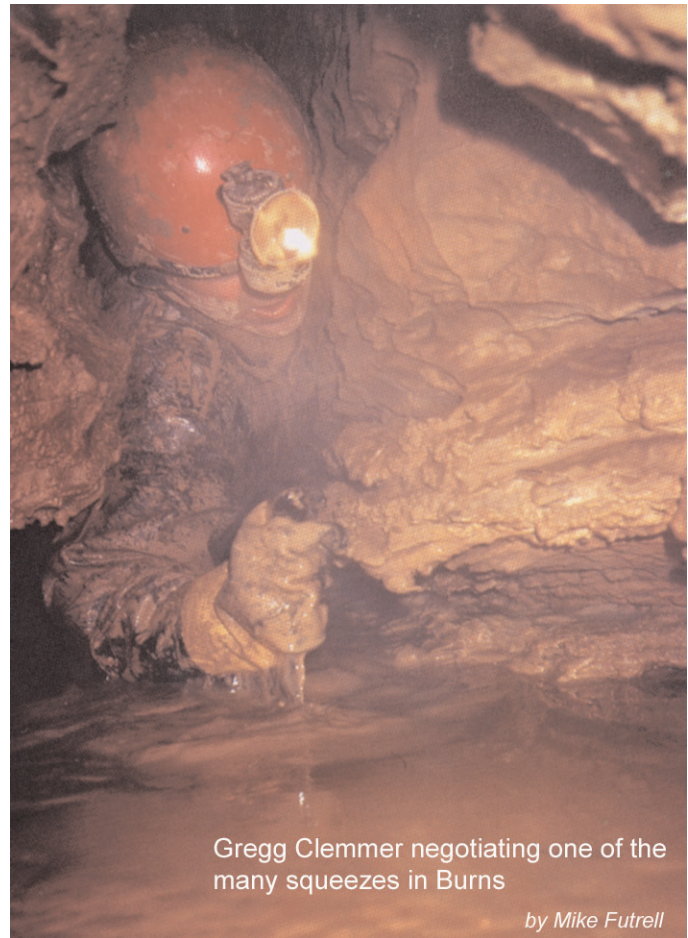
But there is no way on. I'm confused. Nothing here appears big enough to squeeze into. I'm much too tired to back down this wrong turn. What wrong turn? I remember there are no side passages in this isolated stretch of the cave.

Again I look ahead, spotting the small fissure near the floor that appears too small for me to fit. Peering in, a strong breeze blows in my face, cooling the sweat on my brow. Raw fear hits me. With no other cracks staring me in the face, I know this must be the way on.

After several trial and error attempts, I discovered just the right angle to fit my body. I push ahead, squeezing against the friction of the cave's walls, straining to push my pack ahead of me. Progress is measured in half inches. The rushing water cascades down the smooth flowstone floor of this foot-wide passage, into my gloves, up my sleeves, and out my coveralls. Fighting an agonizing fatigue, I begin to ponder the next constriction... then the next... and the next..., a preliminary mental torture to the all-night, arduous contortions I must pass to get out of this cave. Hours of bone-weary labor lie before me, though I am but two thousand feet from the sunrise of a new day.

This is something of what the handful of cavers who have pushed the limits of Burns Chestnut Ridge Cave (Burns for short) feel when negotiating the countless twisting squeezes and narrow canyon passages of the cave's entrance series. Regarded as perhaps the most difficult cave in Virginia's Burnsville Cove, Burns is located atop Chestnut Ridge near the Bath County/Highland County line. A trip into nearby Chestnut Ridge Cave System via the notorious Bobcat entrance, said Virginia caver Mike Futrell, "feels like a tourist trip," when compared with a venture to the bottom of Burns.

Those who have been into that Virginia discovery know that Bobcat is no tourist's lark. After confronting an exhausting half-mile entrance series of windy, narrow, twisting, toothpaste mud-filled cracks and fissures, we opted to map the system's 14 miles of passage-and 722 foot depth-via 28 muddy underground



Gregg Clemmer negotiating one of the many squeezes in Burns

by Mike Futrell

camp in a constant 49-degree temperature over a period of 12 years.

Burns simply takes the Bobcat example to ridiculous extremes. All who travel to the bottom of Burns are beaten by the continuous onslaught of pinches, squeezes, narrow and twisted canyons, exposed climbs, and soaking, cold water crawls. Just the trip in can be exhausting.

But the story to be told here is more than just that of another difficult push trip into a previously uncharted cave. The Burns story is about the handful of people on dozens of trips over many years who wanted to make this blowing cave go, who went back again and again against each constriction and terminus, burning (no pun intended) through at least three generations of explorers. This is about the persistence of many Burnsville Cove cavers, who in a saga of digging and dedicated exploration spanning decades from the 1950s into the 1990s, put a "for the record only" cave into the hushed annals of cavers' campfire lore.

EARLY EXPLORATION

Burns was discovered in the 1950s by Ike Nicholson, the discoverer of nearby Butler Cave-Sinking Creek System, a cave with more than 17 miles of mapped passages. The first description of Burns is

in Henry Douglas' Caves of Virginia. Douglas noted several 30- foot drops and a series of narrow rooms 30 feet tall. His description brings the cave to an end at a blocked stream passage blowing air about 200 linear feet from the entrance.

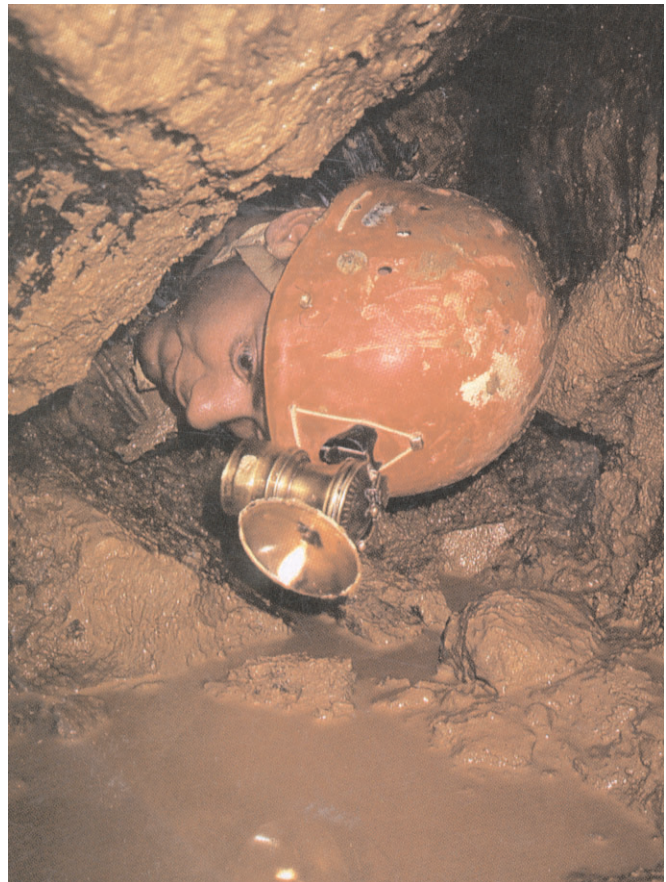
This was the terminus when Duke University students began working the cave in the 1960s. Although little direct information had been found on the Duke cavers' efforts, an article in the Nittany Grotto News noted that they "blasted several constrictions and pushed the cave's passages to an estimated 2,000 feet, following air current." However, from blast debris found in the cave, and Nevin Davis' account of his attempts to push Burns farther, the Duke students actually penetrated only about 600 feet to a depth of 200 feet below the entrance. The same Nittany Grotto News article described Davis and Fred Wefer finding a few hundred feet of virgin cave along the way, but being stopped by the same constriction in a narrow stream passage that had stopped the Duke cavers.

In the next Nittany Grotto News, Fred Wefer described a fluorescein dye trace of the Burns entrance stream to Cathedral Spring, a distance of 2.7 miles to the northeast and 807 vertical feet below the cave's entrance. A Nittany follow-up noted Duke's return to continue the exploration. Nevin Davis detailed his own June, 1971 visit to check on Duke's progress, especially on the effects of the fuse and dynamite they had "borrowed" from him. With Paul Cunningham to back him up, Nevin traversed the cave to a 20-foot-deep pit 500 feet from the entrance. This same pit, now called Historic Drop, would become the symbolic spot dividing the old known cave from later discoveries.

Historic Drop is reached via squeezes, exposed climbs, and traverses, all through tight, sinuous canyons, making the cave seem a bit longer than it really is. To reach the actual edge of the pit, one must worm sideways into a tight, high fissure with plenty of exposure above the pit. The short drop was formerly



Gregg Clemmer squeezing through the Second Mud Crawl



Ben Schwartz coming through the second terminus Photo by Mike Futrell

rigged with a wooden rung, polyethylene ladder backed by a Goldline belay.

Perhaps because of this exposure and the unsure nature of the ladder, Nevin elected to solo the drop while Paul stayed topside. Nevin pushed downstream from the bottom of the pit and into the First Mud Crawl, a two-foot-high by three-foot-wide passage that can at best be described as a fight to stay out of quicksand, or in this case, quickmud! Using elbows and knees, he crawled above the muck using narrow ledges along the sides to keep from sinking. Beyond the crawl lay the end of exploration and the point of Duke's blasting effort. Shattered flowstone blocked the stream trickle from which cold air poured. Nevin discovered that the constricted passage had been completely collapsed in a zealous effort to make it larger. Poking around, he found a hole in the ceiling 10 feet back from the site. Enlarging it with a hammer, he pushed up and over the blasted- shut passage. After 150 feet of scrambling in virgin cave, Nevin came to yet another too- tight constriction, this one at the rear of a small room less than four feet high. He described this location as "another constriction through which the water flows and the wind whistles."

The next trip came in August of 1972. This time Nevin brought Ron Miller with him. In Nevin's words, "this

was another of those long miserable trips to enlarge the stream crawl in the cave." Besides caving gear, the duo brought a hammer, ten pounds of dynamite, and a 120-foot Goldline rope. When they reached Historic Drop, they discovered that Duke Grotto had also been back, leaving behind their own 120-foot Goldline rope. Both Ron and Nevin used the same rope ladder left behind to reach the bottom. This time the air was sucking, allowing them to inspect the cave after setting their blast. Digging out the debris, they managed to open the constriction only to find "that there was yet another five feet of very tight crawlway before what appeared to be walking passage." Mercifully, they had no idea how wrong they were.

A BITTER END

Nevin returned in February 1974 accompanied by Champe Burnley and John Wilson, lugging a polypropylene and aluminum rung ladder to re-rig Historic Drop. Two and one half arduous hours later, fighting the cave in wetsuits, they reached the blast site. The mission was simple:

advance the cave with ten sticks of Kinepac, all capped to a timer so everyone could clear the area safely. Yet even without the burden of ladder and explosives, and cushioned by time and distance from the blast, it still took two and one half hours to exit the cave. Caving without a wetsuit, Champe got cold during the second half of the trip. Little did anyone know, the physical requirements to eventually bottom this cave would negate any consideration for a wetsuit, despite constantly crawling in cold water.

Nevin and John came back that same month. More and more it seemed, first time visitors to Burns found little appealing in a return trip. Nevin noted that the previous blast had enlarged the cave to where he could see "a canyon up to 5 feet high but only 8 inches wide." Setting another charge with timer, the pair exited, this time cutting their exit time to two hours. But they didn't go back. As Nevin described later, the cave had worn him down and he couldn't find anyone to help him. John Wilson had found better things to do and Duke Grotto had apparently abandoned the project. Thus, the cave returned to silence and darkness, with only the bats and cold breeze passing the narrow

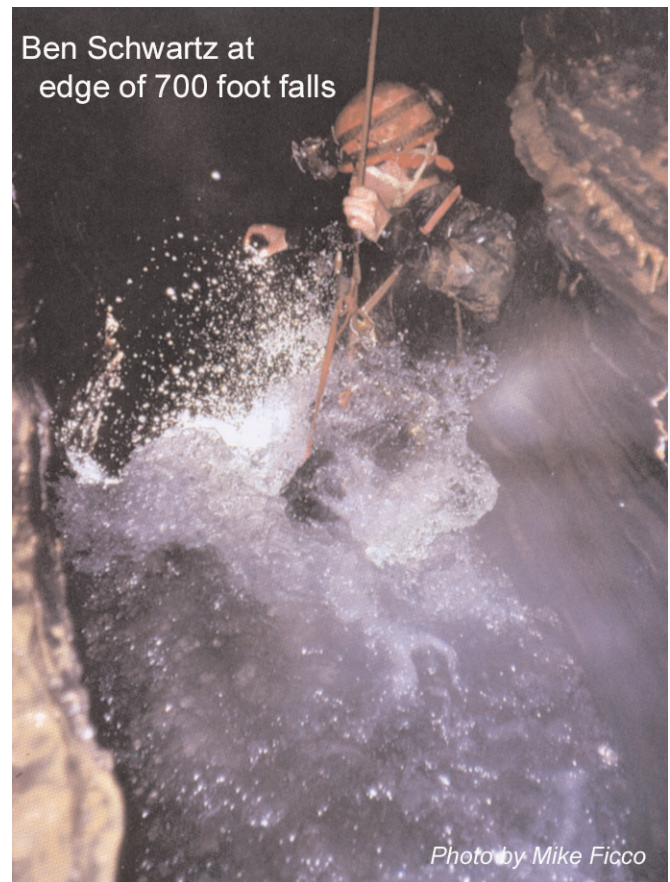


**Gregg Clemmer
squeezing through
the second terminus**

8-inch crack that marked Nevin's deepest advance.

A NEW GENERATION

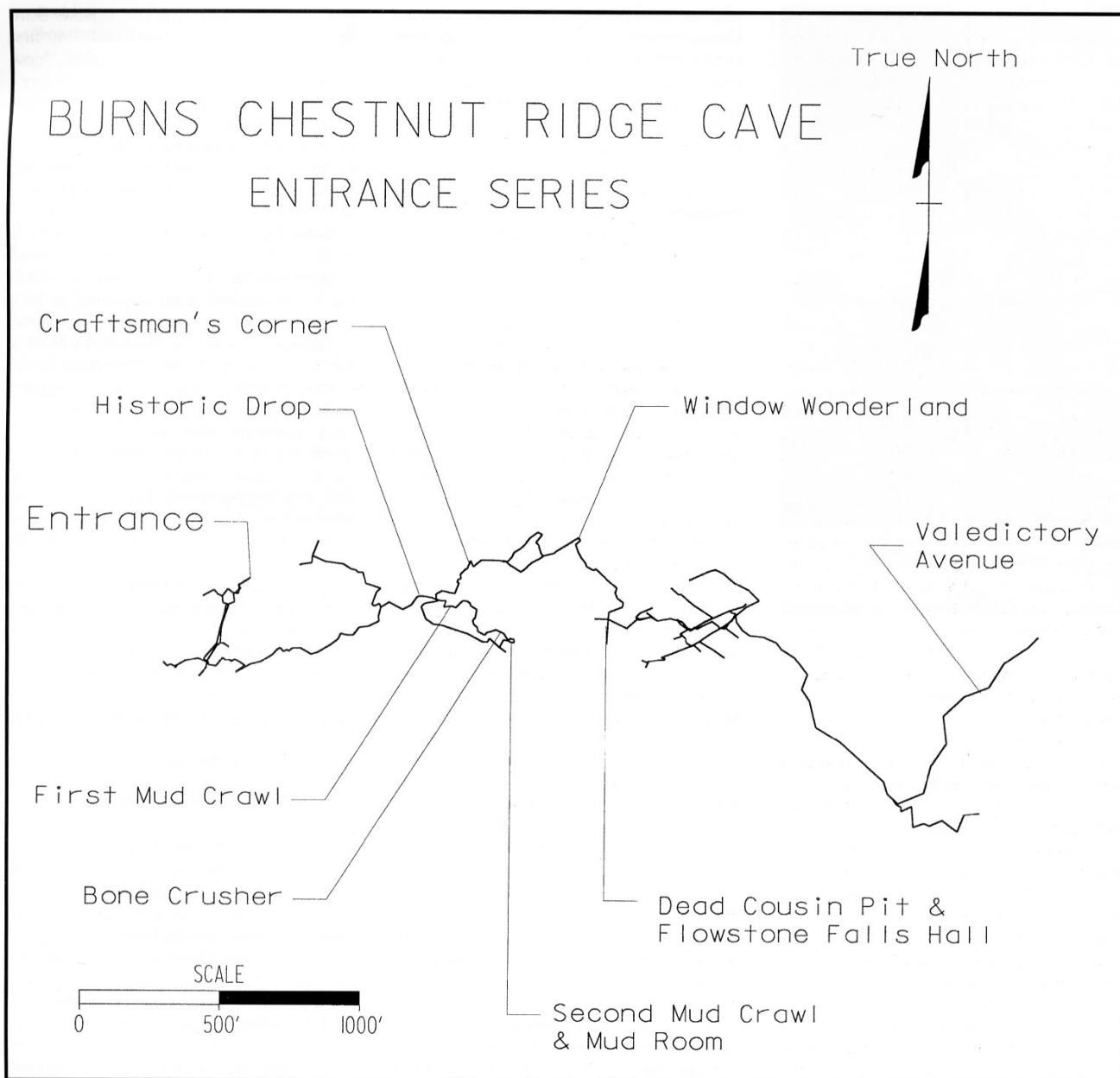
By 1980, Gregg Clemmer, a new member of the Butler Cave Conservation Society (BCCS), had developed an interest in the caves of Chestnut Ridge. Gregg had long lost interest in pushing small caves in his native Augusta County, but still yearned to discover something of greater potential in his native Virginia. Burnsville Cove seemed a good bet. Jack Igoe, a member of the BCCS, had sold Gregg on the theoretical Cathedral System, though there was little-expecting a few obscure blowholes in winter to suggest a big cave lay under the eastern flanks of Chestnut Ridge. Still, eager to get started, Gregg asked fellow Shenandoah Valley Grotto (SVG) members Doug Molyneaux, Paula Casale, and Buddy Stein to join him on Labor Day 1979 for a visit to Burns. Somehow, by using the myopic quadrangle maps in the back of Caves of Virginia, they stumbled onto the entrance. Already hot and tired from searching for the obscure entrance on a humid, late summer day, the foursome ventured only a couple hundred feet inside. A strong breeze sucking into the cave convinced Gregg that



**Ben Schwartz at
edge of 700 foot falls**

Photo by Mike Ficco

**Ben Schwartz at edge of 700 Foot Falls
by Mike Ficco**



this cave, and indeed Chestnut Ridge, could be very rewarding if pursued. No one else seemed interested in the cave-the Duke cavers had vanished and Nevin Davis and other members of the BCCS groaned about the prospects-so Gregg decided to push it. Some in the BCCS tried to steer him away, saying the caves in the Ridge were young in development and would be too tight to follow. Their theory was that a large cave was unlikely in Chestnut Ridge. Paying no heed to their predictions, Gregg sought help from members of his Grotto.

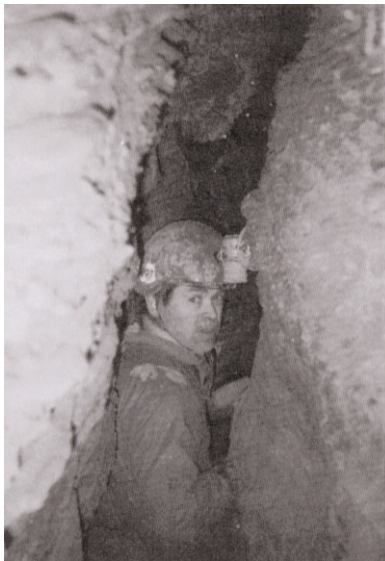
I had joined the Shenandoah Valley Grotto in 1979, and had participated in their exploration and mapping of Walt Allen Cave in Pocahontas County, West Virginia. On two of these trips, I had come to know Gregg and as such was exposed to his slick spiel of

enticing people to join him in checking out two known leads on Chestnut Ridge: Chestnut Ridge Blowing (aka Bobcat) and Burns. Captivated by Gregg's lure at finding large borehole cave similar to nearby Butler, I joined Gregg and Kent Seavers for a recon trip into Burns. Our goal was to reach the end of Nevin Davis' exploration and find the source of the strong airflow that had been described by previous explorers. To relocate the entrance of Burns, particularly from the west side of Chestnut Ridge, Gregg asked Nevin's help. Nevin had recently moved to Burnsville Cove and he quizzed us why we wanted to go into Burns. I laughed when we told him of our intent to push the cave where he had left off. Nevin truly thought at the time, that after a good Burns ass beating, we would be back 10 or 12 hours later,

without ever having reached the constriction, declaring that we would never return to such a horror hole. He was wrong! We did reach the constriction, we liked the prospects, and we quickly began planning a return assault to get through the narrow crevice where he had given up.

THE TERMINUS

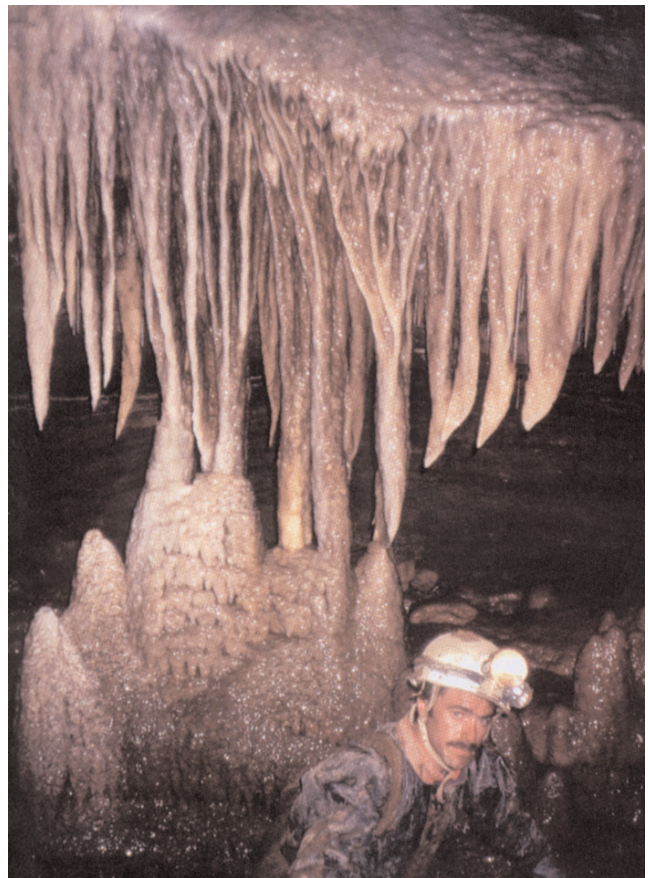
The crevice where Nevin had stopped was just a vertical crack two to four feet high. The passage was difficult to evaluate because a three-foot chunk of breakdown blocked the way. To get a decent look over this jagged rock, I had to double twist my body while my legs were still in a tight, five-foot-long constriction, then arch my torso vertically to see up and over the breakdown boulder. I felt like a pretzel and could only stand such a contortion for a brief moment. What I could see was a straight passage, four to eight inches wide funneling to a blank wall at least twenty feet away. A black hole in the floor at the base of the blank wall offered a dim glimmer of hope. In cross-section, the top half of the passage was wider than the bottom, offering a narrow ledge to aid our work in widening the slot. We knew it would be a long, protracted effort, but we also felt certain we could get beyond the immediate obstacle. The wind and that black hole were our inspiration. And so we began, Gregg, Kent, Doug Molyneaux and myself, gradually chipping away at the crevice, with occasional help from Joe McKenney, Pat Ward and others in the SVG. Our first objective was to "gravelize" the breakdown boulder. After that obstacle was removed, we went after the walls, widening the passage at the agonizingly slow rate of 2-3 feet per trip. With little room to maneuver-the slot remained at chest tight dimensions-we burned a lot of energy squeezing forwards and backwards, grinding ourselves into the sharp wall corners and floor rubble in order to remove busted rock at the constriction. I still remember that after every trip, my bruised chest remained sore for days afterwards. For this and other awful reasons, we named the place the Bone Crusher. After several intense trips we had advanced to within four feet of the blank wall.



Gregg Clemmer in narrow canyon leading to Window Wonderland

A BREAKTHROUGH

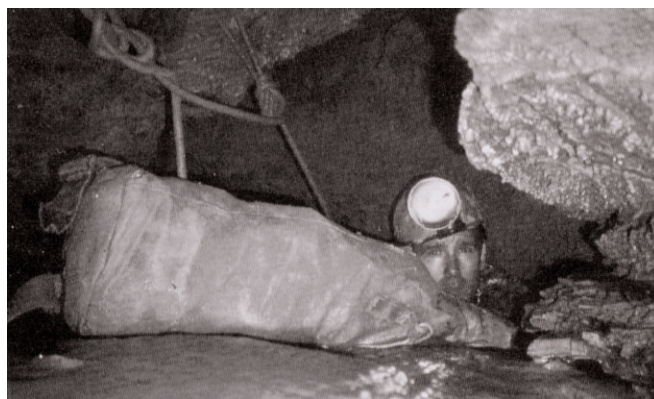
In October of 1981, two teams entered the cave. One group-Gregg, Joe McKenney and Dave Hall, began a survey at the entrance. The second team-Doug, Kent, and myself-headed to the terminus, intent on making a breakthrough. After more rock removal, we finally had the Bone Crusher large enough for a skinny person to force it. Or so we hoped. It still appeared suffocatingly tight. But now, it was time for Kent to take over. Truly a master of the squeezebox, Kent possessed the necessary confidence and daring to attempt this kind of thing, an obstacle I feared I might get stuck in and die. Kent had long since earned the name "The Snake" for his particular talent. He would later pioneer another breakthrough and tight squeeze in Bobcat Cave, which bears part of his nickname: The Snakehole. With much effort, Kent finally forced his way to, then through the last of the Bone Crusher, entering a five-



Mike Ficco by formations in stream trunk upstream of 700 Foot Falls by Mike Futrell

foot-wide by six-foot- long dome. We had finally broken through! Upon hearing Kent's yelps of triumph, I had to follow, forgetting my fear of the place. But that last stretch of the Bone Crusher turned out to be the worst, requiring an extremely tight body force on a steep incline, then another, final womb-tight grind and grimace into the small room. Getting through required

maximum twisting and contortion of my body. Others would suffer strained back muscles, bruised hips and shoulders, and in one case, cracked ribs. Only later modifications somewhat "tamed" the Bone Crusher. The only passages exiting the dome were a body-sized slot, and a two to three-inch- wide crack in the floor taking the stream. Wind blew through this crack, but no one could follow that. There was no air moving through the slot, located about six feet off the floor and requiring a bit of wiggling to get over the slick slimy mud. But once over, we dropped down a steep, slippery slope to a low room, 15 feet wide and long, which we named the Mud Room for obvious reasons. The bottomless nature of the floor generated awe, then fear that one could get stuck here for a long time. A tight, steep inclined (~30 degrees!) crawl at the back of the Mud Room continued for 15 feet to what looked like another blank wall. This incline had no detectable air and as a result no one crawled down it. Frantic to make anything go, we "chemically loosened" a considerable amount of rock from the crack in the floor of the dome. Then, cold and soaked by this muddy gruel, we exited the cave without checking the results of our rock removal effort, too drained and beaten to test the Bone Crusher a third/forth time. I had little confidence that our rock removal effort would get us through. But on hearing of our breakthrough, Gregg expressed satisfaction at finally conquering the constriction that had stopped Nevin. We had made progress. Despite our pessimism on the cave going beyond the Bone Crusher, Gregg pushed everyone for a return trip. In his mind there always was a way to follow the air. Within a few weeks, we returned to check the results. Shattered rock lay everywhere, but the crack continued one by two inches as far as our lights could penetrate. It seemed hopeless. Less we missed something, we made one last-ditch attempt to push the cave by crawling down the 30 degree inclined mud tube at the back of the Mud Room. We had not noted airflow there before, but to absolutely confirm this lead did not go, someone had to crawl down it. With crowbar in hand, I wriggled in, or rather glided down the muddy ooze. As I slid along I was more concerned about getting back out than I was in not finding anything. I felt certain the passage would not go. After all we could see the end and there was no airflow. Sure enough, I came to a blank wall. My first thought was simply, "nothing"...then, "now to get the hell back out." However, before I attempted to scrunch backwards up and out of the crawlway, something compelled me to poke with the crowbar at the left end side of the crawl. I felt resistance for about four inches and then presto, the crowbar punched through to a void. When I took it out, air whistled from a one-inch hole, hitting me in the face. With a few more pokes, I soon had a larger hole blowing much more air. Ahead lay blackness and what appeared to be a continuation of the crawl.



***Tommy Shifflett at the top of
Dead Cousin Pit***

Although excited by the hole in front of me, I was angled down on my head at this ridiculous incline. I had to retreat, wriggling backwards up through the slime and ooze. After telling the others what I saw, plus the discovery of the strong airflow, everyone excitedly began to dig. But we quickly found that any digging down there was nigh on impossible. We had no good tools and nothing to haul the mud. What to do? We reasoned that first we would excavate enough mud from the floor to approach the crawlway horizontally. But not this day! I was already exhausted from the sheer effort of backing out of the crawlway. I was getting cold from having laid in wet slop. And now there was that long slog back to the entrance. We decided to retreat, beaten for the time being, but exhilarated that we still had another chance to crack this cave.

ANOTHER DISAPPOINTMENT

Into the fall of 1982 and early 1983, we made occasional trips into Burns to dig out the crawlway beyond the Mud Room. Nearby Bobcat Cave had taken off and now most of the attention was being focused there. But one trip in Burns made great headway. Gregg Clemmer, Bill Howell, and I dug several feet down in the mud to where the crawlway could be entered on the level. This, however, created a water sump, a very sloppy morass we had to lay in that grossly and literally "dampened" our efforts to push the cave. We named the crawlway the Second Mud Crawl, it being the second location where deep, sloppy mud penetrated coveralls and soaked one to the skin. During this period, Joe McKenney, Pat Ward, Bill Howell, and others continued to enlarge the Bone Crusher.

In early 1983, Kent Seavers managed to enlarge the hole at the back of the Second Mud Crawl to "adequate dimensions" and slid through. A 90-degree turn to the left with a following 90-degree vertical turn up between the wall and a mud mound nearly thwarted

his contortionist's talents. But determined to push it all the way, he oozed and grunted his way into a four-foot-wide by seven-foot-long, standing room. At the back, Kent found a four-inch diameter vertical hole in a flowstone choke. When he peeked in, strong air hit him in the face.

ANOTHER TERMINUS

Joe McKenney, Pat Ward and I returned to the cave in August of 1983. We brought the "usual tools" for negotiating tight places. After pushing and contorting our bodies to the end of the cave, we worked on the vertical round hole in the flowstone until it was a near vertical crawl. Peering down, none of us could discern what the passage was doing, because at the bottom, it sloped steeply away from view. I dived in head first to take a closer look. Joe and Pat grabbed my feet to keep me from jamming myself at the bottom.

From my upside-down vantage point I spotted a bedding plane less than a foot high sloping left to a wall with an opening too tight to enter. Beyond, though, I could see blackness. Surely this passage was going to open up! But before I could get a second look, rubble from the blast shifted and blocked my view. As I struggled to extract myself, Joe and Pat yanked on my legs. I yelled in pain as I felt something give in my back. Before exiting the cave, Pat set some "chemical persuasion" to enlarge the vertical crawlway. I also used some to remove a portion of the wall at the end of the Bone Crusher, eliminating a very difficult vertical bend. I exited the cave in considerable discomfort, my injured back keeping me from the next big Bobcat trip. The three of us returned in August for more fun and games at this nasty dig. Through our previous efforts, the Bone Crusher was now much easier to negotiate. But Pat's attempt to remove rock in the vertical crawlway at the end of the Second Mud Crawl had failed. Both Joe and Pat inverted themselves as I had done in order to take another look at the lead. Both glimpsed some darkness beyond the rubble, indicating a hint of passage beyond. We had a lot to do and it was not going to be easy. The rubble in the bottom of the vertical crawlway acted like ball bearings, further



***Rappelling out of
Dead Cousin Pit into
Flowstone Falls Hall***

increasing our chances of getting stuck. It was like going on one's head to scoop out a jar of marbles. Once again this dig was beginning to look desperate. Joe, Kent Seavers, Dave Morrow, and I waited until March of 1984 before we visited the cave again. We brought our bag of tricks to further enlarge the crawiway, but our efforts seemed futile. The rubble floor and steep approach worked against us. Mud-slimed, sore and discouraged, we retreated with little accomplished.

Bobcat Cave was going great guns. Key personnel needed for Burns' demanding dig were more focused on Bobcat. Joe, Pat and others in the SVG continued to work the end of Burns, but made only marginal progress. The steepness and collapsing nature of the rubble in the dig made rock removal nearly impossible. Worse yet, there was simply no room to work with a hammer and crowbar, much less space to dispose of the rock and mud. Just two people could occupy the site and even then, the blast of cold air quickly chilled anyone not actively digging. By the end of the decade, the dig in Burns was shelved for better things.

YET ANOTHER ATTEMPT

But some of us kept talking about Burns' strong airflow and its potential as both a long and deep cave. I reconsidered our strategy. In October of 1990, we started anew. Accompanying me on this trip was Gregg Clemmer, arguably the most enthusiastic digger I have ever known. Nevin would come for just a short ways, curious to see the second entrance Joe McKenney and other SVG members had attempted to dig open. If they had been successful, this entrance would connect to an upstream canyon lower down in the cave, shortening the travel time by almost an hour. Mike Nicholson also tagged along, revisiting the entrance his father had located in the 50s. Nevin had been on one of Joe's last efforts to push the end of the cave, and like Joe, had decided the dig was hopeless. Upon reaching the entrance we immediately checked out the potential second entrance, located less than a hundred feet away. A raw earth collapse met our gaze, dashing our hopes for an easier way to



***Climbing down from
the bottom of the pit
at the end of
Flowstone Falls Hall***

Historic Drop. Nevin followed Gregg and I for a short distance underground, then turned around to rejoin Mike Nicholson back at the entrance. Gregg and I continued to the known end of the cave.

The Second Mud Crawl seemed larger than we remembered. But the steep rubble slope beyond still looked hopeless. We had no plans to dig this day; instead we needed to evaluate the dig and come up with a viable plan to get through.

Looking at Gregg, I said, "I believe this will work."

"Where will we put the rock?" Gregg asked. "There isn't any room in here."

"In the Mud Room."

"How?"

The Second Mud Crawl between the small room and the Mud Room was a 15-foot-long, body-tight wormway with deep, sloppy mud and two consecutive, tight 90-degree body bends, one in a horizontal direction and the other vertical, making handing and passing material next to impossible.

"By putting the mud in a bag between two ropes and dragging it through the crawl, one person working on either end," I replied. We figured digging would thus require four people.

We hauled some of the debris out of the crawl and stuffed it in the few crooks and crannies remaining in the Mud Room. Then, gathering up old tools and wire left from previous digging efforts, we exited the cave, confident we could get by this next obstacle.

The discovery of Blarney Stone Cave in March of 1991 turned our attention from Burns. It was three months before we returned. Both Gregg and I had convinced Nevin of our strategy to get through. Mike Dyas, a caving comrade from the early seventies and a hard-core digger, would join us. We came "loaded for bear:" hammer, crowbar, 50 feet of rope, webbing, bucket and appropriate "chemical persuasion" with all the fixin's. Everyone had a camp pack for use as a haul bag.

Once at the dig, we went after the ceiling, taking out rock to create working space. Soon, we had a place to sit down in the crawl. No more inching in upside down on one's head. Once we could dig at the blockage, Gregg entered the crawl and started digging debris with the bar, loading the bucket and handing it up to me. I emptied the bucket into a pack held by Mike. Nevin, working from the Mud Room side, pulled the loaded pack through the Second Mud Crawl at Mike's signal, Mike having to maneuver the load around the corners or unclog the accumulating muck from repeated haulings. Larger rocks were hammered down to pack size.

After 20+ loads, Nevin was duly exhausted from hauling the mud-globbed pack. But Gregg had dug out enough material for a good look under the ledge.

Although still upside down, he could see the hole that I had previously spotted before rubble blocked it. But

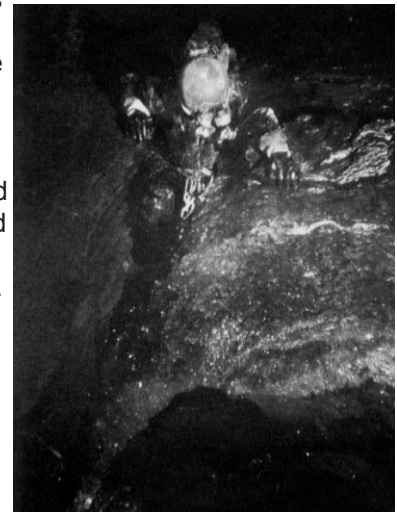
this was no hole in the floor. We were looking through a hole in the wall. We still could not reach it nor could we peer ahead into any going passage. But the howling wind gave us all the inspiration we needed.

THE FINAL BREAKTHROUGH

Blarney Stone and other caves continued to divert our attention. It's truly hard to return to digging and groveling in cold mud and penetrating slop when cave booty is being scooped elsewhere. However, we did return in September 1993. This time only Gregg, Nevin, and I made the trip. But now, it was Nevin pushing to dig. We had other projects with walking leads and on this same weekend I had a trip scheduled to one of those caves. I felt reluctant to open up yet another cave when I couldn't go underground enough weekends in the month to participate on all the trips my caving comrades were running. But Nevin is a good arm twister when he wants to be, and after all, it was a perfect weekend for the trip—a nice cool, late summer day when the air sucking into the cave would clear the fumes.

We dragged in the usual equipment—a real burden with just three people. As a result, travel to the end of the cave proved slow and arduous. At the terminus, we discovered mud had flowed down into the dig and filled the area to a depth of six inches! It took us a dozen or more buckets to remove this liquid glop, scraping and hauling those dead weight packs out of the Second Mud Crawl. With just three of us filling the packs with this "intestinal gruel," then tugging and pushing the load from its muddy abyss, we could easily have become frustrated. But this day, we sensed something electric in the air. No one really said much, but each of us suspected we were getting close to a "view of the virgin."

After digging several large rocks from the walls and floor, we finally reached the small, tantalizing hole. More rocks needed to come out, a difficult task given the ball-bearing nature of the steep floor that tried to roll and jam me into a bedding plane on one side. Finally, by bracing against the far wall with my right arm, I managed to thwart the rolling effect of gravity



Ben Schwartz climbing out of a tight slot upstream of 700 foot falls

and the rubble floor. Using only my left arm, I set the "rock removal material" and mud-packed it. Then everyone exited, crawling out the Second Mud Crawl, across the Mud Room and out through the Bone Crusher, a ritual we had done countless times. To our dismay, a warm afternoon outside had changed the dynamics of the airflow in the cave. Instead of clearing the fumes, the cave pulled them by us, then reversed in a curious breathing effect, repeating the entire gagging procedure as we waited. We were ready to abort, except that our packs and other gear were back in the Mud Room. With no other choice, we snaked back through the Bone Crusher for a final look. I crawled down into the blasted squeeze and noticed that the rock was broken along the perimeter of the small hole in the wall. Pulling out some manageable size hunks helped me finally see around the corner into a crawl of hands and knees dimensions. Going cave! I could not quite see beyond the end of the crawl because of mud dams blocking my view. Pooled water would welcome our tired bodies when we tried to squeeze through. I could care less! Seeing the larger passage beyond the squeeze fired my enthusiasm. I was going for it!

I couldn't fit through on either my belly or my sides because of the steepness of the approach and the height of the opening. The only way was to lie on my back and force it. The pooled water quickly flowed in around my helmet and down my neck, soaking my back as I inched into the squeeze. About halfway, the mud dam snagged me. I pushed and dug at it while on my back, splashing the pool's six-inch depth all over the mud. For ten minutes I groveled in this slop before it gave way and I lunged through the squeeze and into the hands and knees crawl. Beyond, lay blackness! We had finally done it. The crawl led to a climbable drop perched 20 feet above a nice-sized room. I explored in the glow of discovery, yelling "borehole," which both Nevin and Gregg distinctly heard in the distance. I could hear them yelling "what's it doing?" but all I could answer back was "borehole!" I was excited, and my shouting just spread the contagion!

The room seemed to end except for an opening in breakdown in the middle. I knew at this point it was going to go. I stopped my exploring and returned to the crawl, digging more out of the mud dams and draining the pool of water. Nevin and Gregg squirmed through. Gregg quickly headed into the breakdown in the floor without first looking around, as if he had been divinely directed where to go to find going virgin cave. After a few minutes, he returned, smiling. Large walking passage was on the other side! We explored this for a few hundred feet to a point where it narrowed to a four-foot-wide canyon with breakdown. A short distance beyond, the passage ended except for a hole in flowstone leading to the top of a pit. Dropped rocks splashed into deep water. We estimated the pit at 35-

40 feet deep. A thick layer of bat droppings coated the floor of the flowstone opening leading out to the pit. This was undoubtedly the way on. But we had no rope. This time, as we labored back through the tortuous entrance series, we had reason to be jubilant. Burns was conquered! Or so we thought.

MORE OBSTACLES AHEAD

The next month, Nevin, Gregg, and I returned with rope, bolt kit, and mapping gear. To begin our survey, we had to start at the Mud Room with a decade-old survey station. Mapping through the Second Mud Crawl and down the squeeze at the breakthrough was sheer horror. Wet, sloppy mud penetrated everything, and made keeping the book clean a hopeless task. After mapping to the pit, we spent an hour rigging, making sure the rope hung free. Upon descending, we found the pool at the bottom only a couple feet deep. We continued the survey up and over some massive flowstone mounds, through a squeeze, then into a small room with a too-tight crawlway leading from the floor. Air poured from here. A loose slab of rock above the crawlway offered hope we could enlarge the crawl if we could dislodge it. Gregg had brought along a



Traversing a ledge at one of the 7 foot waterfalls

small crowbar and chisel. We loosened the slab, but to our dismay, a much larger piece fell and completely blocked access. At arms' length we struggled to budge it, but the slab was simply too heavy and cumbersome to move aside.

Reluctantly we turned our attention to a two-inch crack above the crawlway. If we got through here, we could bypass the blockage. Gregg whipped out the chisel and together with my Petzl bolting hammer, we declared war on the limestone. For five hours we pounded, flaking bits of rock and exploiting hairline cracks, cheering with each half inch of progress! Only after taking off six inches and grossly deforming both the hammer and chisel, was I able to barely scrape

through. We named the place Craftsman's Corner in honor of the Sears' chisel we had sacrificed. Once on the other side, I managed to maneuver the slab out of the way, enabling Nevin and Gregg to join me. We continued the survey for over a hundred feet, pushing ahead in narrow, clean-washed stream canyon, floored in flowstone. The mud was gone, but the character of the cave stayed the same, squeeze after squeeze, with plenty of cold water rushing off into the unknown. We picked the coldest day of the year for our next trip. With the thermometer reading well below zero, Nevin fired up his new John Deere tractor to transport us to the entrance. It felt unbearably cold clinging to the tractor as we chugged to the top of Chestnut Ridge. Hoarfrost covered the cave's entrance. Steam billowed up and out of the depths as if a fire was burning inside. For this trip, we changed inside the entrance, despite cramped conditions and having to cling to the steep entrance slope. We had a new chisel, but had swapped my bolting hammer for a three- pound



Stream trunk heading toward the -755 sump

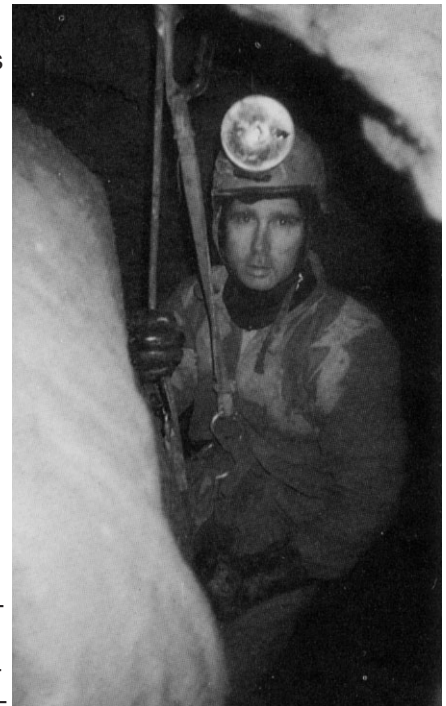
sledge. Air screamed through the Bone Crusher, almost blowing out our carbide lamps, but Nevin just grinned, enjoying the lumens of his newly self-built fluorescent light.

Our last survey point was on the wall above a deep pool in a sinuous stream canyon. The water was up and getting there got us soaked to the waist. Gregg took lead tape, and soon began inching ahead on his side. As the passage lowered, water poured into his coveralls and out his sleeves. Progressing further ahead, we found the floor began to steeply dip, but passage width remained claustrophobically tight. The water appeared to be no more than a quarter-inch deep, but its high velocity sheeted over us, soaking everything. But getting wet didn't matter. Just negotiating the passage worked up quite a sweat. Another constriction loomed, then another. And then, the crawlway turned into a tall and narrow canyon only inches wide. Blades of chert and fluted limestone blocked

progress. Hammer work got us around a very tight corner, then down into a small room with a pool of water. The only passage out seemed a continuation of the narrow canyon. It seemed to end, but the strong breeze indicated otherwise.

Gregg squeezed through and crawled to the apparent end, then called back that a window, totally unseen from our vantage point, opened to the right. We named it Window Wonderland. But past this point, the passage turned nasty again, a tight, low crawl over water, too small to force. Gregg went to work with hammer and chisel and after some time, enlarged it enough for me to get through. There was just enough room to stay above the water without total submersion.. as if that mattered. To my dismay though, just beyond this obstacle, I came to an opening in solid bedrock too small to pass. The wind blasted through here and soon chilled my soaked body. Nothing more this day!

On the way out, we surveyed a side lead that offered a potential bypass to some of the horror we had crawled through. But although dry, it proved longer and tighter than the wet way. We exited after midnight to a bright starry night. The temperature was a brittle 9 degrees below zero! The tractor failed to start, so we hiked/hustled the three- quarters of a mile back to Nevin's house. Fortunately, we had been able to change into our dry clothes in the blowing, 49-degree entrance. Stepping from the entrance "fuma-role" into the cold winter night-a dramatic 60-degree temperature drop-capped our collective memory of this hard, brutal trip.



Tommy Shifflett on rope at 40 foot drop

YET ANOTHER FINAL BREAKTHROUGH

Much happened before the next trip. We made a much-anticipated connection between Bobcat and Blarney Stone caves and a few of us would get trapped by high water in Barberry, an event that made national news. Trying to organize a return trip to

Burns, though, proved difficult. The cave had not offered any real breakthrough, despite our advances. The passage continued tortuous and every trip required several days of recovery after the beating. Still, we knew we had to get back "down there." By June of 1995, we were set. Gregg opted out, obligated to attend a funeral for his wife's cousin. (He would later confide that he needed "a break from this cave.") Having been both mentally and physically beaten up by repeated trips into the cave, his absence refueled his enthusiasm by giving him time to reflect. We replaced Gregg with Ben Schwartz, a new member of the Burnsville team who had proven he could handle the difficulties of Burns by previous trips into Bobcat, Blarney Stone, and Barberry. A trip into Burns would be a true test of not just physical caving ability, but mental stamina; a challenge against one's desire to push onward despite the soaking cold, muddy, bone-weary hammering, deep inside this tortuous, brutal, relentless cave.

I was reluctant to return without Gregg, feeling he was owed the chance to be in on a breakthrough because of all his previous contributions. But Nevin, at age 53, was hot to go back in, as if his caving career would capped our collective memory of this hard, brutal trip. soon come to an end. On Friday night of the weekend trip, I asked Nevin to call Gregg and ensure there would be no hard feelings. Thinking back, it is strange that I would even feel this way, given the previous history of Burns' obstacles. Gregg gave us his blessing to go for it, and we promised to turn around if the passage opened up. So, on Saturday morning, Nevin, Ben and I muscled in "rock removal" gear, hammer and chisel, and a strong plastic bag for hauling mud. Beyond the breakthrough, we had encountered little mud, so we were probably going to have to "carry our own."

The trip in was unremarkable until Nevin discovered he had not brought any cave food. Burns is not a place to forget nourishment, but not willing to turn back, Ben and I offered to share ours. At the constriction I was able to locate a strategic cleft in the right wall for rock removal. It took Nevin and Ben a while to locate some mud for mud packing. Without needed mud for packing, the wished-for results are not nearly as satisfactory, and we didn't want to waste our efforts needlessly. By the time they returned with sufficient mud, I had become quite chilled.

I inched back into the lead and finished the packing, then backed away some fifty feet to the only area large enough for all of us to fit. Upon detonation, the shock reverberated through the walls of the cave, telling us the mud had done its job. Strong airflow going into the cave quickly vacated the fumes. Crawling in, I was able to dig away enough chunks of broken rock despite having only one arm stretched in front of me. Popcorn on the walls and ceiling grabbed

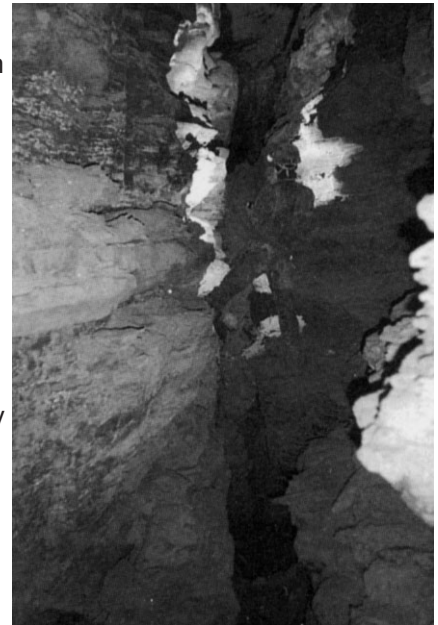
at my every attempt to inch forward. Each foot gained brought a changing view. Ten feet in, I could see that a window opened into total blackness. Looking yet further ahead, the flowstone floor literally poured over into a vast pit!

WOW! This appeared to be the long-sought breakthrough we had been working for. I retreated, letting Ben and Nevin, one at a time in this narrow confine, get a look. We removed more rock, making it more comfortable. Ben, using a hand-held flashlight, determined the expanse below to be a large room. He could see a flowstone floor dropping steeply away, about 40 vertical feet down. Without a rope, we were going no farther this day, letting us easily keep our promise to Gregg. We decided to name the pit Dead Cousin Pit after the event that prevented Gregg from being with us.

As for Ben, he had passed the test. His enthusiasm had shown that much. He was already talking about returning before he even reached the entrance. The rest of us always needed a few days recovery before considering such a thing!

BOOTY TIME

It didn't take long to return. During July 1995, Nevin, Gregg, Ben, and I hauled in a bolt kit and rope to bottom the pit, and hopefully map lots of booty. After setting bolts and rigging the rope, Ben descended to the bottom while the rest of us followed with the survey. A standard practice of ours is to survey as we explore, ensuring all in the team share the thrill of the discovery, and that most all of the passage seen gets mapped. From the bottom of the pit we could



Ben Schwartz in upper level canyon

see that the passage we came from was just a small window opening half way up one side of the room, with a waterfall pouring out and over a beautiful canopy of flowstone. Compared to the passage we had come from this room was a monster hall though it measured only 50 feet wide by 90 feet long. We named it Flowstone Falls Hall for the beautiful white flowstone that cascades out of the top of the pit.

This room sloped steeply from one end to the other, leading to another flowstone cascade over breakdown. We mapped down this route about 50 vertical feet to where the breakdown cascade ended in a drop-off of about 20 feet. We rigged this with left over rope from the first pit. From the bottom of this drop, the passage continued as a stream canyon, but more spacious. At two to three feet wide, we WALKED, except for an occasional scramble over breakdown. At a junction room, we explored several leads, noting the stream sumping against one of the walls. To continue, we pushed a tricky climb across a narrow, muddy ledge to a window above the sump. A challenging downclimb got us to the stream where the passage got even wider. More deep pools, breakdown, and occasional low spots blocked our way but we kept on surveying. Then the stream vanished; but the cave, and the air continued. We intersected upwards into a dry, fossil passage 30 feet wide, three to five feet tall. Sensing we were finally "off to the races," Gregg named it Valedictory Avenue. Soon the ceiling rose to nice walking dimensions.

After several hundred feet, we were again crawling but ahead, the roar of water told us that things were about to get "interesting." Scrambling on through, we intersected a tee junction with an impressive stream canyon 15 feet wide and perhaps 40 feet tall. We started cautiously down a "less than straightforward" 15-foot climb and reassembled at the stream. We headed downstream, walking through and climbing over a number of deep pools and rapids. On the left side, we passed a walking size lead issuing a stream and a blast of air so strong it nearly blew out our carbide lamps. We were thrilled!

We continued our survey to a 12-foot overhanging waterfall. It appeared unclimbable. Ahead we could see rapids and more waterfalls dropping into the depths. We knew we were very deep, at least for a Virginia cave. We had also spent a lot of energy reaching this point. Recalling the long slug back to the surface of previous trips, we realized that on this trip, we were going to be pushing new endurance limits. It took us five hours of steady, grueling work to get out, exiting at 4 a.m. We were elated that the cave was going deep. That was good. Having to negotiate the unrelenting obstacles that pounded and bruised our bodies, that was bad. When we reduced the data, we found that the top of the last waterfall was precisely 700 feet below the entrance. Our next trip would push downward from 700 Foot Falls.

That came in September with the same personnel. No one wanted to be left out. I had just gotten over the worst part of a cold and felt apprehensive about going underground, but thoughts of booty can sometimes get the better part of judgment. We were motivated enough this time that we actually got into the cave by 9:40 a.m. This was important, given the long, tiring trip

ahead. While heading in and still feeling the lingering effects of my cold, I realized more than before how difficult the cave really is. After a four-hour, quick pace, we arrived at the waterfall lead. Ben performed an acrobatic stretch across the stream canyon intersection with the pit in order to set a bolt away from the waterfall. His legs seemed to be wedged at 180 degrees from his hips! Thankfully he was on belay. With a couple of bolts at the drop's edge, we rigged a tension traverse over to the bolt Ben had placed. Immediately past 700 Foot Falls, we came to a seven-foot drop which we rigged with webbing. A short distance beyond, we hit another seven-foot drop. We were out of bolts and there were no natural rig points. By performing a tricky stretch beyond the pit, we could access a narrow ledge where we were able to climb down. We mapped 500 feet of passage beyond the last waterfall to a sump. This appeared to end except for a crevice 15 feet above the water. Slight airflow seemed to move toward the crack. Ben and I made our best effort to push it but the crevice was just too tight to follow. We were starting to feel the gloom of shutting down, except we still had the upstream part of the main stream canyon to explore. That at least was walking passage.

After 150 feet, this upstream lead ended in a wide sump. We then turned our attention to the side lead that was blowing all that air. Mapping in brought us to a 25-foot-wide by 60-foot-long room floored in massive breakdown. A waterfall poured from the ceiling, perhaps 100 feet up. A large lead appeared to roar off into the unknown 40 feet off the floor. This, we felt, had to be the source of the air. We mopped up a few side leads, then headed out. Reduction of the data put the downstream sump at -743 (later adjusted to -738 feet) below the entrance. Burns had become the deepest cave in Virginia.

WALKING ON WALLS

In June of 1996, we returned with some fresh blood. Gregg Clemmer, Ben Schwartz, Mike Futrell, Mike Ficco and I planned on a two-party survey. Gregg, Ben, and Mike Ficco would attempt to push the entrance stream in hopes of bypassing the upstream sump. Mike Futrell and I would attempt to climb up to the 40-foot lead and/or map any remaining leads from the same room in an effort to track the incoming air. Nevin, along with other Burnsville Cove cavers, was assisting Ron Simmons with a dive in Aqua Cave. Again we tried for an early start, but only managed a 10:30 a.m. entry. This was a must as Mike Futrell is notorious for not exiting a cave until he has plenty of "booty in the book," as he styles it. We knew we were in for a long trip. Our descent went smoothly, the old veterans savoring the new boys take on this hellish cave and all its countless, tedious entrance-series

obstacles.

Once we reached the intersection of Valedictory Avenue and the stream trunk, Mike and I headed to the high lead, looking for an easy way up. We found a climbable crevice that intersected the canyon. This led to a balcony overlooking the room, but nothing went. We had lost the air. We turned our attention downstream, finding a passage to the water, but it proved to be a loop- around. By the time the other team caught up, they were hungry for booty.

Their stream lead had become too low and tight after just a few hundred feet. Things seemed to be shutting down. Where did the air go? With no other plan, we started downstream looking for the air and showing the cave to our new visitors.

About 100 feet before 700 Foot Falls, Mike Ficco began to suspect that the air might be going up. In a stream trunk 10 to 15 feet wide, with nearly vertical walls and soaring to more than 70 feet above us, getting up there was not straightforward. But to our amazement, Mike, followed by Ben, somehow climbed up this thing and disappeared out of sight. Mike Futrell attempted to follow, but continually peeled off the climb. (After this trip, Mike Futrell made a point to go out and buy the same brand of boots Ben was wearing. His excuse for doing so was that he wanted to be able to walk on walls like Ben. Needless to say, the boots did not offer that ability.)

It did not take long for Ben to come back and shout down the news that they had found a paleo-passageway. We derigged 700 Foot Falls and threw up the rope. Once each of us had ascended, we started surveying big, booming, paleo-borehole. Except for a couple of climb-downs, this was the easiest passage in the entire cave. After a while we came to a large lead on our right. A dome with a waterfall pouring down intersected our left. The passage ahead still roared off into the unknown, so we continued our survey here, now following a respectable-size stream. After several hundred feet of survey, we abruptly came to a sump. The passage had a peculiar V shape cross-section and was banked in heavy mud. Later calculations showed we had deepened the cave to -755 feet.

Back at the large side lead on the right, we mapped up and over a large mud mound, then broke into large



Gregg Clemmer on rope at 700 Foot Falls

walking passage that turned a corner and became a crawl. Ben slid ahead and checked it out, returning with a grin, saying there was a large stream passage behind him. We mapped through to the second largest stream in a Burnsville Cove Cave, the Cathedral River, the main supply to Cathedral Spring on Bullpasture River! We set a survey station both in the upstream and downstream directions. We had 3,784 feet in the book, Mike Futrell was happy, and we could leave. We got out at 7 a. m., after more than 20 hours underground. Everyone was wiped out, grabbing what sleep we could before the long drive home.

VISIONS OF BIGGER BOOTY

Despite the aches and bruises, it didn't take us long to organize a return, especially now that we had found the main water to Cathedral Spring. Between the Chestnut Ridge Cave System (Bobcat and Blarney Stone Caves) and Burns, only a small portion of the theorized system has been found. We envisioned the downstream direction taking us toward the Blarney Stone section of the Chestnut Ridge Cave System, hoping for a connection. Upstream and totally "off the map," lies the largest portion of unexplored karst (and hopefully many miles of virgin cave) in Burnsville Cove. In August 1996, we went after it with vengeance: two teams, consisting of Nevin Davis, Mike Futrell, Mike Ficco, Ben Schwartz, Gregg Clemmer, and myself. And because we knew that this was going to be a major push, we entered the cave at the unheard of hour of 9 a.m.!

After the previous trip, we had come to the conclusion that camping might be the best way to continue exploration in Burns. This would be far more problematic than the many camps we had run in Bobcat in the 1980s. Ten-inch-diameter packs that worked fine in that cave would never do in Burns with all its twisted, gnarly cracks and contortions. We'd never get enough camp gear in on one trip to make it feasible. Even the sheer difficulty of hauling a camp pack of substantial size and weight relegated the attempt to a fool's errand. In an effort to somehow make it work, though, we decided to haul in a few items at a time, establishing a "beachhead" of sorts with a stove, ground cloth, Therm-a-rest, etc. By hauling in gear piecemeal on surface trips, we felt a camp could eventually be stocked to launch a major survey and mapping effort now that the cave had broken wide open. Each participant in his own way had concluded that we were fast reaching the physical limit of surface trips.

But there was no consensus on where to camp, and after hauling gear to the bottom, some felt it perhaps better to use a bivouac system in Burns. Stockpiling an underground camp along Valedictory Avenue was simply too difficult. We confronted the specter of extended

surface trips.

At Cathedral River, we formed into two teams. Gregg, Ben, and I let the others have their pick of leads. They chose upstream, which seemed at the time to be the most promising lead. Going with the water, beginning as a tall, narrow canyon, quickly provided us with a number of pleasant surprises. Wall-to-wall water quickly challenged our surveying skills. Swift water threatened to sweep us from the stations. But after five minutes of mapping, we broke into spacious walking passage 20 feet wide. We mapped this dimension for over 1,200 feet, finally stopping when the ceiling lowered to four inches. To

advance would require total chest immersion with our faces on the ceiling. We could see the water flowing ahead with four to six inches of airspace, so it did not sump immediately. Without wetsuits we were forced to end our survey, puffing our last shot on the water surface, and taking a measurement of the stream's depth. The upstream team quickly surveyed to a sump. They then turned their attention to pushing and mapping side leads, but found nothing that hinted at bypassing the sump. Burns appeared to be shutting down once more. We grimly decided to haul out the camping gear we had brought in, reaching the entrance 17 hours after we had started.

Reduction of the survey notes put the cave's depth at 782 feet below the entrance. With a point in the ceiling, near the entrance four feet higher, the total depth came to - 786 feet, setting a new Virginia depth record at the time. The vertical profile of Burns' entrance to the level of Cathedral Spring is 807 feet. Considering the 160 foot depth Ron Simmons achieved in Cathedral Spring on past diving expeditions, and his report that the passage is still trending downward, it may be possible to dive over 200 feet below spring



Ben Schwartz and Tommy Shifflett in stream trunk upstream of 700 Foot Falls

level. Hauling tanks to the far reaches of Burns can be considered a near impossibility at this time. But if a connection is ever made, Burns could go a thousand feet deep.

IT STILL GOES

We ran a few more trips into Burns after this epic survey, all being attempts to find and follow the air. Just before the 1998 NSS Convention in Sewanee, Tennessee, Ben Schwartz, Mike Ficco, and Nevin Davis climbed the dome near the junction to Cathedral River. It proved to be a risky, challenging climb into soft beds of shale and chert. As a result, Ben and Mike were forced to use pitons on the 20-foot ascent. Still, some of the pitons literally wedged the rock up, ready to pull out, requiring Mike to quickly place the next piton in a scramble to stay ahead of anchor failure. At top, he placed a bolt in respectable limestone, but had little time left to explore ahead. Mike believed the passage continued, blowing some air.

To date, we have not been back. That's where exploration stands. Perhaps, you ask, the cave has finally pounded us into submission? With other projects going strong, giving us ample opportunity to "put booty in the book," and with razor-sharp memories of the grinding brutality Burns brings to every visitor, it is easy to talk about the next trip without actually every going back in. But the air still blows down there and that is all the lure true cavers wilt ever need.

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Parting shot.....Nevin Davis crawling into the "Craftsmen Corner" area in Burns Chestnut Ridge Cave, Virginia. Photo by Tommy Shifflett.