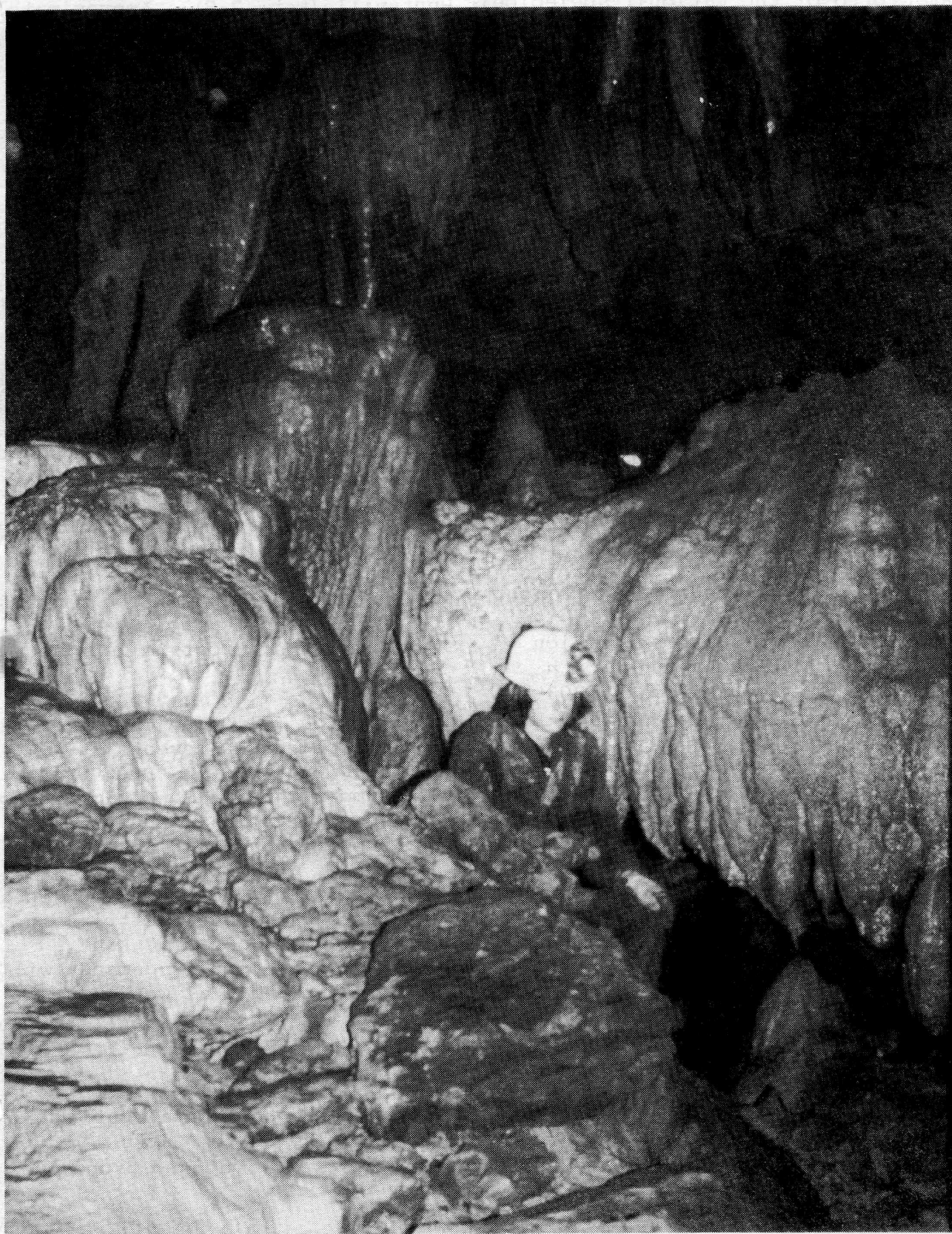


BIRMINGHAM GROTTO NEWSLETTER

NATIONAL SPELEOLOGICAL SOCIETY

MARCH 1976



1 EDITOR'S PAGE

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March, 1976

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MEETINGS: First Monday of each month
at 7:30 p.m.

Where: Alabama Gas Corporation
1918 1st Avenue, North
Birmingham, Ala. 35203

MARCH: March 1, 1976

DATES TO WATCH

Feb. 21-22 Big Bone Trip (See last
(Newsletter for info.)
March 1 Meeting 7:30 p.m.
March 3 Bankhead Survey meeting
(Call 833-4773)
March 6-7 Vertical session
May 28-31 Speleofest (Ft. Knox, Ky.)
6/28-7/2 NSS Convention (Morgentown,
Virginia)
7/23-7/25 SERA Cave Carnival (Near
Guntersville
8/6-8/8 Cave Kapers (Indiana)
9/3/-9/6 Old Timers (West Va.)

DUES for the remainder of the Grotto
year (through October, 1976) are \$3.00.

CHAIRMAN'S NOTES

Well, folks, last weekend was the SERA Winter Business Meeting in Huntsville (Feb. 7-8). Approximately 150 people attended. The major business of the session was the election of SERA officers:

Bill Dean of Smokey Mountain Grotto was moved to Chairman from the Vice-Chairman position.

Larry Blair of Dog Wood City Grotto was elected Vice-Chairman.

Mike Saunders of Dog Wood City Grotto was elected Secretary-Treasurer.

Our own Joe Domnanovich is regional correspondent. Congratulations, Joe!

In addition, the session decided to set up a committee to award a Francis McKinney award to an outstanding SERA caver. The committee will consist of 5 people: the Chairman and Vice-Chairman of SERA and three members at large. The members at large chosen for this year are: Steve Williams, Frosty Miller and Joe Domnanovich.

Finally, the following Grottoes will sponsor coming SERA events:

1976 Cave Hunt:	Frog Grotto
1976 Summer Carnival	B'ham Grotto
1977 Summer Carnival	Huntsville
1978 Summer Carnival	Chattanooga

To get on with other Grotto Business. Our Grotto will have two trips in March. On March 6 and 7 Kent Burchfield, by popular demand, will hold another vertical weekend. It looks like the Grotto will have monthly vertical as well as horizontal cave trips from now on.

Remember, the horizontal outing for March will be Newsom Sinks led by Greg Jordan. To date no proposed

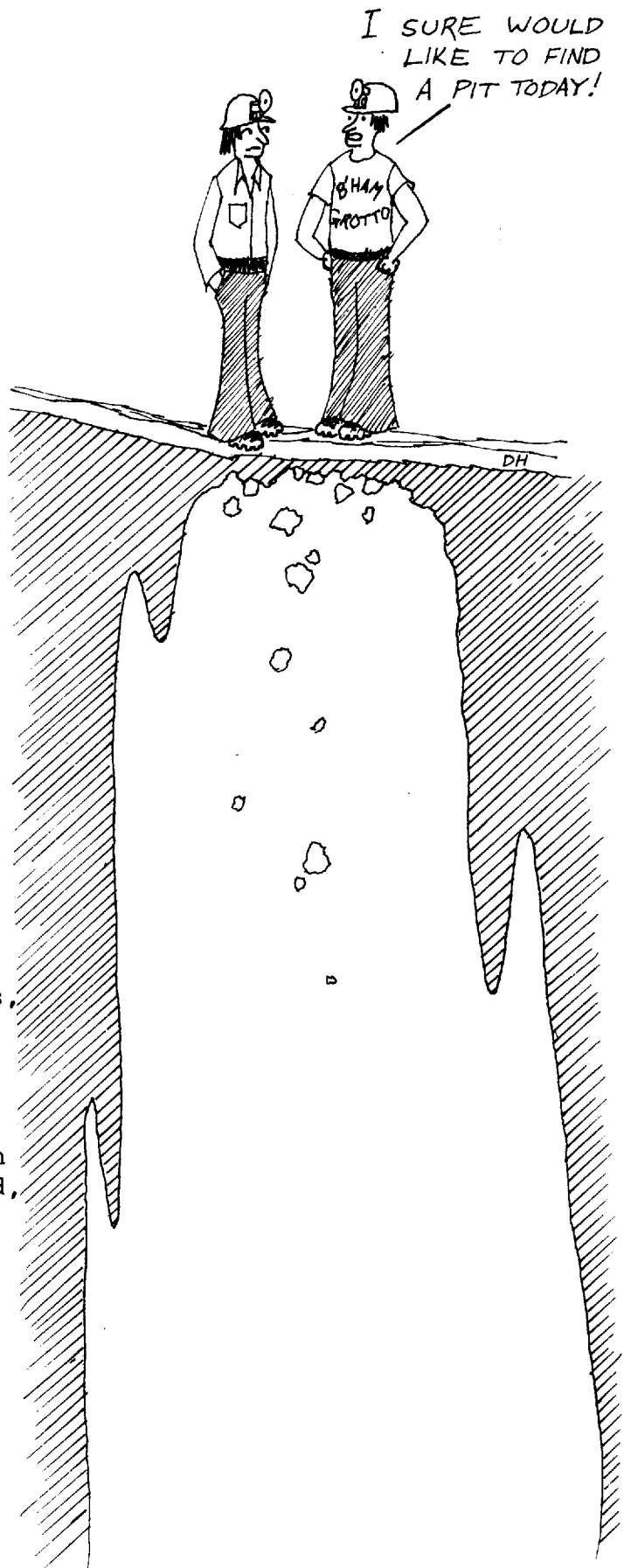
trip summary has been turned in.
Shame on you, Greg!

Steve Spencer, Chairman

EDITOR'S COMMENTS: As you can see, the front page cover is a Bankhead Cave, and most of the articles relate to Bankhead Survey's work for the last year or so. We are very proud of what we have accomplished thus far and look forward to the summer of mapping sessions. Anyone is invited to attend. We generally try to make our trip the first weekend of each month and it is an overnight trip most of the time.

RE: NEWSLETTER: I am getting more and more compliments on our Newsletter, both related to the content and to the fact that it is one of the few publications in the SERA region that publishes on a regular basis. Joe, David and I are forced to require a deadline for articles submitted. The Newsletter you receive each month has gone through many hands before it reaches you and therefore we have to have the articles at least by the 10th day of each month and no later. After I type it and contact folks about dates, etc., David sets it up with the new headlines that are making it such a better newsletter, then Joe D. and Bob Smith have to get it printed, Joe gets the cover ready and he and Bob, through some miracle get it collated, stapled, stamped and labels put on. In other words we work hard to get it out on a certain date and we need your cooperation in getting the articles to us. As of this date (Feb. 13) I don't have a single article from anyone for the next publication. HINT!

CONGRATULATIONS JOE D. on your SERA appointments (See Steve's Notes above).



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TRUE CONFESSIONS OF A BF LOVER!

Kathy Spencer

Nestled within the valleys of the peaceful hillsides that compose most of the Bankhead Forest, there is a virtual wonderland of flora and fauna. The aesthetic qualities of this area of Alabama are more than enough to draw any nature lover, be they caver or camper, to the Bankhead Forest again and again.

My love affair with the Bankhead began with a Grotto trip to the area with Doug Welker (the original Bankheader) during 1971. The cave we visited on that occasion was not especially spectacular (though it was quite a challenge!) but the scenic qualities of this area wrapped themselves around me and though I return to Birmingham after every visit to the Bankhead, these qualities cling to me and draw me back, again and again and again.

Most everyone in Alabama who camps or caves goes to the Northeast or some other cavey area and skip the Bankhead. Thus, there is no problem running into dozens of folks when you are seeking some quiet retreat to contemplate the world (in addition to trying to find a big cave to get your name in the NSS Bulletin!). True, we haven't found a Tumbling Rock or an Ellison's, but on almost every ridgewalking venture we've found a virgin cave or two or three. How many ridgewalking ventures are that successful?

Back to the aesthetic qualities--I remember distinctly one ridgewalking trip last spring. There were about 10 of us clumping along and rumbling through the woods, crossing streams, checking every dip in the land. Suddenly, I glanced up and not 50 feet away, mingling with the trees and grasses, stood a white-tailed buck, head erect, definitely the rightful

tenant here; and, we the intruders! Behind him stood several other deer. For a very brief second we stood transfixed by this chance meeting with our fellow creature. Then, all of a sudden they sprinted away, white tails flashing, across the stream. We were amazed and considered ourselves blessed to have seen them in their natural habitat rather than some zoo.

Time and time again, we've seen rabbits (one scared Tom Lamb to death by running into his leg when Tom was dumb enough to stand in the rabbit's way). We've seen raccoons, fox, owls, hawks. At night we are sung to sleep by the whippoorwill and other night creatures.

And the wildflowers---one time it took me three hours to walk to Saltpeter Cave from the car (it's less than a mile) because I was delirious with the beauty of the shooting stars, anemones, violets, dwarf irises, and phlox all along the stream bank and throughout the woods. You haven't experienced Spring until you've seen the Bankhead in April and May.

All this and caves too. What more could a nature loving, caving fiend like me ask? If you want to join us just call.

Permanent Bankhead Survey Members

(Those active from beginning)

- Kathy Spencer Ken Brown*
- Steve Spencer Valerie Haden*
- Tom Lamb
- Vivian Lamb
- David Howell
- Larry Moore
- Becky Moore
- John Moore

Meetings held the Wed. after the Grotto meeting. Call 833-4773 for info.

* Active almost from beginning.

By: Tom Lamb, Jr.

Prior to the activity of the Bankhead Forest Survey of the Birmingham

Grotto there were approximately 70 Bankhead Forest caves listed in the Alabama Cave Survey. Most of these were submitted by Doug Welker of the Niagara Frontier Grotto. In the one year of the Bankhead Forest Survey's exploration, seven new caves have been added to the A.C.S.

After studying the 100 page booklet supplied by Welker, areas to be studied were laid out. One such area and the first to be explored (11-74) was to become a favorite base camp. The area is a few hundred feet off of the Northwest Rd. at Borden Creek near South Sinks Cave (Al. 1230).

Here a corkscrew-type vertical cave was discovered and named Campsite Cave (Al. 1613) (also see cover of Newsletter 3/75). The entrance is a squeeze under a boulder that corkscrews into a small water passage stream. The water apparently is that observed in South Sinks Cave. There is no horizontal passage. The cave proper seems to be made up mostly of breakdown of the sandstone capstone. The stream room at the bottom is in the limestone layer.

The next area proved to be more promising. This area is the valley to the east of Mountain Springs Rd., south of Mountain Springs Church, and north of Northwest Road. The largest cave found by the B.F.S., it is located in the sinks shown here on the topo (Bee Branch Quad). The sinks were originally approached from the uphill side, but 30 to 60 foot bluffs halted the assault. The next trip was from the downhill side.

The lower sink, a few hundred feet long, contained a small hole which may be dug out. Below this sink, on Borden Creek, is a crawl opening

(which has not been explored) which is the resurgence from the sinks.

The upper sink is quite extensive. There were a few holes which were not pushed and a 20 foot pit with some horizontal passage at the bottom, which apparently connects to a passage emerging farther down the hill. This system has not as yet been added to the survey.

The largest cave in this sink area is Lamb Cave (Al. 1611, see Newsletter cover (1975) Apparently much of the resurgence mentioned above flows into the sinks through this cave. The entrance is a pretty stream flowing into a sloping limestone entrance. Twenty feet into the cave, the stream drops eight feet through a crevice in the center of the ceiling of the main room. A rope ladder is needed to negotiate this drop. The stream collects in a pool at the bottom and percolates through breakdown. The main passage is a room 100 feet long and 30 feet wide. This room ends in breakdown. At one point, an eight foot climbdown goes to the stream passage which becomes too tight. The floor of Lamb Cave is covered by large, tilted slabs that have fallen down from the ceiling. Bats were noted also.

In the next gully a small 15 foot pit was found which was a beautiful pit formation, though not very deep.

Lost Skull Cave (Al. 1609) is located over the hill from Lamb Cave. A 12 foot deep drop leads to a climbup into a small room. The cave contained the bones of a very large animal.

Farther up the valley, Dave Cave (Al. 1612) is a dry spring cave emptying into Borden Creek. Its sandy

5 Bankhead Forest Survey, cont'd)

bottom makes for any easy crawl back to a room where the cave apparently ends.

Within a few hundred feet, Slab Cave (Al. 1610) is located beside the jeep trail. A 15 foot climbdown into a crevice 20 feet high leads to the water exit. The crevice continues on and is passable on the upper and lower levels. Bats were seen in this cave.

A very beautiful, but small (15') pit is located in this area.

Last November, in the first hollow to the north of Northwest Road from Highway 33, two caves and a pit were found. The pit is about 20 feet deep and has horizontal passage, although it has not been explored.

One, found by Dave Howell, has an impressive walk-in entrance, which leads to a stoopway through the stream passage. It has not been completely explored, but has been pushed a few hundred feet.

In the same hollow, a few hundred feet away, a blowing crack was uncovered with the help of a "come-along." Uncovered was walking passage with a few waterfalls (one is 10' high). It too is incompletely explored.

Even though these caves may not sound impressive to some cavers, not everyone has to find over a mile of passage to be pleased. However, the length of Saltpeter Cave (Ala. 358), the beauty of Mountain Springs Cave (Al. 1198) and the depth of Tingling Hole (Al. 155) (80 feet) let the Bankhead Forest Survey hold hope that there is very worthwhile, unexplored subterranean passage in the Bankhead Forest. Some say that Doug Welker has found everything that is to be found in the Bankhead. However, I must agree with Welker's own analysis; that the surface has but been scratched.

BANKHEAD IN OVERVIEW

David Howell

Later this year, as the nation celebrates its 200th birthday, the Bankhead Survey will celebrate its 2nd birthday. Founded in 1974 (it was suggested as a Grotto project in the spring of 1974, but did not get under way in a serious or organized fashion until the following fall), the Survey is now in its second year. What have they been doing all this time?

In general, the Survey has divided its time in the field between two main activities: ridgewalking and cave mapping. At the outset it was agreed that the winter months should be used for ridgewalking and finding new caves, while the summer months, during which the Forest becomes rather lush and infested with hostile wildlife, should be used to return to those caves found during the winter, for the purpose of mapping them.

After corresponding with Doug Welker in 1974, the caver who "opened up" the Bankhead National Forest as a caving area, the Survey undertook to further investigate some of the leads which Welker had noticed but had not been able to check. This led to the location of Campsite Cave (Al. 1613), and the already known caves, Cemetery (Al. 1224), South Sink (Al. 1230) and Saltpeter (Al. 358). Since then the Survey has mapped all of these by tape and compass survey except Saltpeter, and has found a new area of Saltpeter which opens into two sizeable rooms not indicated on the existing map.

As the Survey moved into 1975, its attention moved gradually northward. Many new caves and leads were located in the Borden Creek area. Those which have to date been further investigated and/or mapped include

Lamb Cave (1611), Slab Cave (1610), Lost Skull (1609), Dave Cave (1612), plus a number of small holes and grottoes which do not qualify as caves for the Alabama Cave Survey.

In mid-1975, the Survey researched the geology of the Bankhead area and produced a "ridgewalking map" of the Forest: a map showing the rock types in the different areas of the Forest. Since then, ridge-walking efforts have been directed toward areas of limestone and areas along the limestone-sandstone joint. Thus far this technique has proven markedly successful, having resulted in the location of three new caves, all of which appear to rival any known Bankhead cave for quality and potential. Exploration of these is currently under way and mapping will begin in the Spring. As of this writing, more ridgewalking is planned for prime limestone areas, so it is hoped that the summer's mapping activities will extend to other new caves besides those mentioned above.

So, after a year and a half of activity, what does the future hold for the Bankhead Survey? The answer is more of the same. The Survey's raison d'etre is being fulfilled-- there has been a steady input of new caves and information about them, and this is what the Survey originally set out to pursue in its effort to add to and increase the general fund of knowledge about caves in the Bankhead Forest. The fulfillment will continue for some time yet, for a look at the geological map of the Forest will show that the surface has been but scratched.

OVER PHOTO: Mountain Springs Cave. David Howell & Steve Durham. Photo taken by: Steve Spencer. 1975.

GEOLOGY OF THE BANKHEAD FOREST AREA

Steve Spencer

The William Bankhead National Forest is located in Northwest Alabama in three counties: Franklin, Lawrence, and Winston. The Forest consists mainly of a large, highly eroded plateau which dips slowly to the South. This area is described by the Geological Survey of Alabama as being in the Warrior Basin district of the Cumberland Plateau section of Alabama.

There are four geological formations present in the forest as follows:

(1) The Bangor formation: a Mississippian limestone which outcrops in the stream valleys in the northern parts of the forest but which goes underground completely as you head south. In Winston County it never gets closer than 50 feet of the surface even in the major stream valleys. The Bangor formation ranges from 400-550 feet thick but no more than 100-200 feet is ever exposed in the Forest.

(2) The Pennington Formation: This formation is again a Mississippian Limestone which is interbedded with red and green shale. It is up to 100 feet thick and outcrops only in the stream valleys of the Northern Forest.

(3) Parkwood Formation: The Parkwood appears to be intermittent in the southern two-thirds of the Forest. It crops out only in some of the stream valleys in Winston Counties. The formation is 100-130 feet thick and consists of a gray silty shale, siltstone, then beds of sandstone and a few thin beds of coal.

(4) Pottsville Formation: This is the sandstone formation which forms the cap covering the top of the entire Forest. It ranges from 300 feet thick in the North to over 1200 feet thick in the Southern extremities. This formation is divided into two zones: a

lower "Unproductive zone" which crops out in North Winston County and an upper "productive zone" which crops south of Haleyville. This zone contains the major coal beds of the area.

Caves of the Bankhead Forest are located only in the Northern third of the Forest in the stream valleys where the Pennington or Pennington-Bangor formations are exposed. While caves do form that are exclusively in the Pennington, these appear to be consistently the smaller caves.

ROYAL SHAFT REPORT UPDATED-Feb. 12, 1976
 Jim McDowell

It was a shock to see the old article on Royal Shaft Cave (see last month's Newsletter, Ed. Note) which I wrote in 1970 reprinted in the February Newsletter, both because it now seems more than a little "corny" and because I am embarrassed to see my distance estimates belied by the map published with the article. There is no good reason for the errors but as for excuses: (1) at the time the original article was written, it had been more than four years since my last trip to the cave and (2) in 1966 I was not accustomed to exploring virgin cave and distance expanded before my excited eyes.

The article may have made the cave seem somewhat more interesting than it was because its appearance in the Grotto publication in late 1970 stirred some of us to visit it again in 1971 to attempt to push the "mysterious" lead found on that last trip in April, 1966.

I believe it was January, 1971, when Doot Morin (now Gerard), Bruce Inglis and I came again to Royal Shaft armed with, among other digging tools, a garden trowel. As it turned out, excavating the passage was far from being as easy as the article or my

Royal Shaft

memory led us to believe. One person at a time was required to lie on his (or her) stomach in a small stream of winter-ice water and dip away at the floor of clay and chert. A few hours of this teeth-chattering labor yielded small results and we gave it up for the day.

One snowy day a couple of weeks later, Doot and I braved the travelers' warnings, icy roads and the unbelievably cold stream in the passage but again failed to break through. We began to feel that all the freezing hours being invested in this project could be better spent watching football.

I believe it was a matter of months, sometime during the spring or summer of 1971, when David Teal, Jim Young, Bruce Inglis, Doot and I trudged up the hollow for one last try. After about three hours effort by Bruce, Doot and I, while David and Jim mapped the rest of the cave, I managed to force the last chunk of dirt away from my face with the grain scoop and struggle farther into the passage that gradually got higher until I could sit up.

I was tired, cold, and very excited but I forced myself to wait until Doot crawled through before setting out to explore our hard-won virgin passage. It turned out to be alternately walking and crawling passage for two hundred feet or so, occasionally decorated with clusters of attractive stalactites until it began to narrow and the floor began to drop away.

We chimneyed a few feet further until the walls closed in too far. At this point, the floor of the passage dropped out of sight and the little stream had been flowing along the passage disappeared. By wedging ourselves lower in the passage we could see that

Milo Washington

THE PROBLEM:

a sizeable pit belled out a few feet beneath us. It was impossible to guess at the depth because of the spray and noise from the stream but it seemed at least 40 feet deep. The character of the pit was such that it seemed that it would be either impossible or very difficult to rig and enter because of the narrowness of its access and its wetness.

Reluctantly, we turned back and reported what we found. It was late in the day and no one else seemed to want to squeeze through the tiny, wet excavated passage to see for themselves what was beyond. As far as I know, no one has returned to the pit since.

So, Royal Shaft, a typical, not-so-large Alabama cave, remains partially unexplored, just as it was when the original article was written. It's been just about 5 years since the digging stopped. Has the little excavation filled up again, or has the stream, which was diverted by our digging, maintained or even enlarged a passable channel?

Would it be possible for a small person in dry weather to rig and squeeze into the pit? Could the pit lead to even larger passage below? I wonder-----?

SERA CAVE CARNIVAL: A final date has been chosen for the SERA Cave Carnival to be hosted by the Birmingham Grotto this summer. It will be held July 23 through 25th in the Guntersville area. David Howell is the SERA Committee Chairman. Home telephone is 323-3143. It won't be too long before all Grotto members will be asked to assist in making this the best SERA ever! Keep this date in mind.

The age of caves is a neglected area of study. This is so primarily because the variables involved won't stay in place long enough for even a "psuedo-authoritive" guess. For instance, I arrived at a figure of 1800 years for the vadose enlargement of a Blount County cave, viz, Warnock. However, even in a simple framework, i.e., input through sink, single level, single conduit, many assumptions provided the basis for computation, as follows:

1. Arbitrary solution-abrasive rate
2. Rainfall considered stable through time
3. No overflow conduits
4. Etc.

Although mathematical exercises, such as this, border on the meaningless, they remain the best guesses available.

But alas! Even more difficult are the giant, long-dry, phreatic tubes, as found at high elevation in the Cumberland Plateau. Temporal measurement of the dormancy period poses immediate problems, so static duration must be surmised by external events such as a base level lowering of the surrounding region. This ain't easily done unless we attempt correlation with dating data gathered by glaciologists.

ICE AGE-CAVE RELATIONSHIPS:

Sea levels fell (300 feet?) as water was frozen at the caps. This in turn rejuvenated continental drainage systems by increasing flow gradients, resulting in a lowering of ground water levels causing a relatively rapid change from phreatic to vadose conditions.

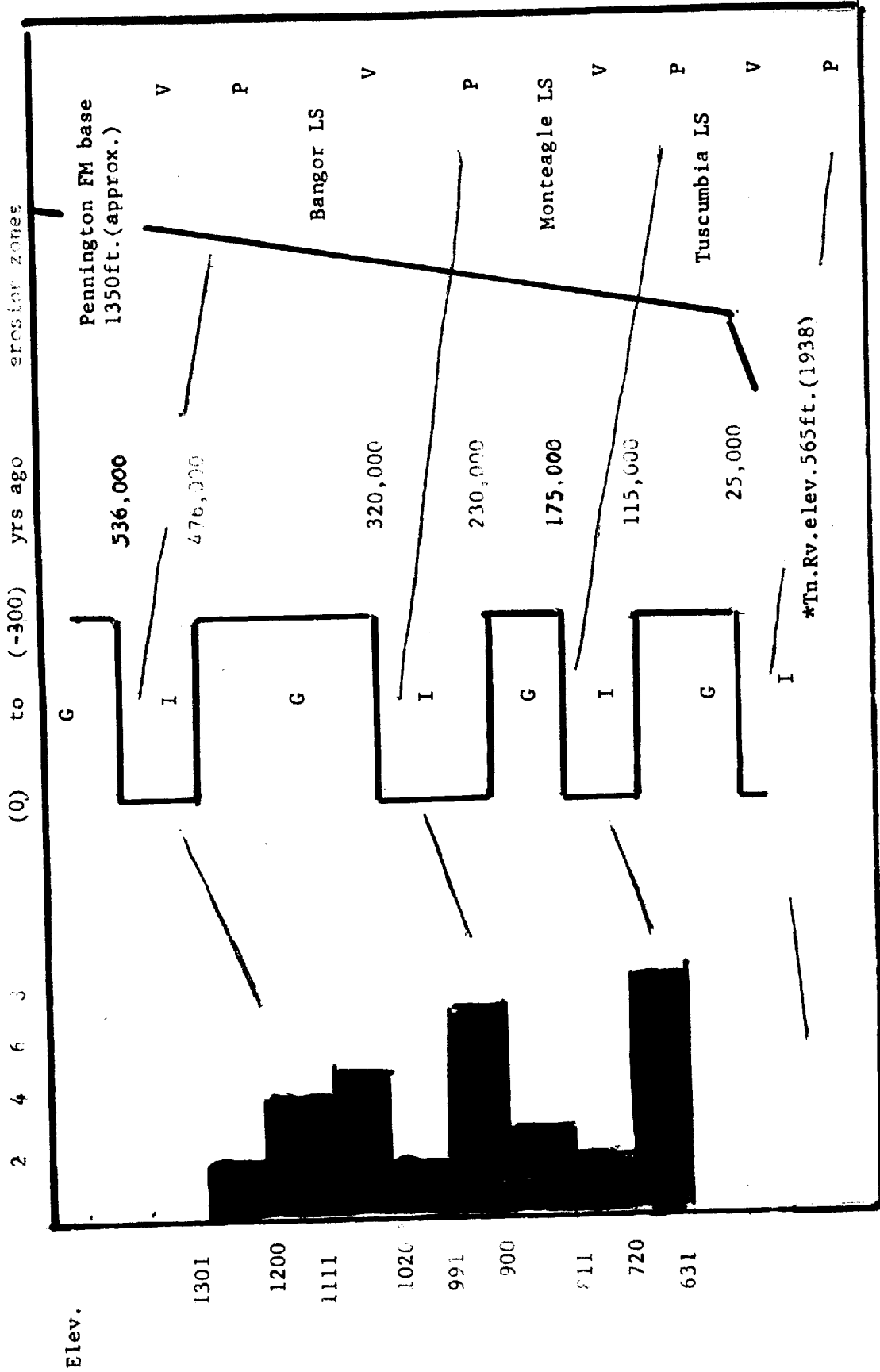
Hence, a concentration of phreatic

MUD CREEK QUAD.
26 cave ent.
#

SEA LEVEL (0) to (-300) yrs ago

TIME

STRUCTURE



G=GLACIAL
I=INTERGLACIAL
V=VADOSE
P=PHREATIC

*Tn. Rv. elev. 565ft. (1938)

Tumbling Rock

caves at a particular elevation would reflect a time period relative to an interglacial and elevations sans mucho would refer to an ice zenith. indescribable formations. They told me there was an elephant's foot in the room, but I didn't see it until I had gone down the hill and crossed the stream.

Elevation groupings, in fact, can be shown in the Cumberland Plateau, although the Mud Creek graph is intended only to illustrate.*

See graph.*

VOICES FROM UNDERGROUND

TUMBLING ROCK ONCE MORE

Joey Moore-Reporter

Joyce Attaway, John Attaway, Myrna Attaway, Steve Attaway, Valerie Haden Ken Brown, Ken Kifer, Greg McGill, Larry Moore, John Moore, Becky Moore, Lynn Wright & Joey Moore.

The Moore family and Ken Kifer arrived at Walker's Restaurant in Tarrant at 7:05 a.m. Everyone else was already there and were waiting for our arrival. We discussed the route and proceeded up the highway at about 7:10 a.m. We arrived at Tumbling Rock at approximately 9:30 a.m.

The entrance was a sit-down one, and right inside there was a hard wind blowing. We proceeded on down the entrance, led by Steve and Becky, stooping until we arrived at the first room. We crossed the stream and sat down to wait for the few who were unsure of themselves. Ken Brown and Larry, instead of crossing the stream, climbed onto a rock and waited.

We climbed the hill which went into the second room while Larry and Ken Brown awaited for the arrival of the unsure cavers.

Ken Kifer, John Moore, Valerie, Lynn, and I arrived first and found

We all got across the stream and followed it stepping over or in a few puddles until we arrived at some breakdown. We climbed over the breakdown and waited for the rest of the group. Here, in this room, we walked on among beautiful formations of stalagmites, stalagmites, columns, and baked potatoes. John Moore and Ken Kifer led (with Ken Brown) up the hidden door, which is hidden when coming back and we proceeded to go down the corridor to the King's Shower, but Larry, Steve, Becky and Greg popped their heads up out of an opening. I asked Larry how he came out there and he replied that he had followed the stream farther and came out at this point.

The two Kens, John Moore, Myrna and I arrived at the King's Shower first. When everyone else arrived they went up the Shower to the falls. John Moore, Ken Kifer and I remained in the passage. About 20 minutes later, we heard them coming out from the Shower. Joyce was the wettest and John Attaway was the next wettest.

At this point, John Attaway, Joyce, Myrna, John Moore and I came on out of the Cave.

Editor's Note: This is Joseph Moore's first contribution to the Newsletter and this was his first trip to Tumbling Rock. He's the 14 year old son of member, Larry Moore.

TAKE NOTHING BUT PICTURES,
KILL NOTHING BUT TIME,
LEAVE NOTHING BUT FOOTPRINTS.

NSS Motto

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