



# THE CASCADE CAVER

International Journal of  
Vulcanospeleology



Published by the Cascade Grotto, N.S.S.

VOLUME 24 NO. 3

Editor: Mark Sherman

MARCH 1985

Assistant Editor: Ben Tompkins

## The History of Northwest Caving



---

THE CASCADE CAVER

The Cascade Caver is published 10 times a year by the Cascade Grotto which is a member of the National Speleological Society. Annual dues for the Cascade Grotto is \$7.50, which can be sent to the Grotto Treasurer:

Al Lundberg, 19221 38<sup>th</sup> Place NE, Seattle WA, 98155

GROTTO OFFICERS

Chairman: Mark Sherman 524-8780  
Vice Chairman: Jim Harp 745-1010  
Sec/Treas: Al Lundberg 365-7255  
Regional Rep: Ben Tompkins 524-9526  
Grotto Store: Jim Harp 745-1010  
Editor: Mark Sherman 524-8780

The Cascade Grotto meets at  
7:00 PM on the third Tuesday  
of each month at:  
1117 36<sup>th</sup> Ave. East Seattle.  
This is at the corner of 36<sup>th</sup>  
Avenue East, and East Madison.

---

GROTTO EVENTS

APR 16 Grotto Meeting 7:00  
APR 27-28 Mt. St. Helens, Call  
Bill Halliday at 324-7474  
MAY 18-27 Bighorn Cave in Wyoming  
Call Bob Brown at 569-2724  
MAY 21 Grotto Meeting 7:00  
JUNE 17 Grotto Meeting 7:00

CONTENTS

Minutes from the March 15  
Grotto Meeting  
Friar's Hole Cave System 15  
Vulcanospeleological 16  
Abstract  
The History of Northwest 17  
Caving to 1972 (Part One)

If anyone is going on any caving trips in the near future, please give me a call so I can list them in the Caver. Also, if anyone has any articles or pictures relating to caving, please send them to me so they can be published in the Caver.

Mark Sherman  
9401 23 Ave NE #6  
Seattle Wa 98115  
(206) 524-8780

DUES

The following Grotto members or subscribers are overdue or will be coming due soon. Please note your dues date on your mailing label.

11/84 R Farmer, Randy  
3/85 R Corbin, Larry  
3/85 R Dickey, Fredrick  
3/85 R Lundberb, Alan  
4/85 R Tupper, Ed  
4/85 A Vance, Randy  
4/85 R Walter, Richard

## MINUTES FROM THE MARCH GROTTO MEETING

This was the first time the Grotto met at 7:00. There were about five new faces in the crowd as well as a few people who hadn't been there for quite a while. There wasn't much business conducted, mostly we talked to the new people about the caving in the area. Larry McTigue then had a real nice slide show from the NSS on the Goochland - Poplar complex in Kentucky.

### FRIAR'S HOLE CAVE SYSTEM

by Tom Miller

[In our last episode, we left Tom Miller thawing out after spending a half hour or so in freezing water, in the Friar's Hole Cave System of West Virginia. Let's now rejoin Tom in part 2 of his story.]

Crookshank's Pit, Rubber Chicken, Toothpick and Snedegar's Caves

Sunday, Nov. 18

Time under: 9.5 hours

Personnel: Gary Dunkley  
Tom Miller  
Steve Worthington

The day was cloudy, but appeared sufficiently dry to risk a trip into the system. From the fieldhouse, it was a 20 minute walk to Crookshank's Pit.

The was Pit was a free-fall drop of about 30 meters in an impressive overhung shaft perhaps 15 or more meters in diameter. A small waterfall cascaded down one side of the drop, but our descent was dry. To guard against rats chewing the rope (which has happened before), Steve used a

wire belay as protection near the top.

We entered about 13:00, then headed downstream to the first lead that Steve wanted checked. Steve had done his Master's thesis on the cave, but had somehow still maintained an interest.

The lead turned out to plug quickly as a result of recent flood debris, although it had been reported to be at least 60 meters long. We continued on to a crawl junction. Left was a passage to the main Snedegar's Cave stream; right was the "Terrible Crawl" (actually not bad, just a lengthy haul). In about 100 meters it led to another junction, again with the left leading to Snedegar's Cave. Gary and I tentavely decided to exit that way going out.

For the moment, more crawling through the clay-floored seasonal sump into Rubber Chicken cave, the key piece that had enabled the sudden growth and linkup of the Friar's Hole System in the 1970's. In a short time we passed the passage leading to the famous Rubber Chicken Highway, an enormous 10+ meter-diameter borehole leading 1.5 kilometers to Canadian Hole. I had not been that way for years, since the first 10 kilometer through-trip from the Friar's Hole entrance to Canadian Hole to map the connection between the two caves.

Then, the Rubber Chicken stream. Not far upstream was the way to Friar's Hole. We waded by, and after over two hours of walking and crawling, officially entered Toothpick Cave, the last segment to be tied into the 67 kilometers. The saga had taken decades, with an exponential increase in the final years as the eastern cavers scented blood.

Our goal was only a few hundred meters in from the Toothpick entrance, but tales of a squalid mud sump had discouraged almost all trips from using that way since its initial connection. Steve was interested in a "10 by 20 foot" lead that had never been pushed but the survey stations

were hard to find. Eventually we settled for a "20 by 20 foot" in the general vicinity. This choked in breakdown in 70 meters. Steve made a gallant climb up a sheer rotten wall into a set of joint passages, but that was all.

Lacking other leads we started out taking a slightly different route down the main Toothpick stream, a beautiful sporting vadose canyon of small waterfalls and plungepools.

Back at the junction with the Terrible Crawl, Steve wished to exit via the pit but Gary still wanted to exit through Snedegar's because he thought it was faster. In the interim I had changed my mind about going with Gary but I felt obligated.

We bade farewell to Steve, whose electric light was going out, and began to crawl to the Snedegar's Stream. After 5 minutes we both felt uneasy as we should have already heard the stream. A half hour later Gary recognized the Rubber Chicken connection -- we had crawled in a huge circle.

This time we took more care, and in less than ten minutes reached the stream. It led away to the left, down to Tom's Sump where I had not been since the 1977 discovery trip. Upstream, it was only a quarter of an hour to our 22:30 exit. It was raining outside and the stream flowing into the cave was beginning to rise -- in another few hours there was danger it would sump out one of the ducks we had just crawled through.

We reached the cabin only 20 minutes behind Steve. His electric light had gone out ascending the pit, and being British, he carried no backup source. On the surface he had wandered around lost in the woods for an hour. We stoked the fire, ate, and turned in.

So the whole 9.5 hour affair netted only 70 meters, but the fine cave system made it worthwhile.

## VULCANOSPELEOLOGICAL ABSTRACT

By W. R. Halliday, M.D.

Howarth, Francis G. 1981. Community Structure and Niche Differentiation in Hawaiian Lava Tubes. Chapter 7 in: Island Ecosystems: Biological Organization in Selected Hawaiian Communities, US/IBP Synthesis Series 15, Hutchinson Ross Publishing Company, Stroudsburg, Penna. Editors: D. Mueller-Dombois, K.W. Bridges and H. L. Carson. pp. 318-336.

"A suite of organisms, many of them uniquely adapted to the lava tube environment, carry out the many diverse functions of energy transfer and nutrient cycling occurring within the system." Main energy sources are plant roots, fine organic materials, "deposited in the slimes", and accidentals. After an initial survey Kazumura Cave was selected for detailed studies. Eighteen species, 58% of them cavernicoles, were new to science.

Of special interest is a section on "slimes": , co-authored by Howarth and M.F. Stoner. They recognize two types, white and brown, as in the Pacific NW. The origin of the white slime "remains a mystery". Organic content was low. Fungal hyphae and spores were sparse. The brown slime is composed largely of organic matter, mostly dead roots and their decomposition products. It also contained fungal hyphae and very fine mineral colloids. "Both types of slime represent incipient soil formation..." Many details are specified and an excellent summary of the cycle of colonization and extinction of lava cavernicoles is included; correlation with the geomorphic cycle of the lava tube is clearcut.



THE HISTORY OF NORTHWEST  
CAVING TO 1972

By Tom Miller

IN THE BEGINNING

Any discussion of present-day caving must trace its roots in the pre-organizational era. In contrast to the major cave areas of the east, those roots were few. The Northwest, though blessed with a variety of different types of caves - solutional, glacial and volcanic - has an undersupply of them all, and the small population and large lightly traveled areas hardly contributed to an increase in the number of those known.

The beginnings of spelunking here must of course start with the Indians, even though that record is scanty because of the dispersed and difficult nature of the available caves. One old Indian legend tells of a besieged tribe that holed up in Malheur Cave, a lava tube in southeastern Oregon. The enemy war party apparently hoped to outlast the water supply of the beleaguered group, unaware of the large lake within the cavern. After waiting for several weeks, the besiegers gave up in disgust, leaving the field to some of the Northwest's first "spelunkers".

The next mention of Northwest caves comes in an account of one of Captain Fremont's pathfinding journeys. In his diary he notes "several caves high on the wall" of the Columbia River Gorge, probably shelters.

The Northwest's largest cave was discovered in 1874 when a hunter chased a wounded bear into the entrance. As is sometimes the case with the first exploration of a cave, the encounter was less than thrilling for the hunter. Armed only with matches he cautiously ventured inside until the last match was used up. Only by crawling out in an ice-cold stream he remembered finding near the entrance did he manage to leave. The

first attempts to commercialize the cavern, named Oregon Caves, failed, but its dramatization by Joaquin Miller led President Taft to create the southwestern Oregon wonder a national monument in 1909.

The thirty-year period that started in the 1880's was the era that saw the discovery of many of the more well-known caves of today. Sea Lion Caves was discovered in the mid-1880's by a sea captain, and subsequently developed, on the coast of Oregon. Ole Petersen, a farmer near the Lewis River south of Mt. St. Helens, Washington, discovered and developed the lava tube known as Ole's cave in 1895. Lewis and Clark Caverns, one of the longest and most beautiful of the Montana caves, was found in 1902 by a prospector and eventually became a state park. Between 1903 and 1908 the first limestone caves known in Washington (Gardner, 1903), Idaho (Minnetonka, 1906) and on Vancouver Island (Horne Lake Caves, 1908) were entered and made known to the public.

Montana, the state in the northwest with the best remaining potential, was also probably the first state to have even a rudimentary stab at speleology. Captain Greenfield, a member of the Air Force, is reputed to have explored Ophir Cave to a depth of three thousand feet between 1940 and 1944 while Willis Nelson was exploring southwestern Montana caves at the same time. In 1949, Robert Zeller, an NSS member, mapped French Creek Cave, the last significant work done there for many years. Basil Hritsco, another pioneer Montana caver, joined the NSS in 1950 and was probably the most responsible for making other areas aware of Montana with his reports in the NSS News. Bean's Hole, a 125 foot pit was descended by he and Dick Fooriment, using a winch-and-pulley system and the aid of a crowd of thirty bystanders that had gathered in response to publicity generated by a Great Falls newspaper.

## THE FIRST ATTEMPT

Seven bold spelunkers from Seattle, and three from Portland, petitioned the NSS on February 15, 1951 for a grotto charter. Centered in Seattle, the organizations faced some seemingly insurmountable problems. Not until 1943 was any northwestern cave known to the NSS and the combined membership of the little grotto knew of only four caves. Under the leadership of Dr. William R. Halliday, first chairman, the group began to make numerous field trips and in May published their first newsletter, "The Cascade Cave Report", which listed twenty-eight caves in Washington, thirty-four in Oregon, and one on Vancouver Island. Many of these "caves" were eventually found to be either rumors, or very small.

Apparently not too daunted, the group staked out for itself the task of "locating, studying, and mapping every cave in the Pacific Northwest", while noting that "even if we find no caves, we are still surrounded by some of the most beautiful scenery in America". It was good that they had other interests, for the next decade was to include many frustrations and few successes.

In May, the little group made its first trip to a limestone cave, Albright Cave in eastern Washington, a month after a Bend, Oregon trip introduced it to its first Lava tubes. Halliday moved to Colorado in July, and Del Neely, a charter member, became chairman. Mention of a number of caves in the Seattle Post-Intelligencer led Tom Steinburn to Snoqualamie Pass and he made the first report on Cave Ridge shortly before Gene Hanson relocated Ole's Cave, the first Washington lava tube known to the group.

A small club calling itself the "St. Helen's Apes" heard of a lava tube in the area discovered by a tractor driver. In 1952, this group built ladders in the sink opening and explored it several years before the Cascade Grotto entered it.

By then, the Seattle group was already running into trouble. Almost melodramatically, the December, 1952 issue of the Report warned that, "we have virtually exhausted all outside sources of information" and this despairing cry was followed by one more issue in 1953, then silence, as the grotto succumbed to the problems of Northwest caving.

## IN BETWEEN

The demise of the only organized caving group in the Northwest left a vacuum that Dr. Halliday attempted to fill in 1955 with the formation of the Western Speleological Society. The W.S.S. had been partially inspired by a 1950 cave survey in California. The W.S.S. was mostly a loose confederation of the individual cavers in the Northwest who contributed at irregular intervals to the few publications it made.

In Montana, the lone Basil Hritsco was still exploring caves and making irregular reports to the N.S.S. News. In 1956 or 1957, he led trips to the Limestone Wall area of the Bob Marshall Wilderness and the the Yakinnikak Caves west of Glacier Park. On both outings he was accompanied by novices, "assistants" in fact, in which he emerges as a sort of pseudo-Edward Martel of Montana.

Even if the grotto was dead in Washington, the spirit was still alive. Tom Steinburn continued exploration of Cave Ridge. The first descent of Hellhole Cave was made by he and Halliday in September of 1956. Homer Spencer of Portland, who was growing roquefort in Cheese Cave (of course !), found several tubes in the Mount Adams area, including Red Cave, a small cave that could not be found on subsequent trips and was lost for nine years. An old report of the Stanford Grotto led to the first visit of cavers to limestone caves in the northern Cascades. In 1957, Halliday returned to Seattle as the first trips to eastern Washington were made. The

following year Gardner, Albright and Ole's caves were mapped and spelunkers made their first visit to Ape Cave. Over two miles were mapped in what remained for many years the longest cave known in the region.

1958 was an important year in Montana speleology as four separate groups ranged widely over the entire state. Basil Hritsco and his "sherpas" tackled Twin Sisters Shaft, at 228 feet Montana's deepest single drop, with a block and tackle, and in 1959, he descended another drop, this time of 113 feet, in the same area. Newell Campbell, Dwight Field and others around Denton, Montana started work on the Snowy Mountains in 1958. At the same time the Treasure State and Montana Speleological Societies were being formed. From 1958 on, there was always an organized group of some sort in Montana.

#### THE GROWTH OF THE GROTTOS

The Treasure State Speleological Society was organized by Bill Dinsmore in Billings at about the same time as Howard McDonald was getting the Montana Speleological Survey started. In 1959, the two groups effectively merged and operated as one group although maintaining their separate names. By 1960 the names and locations of 104 caves had been compiled by the NSS, and in 1961 members of the TSSS, Harvey Leach and others, made the first descent of the entrance pit to Gloryhole Caves (Cave "X" at that time, and later Bighorn Caverns) with Royce Tillett, a local rancher. Basil Hritsco and Newell Campbell continued their explorations apart from the Surveys and cooperated on a 100-foot descent of a "bottomless" pit in 1960.

In late 1961, Harvey Leach and Rob Stitt of the the TSSS discovered a way into the "AA-A" complex of Glory Hole, which doubled the size of the known cave. Surveying in the cave began in 1961 and continued sporadically for several years. The Montana State

College Outing Club at Bozeman was formed in 1962 and although primarily directed towards all outdoor sports, the caving elements in it became associated with the TSSS. Meanwhile the MS had begun publishing a newsletter in June of 1961. Entitled the Cavernooz, it stressed conservation heavily and reported the doings of cavers all over Montana. Thirty cavers of the MSS participated in a trip to the Pryor Mountains that July and found several new caves. It wasn't long however, before the MSS and TSSS began to run into problems. The newsletter, always brief, became sketchy and after only three publications stopped, to be briefly revived in 1963 and 1964. The decline of both the TSSS and MSS was associated with the beginning of dissolution of the Outing Club. Trips were still being made, however, and on one of these a chance meeting was made with a Bozeman group that had formed what they called the Southwestern Montana Speleological Society in May of 1964. Jim Chester, Jack Venrick, and Rick McBee of the new group urged the benefits of national affiliation as the fragmentation of the Outing Club continued. They had already started a newsletter, the Speleothem in June. Finally, in January of 1965 it was proposed that the two groups should merge into a grotto, and in November the new grotto was duly recognized as the "Shining Mountains Grotto" of the NSS. Alan Lovell of the old Outing Club became chairman and Chester edited the Speleothem.

Trips had been increasing in frequency for the months preceding formation, fifteen in seven months. Excellently written technique, equipment and history reports, made the Speleothem more than a mere newsletter. March had seen a ten-day trip to Gloryhole by eleven members, highlighted by several near-accidents with propane lights, near-starvation, and an unusually heavy snowfall just prior to the end of the trip. One example of sheer enthusiasm was an



epic three-thousand mile hitchhike by Jim Chester and the vice-chairman, Bernie Dunn, to Carlsbad Caverns that summer. The entire trip was summed up in the newsletter by just "supercalifragilisticexpialidocious".

Back in Washington and Oregon, caving had almost completed its comeback after the debacle of 1953. In 1958, several Mount Adam's lava tubes were found by a Portland group called the Northwest Explorers, which was led by Peter Alburas, Bill Daily, and Jack Grant. Oregon Cave was visited in 1959 by members of this group, Seattle cavers, and a small party from Bend, Oregon. Until the two visits of that year, Oregon Caves had remained essentially unknown except for the tour route. Mapping of the lava tubes of Washington began in 1959, and in August, Halliday made the first reconnaissance of the caving potential of Hell's Canyon. Late that year, reports of a lava tube containing pits came to the attention of the Seattle group, but before it could be visited, local residents overzealous about safety; dynamited the entrance shut. The results of a very active year had led the Seattle band to apply for reactivation of the grotto, and in 1960, Halliday was again elected chairman of the revived organization.

Steve Knutson and other's at Reed College, Oregon started the Oregon Speleological Survey in 1960 and accompanied the Cascade Grotto on numerous trips, of which the most notable was to Oregon Caves. The San Juan Islands were visited in that year. In June 1961, Halliday, Knutson, and seven others spent six and a half hours moving tons of loose rocks to reopen Dynamited Cave, to find thousands of feet of cave and several pits. Two months later, the first attempt was made to enter the Paradise Ice Caves of Mount Rainier, but high water halted any extensive penetration. The Cascade Cave Report was renamed the Cascade Caver and was published again after an eight-year

lapse. It listed fourteen Oregon cavers. Knutson led a trip to Oregon Caves that made the largest discovery in many years. That same year he led a backpacking trip to Hells Canyon which located Redfish Cave.

The number of spelunkers and number of trips in Oregon was growing, and given the much more favorable location relative to caving areas, it was only natural that the two sections of the Cascade Grotto should grow apart. After Knutson became a graduate at Corvallis in 1964, he realized that Oregon had enough NSS members to start a new grotto. After writing a proposed constitution he sent it to the various members to be ratified. A group met in Portland (minus Knutson) and organized the Oregon Grotto, which was chartered by December. John Bookout was elected the first president of the new grotto. It boasted an initial membership of thirty, easily the largest in the northwest, and some members even pushed for a size of one hundred by the end of the first year. In September, Knutson published a work on the caves of Deschutes County which listed over fifty. The first publication of the new grotto, the Speleogram, came out in July, 1965. By August, the grotto was considering the idea of a "Caves of Oregon" which, fortunately or unfortunately, never materialized.

From the first, in spite of its greater size, the Oregon grotto was overshadowed by its parent, the Cascade Grotto. Numerous trips were made, but because of the coverage of the area previously, most of the trips were, in actuality, training runs for the many new spelunkers. It was not for several years that the Oregonians began to blaze new trails of their own.

Caving in British Columbia began spontaneously, and, as was the case on the American mainland, slowly. Several caves had been known for many years on Vancouver Island, but no concerted attempt had ever been made



to extend the limits of that knowledge, or to compile the findings. Clarence Hronek, and two others, Leigh Hamber, and Bruce Nicholls drove to Horne Lake Caves in November 1962. They chose the name of "B.C. Cave Hunters" and made several trips to the area in the following months. In January 1963, the group surveyed one of the Horne Lake Caves, unaware that a party from the Cascade Grotto had been there just two days before. The resulting publicity of the American visit brought the two groups into contact, but they continued to cave separately. The Canadians then checked out reports of caves near Skute Falls and Gordon River and found several, all small. A year after the double mapping incident, Hronek was seriously injured in a car accident on his way to a cave and until his return in June, little was done. In 1965, Dennis Richards and Ken Sinkiewicz joined the little group and the added manpower spurred several trips by Hronek and Richards to Cody Caves on the B.C. mainland in the summer.

Explorations continued at the same pace throughout the following year and the second half of 1966 saw a number of trips to the Island by the Cascade Grotto for the purposes of mapping and exploration. In October, Hronek was again stricken, this time with a collapsed lung, but the B.C. Hunters became even more active in spite of this, making trips nearly every weekend from May through December. The increased membership and number of trips persuaded the members to seek a more formal organization, and in February 1967, they were incorporated as the British Columbia Speleological Society.

All during this time, Idaho had been a caving wasteland. To be sure, caves were known. E.W. Bischoff had sent a list of twenty-five caves to the old Cascade Grotto before it folded, and a 1962 trip to an Idaho lava tube had been made. Minnetonka, in the extreme southeastern corner was a park, and in November, 1962, the

Forest Service had attempted unsuccessfully to interest the Cascade Grotto in exploring a cave called Papoose, located southwest of Riggins, Idaho. Finally, the stirrings were heard from what was to be the most isolated grotto of all.

On Christmas Day, 1965, a bored Jerry Thornton decided to investigate a rumor of a cave near his Mountain Home, Idaho dwelling. Locating it pretty easily, he returned shortly with Jim Smith, a friend and together they explored the fissure cave. It wasn't at all large, but it was enough to encourage another trip on New Year's Day by five people. The next day after this second trip to a 165-foot cave, the Mountain Home Speleological Society was declared to be officially in existence. Jim Smith, namesake of Smith's Crack, was elected vice-chairman, with Thornton becoming the first leader.

Rumors of another cave near the first brought the MHSS back to the area in April and a number of near-serious mishaps in the cave gave it the name of Helluvatime. It was really quite fortunate that no serious accidents occurred to the group. During the initial months of activity, exploration was marked by an almost total absence of knowledge about caving techniques. Hard hats and carbide lamps were unknown, and a primitive method of rappelling was employed. Exit from a pit was by hand-over-hand. The members were so unaware of their ignorance of caving, that when they heard by chance of rumors of a cave over 1,000 feet deep in Utah (Neff's) they wrote immediately to learn the location. Fortunately, the resulting exchange of communication produced contact with Earl Petersen of the Salt Lake Grotto.

The Salt Lake Grotto invited them to a training session at Minnetonka Caves, which, as Thornton noted, probably save some lives. There they were introduced to carbide lamps and proper vertical techniques. Although they never made it to Neff's the

experience encouraged them to think of forming an Idaho grotto.

In September of 1966, two N.S.S. members stationed at Mountain Home Air Force Base made contact with the cavers there and by October the new group was chartered with the N.S.S. as the Gem State Grotto. Lloyd Waters, the man who had first informed Thornton of Smith's Crack, was elected chairman, and Thornton became the secretary-treasurer.

While the Gem State Grotto was forming, events elsewhere in Idaho had turned up important new caves and passages. Kuna Cave, near Boise, had been known for years, but in 1964, nearby youths dug two hundred feet through a silt plug in the lava tube and discovered an additional 1400 feet of passage. Crystal Ice Caves were discovered in a large rift on the lava plains of Idaho. It was first called Liar's Cave because of the unbelievable stories that circulated about the fantastic ice formations in the cave. It was developed in 1964 by Jim Papadakis, one of the original explorers of the Caverns of Sonora in Texas. In 1963, two Aberdeen boys claimed to have descended South Grotto, a volcanic vent, to a depth of 800 feet. This was made first objective of the Gem State Grotto and the first assault occurred in February 1967. The February trip was followed by one in April, both failing to reach the bottom because of a lack of equipment.

The grotto published its first newsletter in May, a beautiful brochure. The next issues, however showed a stunning decline in quality as the grotto ran into problems. Some of these could undoubtedly be traced to the high membership dues -- \$7.50 annually -- which were higher than those of the national organization. Many prospective members were undoubtedly discouraged by the high costs.

In February, a joint meeting of Sylvia Ross of the Idaho Bureau of Mines and Geology, Halliday of the Western Speleological Survey, and Thornton of Gem State Grotto resulted in a compilation of the Idaho caves known at that time. Activity continued with several more lava tube trips and another trip to South Grotto which ended in failure due to rockfall that had blocked the vent in some manner. In an effort to keep the grotto running, dues were lowered to a still-high \$4.00, but unbelievably, mandatory NSS dues of \$7.00 were added. The November, 1967 issue of the Gem Caver spelled out that unless something was done, the grotto was through.

[The second part of The History of Northwest Caving to 1972 will be printed in next month's caver.]

#####

Grotto Meeting: APRIL 16 at 7:00

John Fichtel who just moved to the Seattle area from Kentucky will be showing some of his slides of caving in that area.

#####