THE CASCADE CAVER

Official Publication of the
CASCADE GROTTO N. S. S.

INTERNATIONAL JOURNAL OF VULCANOSPELEOLOGY

Volume 18 No. 8 Editor: Rod Crawford August 1979

THE CASCADE CAVER is published ten times per year by the Cascade Grotto of the National Speleological Society. Subscription rate is $4.00 for one year's issues. Full Grotto dues are $4.50, and family memberships (not including subscription) 50¢. All payments should be made to Grotto treasurer Craig Hansen, Rt. 3 Box 118, Cheney, WA 99004.

C O M I N G E V E N T S

For information on any of the following events you may contact Trip Coordinator Chris Burdge, at 775-6724.

Saturday, Sept. 8. Widny Creek Cave. Contact Kevin Allred, 852-1058; or meet at the Baker Lake turnoff from the North Cascades Highway, 7:00 AM.
Sept. 15-16. This weekend is open for caving! Very likely there will be another trip to Windy Creek Cave.
Tues., Sept. 18. Regular meeting at the Hallidays', 1117 36th Ave. E, Seattle, at 8:00 PM. Program: NSS slide show, "Papoose Cave, Idaho".
Sept. 18-23. Conference on Karst Hydrology and Speleology, Ely, Nevada. Registration $7.00. Contact Jack Hess, Water Resources Center, 4582 Maryland Parkway, Las Vegas, Nevada 89109, (702) 736-2293.
Wednesday, Sept. 19. Northwest Washington Unit meeting moved up to this date, at Wes Gannaway's house, 1604 Brockwood Drive, Ferndale, Wash., at 7:00 PM. Program: "Papoose Cave".
Sept. 22-23. Cave Ridge limestone caves (near Snoqualmie Pass). Contact Bob Brown (206) 569-2724.
Friday, Sept. 28. Eastern Washington Unit meeting at Dave Jones' house, 106 N 3rd, Cheney, at 8:00 PM. Program: "Papoose Cave".
Sept. 29-30. Official trip to Paradise Glacier Cave. For details come to the September meeting.
Oct. 12-14, Veterans' Day. Official trip to Papoose Cave, Idaho. Contact Brown.
Oct. 16, Tuesday. Regular meeting, same time, same place. Program: slide show, "Caves of Oregon".
Oct. 23-25. Cave management symposium, Reading, California. Pre-registration $20. Contact: Far West Regional Cave Management Symposium, 505 Roosevelt St., Oregon City, OR 97045.

NEWS AND NOTES

The unexplored passages in Crack Cave, Pend Oreille County, were subsequently reached and explored by Dave Jones; unfortunately they only added 50-100' to the cave's length. However, things are looking up for two other Washington limestone caves; both Gardner Cave and Windy Creek Cave have recently been extended by the addition of considerable virgin passage. Windy Creek, in particular, shows no signs of stopping; details in a future issue.

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Prior to the August meeting, Alfred Montserrat i Nebot informed yr editor that the Cueva de Don Justo, lava tube on the Canary island of Hierro, has been mapped to 6350 meters (unsegmented).

NEW MEMBERS

Craig Skinner (S), 745 Stewart St NE, Salem OR 97301
Kevin and Carlene Allred (R, F) 423 Summit Ave, Kent WA 98031, 852-1058.

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OUR COVER: A scene from New Cave, Skamania County, Washington (see article on page 52). Drawing by Carlene Allred. Good work, Carlene!

F E A T U R E S

Caving in Barbados

by William R. Halliday, M.D

Barbados has the unenviable reputation of being the most expensive of the West Indies for tourists, and unfortunately the best period for caving and the highest rates largely coincide, tourists and cavers alike preferring the dry season. However, it is possible to find pleasant, inexpensive lodging (there is even a Youth Hostel, which I have not checked out), and some caving is possible at all seasons although the low water period of late winter is by far the best for serious work.

For many years, the most celebrated cave on the island was Animal Flower Cave, at its northern tip, a commercialized littoral cave with two chambers and several entrances which permit an especially pretty play of lights at sunset. Unfortunately, the anemones which gave the cave its name were exterminated by a previous owner who hoped to discourage unwanted visitors. Unless interested in unusual littoral lithology, today's speleologists will want to visit it only for historical perspective. Admission is $2.00 (Barbadian).

Today's most celebrated cave on Barbados is Harrison's Crystal Cave, about five miles from the northern suburbs of Bridgetown. For a long time, Harrison's Cave was considered a small, insignificant cave. Then NSS member Ole Sorenson of Denmark returned to the island and began exploring its natural sewers. Soon he broke out into some beautifully decorated rooms, and an expensive developmental project has been under way for several years. It is not open to cavers--nor to the public, as yet.

A few hundred yards away, however, is Cole's Cave--a very enjoyable cavers' cave complete with at least two near-siphons, a nice series of gours, and a system of large pipes which once were very important in this karstic island. Several thousand feet of passage are known, and the cave needs to be remapped.

Still of extreme importance to the island is the water of the Bowmanston Pumping Station Cave, more than 250 feet below the surface. Special permission is needed to make the descent by winch (evidently the drop has never been rigged with standing ropes), and only the few thousand feet downstream can ever be visited since the upstream water is vitally necessary.

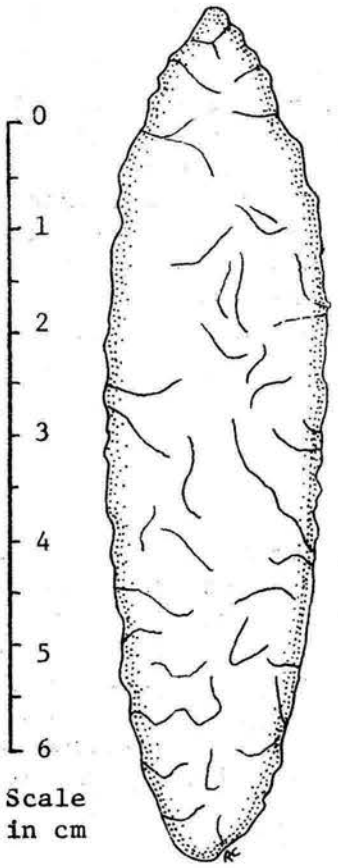
Driving around the island or merely looking at the 1:10,000 topographic maps, even the casual visitor cannot help being impressed at the large number of sinkholes, sinking streams, and resurgences. Along low inland cliffs are many phreatic orifices, most of which still seem unchecked by any speleologist. Clearly the island has special speleological potential.

Ole Sorensen has moved to the United States now, but Richard Goddard has begun a systematic speleological survey of the island, and welcomes the visits of cavers and speleologists who would like to do more than merely sight-see. Address: Union Hall Plantation, St. Philip, Barbados, W.I.; telephone 36215 (home) and 64975 (office). If you are visiting the Caribbean I'd suggest considering Barbados and writing him as far in advance as possible. Two notes of caution, however: most of the larger caves are water crawls, and Ole Sorenson reports that he has had leptospirosis (a particularly nasty liver disease transmitted through rat urine) twice. Also, Dick Goddard and I got thoroughly soaked by a freak wave which broke in the second room of Animal Flower Cave--commercialized yet! Barbadian caves are a little bit different.

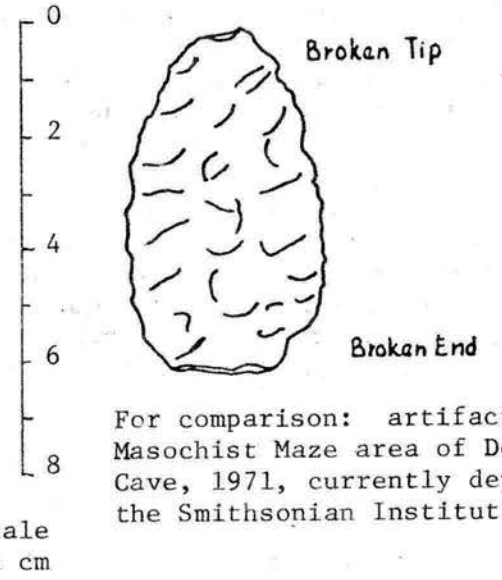
Indian Spear Point found in New Cave

by Kevin Allred

Fresh up from Utah, and planning to live in Washington, my wife, Carlene, and I were excited about attending the Northwest Regional held at Trout Lake. The height of my weekend came on June 30th as we visited the lower main tube of New Cave (my first lava tube). We decided to take Lehi (2 1/2 months old) and discovered that he is old enough now to notice slight discomfort and express complaints at the top of his lungs. The crawlway was especially awkward with Lehi because I didn't have kneepads for the rough lava floor. On the return trip after the end of the cave, I was resting at the lowest area of the 10 foot wide crawlway after muscling Lehi around, and noticed something different off to the side. It was a (chert?) Indian spear point about three inches long which blended in very well with the floor. Next to the point were some charred pieces of wood. Rod Crawford now has these items and planned to have the wood dated to see if it is associated with any early spelunkers. [This, however, proved to be too expensive. The spear point will eventually be deposited at the Klickitat County Museum.--R.C.]



New Cave spear point



For comparison: artifact found in Masochist Maze area of Deadhorse Cave, 1971, currently deposited at the Smithsonian Institution.

TRIP REPORTS

April 25th and 26th Trips to Dry Falls Area Caves and Shelters

by Wes Gannaway

On April 25th, as part of my vacation trip, we visited the Dry Falls area and looked at the caves and shelters there. The first place we visited was on the evening of the 25th. We went to the Lake Lenore Caves. This consists of five shelter-type openings in the bluff all over-looking the old Columbia River gorge. The largest of the shelters is 20 feet long and 40 feet wide. The shelters were formed by the scouring action of the river in its flood stage. The area around the caves had been heavily eroded by the water action and there are lots of small cavities and holes in the basalt. None of these cavities, or the "caves" themselves, were large enough, or long enough, to warrant being called caves, as the farthest reaches were in daylight.

On the 26th we spent the morning fishing at Blue Lake. After we had caught our limits, we rowed to the other side of the lake from the road to visit Rhinoceros Cave. While Debbie (my wife) guarded the rowboat, Jason, Aaron, and I climbed the talus to the site of the cave. Aaron, my seven year old son, was the only one who could get into the "cave". We also looked at another shelter below the cave. This shelter had some possibility of being more extensive. We were not prepared to explore it further because we didn't have clothing that would protect us from the sharp basalt.

We then rowed back to the resort and proceeded up the road to Dry Falls. We took the trail down to the lake and, after a short search, found Dry Falls Cave. We explored this "shelter" which is actually a cave. During our exploration, the only cave that we explored that had animal life was this cave. It sustains families of swallows and pack rats, and a type of cricket that I have not seen before. I did not take it as a specimen because I only saw the one. There is a possibility of other extensive caves such as the Dry Falls Cave and the area should be checked out. As I plan to visit the area again, perhaps next spring, some arrangement can be made for other club members to join me in a search (and to catch more fish).

Caving Cometh Before the Fall

by Alan Lundberg

Hearing that gas was no problem on the North Cascades Highway, and having a mild case of Caving Fever, my son, Baron, and I headed for Concrete early on Sunday, June 10th. We had high hopes of digging out some more of Three Mile Creek Cave. After a fitting cavers' breakfast in Mount Vernon, gas in Concrete, and sun overhead, we headed up into the hills. A wrong turn, a short hike, and a bit of poking around finally got us to Three Mile Creek Cave (see Cascade Caver, May 1977). Coughlin's Cart and evidence of his work inspired us to "shovel our way to glory". Unfortunately, the dirt most closely resembles wet concrete. After a couple of hours moving earth and hitting the edge of the breakdown our spirits weakened. Out into the sun and a look at the sink above. There are obvious signs of continued settling, so maybe in a few years that'll be the way in.

After looking at Mt. Baker, the lake, and other hills, we headed for Jackman Creek. Once again we took a couple of wrong turns and overshot the location.

But eventually we stopped and plunged into Jackman Creek Cave. A neat little hole! The "vertically big room" (see Cascade Caver, Jan.-Feb. 1979) was a pleasant surprise for a Washington cave. Long crawls, real solution formations, and a lot of helmet banging marked an interesting interlude. The cave register was sitting at the "Y" in good shape. Back in the sunshine, Baron suggested we scout around for other holes. Due to the distance home, we spent only a brief time looking around, but a couple of "possibles" were found. Then, with true grace, skill, and a bit of clumsiness, I slipped and tried to jump to better footing. Unfortunately, I had jammed my foot behind a rock, so my right knee proved to be a weak link. The general damage included tearing the cartilage loose and various muscles. Thus ended a day's caving except for a long, painful drive home. Baron and I agreed that Jackman Creek Cave deserves a lot more attention.

Falls Creek Cave

Friday, June 15, to Sunday, June 17, 1979

by Walter Bosshart

Participants: Bob Brown, Chuck Fair, Chris Burdge, Rod Crawford, Walter Bosshart, Murk, and Cas.

After passing through some blueberry bushes, we stood at the edge of a large sinkhole. At the foot of the trench, a large opening led into darkness. The entrance to a cave. Five cavers were anxious to get underground. But first everyone needed light. There were the conventional carbide lights and the more elaborate electric rechargeable ones. Bob was going to use the opportunity to test his newly constructed "MSR integral sealed lead-acid Justrite head piece". Already we were scrambling over large lava boulders. Some ice, and just ahead daylight again. What's this? Another sinkhole, this one with steeper walls. Here was the actual entrance to Falls Creek Cave. Several thousand feet of lava tube lay ahead of us. The passage was large, often nearly 10 m high. Still, going wasn't easy. One was continuously fighting breakdown: rough, jagged boulders. The black walls seemed to eat the light thrown out by our lamps.

We took a side passage leading off to the left after climbing up about 2 m (6 ft.). Further in, the ceiling dropped, forcing us to a stoop walk. We then entered the terminal room, where the tube pinched to a seal. Here we examined the cave register jug. The contents looked more like something to eat than read. But not for humans. Some smart caver had deposited some cheese in the jug, which by now had grown white hair. On the way out we found a narrow chimney leading into an upper room. We were excited. Chris noted all the wood pieces in this rear section of the cave and suggested the existence of another entrance. So, up the chimney we went. However, we were unable to find any leads or cracks to the surface. Considering that some of the wood was cut into boards, it was obviously carried in. But we found a topographic map and a polyethylene container with first aid mold and damp gauze. Then--the half hidden "brown bag". "What's in it?" No one dared find out. Thank you, fellow cavers, for littering--we tried hard but didn't succeed. The rest of the way out was uneventful. Not, however, for Chris, who managed to stumble on a lava boulder (not hard to do) and cut his palm. The hand that dripped blood. He will be wearing gloves on future lava tube excursions. We exited after four hours, meeting an overcast sky.

The weekend hadn't been blessed with sunshine, but we didn't have much rain. We had arrived at 2:30 Saturday morning at the "caver campground" next to the rushing creek.

After Falls Creek Cave we all wanted something warm. But Bob's trailer had just run out of gas. Chris and Chuck headed down to Trout Lake for propane and beer. For Bob, it had been an early morning (9:30), so a nap was needed.

Rod and I checked out a series of sinks leading to "Rat's Pit". The latter is a circular sinkhole with small opening approximately 10 m (30 feet) deep. The bottom is covered with lush green moss. A side entrance through breakdown from a neighboring trench simplifies the descent. We noted the location of the pit for future trips.

In Bob's trailer, the party was in its last stages as Rod and I entered. The Wieners were all eaten. Around 3 PM we decided to go for another tour, a quick trip to Folger's Cave. Chris let this one pass, giving his hand time to heal. We got back just before the clams on the trailer roof (Chuck's expression for rain).

Sunday, a quick visit to Datus Perry Cave: we searched for half an hour, and finally went to New Cave, a large lava tube with avenue like passage and little breakdown.

No cave trip without a dinner. Bob's house was quickly converted into Godfather's, and we all enjoyed plenty of very cheesy pizza.

Lava Tubing with the British

by Rod Crawford

What with one thing and another, I hadn't been underground for a month. I had hoped to satisfy the craving on the abortive Black Mountain trip, but such was not to be. However, relief appeared after midnight the night of the August 21st Grotto meeting, in the form of Chris Wood (Shepton Mallet Caving Club) and Barry Weaver (Chelsea Speleological Society), flying in from Hawaii. Chris and Barry required a guide for a quick trip to Washington lava tubes, and I was only too glad to oblige.

Wednesday morning I tried to telephone the Slabics in Trout Lake, hoping to cadge a night in the hayloft--but no one home. Chris and Barry duly arrived in their rented car, and we were off. After stopping at Chuck Fair's for carbide, and one small navigation error on the Randle road, we arrived at Deadhorse Cave in the late afternoon.

Chris, a veteran of lava tubes the world over, elected to do Deadhorse in boots, shirt, and shorts. He was stoical about the crawls, but I dare say I was more comfortable in coveralls and kneepads. There was less water in the cave than in early July, and an abundance of white Lophomus millipeds--we saw at least five. Unfortunately, the number of carbide dumps is also visibly increasing. I think a cleanup trip here is very much in order.

Chris and Barry enjoyed the cave; coming out the Rathole, I witnessed a touching ceremony--common, so it is said, among British cavers--of each doing everything possible to obstruct the other's way out.

We reached Trout Lake about dark, and found to our dismay that the Slabics still weren't home--what's more, the store and Trout Lake's only restaurant were both closed--and our only food was my two remaining cheese sandwiches! Fortunately, we learned that the Trout Lake Tavern serves excellent (and cheap) pizza and spaghetti.

We then proceeded to Dynamited Cave, into which I led Chris (by this point, Barry preferred to sleep). Chris inspected the cave as far as the 40' pit, and voiced a suspicion that the cave is a rift through which lava has flowed. I checked the register, which was in good condition. Sixteen people have signed since the Regional. Bats were flying and a pika was squeaking in the entrance chamber. We slept under a beautiful flock of stars, to be awakened next morning by the songs of a neighborly pack of coyotes.

Our crossing to the Lewis River valley was uneventful save for (alas!) a couple of navigational errors on my part. At one point, Barry approached a lumberjack for directions with "Hello, isn't it a perfectly splendid morning?" But we survived, breakfasted at the Beaver Bay Cafe, and made a quick tour of lower Ape Cave and surrounding lava. Then home on the freeway to return the rented car. A very pleasant (though hurried) bit of international caving cameraderie.

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VULCANOSPELEOLOGICAL ABSTRACTS

Montoriol-Pous, Joaquin, and De Mier, Jorge, 1977. Contribucion al conocimento de vulcano-espeleologico de la isla de Santa Cruz (Galapagos, Equador).

On the island of Santa Cruz, a sinuous line of lava tube cave extends northward from Puerto Ayora on the seacoast to and past Bellavista, toward Cerro Grocker. The largest of these (Cueva de Gallardo) also has been called Cueva de Bellamar. It is segmented into four segments; the northernmost two are very short. The larger of the other two (the southern) is about 1425 m long (about 4675 feet) and the other is about 745 m long (2450 feet). Total length of the cavernous segments and collapse segments is about 2,250 m (7380 feet); the "jameo" separating the two long segments is 35 m long and 21 m wide. The article includes Montoriol's usual thorough observations and reports. Its bibliography refers to another Montoriol paper on vulcanospeleology on the nearby island of Floreana which I have not seen. Abstr. by W.R.H.

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Foster, Roy W., 1958. Scenic trips to the geologic past: no. 4: Southern Zuni Mountains. State Bureau of Mines and Mineral Resources, Socorro, New Mexico, pp. 16-17. Abstr. by W.R.Halliday.

"The Ice Cave is privately owned, and a small entrance fee is charged, except for children under 12. There are several cabins, a gas pump, picnic tables, and a store. A well-marked trail leads to the cave, which is a short distance from the parking lot."

An excellent explanation of the speleometeorology of static glacieres is given in one paragraph, plus the following:

"Although the cave opening is to the south, the size, angle, and direction of the opening are such that sunlight reaches the ice for only a few minutes a day from about the 16th through the 26th of December."

A photo of the entrance shows a wooden stairway leading down into a collapse sink, with the cavernous grotto at the (?) up-tube end, toward Bandera Mountain. No dimensions are stated.

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NEW MEXICO'S SECOND SIGNIFICANT LAVA TUBE

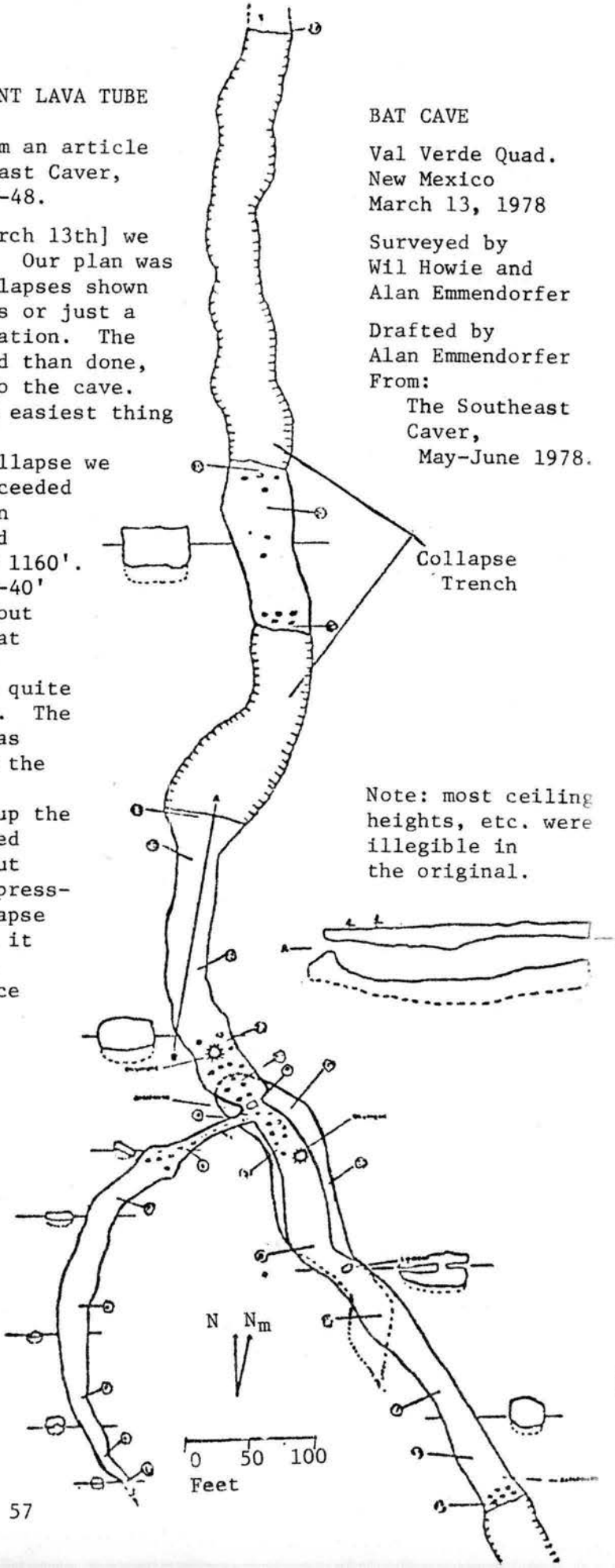
The following is excerpted from an article by Alan Emmendorfer in the Southeast Caver, v. 4 No. 3, May-June 1978, pp. 47-48.

"After a late start Monday [March 13th] we drove to the edge of the Malpais. Our plan was to check and see if the large collapses shown as Bat Cave were indeed lava tubes or just a figment of a topo mapper's imagination. The hike into the area was easier said than done, however; it was a six mile walk to the cave. Walking on the Malpais is not the easiest thing to do, either.

"Upon arriving at the first collapse we encountered, we ate lunch and proceeded into the nearest opening. We soon arrived at the end of the cave and mapped our way out for a total of 1160'. In some places the ceiling was 30-40' high with passage widths up to about 60'. The tube was definitely a bat cave with numerous piles of guano everywhere. Nevertheless, it was quite dry and travelling was quite easy. The cave had been mined in the past, as evidenced by two shafts sunk from the surface.

"We also mapped the next cave up the collapse of the tubes. This turned out to be a natural bridge of about 200' in length which was quite impressive. At the end of the next collapse was another entrance, but we left it due to the nearing darkness. The trip had been quite enjoyable since neither of us had been in a lava tube before. Although we only mapped two caves in the system there seems to be the potential for many more. The collapses continue for close to a mile on the topo. The best approach to this area would be to hike in for a couple of days and explore and map the area extensively. For those interested the system is located on the Val Verde Quadrangle."

The accompanying map shows a cave with two levels and a major side passage. To our knowledge, in New Mexico this length is exceeded only by 1590 meter Trucket Guano Cave.



Montserrat i Nebot, Alfred, 1978. Expedicio vulcano-espeleologica, Rwanda-77. Muntanya, v. 87, no. 695, An. CII, Feb. 1978, pp. 40-42.

Muntanya is the well-illustrated journal of the Centre Excursionista de Catalunya / Club Alpi Catala in Barcelona, and is in Catalan, not Spanish. Just on the Rwanda side of the Zaire border and about halfway from Lake Kivu to the Uganda frontier, the expedition studied two major lava tube caverns: Ubuvoma bwa Musanze and Ubuvomo bwa Nyrabadogo. The former has a length of 4,560 meters and a depth of 210 meters; the latter is about 1,500 m long. Montserrat stares that this is a new length record for lava tube caves on the African continent. They also had a look at smaller caves and at extensive lava fields along the international borders; the smaller caves are principally part of the Musanze system which totals around 5.1 km. The main cave has 31 entrances. Some of these are jameo [collapse trench] type; others are skylights. Unfortunately I don't have a Catalan dictionary and I was not able to follow the reasoning which places the 4.56 km length of Musanze above the 3.5 km length of Leviathani (in Kenya) which is all that the expedition feels should be counted. The question will be on segmentation and Montserrat is sending a copy of the map for our reference. According to Montoriol's classification of lava tubes, Musanze is a syngenetic cave of the reogenetic subtype. Technical publications will follow. Abstr. by W. R. Halliday.

An article on pp. 81-82 of the summer 1978 British Caver has the following to add to the story: a map shows the locations of eleven basaltic volcanoes in the vicinity of the border region of Zaire, Rwanda, and Uganda--an area about 70 km long. The volcano Nyamulagira is still active (it will be remembered that an article on the recent activity of Nyamulagira appeared in these pages in August 1976). The Musanze cave is in basalt from the volcano Karisimbi. "This system is characterized by a main passage which in places measures 25 m by 15 m and there are few secondary passages leading off it. Almost all of the floor is covered with boulders although in some areas accumulations of clay were to be seen which had resulted during the period of great rainstorms. Another characteristic is the great number of Chiroptera [bats] existing in some parts of the cave."

ADDITIONAL NOTE: When Montserrat was in Seattle on the day of the August grotto meeting, he told yr editor that Ubuwumo bwa Musanze is segmented into four or five segments, the longest of which totals about 1500 m. Clearly, then, this cave does not compare with any of the three segments of the Leviathan system, which must remain the "top three" in the African continent until further notice.

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dos Santos, G. Afonso, et al., 1970. Foi ha quatro anos que visita a Ilha da Madeira Relatorio da Equipa de Espeleologia. Revista de Espeleol... Vol. 1 no. 1, 1970, pp. 5-9. Abstr. by W. R. Halliday.

A short discussion of the geological setting of the principal lava tube caverns of the island of Madeira. Included is a translation (into Portuguese) of an old reference by the German geologist G. Hartung, not known to this writer. Hartung found the largest of the Cavalum caves to be 92 meters long.

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THE BIOLOGIST'S CHAMBER: SPELUNKING SHEEP, PART II

reprint of an article by
Doug Sonerholm

[Editor's note: This department (which is getting to be a seldom-or-never affair) presented a note on remains of Dall's Sheep in a cave in the Northwest Territories, Canada--along with some notes on other sheep in caves--back in the March, 1977 issue. The following article reports present-day occupation by Dall's Sheep in caves in the Brooks Range of Alaska, and was originally printed in Alaska, v. 44 no. 5:p. A24.]

Do Dall Sheep live in caves? I wondered every time I glanced at the group of three caves high on the steep mountains above our Brooks Range hunting camp.

I was new to Alaska, and new to sheep hunting, and eager to learn all I could about the elusive white sheep. When the chance came to work for a registered guide in the Brooks Range, I took it. Once at camp, however, I was so busy helping the hunters and guides that I had few opportunites to explore on my own.

But finally I had a free day and decided to explore the caves. I waded the river near camp and made my way to the base of the mountain. At the foot of the mountain I found an extremely old meat cache--the slow-growing arctic tundra had almost covered it. Next I worked up a very steep talus slope. Then I had to scale some near-vertical rock cliffs. It was with some difficulty that I pulled myself up and over the final pitch below the caves. I was already planning to tell the guides that I had climbed somewhere that even a sheep couldn't get to. But as I lifted my head over the last ledge, I was amazed to see the ground almost covered with sheep droppings.

At all three caves I found the floor covered with dry sheep pellets, to a depth of 2 to 4 inches. Rounded beds were scooped out on the floor of the caves, where the sheep had rested, and snowy-white sheep hair clung to the jagged walls of the caves. I still had no idea how the sheep were able to reach the caves, with cliffs both above and below them. Then I noticed a narrow chimney to one side, leading toward the top of the mountain. It had been well used by sheep. Welcoming the idea of not having to descend the rock cliffs, I worked my way up the chimney, which eventually topped a shoulder of the mountain and opened into a steep grassy hillside.

As I made my way down the hillside to a stream that flowed back to the main river, I thought I had made enough discoveries for one day. But after walking about a mile downstream, I looked up to see the mouth of yet another cave.

I climbed to within 20 yards of it, and saw light coming from farther back in the cave. Close examination showed that the cave went completely through the ridge, offering the sheep that used it a vantage to both sides of the mountain. Like the first three caves, the floor was covered with sheep droppings. But there was no sheep hair. I soon learned why, for on a ledge on the ceiling was what I judged to be the warmest bird's nest in the entire Brooks Range. Pure white, it was made entirely of soft down and sheep hair.

I was working my way across some cliffs, heading toward camp, when I paused to look at the stream below. On the bank, protruding from the tundra, were cut willow stakes, similar to those at the meat cache I had earlier unearthed: I had found another ancient meat cache. The final surprise came when I looked up at the cliffs near this cache to see a hole, about 2 feet in diameter, about 4 feet from the bottom of the cliff.

After lobbing a few stones into the opening to see if anyone was home, I

climbed into the hole and found myself in a room large enough to easily hold five or six men, and tall enough for a small man to stand in. On the floor were the usual sheep droppings. Toward the rear was a large nest of willow sticks and leaves, indicating the cave had been used as a grizzly bear den.

I concluded from the remnants of the meat cache that Indians, as well as sheep and bear, had once lived in this cave. Sure enough, I later learned from Indians at Arctic Village that some of their forefathers had indeed lived in caves on that particular mountain.

Among other things, I had learned the answer to my question: Dall sheep do use caves.

[Between this and the previous report, it is clear that Dall Sheep, Ovis dalli, must be added to the list of large mammals that regularly inhabit caves.]

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SPELEAN HISTORY DEPARTMENT

An Early Reference to Washington Lava Tubes

The Eleventh Annual Outing of the Mountaineers, which was to take place August 4th through 25, 1917, comprised climbs of Mt. St. Helens and Mt. Adams, and explorations in their vicinites. The Mountaineer Bulletin, Prospectus Number, vol. 7 no. 6, May 1917, contains the following on p. 5:

"Lava Fields and Caves

"Flows of lava, practically unweathered, and lava caves, are to be found by the scores around both Mt. Adams and Mt. St. Helens--and so far as the state of Washington is concerned, only around those two mountains. The explanation is that among our volcanoes only Adams and St. Helens have in modern times been in any considerable activity.

"From snow-line on both Adams and St. Helens streams of lava can be followed down through the forest for many miles. At and above timberline these streams are usually scattered, flattened and broken up by the ice fields that have swept over them. But below timerline the lava stream is frequently perfectly intact and in appearance as if only yesterday cooled. The streams were evidently quite viscous, at least along the edges, as they flowed--being frequently 50 or 60 feet thick at the edges. Cooling, the lava cracked and broke into sharp-edged blocks of varying size averaging perhaps the size of a kitchen range. To travel across this mass of angular rocks is absolutely impossible for horses. For men it is tedious work and requires constant care to avoid a fall and fractured bones. In places one may walk as down a boulevard between two parallel flows, through beautiful meadows and timber, and imagine the stupendous scene as these fiery masses of molten rock once moved steadily and irresistably down through the forest. In other places, where the flow was wider and covered small ravines, the surface cooled first and the molten mass beneath flowed on leaving long caves. [!] Some of the caves are so well protected from summer heat that the ice that forms in them in the winter is not melted and in midsummer one may find the cave lined with ice and ornamented with vari-colored stalactites and stalagmites.

"In a smooth bed of lava near Indian Race Track are perfect impressions of a pair of human feet and a pair of human hands--evident record of some unfortunate Indian's tragic experience with lava not long out of Adams' fiery furnace.

"Near St. Helens are found lava casts of trees and logs. In places these casts are perpendicular in lava sheets and are called 'wells'."

Western Speleological Survey

1117-36 Ave. E., Seattle Wn. 98102

14 July 1979

Mount Baker-Snoqualmie National Forest
1601 2nd Avenue Building
Seattle, Wash. 98101

att: Planning Team Leader

Gentlemen:

This is in followup of my input at the June 26 Planning Issues Workshop in Seattle.

The Mount Baker-Snoqualmie National Forest contains a considerable number of important caves, of unusually diverse types, in unique climatic zones. Its alpine karst also occurs in a unique climatic zone for this type of geological phenomenon.

Additional caves and areas of alpine karst are still being located on this national forest, and it is clear that there has been no adequate inventory of its speleological resources and values. To date, no satisfactory management plan for each known cave and example of alpine karst has been promulgated, except for a few examples of quasi-formal and insubstantial local policies responding to speleologists' proposals for better preservation. Although input from local speleologists is readily available, there has been no constructive dialogue in various planning. At the present, we suspect but are unsure, for example, whether the boundary line of the Alpine Lakes Wilderness Area actually bisects the Cave Ridge cave area, or only appears to do so on published maps.

Each cave on a national forest or other public lands should have its own management plan, taking into account its spelean resources and values. These are best known to regional speleologists, and such management plans should be developed in cooperation with informed northwestern speleologists such as the Cascade Grotto of the National Speleological Society. Only then can a proper Forest Plan be developed for the Mount Baker-Snoqualmie National Forest.

Sincerely yours,

William R. Halliday

William R. Halliday
Director

cc: Cascade Grotto of the N.S.S.

[Note: a letter similar to the above was sent to the Wenatchee National Forest, noting that "the only well-known cave on the Wenatchee National Forest (near Soda Springs, above Lake Wenatchee) has been quarried away without consideration of its spelean values."]

THE JULY MEETING had 14 attendees including a visitor from France. Vice-Chairman Bill Halliday convened the meeting in the absence of Chairman Bob, who was out fighting a fire. Unfortunately, Program Chairman Chuck Fair was also firefighting, so we didn't get the scheduled program; but the slides of Bill's Venezuelan trip proved an admirable substitute.

We briefly discussed and voted on the agenda for the Congress of Grottos.

Nineteen attended THE AUGUST MEETING including three visiting cavers from Spain. One of these was Alfred Montserrat i Nebot, a noted vulcanospeleologist. Despite a language problem, the Spanish cavers gave a very interesting show including slides of caves in limestone, lava, and conglomerate (!) in Spain, Italy, the Canary Islands, and elsewhere. This was fortunate, since the NSS was organizing their library and couldn't send us the Gwonk Show.

$40 was appropriated for Cascade Caver expenses; Paul Nystrom volunteered as the new mailer.

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Chuck Fair, Keeper, (206) 832-3651
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Construction hardhat (with lamp bracket and chin strap)	$12.00
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DON'T FORGET THE SEPTEMBER MEETING--TUESDAY, SEPT. 18.